User Reference Manual

AASHTOWare Project SiteManager™ 3.16a

September 2015

Last Updated
June 2015

Contents

1. Introduction

1.1 Document Structure

The SiteManager User Reference Manual is a reference document for users of the AASHTO SiteManager application. The user should refer to this manual only when a question cannot be answered by referring to the SiteManager online help system. This manual describes all of the SiteManager components, including their purpose, functions, and how to use them.

The SiteManager application is organized into the following eight major functional areas, which are represented by icons on the main panel:

- Contract Administration
- Daily Work Reports
- Pipeline
- Contractor Payments
- Change Orders
- Civil Rights
- Materials Management
- Laboratory Information Management System (LIMS)

This manual is organized into the same eight functional areas plus introductory and supplemental information. The topics Key Dates, Checklist Scheduled Events, and Checklist Event Dates are covered in a separate section of the manual due to their importance throughout the life of the Contract. The manual's main sections are described below:

Section 1   Introduction

The Introduction describes the structure and objective of this manual. Refer to this section for an overview of the manual's topics, or to find out how this manual is intended to be used.

Section 2   Getting Started

The Getting Started section includes information to help the user get started using SiteManager. This includes information about starting and exiting SiteManager, changing your password, and In-Box message functions. This section also includes descriptions of SiteManager's graphical components and how to use them to navigate within the application and to accomplish tasks.

Section 3   General Concepts

The General Concepts function describes the menus, toolbars, and the components that are common throughout the application. It includes common procedures for using online help, security, and reporting.

Section 4, 5, and 6   Contract Administration

The Contract Administration section describes the reference tables that store standard Contract data, such as default date types, Contract Item descriptions, and Vendor information. It provides an overview of how to add Contracts to the system, and describes each panel that is used to view, modify, or delete Contract data. It also describes the panels that are used to maintain data related to Contracts, such as Contractor (Vendor) information, conference records, force accounts, dispute records, evaluations, correspondence records, required documents, and Contract reports. This section also describes how the system validates Contract status and how the Project Manager finalizes a Contract.

Section 7   Key Dates, Checklist Scheduled Events, Checklist Event Dates

This section describes how the user views and maintains Key Date and Checklist Scheduled Event data. This data is used to administer the Contract and to monitor compliance with Civil Rights provisions.

Section 8   Daily Work Reports

The Daily Work Reports section explains the concept of reporting, transferring, and storing daily Contract activity data. This section defines the data that is collected by the Daily Work Report function, and describes how to record the data on SiteManager panels. It also describes how Daily Work Reports are approved, combined to make Diaries, and maintained in the database.

Section 9   Pipeline

The Pipeline section describes the SiteManager components that are used to upload and download data to and from the Server database, and to transfer data from one workstation to another in the field. These components are provided specifically for the Project Manager and Inspector who must transfer Contract data, Materials data, and Sample and Test data. This section explains how Pipeline is used in conjunction with the Daily Work Report function and Materials Management.

Section 10   Contractor Payments

The Contractor Payments section describes the estimate generation process and the reference tables that store data related to Contractor Payments. This section defines the estimate types and generation parameters, and gives an overview of calculations performed by the system. It explains how the system identifies Contract discrepancies and how the user can adjust Contracts and Contract Items. It also explains the estimate approval cycle and the Contractor Payment reporting options. The reference tables described in this section define the price adjustment indices, Autopay Items, discrepancy options, and Contractor payment approval levels.

Section 11   Change Orders

The Change Orders section describes the Change Order reference tables, types of Change Orders, the approval process, and Change Order reporting options. It explains how the user creates and tracks Change Orders.

Section 12   Civil Rights

The Civil Rights section describes the reference tables and panels used to add and monitor data related to Civil Rights. These components let the user define programs, maintain trainee records, monitor compliance with DBE commitments, record wage decisions, and run reports on these records.

Section 13   Materials Management

The Materials Management section stores Materials information, including inventory, specifications, testing requirements, mix designs, and lists of approved suppliers, personnel, labs, equipment, and fees. It explains how to build and maintain a Contract Materials List, how to enter sample data and track test results, and how to run reports. It also provides online access to sampling and testing procedures.

Section 14   Laboratory Information Management System (LIMS)

The Laboratory Information Management System section streamlines the sampling and testing workflow from recording a sample to reviewing and authorizing samples. It explains how to capture sample details, assign default tests, assign and receive at destination lab, and how to enter test results, review test results, and authorize.

Appendix A   Glossary

The Glossary defines terms used in the SiteManager application.

Appendix B   SiteManager Navigation

This appendix includes an overview map of the SiteManager application and detailed maps for each functional area of the application.

Appendix C   Estimate Generation Calculation

This appendix describes the components of the estimate generation process and explains how the system calculates the values reported on an estimate.

Appendix D   Retainage Calculation

This appendix describes one component of estimate generation, retainage calculation, which involves relatively complex calculations. Examples show the calculation results.

Appendix E   Materials S & T Calculations

This appendix gives an overview of the parameters and calculations for comparing sampling & testing results to contract sampling & testing requirements.

Appendix F   Price Index Adjustment Calculation

This appendix gives an overview of the methods used by the system to calculate price adjustments. Examples show the calculation results.

1.2 Objectives

This document serves as a supplement to the SiteManager and SiteManager LIMS online help system. The user can refer to this manual for information that is not covered in depth in the online help. This includes field descriptions, expanded topic discussions, calculations performed by the system, error message definitions, and system administration functions. Some of this information is presented as separate appendices in this manual.

This manual assumes that the user is authorized to use every function provided by the application. In actual usage, some SiteManager functions can only be used by the System Administrator, Project Manager, or central office personnel with global Contract authority. Some users will have view only rights to certain panels. In most cases, this manual does not identify the transportation agency personnel who will have the authority to use each function; this is done by the transportation agency.

The transportation agency should keep at least one copy of this manual in every office for occasional reference. The local technical support personnel should have a copy of this manual as part of a basic reference set.

1.3 Procedures

SiteManager Procedures, the steps the user follows to access a component of SiteManager, vary depending on whether the user has just entered the system or has been in some other component and has already selected a common variable.

For instance, if the user enters the application and navigates directly to the Contractor Payments component, the Estimate Summary window requires the selection of the desired Contract and Estimate.

However, if the user has been working in the Contract Records component, already has a Contact selected, and then navigates to the Contractor Payments component, the Estimate Summary window displays for selection the Estimates for the Contract previously selected in Contract Records.

> 🗎   **Note:** The procedures in this manual describe how to access components of
> SiteManager as if the user just entered the application.

2. Getting Started

2.1 Understanding the General Workflow

2.1.1 AASHTOWare Project SiteManager Software

SiteManager is a comprehensive construction management and lab information management software product that covers the complete construction and materials management process from contract award through contract finalization in one enterprise-wide software package.

2.2 Starting and Exiting SiteManager

2.2.1 Starting SiteManager

The AASHTOWare Project SiteManager Construction Management System is a Windows application, which will run on several different windows graphical user interfaces — Microsoft Windows XP and Microsoft Windows Vista. For your operating system, you will start SiteManager the same way you would any program on your computer.

Figure 2-1.
The SiteManager Icon

In Microsoft Windows, the SiteManager program will be located with its own icon displayed on the main desktop, as illustrated in Figure 2-1.

For Microsoft Windows XP and Windows Vista

To start on the AASHTOWare Project SiteManager system:

1. Double-click the SiteManager desktop icon.

2. Type your logon identification name.

3. Press the **Tab** key.

4. Type your password.

5. If appropriate in the **Connect to** drop-down list, click the expand arrow to the right of the current selection and click the desired database choice.

6. Press **Enter**.

7. If appropriate in the **Available Group for …** dialog box, click the group ID.

8. Press **Enter**.

Figure 2-2. The SiteManager Logon Dialog
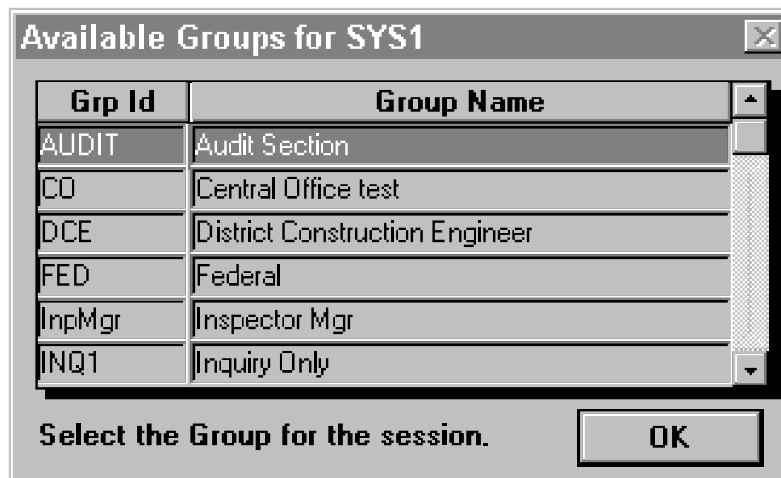
Figure 2-3. The Group Dialog Box

2.2.2 End-User Security — Changing Your Password

In addition to your network logon identity, SiteManager also has password protection. Your SiteManager ID determines what information you have access to and whether you can update the data or not. If you have any questions regarding your SiteManager security access, contact your SiteManager system administrator.
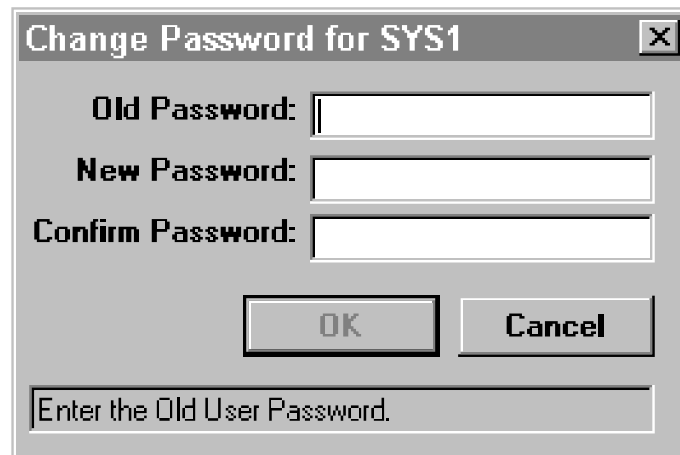
Figure 2-4. The Change Password Dialog Box

When a user fails to logon to SiteManager successfully after 3 attempts, a message appears advising the user to contact the System Administrator. The System Administrator resets the user's password. The password is always reset to PASSWORD and is case sensitive. When any User logs on using the default password PASSWORD, the only option visible (besides Cancel) is the Change Password option. Users are forced to change their password before they can access the application.

There is an exception to the rule that 3 failed logon attempts lock the users out of the system. An Inspector using SiteManager in standalone mode may have an infinite number of failed logon attempts without being locked out of the system.

To change your password:

1. Start SiteManager.

2. On the logon screen, type your old password.

3. Click the **Change Password** button.

4. Type your old password.

5. Press the **Tab** key.

6. Type your new password.

7. Press the **Tab** key.

8. Type your new password, again.

9. Click **Ok**.

2.2.3 Exiting SiteManager

As with all Windows applications, the File menu's Exit choice allows you to end your SiteManager work session and exit the application. Additionally, SiteManager has an Exit button on the Toolbar that is even more convenient. If you have been performing work and have changed your data (or even if SiteManager is not sure) a warning message will allow the data to be save before the application is closed or to cancel the exit process.

Figure 2-5. The Exit Button

To exit SiteManager:

1. Click the **Exit** button.

Or

2. Click the **File** menu and click the **Exit** choice.

3. If appropriate, click the **Yes** or **No** button.
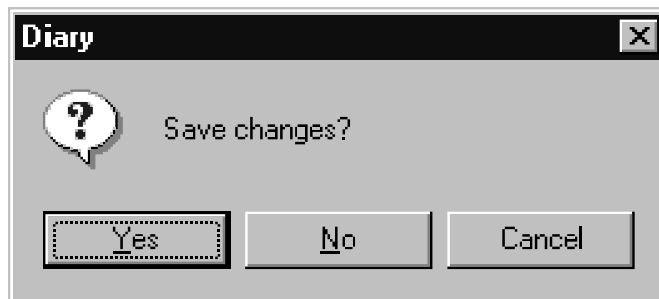
Figure 2-6. The Exit Warning Message

2.3 SiteManager Main Panel

After starting the SiteManager application, the SiteManager Main Panel will display the components of the system as icons. The central functionality of SiteManager is divided into ten icons: Contract Administration, Daily Work Report, Pipeline, Contractor Payments, Change Order, Civil Rights, Materials Management, Accessories, System Administration, and Manuals. The icon representing SiteManager Lab Information Management System (LIMS) is embedded within the Material Management- Maintain Sample Information window.
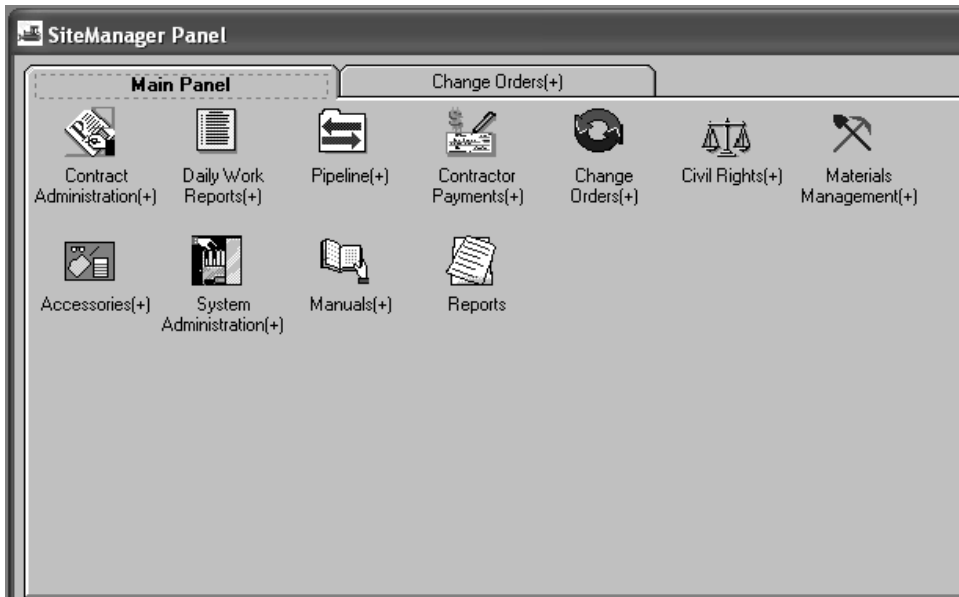
Figure 2-7. The SiteManager Panel

2.3.1 Security and the SiteManager Components

The panels and icons to which an end-user has access are defined by the transportation agency. The panel above and all following documentation will describe and illustrated the content of the all components of SiteManager. A given end-user's panels may not conform to the illustrations (figures) unless they have security access to all components of SiteManager.

2.3.2 The SiteManager Status Bar

The SiteManager Status Bar at the bottom of the SiteManager window indicates your mode, connection, database region, logon group and individual ID.
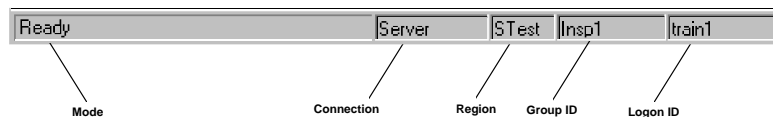
Figure 2-8. The Status Bar

Panel Icons - SiteManager Functional Areas

Icon	Description

Icon	Description
Contract Administration	Automates recording of important Contract data, including Contractor contacts, Contractor documents, and plan discrepancies.
	Automates verification of Contractor payrolls.
	Provides a mechanism to modify a Contract and document that change.
	Tracks critical dates for recurring contract items and special events.
	Calculates liquidated damages and contract retainage.
	Supports Contract Management with reference table viewing and maintenance for funding sources, item masters, vendors, and administrative offices.
	Allows SiteManager users to enter and maintain SiteManager Contract data, including project items and funding.
	Controls Contract access through Contract specific and administrative office authority.
	Maintains Contractor and Subcontractor details.
	Assists project management by tracking Contract status.
	Furnishes capability to monitor Contract disputes/claims.
Daily Work Report	Collects Inspector Daily Work Reports data, field samples, field tests, and stockpiled materials used.
	Automatically transfers (download) base Contract data for reference (Contract items, quantities, etc.).
	Collects and maintains Contractor data including Contractors working, work performed, and equipment used.
	Collects and maintains installed item quantities, weather conditions, staff/consultant hours, and Force Account information (labor, equipment, and materials).
	Links to reference documents stored in third party packages such as word processors, spreadsheets, sketching tools, etc.
	Allows on-line review of the Daily Work Report and authorization for incorporation into the Estimate process.
	Allows collected data on a laptop or pen-enabled laptop computer in the field or a workstation in a project office to be transferred (uploaded) to the SiteManager database.
Pipeline	Allows the Project Manager and Inspector to upload and download data.

Icon	Description
Contractor Payments	Automatic generation and approval of payment estimates, based on the Contract and any Liquidated Damages, Contract Adjustments, and stockpiled data.
	Automatic calculation of DOT-defined adjustments for liquidated damages, incentives, disincentives, and Contract item price adjustments.
	Automatic calculation of retainage amounts, encumbered amounts for securities, and escrow accounts, based on Contract parameters.
	Discrepancy reporting and resolution during the estimate process for certified payrolls, DBE commitments, item overruns, and material testing deficiencies.
	Tracking the estimate from the generation process through the approval process.
	Creation of voucher data from the payment process which can be used as input to a DOT-specific financial management system.
	Automatic management of stockpiled material as the material is being used.
	Provide Stand Alone capability (i.e., Installed Work Summary Report).
Change Order	Ensures Contractor acceptance of changes by including Contractors in change order review and approval process.
	Ensures consistency in the change order process.
	Establishes, maintains, and approves Force Accounts which includes details on labor, equipment, and material cost.
	Tracks review and approval process to ensure accountability.
	Assists in future planning by providing a means to track and identify reasons for change.
Civil Rights	Automates recording and tracking of Disadvantaged Business Enterprise goals/commitments, including the ability to track DBE work performed on non-goal contracts.
	Automates generation of Federal Highway Administration DBE report detailing the level of DBE earnings on federal contracts.
	Allows for planning and tracking of contract On-the-Job Training goals, including number of trainees, number of hours, and wage rate adjustments.
	Automates reporting of potential wage rate violations based on pre-defined Department/DOL wage decisions.
	Automates generation of annual Equal Employment Opportunity reports based on contractor payrolls.
	Automates accrual of department trainee experience (even across contracts) based on contractor payrolls and alerts department

Icon	Description
	personnel to potential violations Automates tracking of training experience on non-department contracts.
Material Management	Maintains Material Information. Documents Sampling and Testing for a Contract or Client. Incorporates Sampling and Testing requirements. Maintains Approved lists. Creates and maintains five types of Mix Designs. Provides thirty Test windows. Provides Stand-alone capability (Sampling & Testing and Approved list).
Lab Information Management System	Groups SiteManager Lab Information Management System (LIMS) process functions into one area and provides a point of access for LIMS users. Integrates seamlessly with Material Management to streamline the sampling and testing workflow from recording a sample, to reviewing, enter test data, and authorizing the sample. Provides Stand-alone capability
Accessories	Allows access to the In-Box, SiteManager's e-mail facility and to the Process Status Monitor.
System Administration	Groups SiteManager system functions into one area and provide a single point of access for System Administrators. Provides comprehensive security features with flexible administration. Facilitates adding of custom templates.
Manuals	Allows access to on-line versions of the User Reference Manual and Sampling and Testing Procedures.
Reports	Allows a user to navigate directly to agency defined custom reports and documents.

Table 2-1. SiteManager Icons Table

2.3.3 Navigating in SiteManager Using the Main Panel

The SiteManager Panel is used to navigate to the components of the SiteManager application. The highest level is the SiteManager folder tab that contains the different functional groups, with each group individually represented by an icon. Double-clicking the icon of a functional group brings up another folder tab consisting of the sub-groups or the actual windows contained within that functional group. As icons are selected, the next level's folder tab appears next to the previous level.

To select a main panel component of SiteManager:

1. Double-click the component's icon.

To select up or down a level in SiteManager:

1. Click the level's folder tab.
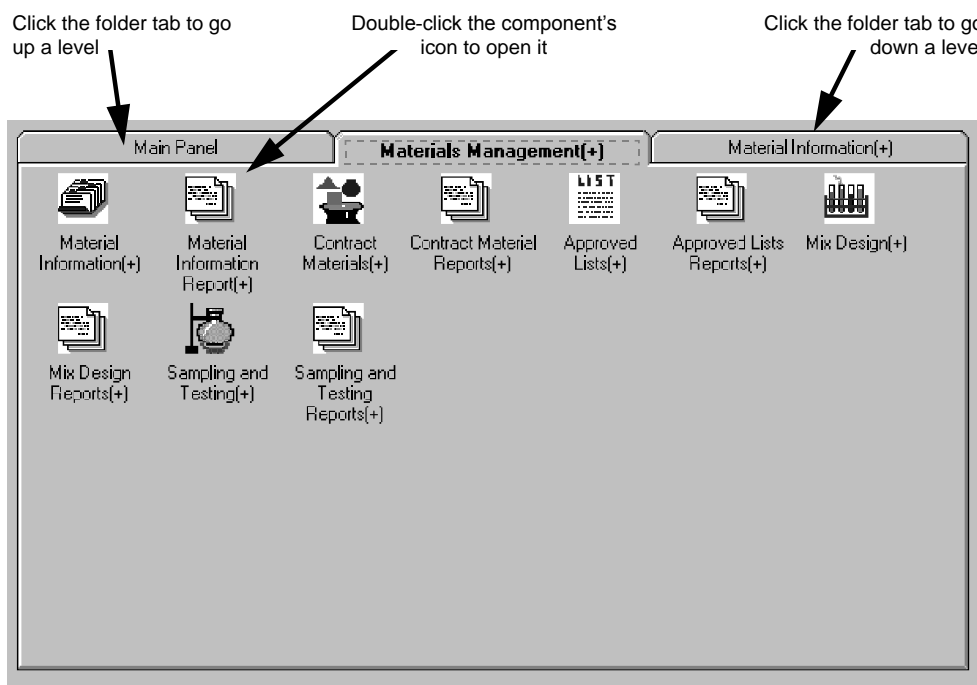
Figure 2-9. Navigating in SiteManager

2.4 Accessories

The Accessories panel provides access to the SiteManager communications and process monitoring components. These components include:

- In-Box,

- Distribution List,

- System Attachments,

- Process Status Monitor, and

To access Accessories:

1. On the **Main Panel**, double-click the **Accessories** icon.

2. Double-click the icon of the desired Accessories component.
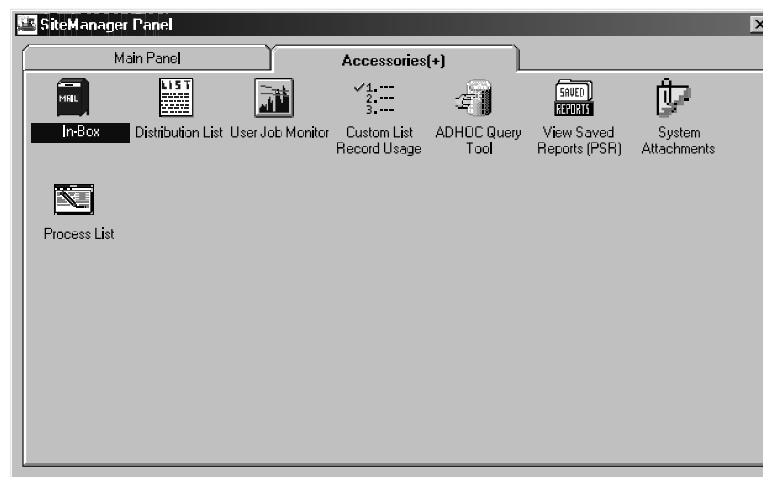
Figure 2-10. The Accessories Panel

2.4.1 In-Box Concepts

The SiteManager In-Box provides three types of electronic messaging:

- User generated messages using the SiteManager In-Box,

- Access to compatible electronic mail systems, and

- System Generated Messages received in the SiteManager In-Box.

Figure 2-11.
The In-Box Icon

In-Box E-mail Capability

The SiteManager In-Box provides electronic mail capability for users, allowing them to send and receive electronic mail messages to each other through SiteManager mail. SiteManager users can send, receive, reply, forward and print SiteManager mail, but cannot send attachments. Users also

have the option to delete a single message or, if desired, several messages at a time. When a user deletes mail messages, SiteManager marks them for deletion so they will no longer appear in the user's In-Box. The marked messages are retained until the next archival process, when SiteManager will permanently delete the messages.
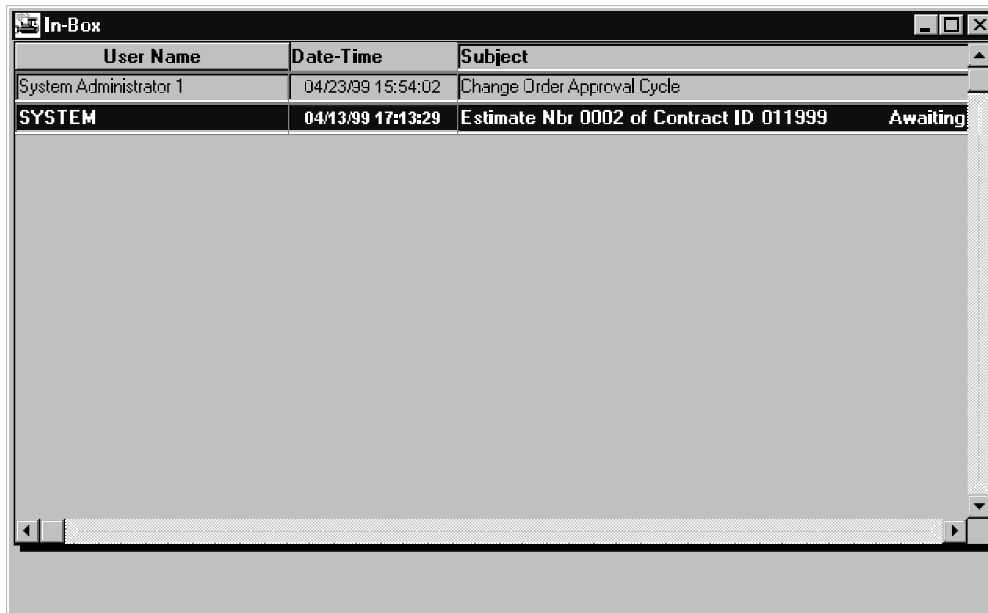
Figure 2-12. The In-Box Window

Additionally, SiteManager's In-Box provides menu level access to DOT's native mail system. The native mail system must conform to one of two messaging standards:

- Messaging Application Programming Interface (MAPI) or

- Vendor Independent Messaging (VIM).

Mail systems, such as Microsoft Mail or Exchange are MAPI compliant while packages such as Lotus Notes and CC:Mail are VIM compliant.

Although SiteManager provides a menu option to access the external mail, it does not display the external mail message headers in SiteManager.

In-Box as a Workflow Manager

In addition to SiteManager mail and external mail, the In-Box acts as a workflow manager by routing System Generated Messages to the appropriate users. These messages are automatically generated by SiteManager and provide any number of users with access-specific SiteManager functions. System Generated Messages are primarily used to automatically jump to specific windows when further action is required by a user.

For example, when the user generates an estimate, SiteManager delivers a System Generated Message to the user's In-Box.

After the user opens the In-Box message,

- If the estimate generation was successful and the request was for a progress or final estimate, SiteManager will display the Estimate Summary window.

- If the estimate generation was successful and the request was for a supplemental estimate, SiteManager will display the Contract Adjustments window.

- If the estimate generation was unsuccessful, then SiteManager will display the Estimate Activity Log report.

Using the In-Box

The In-Box is accessed using the Accessories panel.

To start the In-Box:

1. Double-click the **Accessories** icon.

2. Double-click the **In-Box** icon.

To open a mail message:

1. Click the message.

2. Click the **Services** menu and click the **Read Mail** choice.

To close a mail message:

1. Click the **Close** button.

To check for new mail messages:

1. In the **In-Box**, click the **File** menu and click the **Refresh** choice.

To delete a mail message:

1. Click the message to be deleted.

2. Click the **Delete** button.

To delete two or more mail messages:

1. Press and hold down the **SHIFT** key.

2. **Click** the first and last mail message in the range of messages to be deleted.

3. Click the **Delete** button.

To delete two or more mail messages that are not in a range:

1. Select the first mail message to be deleted.

2. Press and hold down the **CTRL** key.

3. **Click** each one of the remaining mail messages to be deleted.

4. Click the **Delete** button.

To print a message:

1. Open the message.

2. Click the **Print** button.

To close the In-Box:

1. Click the **File** menu and click the **Close** choice.

Replying to or Forwarding a Message

When a message is opened, the Reply and Forward menu choices allows the user to reply to or forward a SiteManager message to other SiteManager users. When replying to a SiteManager message, the original mail message is not attached with the reply message. When forwarding a SiteManager message, the original message is included.
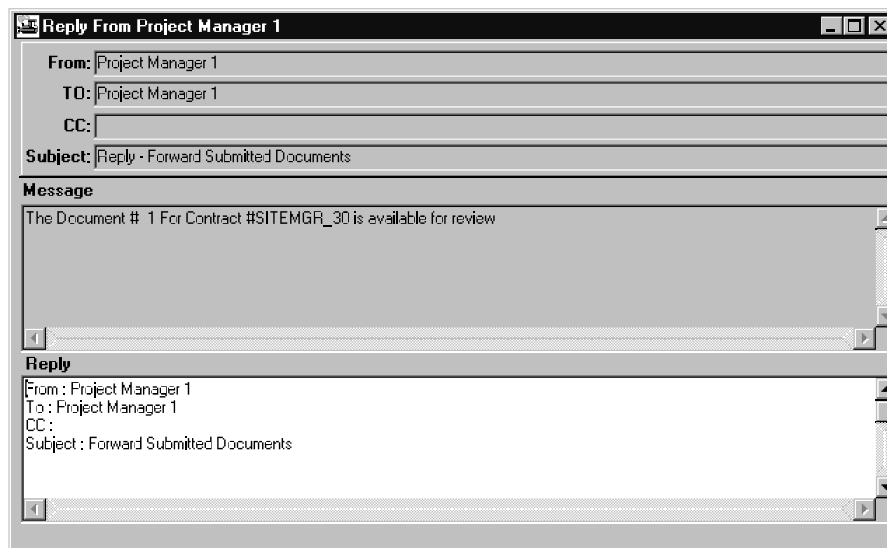
Figure 2-13. The Reply Window

To reply to a message:

1. Open the message.

2. Click the **Services** menu and click the **Reply** choice.

3. Click to place your insertion point below the subject in the text area.

4. Type your reply.

5. Click the **Services** menu and click the **Send** choice.

To forward a message:

1. Open the message.

2. Click the **Services** menu and click the **Forward** choice.

3. Address the message

4. Click the **Services** menu and click the **Send** choice.

Creating a Message

A SiteManager mail message may be sent to other SiteManager users using the Compose menu choice of the In-Box.
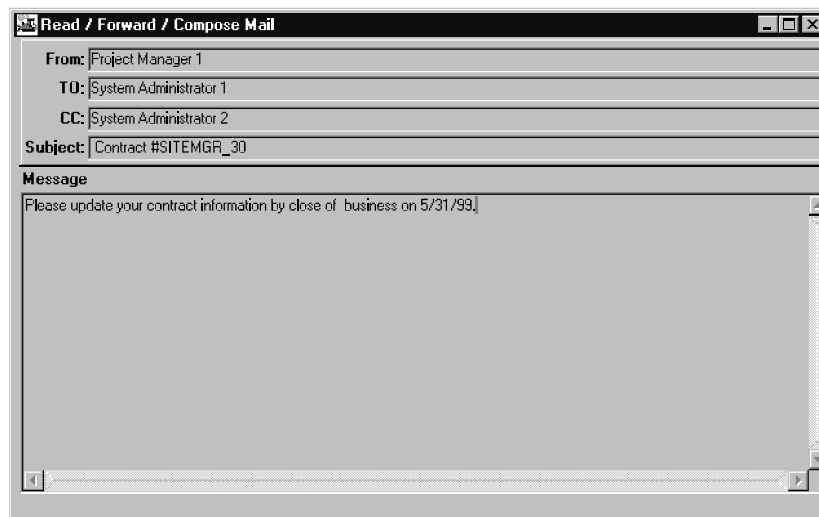
Figure 2-14. The Compose Window

To create a message:

1. Click the **Services** menu and click the **Compose** choice.

2. Address the message

3. Press the **Tab** key to advance to the Subject heading.

4. Type a subject for your message

5. Press the **Tab** key.

6. Type your message.

7. Click the **Services** menu and click the **Send** choice.

Addressing a Message

When creating a new message or forwarding an existing message, it can be sent to an individual SiteManager user or to multiple SiteManager users. However, it can NOT use SiteManager distribution lists which can only be accessed by system generated messages.

Figure 2-15. Addressing - Control+Clicking Allows Multiple IDs to be Selected

To address a message:

1. Click to place the insertion point in the **To:** or **CC:** field.

2. Click the **Services** menu and click the **Select Users** choice.

3. Select the recipient's name.

4. Click **Ok**.

To select multiple names next to each other:

1. Click the first name.

2. Hold down the **Shift** key and click the last name.

To select multiple names NOT next to each other:

1. Hold down the **Ctrl** key and click the each name.

2.4.2 Distribution List

To facilitate easier handling of multiple users, SiteManager provides a Distribution list. These lists are typically created by users only for system generated messages. The user can assign these lists to specific processes that generate system messages through specific SiteManager functions. For example, the Distribution List field on the Contract Key Dates window allows the user to select a user group to which a message is automatically sent, when a key event does not occur.
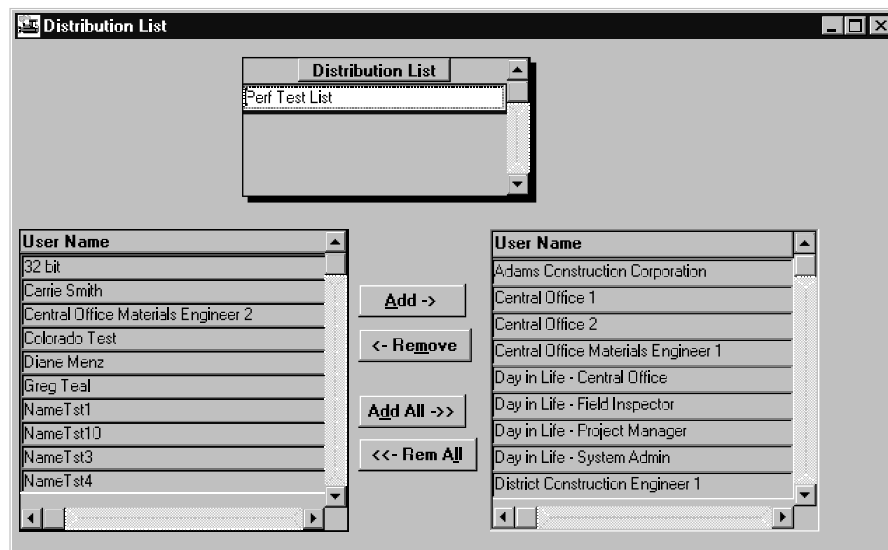
Figure 2-16. The Distribution List Window

To add a new distribution list:

1. On the **Accessories** panel, double-click the **Distribution List** icon.

2. Click the **New** button.

3. Type the descriptive name of no more than 20 characters (including spaces and special characters) for the distribution list.

4. In the **User Name** list box *on the left side of the window*, scroll to and click the user's name.

5. Click the **Save** button.

6. Continue steps 4-5 until all recipients are included.

7. Click **Ok**.

8. Click the **Save** button.

To modify an existing distribution list:

1. In the **Distribution List** box, scroll to and click the list to be modified.

To remove a user:

1. In the **User Name** list box *on the right side of the window*, scroll to and click the user's name.

2. Click the **Remove** button.

To add a new user:

1. In the **User Name** list box *on the left side of the window*, scroll to and click the user's name.

2. Click the **Save** button.

To delete a distribution list:

1. In the **Distribution List** box, scroll to and click the list to be deleted.

2. Click the **Delete** button.

3. Click **Ok**.

4. Click the **Save** button.

2.4.3 Process Status Window

The Process Status window is accessed through the SiteManager Accessories functional area. This window is available almost system wide by selecting Process Status from the Services menu. The window consists of two tab pages: Regular and Scheduled.

Regular Tab

The Regular tab page lists DPS submitted processes; that is, RTF custom report processes, SiteManager PowerBuilder reports, and background or batch processes. Here, authorized users can see the current status of submitted processes, delete submitted or complete jobs, or drill down to view or print the output produced by completed or failed processes.

Figure 2-17. The Process Status Window Regular Tab

Field	Description
Process Name	The name of the process.
Status	Textual description of the process status; for example, Process Running, Application Error, Complete.
Date Submitted	Date the job was submitted.
Queue Time	Time the job was submitted.
Start Time	Time the job started processing.
End Time	Time the job finished processing.
Server	IP address of the server to which the job was submitted and run.

Table 2-2. The Process Status Regular Tab Field Names Table

Scheduled Tab

The Scheduled tab page lists DPS submitted processes; that is, RTF custom report processes, SiteManager PowerBuilder reports, and background or batch processes. Here, authorized users can see the current status of submitted processes, delete submitted or complete jobs, or drill down to view or print the output produced by completed or failed processes. The processes listed on the Scheduled tab are those processes which have be set to run on a specific schedule by an authorized user.

Standard SiteManager window and tab-level security applies to the Scheduled tab page window. Only those processes to which the user has been assigned security access will be presented on the displayed list.
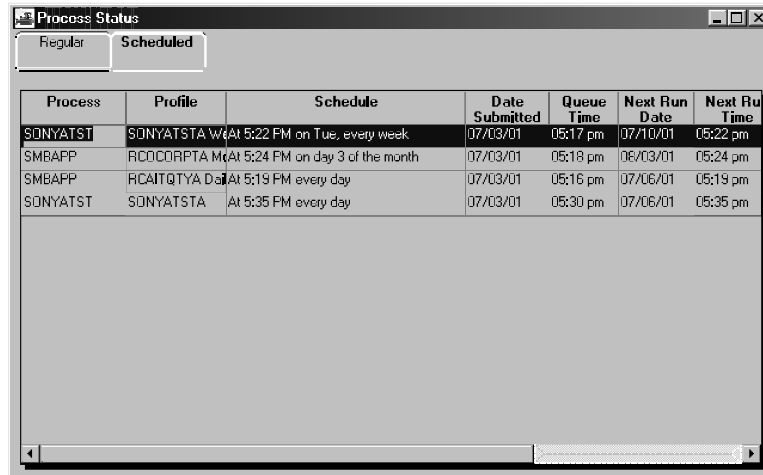
Figure 2-18. The Process Status Window Scheduled Tab

Field	Description
Process	The name of the process.
Schedule	Textual description of the process schedule; for example, Time, Day of Week and Frequency
Date Submitted	Date the job was submitted.
Queue Time	Time the job was submitted.
Next Run Date	Date the job will next run.
Next Run Time	Time the job will next run.
Last Run Time	Time the job was last run.
Server	IP address of the server on which the job is scheduled to run.

Table 2-3. The Process Status Scheduled Tab Field Names Table

2.4.4 System Attachments

System Attachments are a stand-alone version of the URL, Plug-In and OLE functionality of SiteManager. The stand-alone feature allows URL links, Plug-In applications, and OLE objects to be accessible to the User by clicking the System Attachments icon through the Accessories panel.

URL attachments are links to html documents

Plug-In attachments allow access to other programs similar to the OLE function.   The Plug-In functionality also allows a limited amount of data to

Figure 2-19.
The System
Attachments Icon

be automatically passed to a Plug-In application upon execution.

OLE object attachments are links to external documents.

URL and Plug-In Attachment Icons
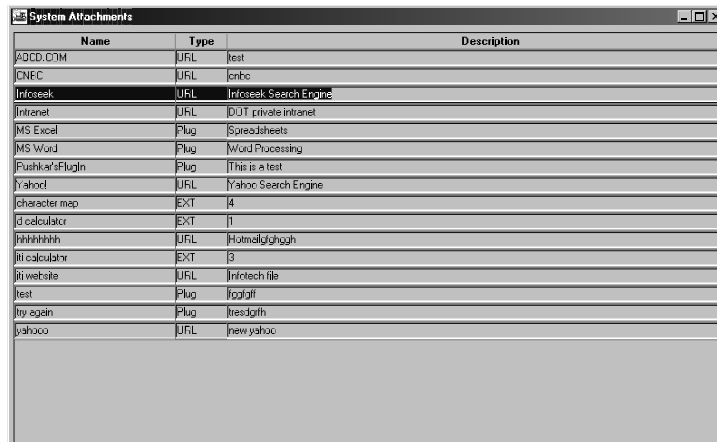
Icon	Description
	Activates the Attachments window.
	Appears on the Accessories panel, and activates the stand-alone Attachment window.
	Appears on the toolbar of any window that may have an attachment associated with it. An Attachment icon without a paperclip signifies there are currently no attachments associated with the current record
Attachments	Activates the Attachments window.
	Appears on the Accessories panel, and activates the stand-alone Attachment window.
	Appears on the toolbar of any window that may have an attachment associated with it. An Attachment icon without a paperclip signifies there are currently no attachments associated with the current record
Run Attachments	Allows User to activate Plug-In applications or URLs associated with the window.
New URL	Opens a dialog box allowing the properties of a URL attachment to be modified or entered.
New Plug-In	Opens a dialog box allowing the properties of a Plug-In attachment to be modified or entered.
New OLE	Opens a dialog box allowing the properties of an OLE attachment to be modified or entered.

Table 2-4. The Attachment Icon Table

Attachment Usage

Figure 2-20. The System Attachments Window

To use Plug-In, URL, and OLE attachments:

1. The previously-created URL, Plug-In, and OLE attachments appear on a table grid on the Attachments window. **Sort** and **Filter** features may be used on this window by right-clicking and choosing a feature from the **Object** menu.

2. Double-click the desired attachment to activate, or highlight the desired attachment and click the **Run Attachments** icon.

3. Activating a Plug-In opens the specified application in a separate window. Activating a URL or HTML File item launches the system's default browser. Activating an OLE opens the specified document.

4. Once the User has completed work with the URL, Plug-In application, or OLE document the browser or application may be closed as normal.

2.4.5 Reports

The Reports icon will allow an agency to define an external link to Custom Reports or documents. When a user double clicks the Reports icon, an external reporting tool or application of the Agency's choosing will be launched. The Reports icon will not appear on the Main Panel by default. If an agency chooses to use the Reports icon from the Main Panel, the Agency's System Administration will have to define the external application and provide users with appropriate Group Security. Please refer to the External Applications section located in Section 10 – System Settings of the SiteManager System Managers Guide for further information.

To access the Custom Agency Reports:

1. On the **SiteManager** panel, double-click the **Reports** icon.

3. General Concepts

3.1 Menus

The following guidelines apply to the use and structure of SiteManager menus.

- SiteManager menus may have up to three levels with the main menu as the first level.

- Menu choices that invoke dialog boxes have an ellipsis (…) at the end of the choice.

- Menu choices that invoke a cascading submenu will have an arrow (▷) at the end of the choice.
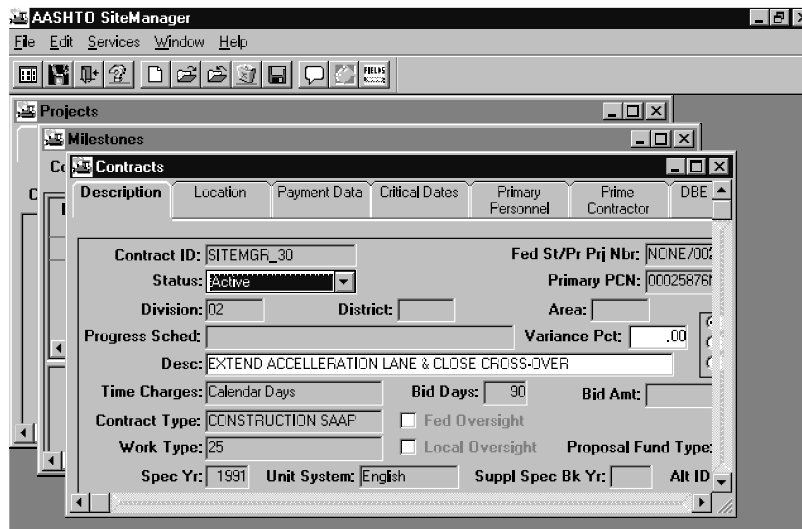
Figure 3-1. SiteManager Menus

Some menu choices will be applicable in some instances and not applicable in others. For example, a menu choice may be applicable for one folder tab and may not be applicable for the second folder tab. When the menu choice is applicable for the active folder tab, it will display normally. When the menu choice is not applicable for the active folder tab, it will not appear on the menu.

Other menu choices may be applicable but only if a preliminary step is performed. For example, a menu choice may be applicable if you are in a new record, but not applicable when you have an existing record open. When the menu choice is applicable, it will be enabled and will display normally. When the menu choice is NOT applicable, it will be disabled and will display in gray. The menu choice will be enabled or disabled depending on the circumstances.

Menu choices often have a corresponding toolbar button.

Keystroke shortcuts are assigned to all menu choices that do not invoke a dialog box or a cascading submenu. Keystroke shortcuts appear in the menu to the right of the menu choice. Keystroke shortcuts do not clash with those commonly used by the Microsoft Windows standard. For instance,

even when there is no Edit menu, the **CTRL+C** keystroke shortcut will copy the current selected column value to the Clipboard.

All menu choices will have keystroke accelerators assigned. The menu itself will be invoked using the underlined letter in the menu name in combination with the **ALT** key. The menu choice will be invoked by typing the underlined letter in the menu choice's name.

When appropriate, an *object menu* can be invoked by right clicking the column.

The SiteManager application has two menus to display. One is at the frame level and the other is at the sheet level.

The sheet level menu could be any one of the several functional level sheet menus which in turn were inherited from the frame, with additional menu choices added for relevant functionality. The Frame level menu contains only a few menu choices that provide access to the application level functions such as bringing up the SiteManager Main Panel and exiting the application. At the sheet level, each window will display only one menu bar and one tool bar, with some of the frame level menu choices incorporated on the sheet menu itself.

3.2 Using SiteManager Menus and Toolbar

SiteManager menus can be accessed using the mouse or using the keyboard. Many SiteManager menu choices can also be accomplished using a keystroke shortcut. Keystroke shortcuts appear in the menu to the right of the menu choice.

To use a SiteManager menu using the mouse:

1. Click the desired menu and click the desired choice.

The following guidelines apply to the use and structure of SiteManager toolbars.

- The most often used menu choices have a corresponding toolbar button for ease of use.

- Buttons used on toolbars are consistent throughout the application.

- All toolbar buttons have *Tool Tips* — text associated with the button that describes what the button does.

If a toolbar button is sometimes applicable, it will be enabled or hidden depending on which folder tab is active. For example, a toolbar button may be applicable for one folder tab and may not be applicable for the second folder tab. When the toolbar button is applicable for the active folder tab, it is enabled and displays normally. When the toolbar button is not applicable for the active folder tab, it does not appear on the toolbar.

3.2.1 Accessing SiteManager Menus With the Keyboard

As an alternative to using the mouse, all SiteManager menus can be selected using the keyboard. Some SiteManager menu choices can also be performed using keystroke shortcuts.

To use a SiteManager menu using the keyboard:

1. Hold down the **ALT** key and press the underlined letter in the menu name.

2. Type the underlined letter in the menu choice's name.

To perform a SiteManager menu choice using a keystroke shortcut:

1. Hold down the **CTRL** key and press the letter that performs the shortcut (e.g., **CTRL+C** copies the selected data).

3.2.2 Toolbar Buttons
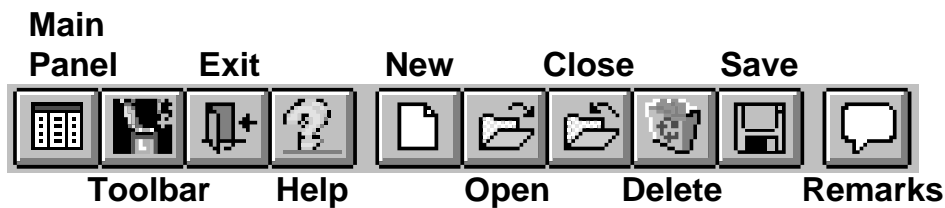
Figure 3-2. The SiteManager Toolbar

To identify what a button does, use the Tool Tip for the button. If you check the menus, you will find a comparable capability on the menu.

The SiteManager Toolbar is accessed using the mouse. Buttons, unlike icons, require only a single click. The SiteManager Toolbar has seven common toolbar buttons to display: Exit, New, Open, Close, Delete, Save, and Help.

Toolbar Button	Tool Tip	Comparable Menu Function	Description
	Exit	File menu's Exit choice	Exits the application. It asks for saving of changes if the there are unsaved changes.
	Help	Help menu's Contents choice	Brings up the SiteManager Help Contents Window.

Toolbar Button	Tool Tip	Comparable Menu Function	Description
	New	File menu's New choice	Is used in context to clear all the columns for data entry. If the sheet contains more than one control capable of creating new rows, the New option creates a new row on whichever control is currently active. If changes have been made to the current record, it prompts you to save changes before clearing the current record.
	Open	File menu's Open choice	Allows another record to be selected. Typically, it is applicable to the current tab.
	Close	File menu's Close choice	Closes the current sheet. It prompts for saving any changes before closing the sheet.
	Delete	Edit menu's Delete choice	Like the New choice, the Delete choice contextual and is applicable for the current control. It prompts for a confirmation from the user through a message.
	Save	File menu's Save choice	The Save button saves your current work. If you performed some deletion during a work session, you may need to reconsider whether the deletion was correct before saving. After you have saved, you may not be able to undo the deletions.
	Remarks	Services menu's Remarks choice	Displays the Remarks dialog to attach freeform comments.

Table 3-1. The Toolbar Button Table

To display a Tool Tip:

    1. Position the mouse point on the button (and hold the mouse still).

To use a SiteManager toolbar button:

    1. Click the desired button.

Depending on what SiteManager window you are using, other buttons may appear on the Toolbar. These other buttons are equivalent to some SiteManager menu option that you use.

3.3 Frame Menus

At the frame level, there are three menus: File, Window, And Help.

The File menu has the standard choices of Print Setup, Main Panel and Exit. The Print Setup choice invokes the standard Windows Print Setup dialog. The Main Panel choice displays the SiteManager Panel window, which is useful in cases where the panel was closed at the frame level through the Close choice of the control menu. The Exit choice exits the SiteManager application.

Figure 3-3. The File Menu

The other two menu options, Window and Help, are the standard Microsoft Windows menus with choices that function according to Microsoft Windows standards.
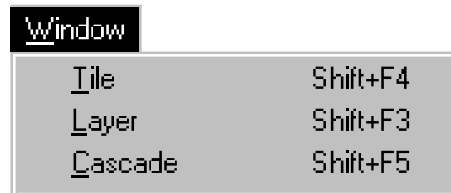
Figure 3-4. The Window Menu
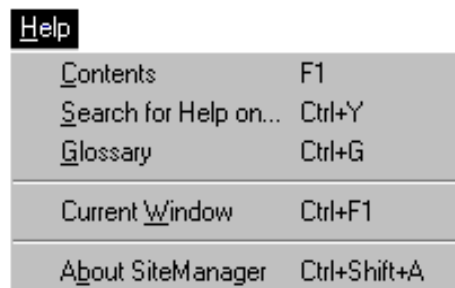
Figure 3-5. The Help Menu

3.4 Window Menus

The window level has five menus: File, Edit, Services, Window and Help. These options are applicable at the tab level.

3.4.1 File Menu

The File menu at the sheet level includes the frame level choices with the same functionality: Print Setup, Main Panel and Exit. It also contains several sheet specific choices: New, Open, Close, Delete, Save, Refresh, Print Preview and Print.

Figure 3-6. The Sheet's File Menu

The following SiteManager File menu choices are standard throughout the application and are always performed in the same way. Sheet-specific menu functions are discussed with the applicable SiteManager functionality.

Menu Choice	Description
Open	Allows another record to be selected. Typically, it is applicable to the current tab.
Close	Closes the current sheet. It prompts for saving any changes before closing the sheet.
New	Is used in context to clear all the columns for data entry. However, if the sheet contains more than one control capable of creating new rows, the New option creates a new row on whichever control is currently active.

Menu Choice	Description
Delete	Like the New Choice, the Delete choice is contextual and is applicable for the current control. It prompts for a confirmation from the user through a message.
Save	Saves the current unit of work.
Refresh	Clears the current changes to the record and retrieves the record again.
Print Setup	As with the Frame option, Print Setup displays the standard Windows Print Setup.
Print Preview	Displays a preview of the current print selection.
Print	Prints the current data.
Main Panel	Opens another window or another instance of the same window. It invokes the navigation panel from which the appropriate choice of the window can be selected.
Exit	Exits the application. It asks for saving of changes if there are unsaved changes.

Table 3-2. The File Menu Choices Table

Changing the Print Setup

The File menu's Print Setup choice is used to change the standard Window print setup dialog.

To change the print setup:

1. Click the **File** menu and click the **Print Setup** choice.

2. Make the desired changes to the dialog.

3. Click **OK**.

Printing

The File menu's Print choice is used to print. In a report, the Print choice prints the entire report. In a window, it prints the current focus of the window. Most SiteManager windows are divided into two or more zones. The results of the Print choice varies depending on which zone is active.
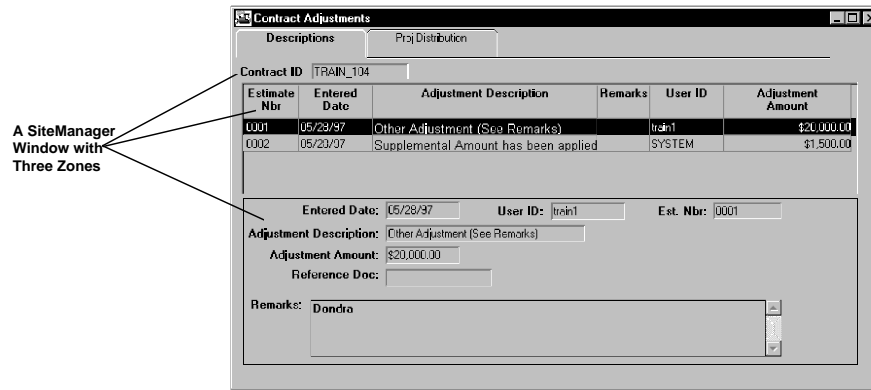
Figure 3-7. The Zones of a SiteManager Window

To print:

1. In a window, click the area of the window that you wish to print.

2. Click the **File** menu and click the **Print** choice.

3. Make the desired changes to the dialog.

4. Click **OK**.

Using Print Preview

The File menu's Print Preview choice is used to preview what will print. Since most windows print the current focus of the window, the Print Preview choice helps you determine that the focus is correct before you print.

To preview what will print:

1. In a window, click the area of the window that you wish to preview.

2. Click the **File** menu and click the **Print Preview** choice.

3. View the selection that will be printed.

4. Click **OK**.

Components	Description
Next button	Displays the next page of a multi-page selection.
Prior button	Displays the prior page of a multi-page selection.
Print button	Invokes the Print dialog.

Setup button	Invokes the Print Setup dialog.
Zoom button	Invokes the Zoom dialog to magnify or reduce the display of the print preview.
Close button	Closes the print preview
Rulers check box	Displays or hides the rulers
Save As button	Invokes the Save As dialog allowing the results of the print preview to be saved in other file exportable file formats.

Table 3-3. The Print Preview Components Table
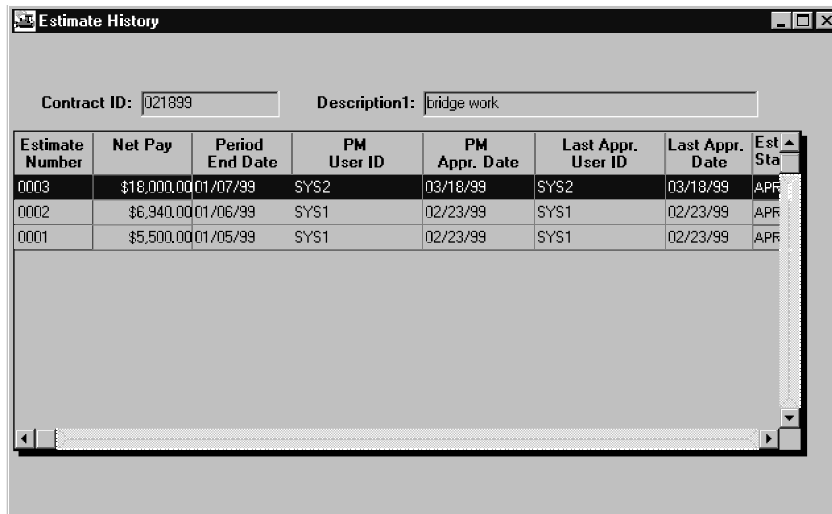
Figure 3-8. A SiteManager Window with a Multi-Row Focus
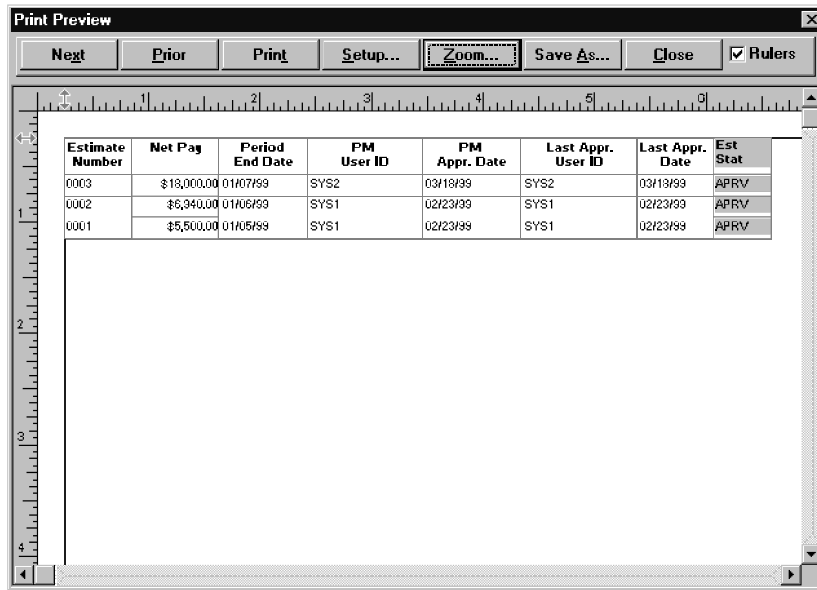
Figure 3-9. The Print Preview of a SiteManager Window With a Multi-Row Focus

Exporting A Window's Print Results — The Print Preview's Save As Button

The Print Preview is a File menu choice only available in a window, not as a report. The Save As button of the Print Preview allows the current focus to be saved in other exportable file formats.

To save the print preview results in another format:

1. In a window, click the area of the window that you wish to preview.

2. Click the **File** menu and click the **Print Preview** choice.

3. Click the **Save As** button.

4. In the **Save File As Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

5. To include column headings, choose a **With Headings** file type.

6. Highlight the text in the **File Name** field.

7. Type the name for the file.

> 🖹 **Note:** The Save Rows As dialog also does not have the more traditional Windows methods of changing drive and folders. An exported file is created in the default directory and drive on which SiteManager is installed. A path can be typed in front of the filename to control where the file is created. The path **C:\DATA\ACTCONT.PSR** creates a file named ACTCONT.PSR in a directory named DATA on the C drive.

8. Click **OK**.

Radio Button	File Extension	File Format Description
Text	.TXT	ASCII Tab Separated (Delimited) format
CSV	.CSV	ASCII Comma Separated (Delimited) format
Dbase 2	.DBF	dBase 2 format
Dbase 3	.DBF	dBase 3 format
DIF	.DIF	Date Interchange Format
Excel	.XLS	Microsoft Excel Spreadsheet format
HTML Table	.HTM	Hyper Text Markup Language table format (Can be viewed in a web browser.)
PowerSoft Report	.PSR	PowerSoft Saved Report format (Can also be viewed in SiteManager.)
SQL	.SQL	ASCII text file containing the SQL syntax required to recreate the datawindow object when run through the database.
SYLK	.SLK	Microsoft MultiPlan format
Text	.TXT	Text file format (Can be viewed in any text editor.)
Windows Metafile	.WMF	Windows Metafile graphical format
WKS	.WKS	Lotus 123 early format
WK1	.WK1	Lotus 123 later format

Table 3-4. The Print Preview Save As File Formats Table
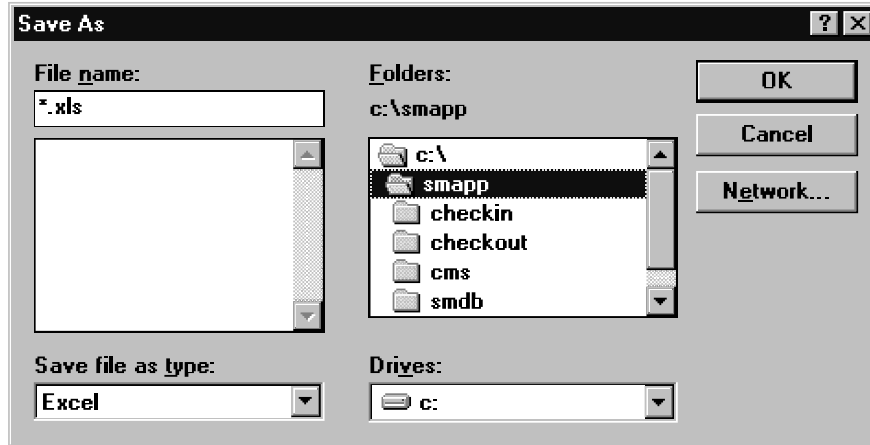
Figure 3-10. The Print Preview Save A Dialog

Displaying the SiteManager Panel

The File menu's Main choice is used to invoke the main SiteManager navigation panel. Typically, the SiteManager navigation panel is activated to open another SiteManager component without closing the current active component.

To display the SiteManager Panel:

1. Click the **File** menu and click the **Main Panel** choice.

2. Click the desired icon.
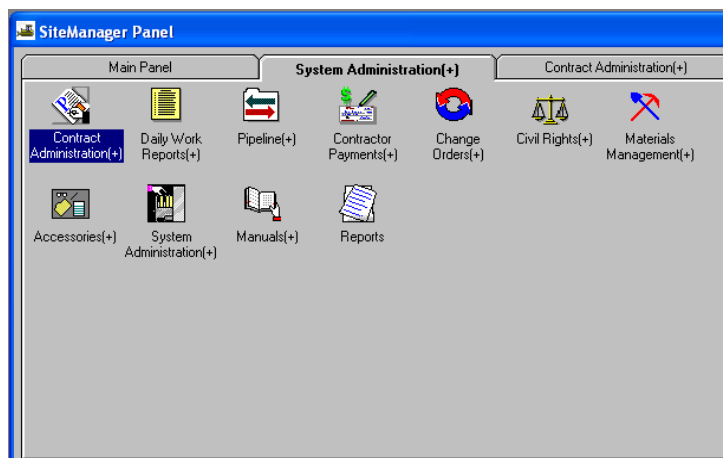
Figure 3-11. The SiteManager Main Panel

Exiting SiteManager

The Exit choice exits the SiteManager application. The command can be accessed from the File menu or from a toolbar button. If current work has not been saved, a warning message displays to allow you to save the data before the application is closed or to cancel the exit.

Figure 3-12. The Exit Button

To exit SiteManager:

1. Click the **File** menu and click the **Exit** choice.

    OR

2. Click the **Exit** button on the toolbar.

3. If the warning message displays, choose the desired choice.
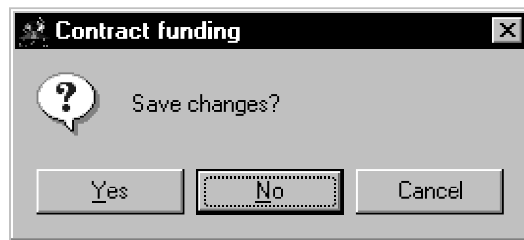
Figure 3-13. The Exit Warning Message

3.4.2 Edit Menu

The Edit menu has standard Microsoft Windows choices: Undo, Cut, Copy and Paste. These function as they would in any Windows program. The Undo choice has a limited functionality. If you delete a field and immediately choose Undo, the field value will most likely be brought back. However, if you have deleted a record, the Undo function will not undo the deletion.

The following SiteManager Edit menu choices are standard throughout the application and are always performed the same way. Sheet specific menu functions are discussed with the applicable SiteManager functionality.

Figure 3-14. The Edit Menu

Menu Choice	Description
Undo	Undoes the last change.
Cut	Cuts the selected area from the item.
Copy	Copies the selected area from the item.
Paste	Pastes the contents of the clipboard.

Table 3-5. The Edit Menu Choices Table

If menu item does not pertain to the current window, the menu item is unavailable. For example, you cannot cut or copy a column unless a column is selected.

To select a field using the mouse:

1. In the desired field, position the I-beam in front of the current entry.

2. Press the mouse button and drag to highlight the current entry.

To select a field using the keyboard:

1. Press the **Tab** key repeatedly until the field is highlighted.

Undo

The Edit menu's Undo choice changes a field back to the previous entry if the user has not performed a Save on the record.

To undo:

1. Click the **Edit** menu and click the **Undo** choice.

Cutting, Copying, and Pasting

When a column value is selected, the value can be moved (cut) if the entry is incorrect. A field value that needs to be entered repeatedly may also be copied to reduce typing.

To move (cut) the current selection:

1. Select the column value(s) to be moved.

2. Click the **Edit** menu and click the **Cut** choice.

Or

3. Hold down the **Ctrl** key and press the letter **X**.

To copy the current selection:

1. Select the column value(s) to be moved.

2. Click the **Edit** menu and click the **Copy** choice.

Or

3. Hold down the **Ctrl** key and press the letter **C**.

To paste the current contents of the Clipboard:

1. Position the insertion point in the column location to receive the value.

2. Click the **Edit** menu and click the **Paste** choice.

Or

3. Hold down the **Ctrl** key and press the letter **V**.

Cutting, Copying, and Pasting from MS Word into SiteManager

The following steps need to be taken to configure MS Word **BEFORE** typing remarks that are meant to be copied and pasted into Site Manager. This preserves special characters (single quotes, double quotes, dashes, etc.) and enables them to be saved into the database. Please **NOTE** that doing these configuration changes **AFTER** the remarks have been typed will result in the special characters being changed to question marks (?) in SiteManager.

1) Click **FILE**
2) Click **HELP**
3) Click **OPTIONS**
4) Click **PROOFING**
5) Click **AUTOCORRECT OPTIONS**

6) Click **AUTOCORRECT** tabpage > Uncheck "**Replace text as you type**"

7) Click **AUTOFORMAT AS YOU TYPE** tabpage > uncheck everything under "**Replace as you type**" section.

8) Click **AUTOFORMAT** tabpage > uncheck everything under "**Replace**"

9) Click **OK**

10) Click **OK**

3.4.3 Services Menu

The Services menu has several menu options grouped together. Some of the options like Address and Remarks extend the functionality. The other choices provide extended services.

The Services menu is also the most variable SiteManager menu. It contains choices specific to the active SiteManager window in addition to the ones listed in the following table. When there is a Service menu, it is a good habit in SiteManager to check its contents for the additional choices.

The Services menu is the most important menu for accessing custom SiteManager functionality. The options that appear in the Services menu may suggest the next logical step to take, such as Choosing Keys, or may suggest additional actions which could easily be overlooked, such as adding a Remark or recording an Address. On the other hand, the absence of these options might suggest an alternative course of action such as clicking the Open button, rather than Choose Keys.

Figure 3-15. The Services Menu

Menu Choice	Description
Choose Keys	Becomes available when the New choice is invoked. It brings up the pick list from which the appropriate value(s) can be chosen.
Address	Invokes the address (context sensitive).
Remarks	Invokes the remarks dialog.

Generic Fields	Displays a standard set of customizable, generic fields. Depending on the customization, these fields can be strings, codes, flags, or numbers.
Other menu choices	Other functional area specific menu choices (such as Approve) are incorporated under Services.

Table 3-6. The Service Menu Choices Table

Not every options available from the Services menu is listed here. It is a good idea to check the menu to see what options are available for the window.

Choose Keys

The Choose Keys choice displays a list of key field(s) to be selected. In many instances in SiteManager, the Choose Keys choice must be selected before a new record can be created. Choosing Keys is fundamental to using SiteManager.

To choose keys:

1. Click the **Services** menu and click the **Choose Keys** choice.

2. In the list box, scroll to and double-click desired value.

3. Repeat step 2 until all initial values are selected.
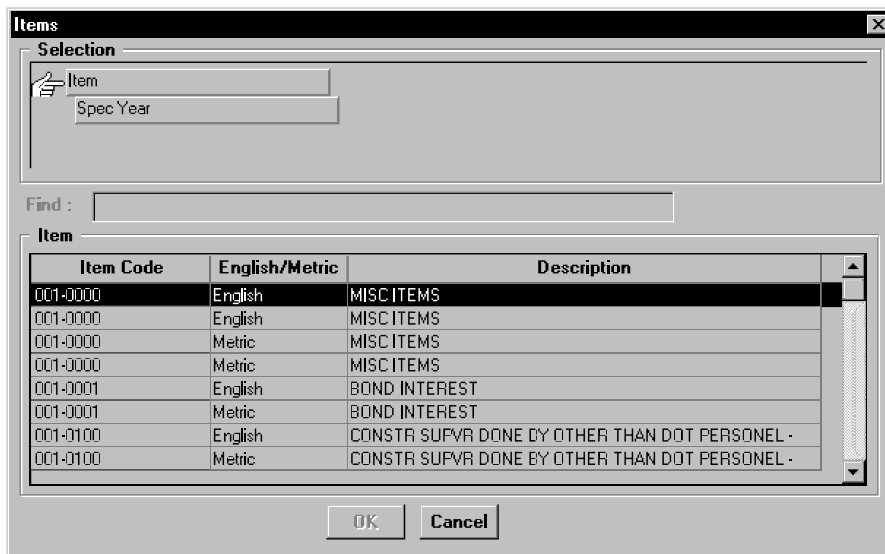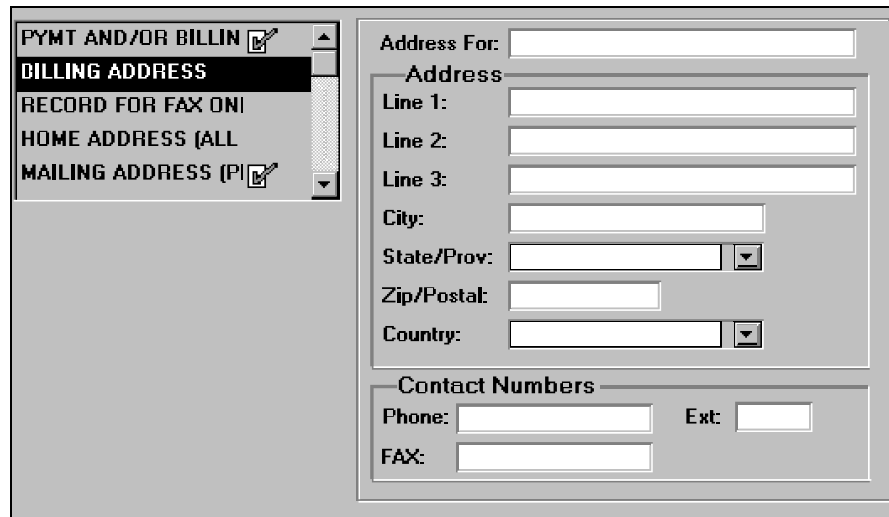
Figure 3-16. The Choose Keys Window

Address

Address information is tracked by a variety of components in SiteManager. The Address choice displays an address dialog that allows this information to be recorded.

Figure 3-17. The Address Dialog

To attach an address:

1. Click the **Services** menu and click the **Address** choice.

2. In the address type list box, scroll to and click the desired type of address.

3. In the first field, type the appropriate information.

4. Press the **Tab** key.

5. Repeat step 2-3 until all text address information has been entered.

6. In the **State/Prov** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. In the **Country** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. Click outside the Address dialog to close the address.

9. Click the **Save** button.

Remarks

As with Addresses, Remarks may be attached to a variety of records in the various components of SiteManager. The Remarks choice displays a freeform dialog that allows any comment to be recorded.

When Remarks are available for a SiteManager window, the presence of the Remarks button on the Toolbar serves as a reminder that they are appropriate, makes it easier to access Remarks, and, unlike other Service menu choices, precludes the need to check the Services menu to see if Remarks are available.

Figure 3-18. The Remarks Button

To attach a remark:

    1. Click the **Remarks** button.

Or

    2. Click the **Services** menu and click the **Remark** choice.

    3. Type the desired comment.

    4. Click outside the Remarks dialog to close the Remark.

    5. Click the **Save** button.

Generic Fields

Generic fields are agency-defined fields attached to some of the SiteManager windows. After the installation of SiteManager, an agency attaches descriptive labels to the generic fields of SiteManager. Data entered in these fields is unique to that agency. Once this customization has been performed, the agency sets up procedures for the uniform maintenance of the data in its customized fields.

The components of SiteManager that have this Generic Fields option are:

- Contract

- Vendor

- Office Information

- Address

- Vendor Personnel

- Item Master

- Affiliates

- Vendor Work Class

- Vendor Security

- Project Category

- Contract Item

- Sub Contract

- Contract Project

- Contract Milestone

- Change Order

- Checklist Events

- Contract Estimates

- Diary Milestone Credit
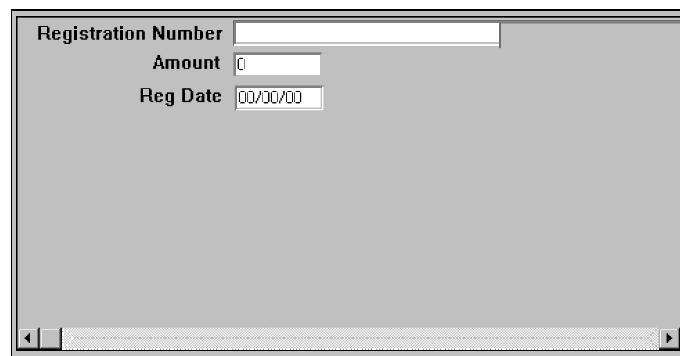
Figure 3-19. A Generic Fields Dialog Customized by an Agency

To update generic fields:

1. Click the **Services** menu and click the **Generic Fields** choice.

2. In the first field, type the appropriate information.

3. Press the **Tab** key.

4. Repeat steps 2-3 until all data field information has been entered.

5. Click outside the Generic Fields dialog to close.

6. Click the **Save** button.

3.4.4 Window Menu

The Window menu contains the Microsoft Windows standard menu choice. All active SiteManager windows are displayed at the bottom of the Window menu.

The following SiteManager Window menu choices are standard throughout the application and are always performed in the same way. Sheet specific menu functions are discussed with the applicable SiteManager functionality.
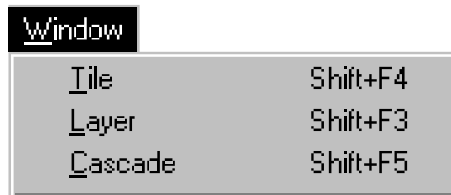
Figure 3-20. The Window Menu

Menu Choice	Description
Tile	Tiles the open sheets
Layer	Layers the open sheets
Cascade	Cascades the open sheets

Table 3-7. The Window Menu Choices Table

Window menu choices are used when you have more than one component of SiteManager open. Controlling the way the windows display can aid in navigation between these components.

Tiling

Tiling evenly divides the screen into the number of SiteManager components that you have active. Tiling is used to display two SiteManager components side by side to compare the entries in each or to return a single component to full screen once you have closed the other component. Typically, it is not used when more than two components of SiteManager are active since you would not be able to see enough of each component to make it worthwhile. Unless you have a very large display, tiling with more than two SiteManager components open may not be very useful.

To change your screen to a tile display:

1. Open the SiteManager components that you want to tile.

2. Click the **Window** menu and click the **Tile** choice.
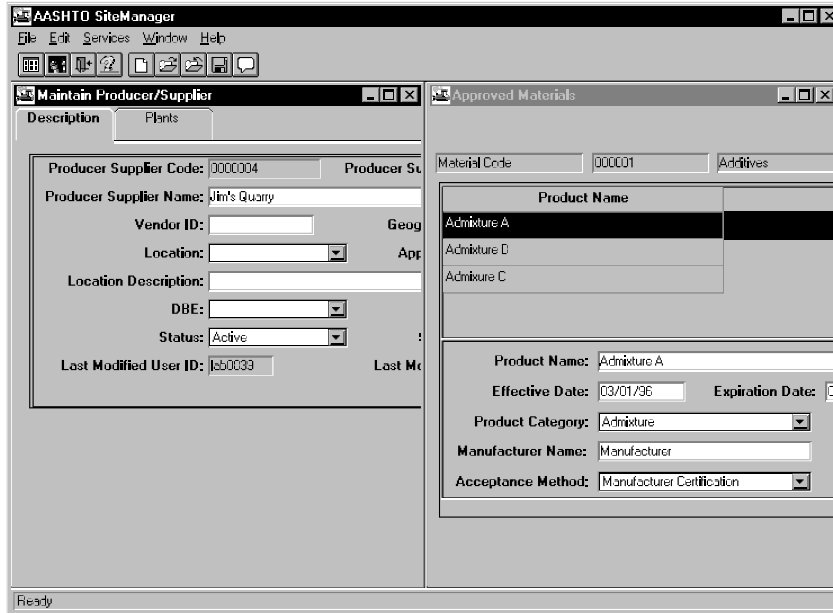
Figure 3-21. Two SiteManager Components Tiled

Cascading

Cascading makes the number of SiteManager components that you have active an equal size and arranges each component in an overlapping offset window. Typically, cascading is used to display more than two open SiteManager components. When you have a need to navigate between more than two open SiteManager components, the Cascade choice may make it easier to move between them.

To cascade:

1. Open the SiteManager components that you want to cascade.

2. Click the **Window** menu and click the **Cascade** choice.

3. Click the visible portion of the window you want to display.
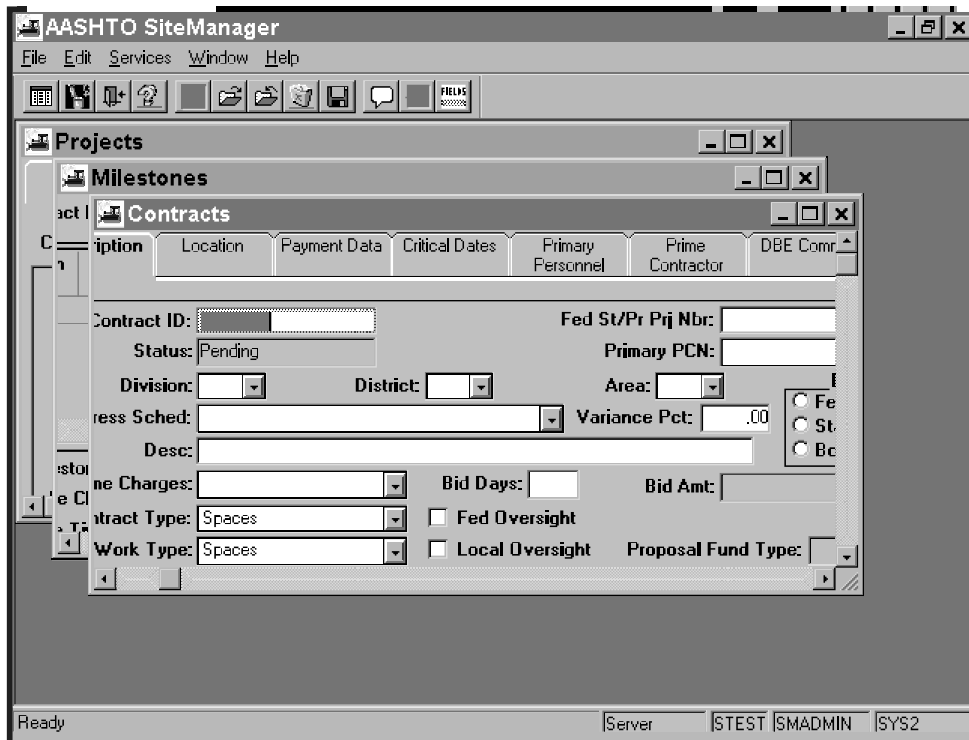
Figure 3-22. hree SiteManager Components Cascaded

Layering

Layering displays the SiteManager component that you have active in the most efficient full screen display. Typically, layering is used to give each active component a full window for display or to return a single active component to full display after you have closed the other components that were tiled or cascaded.

To layer:

1. Open the SiteManager components that you want to layer.

2. Click the **Window** menu and click the **Layer** choice.

To move between multiple layered SiteManager components:

1. Click the **Window** menu and click the name of the SiteManager component from the list.
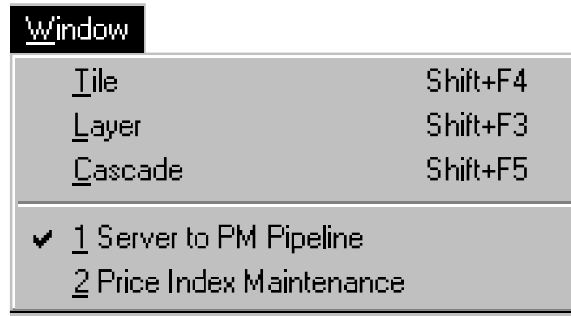
Figure 3-23. The Window Menu With Two SiteManager Components Active

3.4.5 Help Menu

The Help menu contains the standard Microsoft Windows options. The non-standard exception, Current Window choice, displays the help for the current window including the fields. All other options work in the standard format.

The Help menu contains standard Help choices: Contents, Search Help on, and Glossary. Help in SiteManager works like any other Microsoft Windows Help.
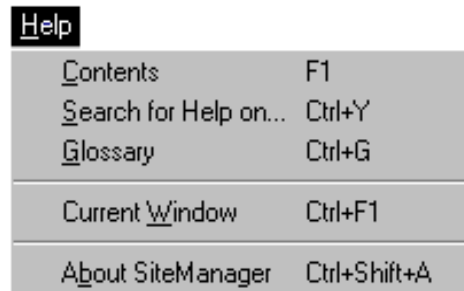
Figure 3-24. The Help Menu

Menu Choice	Description
Contents	Brings up the SiteManager Help Contents Window.
Search for Help on	Brings up the SiteManager Help Search Window.
Glossary	An alphabetized list of the items on the Help Contents Window.
Current Window	Brings up help window and displays the help on the current active window.
About SiteManager	Information about SiteManager Version.

Table 3-8. The Help Menu Choices Table

Accessing Help Using the F1 Key

SiteManager help is context sensitive. When you are in a SiteManager window and have a question about the window, pressing the F1 key invokes the help for that particular window.
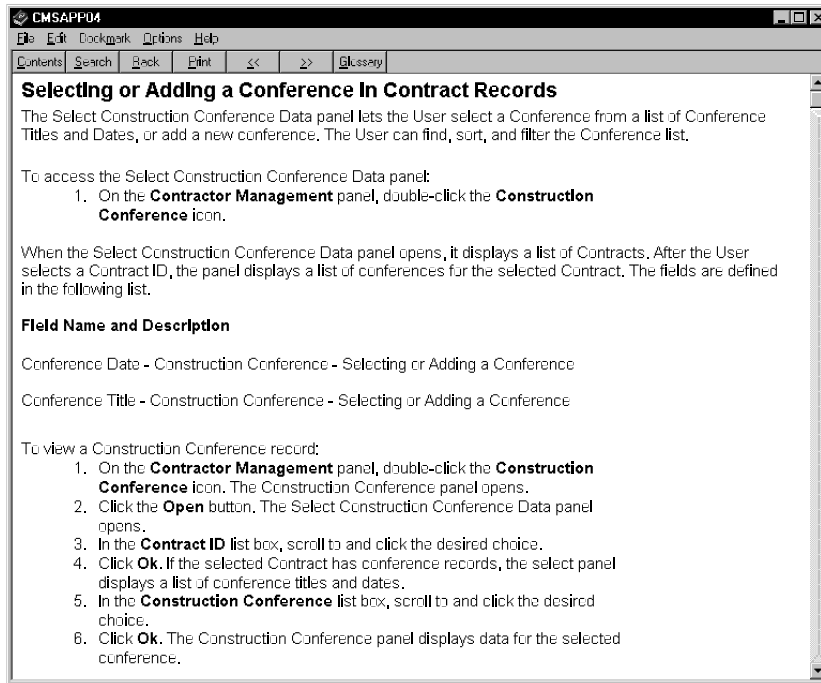
Figure 3-25. The F1 Key Invokes Help

To access Help using the F1 key:

1. In a SiteManager window, press the **F1** key.

2. When finished, click the **File** menu and click the **Exit** choice.

Accessing Help by Contents

The Content choice or the Help toolbar button display an alphabetized list of Help Topics that can be browsed for the subject on which you need help.

To access Help by Contents from the menu:

1. Click the **Help** menu and click the **Contents** choice.

2. In the topics list box, scroll to and click the desired topic.

3. When finished, click the **File** menu and click the **Exit** choice.

Figure 3-26. The Help Button

To access SiteManager Help with the toolbar:

1. Click the **Help** button.
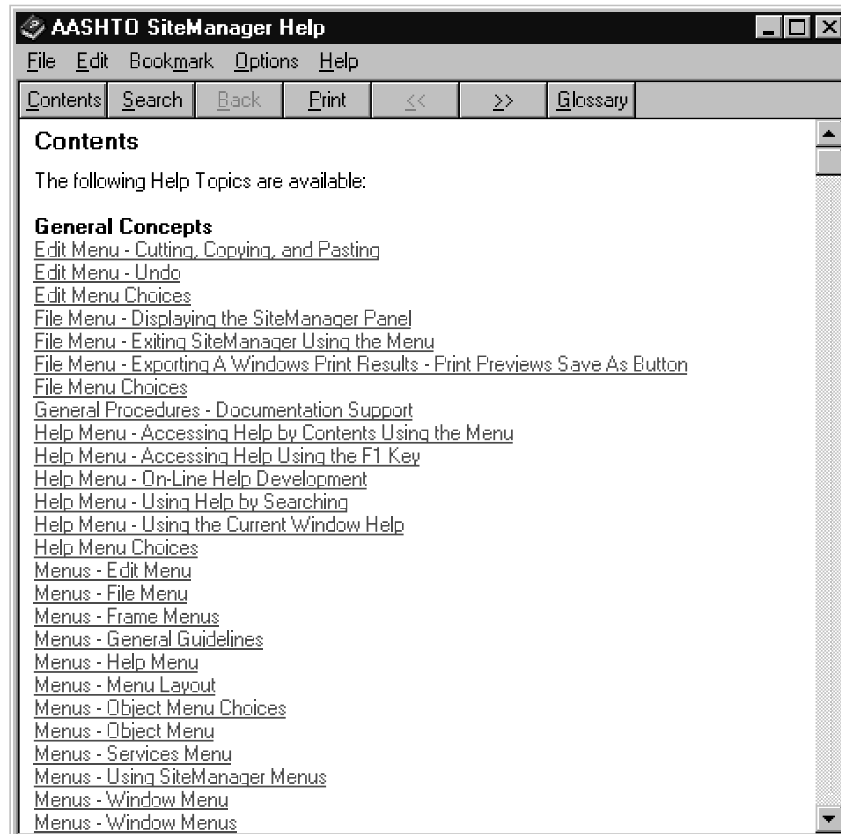
Figure 3-27. The Help Contents

Using Help by Searching

The Search for Help on choice displays a lengthy, alphabetized list of Help Topics that can be browsed or searched for the subject on which you need help.

To access Help by searching:

1. Click the **Help** menu and click the **Search for Help on** choice.

2. Type the topic on which you need help.

3. Click the topic.

4. Click the **Display** button.

5. When finished, click the **File** menu and click the **Exit** choice.
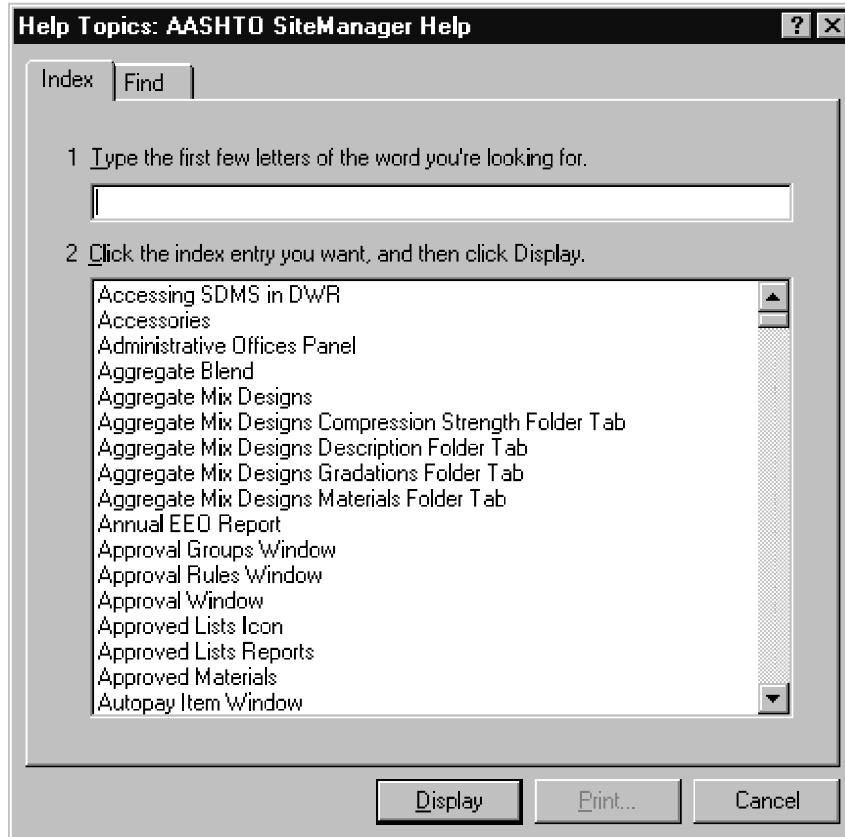
Figure 3-28. The Help Search

Using the Current Window Help

With any SiteManager window active, the Help menu's Current Window choice accesses context sensitive help that includes Help on fields.

To access Help on the current window:

1. Display the SiteManager window for which you need help.

2. Click the **Help** menu and click the **Current Window** choice.

3. When finished, click the **File** menu and click the **Exit** choice.

To access Help on a field:

1. Display the SiteManager window that has the field for which you need help.

2. Click the **Help** menu and click the **Current Window** choice.

3. In the field list, scroll to and click the desired field.

4. When finished, click the **File** menu and click the **Exit** choice.
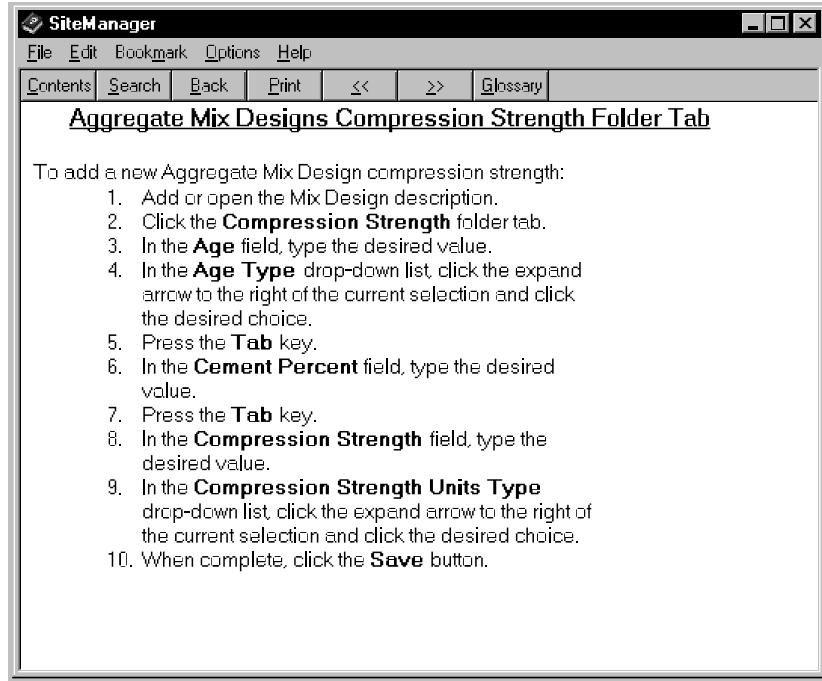
Figure 3-29. The Help on a SiteManager Window

3.5 Object Menu

The Object menu can be opened by right clicking a column. When the standard Windows selection pointer is positioned on a column that can be searched, it is replaced by the *Search Lens*. The Search Lens indicates that an Object menu can be invoked to perform a search by clicking the right mouse button.

Figure 3-30. The Search Lens

As with other Windows applications, the available choices in the Object menu are context sensitive, depending on what column the selection pointer is positioned on and whether it is selected. When choices in the object menu are unavailable, their inactive status usually indicates the column is not selected. The Object menu includes five choices described in the following.

Figure 3-31. The Object Menu

Object Menu Choices	Description
Search	Searches for the specified field value.
Filter	Eliminates all records other than the Filter criteria.
Find	Finds the specified field value.
Sort	Sort the records in ASCII order in either ascending or descending order.
Show Filter/Sort	Displays the applied Filter/Sort criteria.

Table 3-9. he Object Menu Choices Table

The Object menu is a context sensitive capability. To make data entry and retrieval easier, the choices that appear in the Object menu are determined by where you right click. For instance, when you position the pointer above a searchable field, the Search Lens appears. Right clicking the searchable field produces an Object menu with the Search choice as the only available choice.

The Filter and Find functions also provide users with the ability to limit the data retrieved from the SiteManager database by specifying criteria using relational operators. The Clear function clears the current data retrieval choice in effect. The Show Filter/Sort choice shows the current criteria in effect for these choices.

Figure 3-32. The Object Menu

3.5.1 Search

When a data entry field requires selecting a value from a list of possible values, the Search choice allows the user to limit the list and quickly select the desired value.
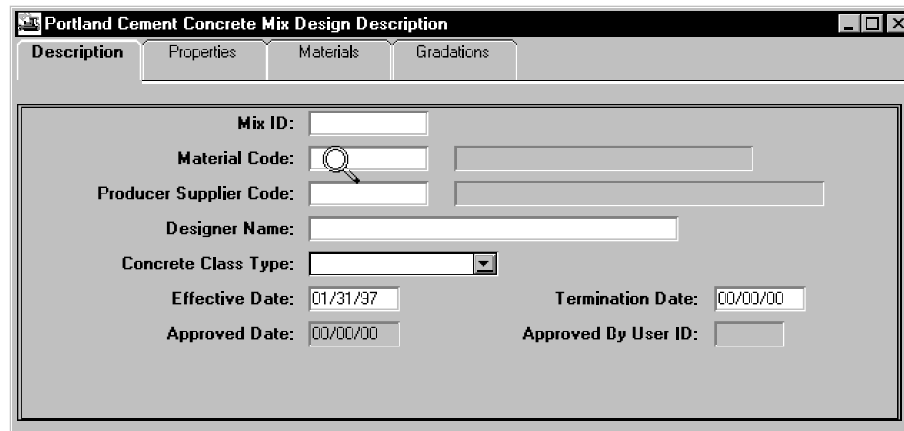
Figure 3-33. The Search Lens Appears

To search on a field:

1. Position the selection pointer (changes to the Search Lens) over a search field.

2. Click the field using the right mouse button.

3. From the object menu click the **Search** choice.

4. Select the correct record from the list.

5. Click **OK**.
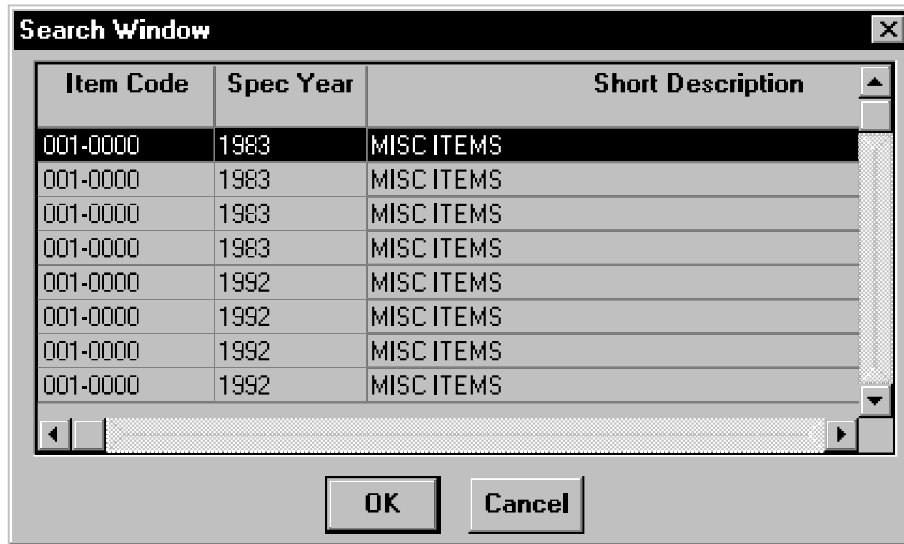
Figure 3-34. The Search Window

3.5.2 Filter

The Filter choice allows the user to specify filtering criteria for SiteManager fields and limiting their values using relational operators. Each time a window displays, the filtering criteria, marked as default, is automatically applied, thereby limiting the amount of data retrieved. Only one default filter criterion can be in effect for a window at any given time.

> 🗎 **Note:** When creating multiple conditions, remember that AND joins are executed before OR joins.

To filter out other records:

1. Position the selection pointer over a record

2. Click the record using the right mouse button.

3. From the object menu click the **Filter** choice.

4. Click the **Add** button.

5. In the **Field** drop-down list, click the expand arrow to the right of the current selection and click the desired field.

6. In the **Condition** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. In the **Value** field, select the current entry and type the desired value.

8. To add additional conditions, click the **Add** button.

9. In the **Join** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Repeat steps 5-9 until you have selected all conditions.

11. Click **OK**.
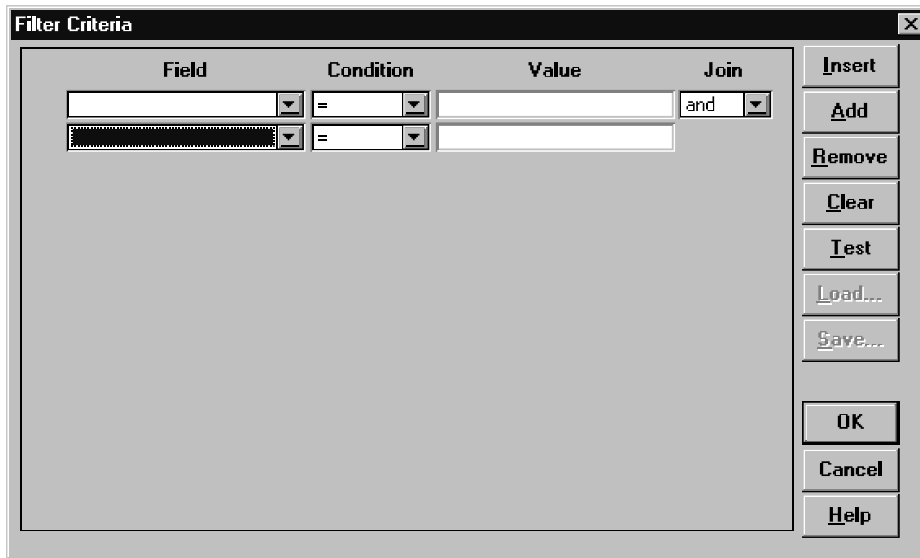
Figure 3-35. The Filter Criteria Window

3.5.3 Find

When a window displays as a scrollable list, the Find choice allows the user to get to a specific row by selecting the appropriate value to find.

> 📄 **Note:** When creating multiple conditions, remember that AND joins will be executed before OR joins.

To find specific records:

1. Position the selection pointer over a record

2. Using the *right* mouse button, click the record.

3. From the object menu click the **Find** choice.

4. Click the **Add** button.

5. In the **Field** drop-down list, click the expand arrow to the right of the current selection and click the desired field.

6. In the **Condition** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. In the **Value** field, select the current entry and type the desired value.

8. To add additional conditions, click the **Add** button.

9. In the **Join** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Repeat steps 5-9 until you have selected all conditions.

11. Click **Ok**.

3.5.4 Sort

When the window displays as a list, the Sort feature allows the user to sort the list based on specified criteria. Each time the window displays, the default sort criterion is automatically applied. As with the Filter function, only one default sort criterion can be in effect for a window at any given time.

To sort the records:

1. Position the selection pointer over a record

2. Using the *right* mouse button, click the record.

3. From the object menu click the **Sort** choice.

4. Click the **Add** button.

5. In the **Field** drop-down list, click the expand arrow to the right of the current selection and click the desired field.

6. In the **Order** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. To add additional sorts, click the **Add** button.

8. Repeat steps 4-7 until you have selected all sorts.

9. Click **Ok**.
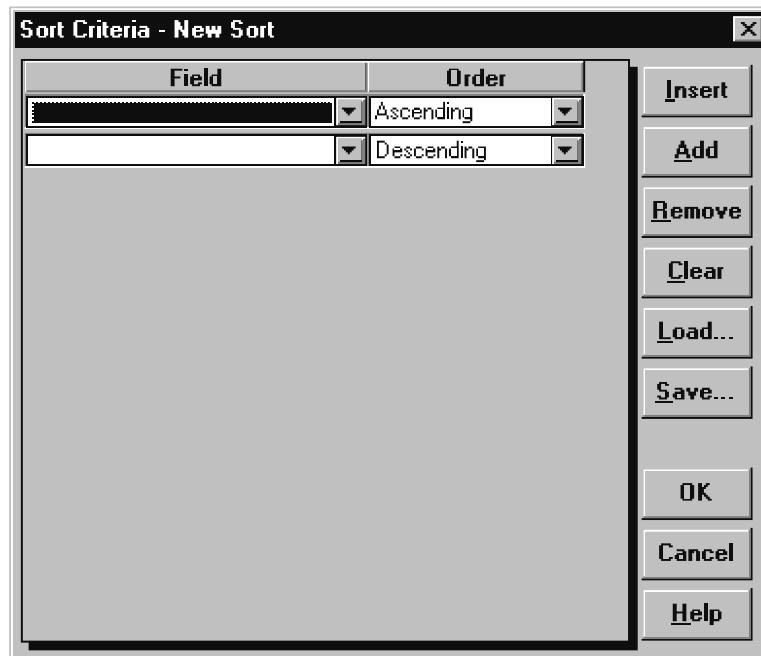
Figure 3-36. The Sort Window

3.5.5 Show Filter/Sort

The Display Filter/Sort choice displays the current criteria in effect.

To display the current criteria:

1. Position the selection pointer over a record

2. Using the *right* mouse button, click the record.

3. From the object menu click the **Show Filter/Sort** choice.

4. Click **Ok**.

3.6 Documentation Support

Online versions of the User Reference Manual and the Sampling and Testing Procedures for your agency are accessible as a PDF file. The Sampling and Testing Procedures are a resource provided by AASHTO.

To access online documentation:

1. On the Main Panel, double-click the **Documentation** icon.

2. Double-click the documentation icon you wish to reference.

Previous Page Button Next Page Button

First Page Button   Last Page Button
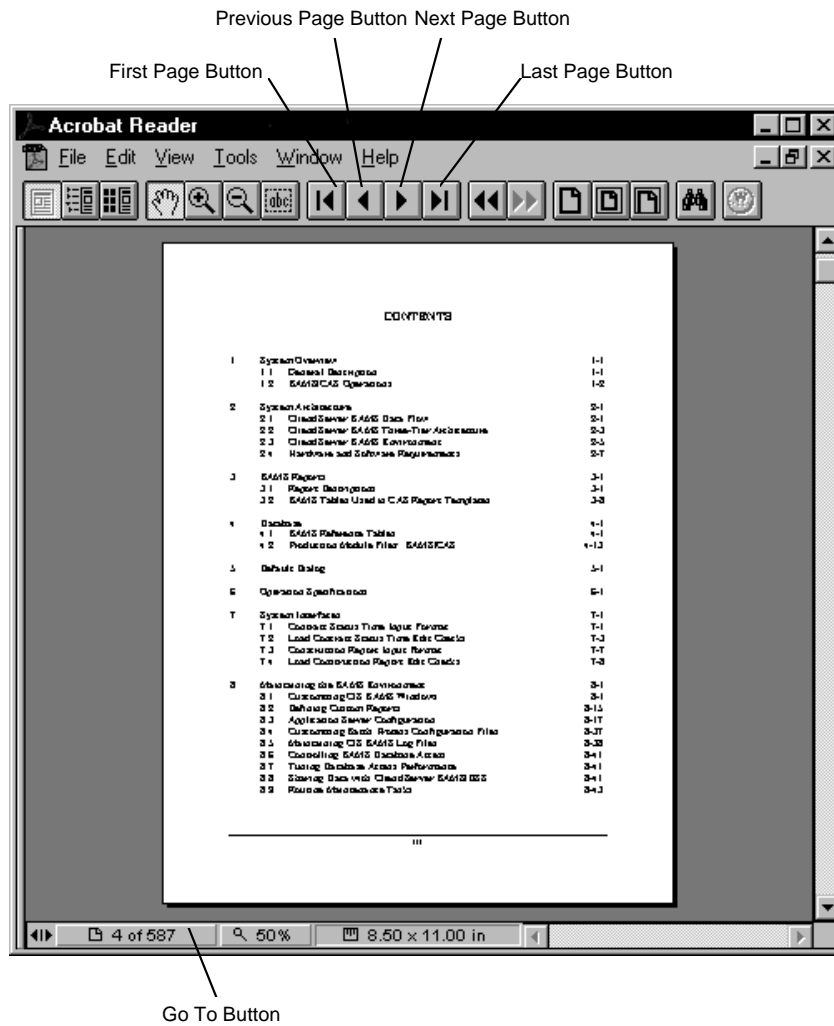
Go To Button

Figure 3-37. The Documentation in Adobe Acrobat

To navigate in Adobe Acrobat:

   1. Click the **Next Page** button.

Or

   2. Click the **Previous Page** button.

Or

   3. Click the **First Page** button.

Or

   4. Click the **Last Page** button.

Or

5. Click the **Go To** button.

6. Type page number you want to which you wish to go.

7. Press **Enter**.

3.7 Reports

The following procedures are a general description of how to generate PowerBuilder-based SiteManager reports. Each chapter of the manual describes report specific to each component of SiteManager.

Reduce the zoom to 80 to view the entire page of the report.

To generate a report:

1. Select the **Reports** icon for the desired report.

2. If applicable, select the criteria.

3. Select the option for the desired format

   ▪ By Summary (selects all items)

   ▪ By Criteria (field name) selects an individual field.

If you select By Criteria, click the field using the right mouse button.

Perform a **Search** using the object menu (referenced in the Getting Started section).

Click **OK**.

4. To generate a PowerBuilder-based report, double-click the desired report icon and select the criteria.

5. To generate the report online, click **OK**.

6. To generate the report to a file, select the **Generate Off-line File** check box (ON) and click **OK**.

7. To generate and print the report, select the **Generate Off-line Print** check box (ON) and click **OK**.

The Summary by Project Report is unique in that multiple reports may be generated in a batch print process.

To select multiple reports to be printed:

1. On the Report Criteria window, select the **Generate Off-line Print** check box (ON).

2. Highlight the desired criteria by holding down the **Shift** or **Ctrl** keys and clicking the desired report criteria. The **Shift** key allows an entire block of criteria to be selected, while the **Ctrl** key allows individual rows of criteria to be selected.

3. Click **OK**.

3.7.1 Report Options

The report options are available as toolbar buttons or menu options for reports that have been generated online.

Components	Description
Close button	Closes the report preview.
Save button	In a simple report (see Save Reports section) invokes the Save dialog allowing the report to be saved in a .PSR file format.
Print button	Prints the report.
Prior button	Displays the prior page of a multi-page selection.
Next button	Displays the next page of a multi-page selection.
Zoom spin button	Magnifies or reduces the display of the report preview.
Copies spin button	Allows more than one copy of the report to be printed.

Table 3-10. The Report Components Table

3.7.2 Saving, Opening, and Exporting Simple Reports

There are two types of reports in SiteManager: simple and complex. Simple report can be saved and exported, but complex reports cannot. The File menu's Save choice (or the Save button) and the Service menu's Export choice are active for a simple report. They are not active for a complex report.

Saving and Opening Simple Reports

A simple report can be saved for later retrieval. SiteManager saves the report using a **.PSR** extension. The View Saved Report icon on your reporting panel can be used to open a saved report.

To save a report:

    1. Click the **File** menu and click the **Save** choice.

Or

    2. Click the **Save** button.

    3. Type the name for the file.

    4. Change the drive and directory as desired.

    5. Click **OK** twice.

To open a saved report:

    1. Double-click the **View Saved Reports (PSR)** icon on the reports panel.

    2. Change the drive and directory as needed.

    3. Select the PSR file.

    4. Click **OK**.

Exporting Simple Reports

A simple report can be exported into file formats other than PSR. To access an exported simple report file, you must have an applications software package that can access one of the file formats.

File Extension	File Format Description
.TXT	ASCII Tab Separated (Delimited) format
.XLS	Microsoft Excel Spreadsheet format
.WKS	Lotus 123 early format
.WMF	Windows Metafile graphical format

Table 3-11. The Export File Formats Table

To export a report:

    1. Click the **Services** menu and click the **Export** choice.

    2. Type the name of the file.

    3. Click the expand arrow to the right of the **Save File As Type** drop-down list and click the desired file format.

    4. Change the drive and directory as desired.

5. Click **OK** twice.

3.8 Plug-In, URL, and OLE Attachments

The URL/Plug-In/OLE functionality of SiteManager allows URL links, Plug-In applications, and OLE documents to be attached to certain SiteManager functions or specific records within that function. The stand-alone feature also allows URL links, Plug-In applications and OLE documents to be accessible to the User through a separate Attachments window accessed through the Accessories panel.

Attachments may be associated with a specific record. Attachments may also be configured to either activate when a window is opened or when selected through the Attachment window. System-based attachments are URL links, Plug-In applications, and OLE documents that do not need to be associated with a specific SiteManager function or record. System Attachments are accessed through the Accessories panel.

URL links, Plug-In applications, and OLE documents may be associated to:

- Material Test Templates
- DWR Templates
- Contracts
- Contract Estimate History
- Correspondence Log
- Construction Conference
- Change Order Header
- DWR - Record Work Item
- Maintain Sample - Additional Sample Data
- SUPERPAVE Mix Design
- Portland Cement Concrete Mix Design
- Force Accounts
- Contract Adjustments
- Contract Time Adjustments
- Line Item Adjustments

- Contractor Evaluation

- Milestone Time Adjustment

Attachments are activated by a User click or configured to trigger automatically when a window to which an attachment is associated is initialized. Each Plug-In application, URL, or OLE document may be associated to a specific record.

The Plug-In functionality also allows a limited amount of data to be automatically passed to a Plug-In application upon execution.

3.8.1 URL, Plug-In and OLE Attachment Icons

	Activates the Attachments window.
	Appears on the Accessories panel, and activates the stand-alone Attachment window.
	Appears on the toolbar of any window that may have an attachment associated with it. An Attachment icon without a paperclip signifies there are currently no attachments associated with the current record.
Attachments	Activates the Attachments window.
	Appears on the Accessories panel, and activates the stand-alone Attachment window.
	Appears on the toolbar of any window that may have an attachment associated with it. An Attachment icon with a paperclip signifies there is an attachment associated with the current record.
Run Attachments	Allows User to activate Plug-In applications or URLs associated with the window.
New URL	Opens a dialog box allowing the properties of a URL attachment to be modified or entered.
New Plug-In	Opens a dialog box allowing the properties of a Plug-In attachment to be modified or entered.
	Opens a dialog box allowing the properties of an OLE attachment to be modified or entered.

New OLE Document	
 Delete OLE Document	Deletes the current OLE document.

Table 3-12. The Attachment Icon Table

3.8.2 Attachment Usage

Figure 3-38. The Attachment Window

To display Plug-In, URL, and OLE attachments:

1. Navigate to the SiteManager function associated with the attachment you wish to use.

2. Click the **Attachment** icon to access the Attachment window.

> 📄 **Note:** As the attachment is associated to a specific record, that record must be opened before accessing the Attachment Window. The Autorun feature indicates that the attachment will be run as soon as the Attachment Window is opened without the user having to click the Run button.

3. The previously-created URL, Plug-In, and OLE attachments appear as a table grid on the Attachments window. **Sort** and **Filter** features may be used on this window by right-clicking and choosing a feature from the **Object** menu.

4. Double-click the desired attachment to activate, or highlight the desired attachment and click the **Run Attachments** icon.

5. Activating a Plug-In opens the specified application in a separate window. Activating a URL or HTML File item launches the system's default browser. Activating an OLE opens the specified document.

6. Once you have completed work with the URL, Plug-In application, or OLE document, the browser or application may be closed as normal.

7. Once the appropriate area of SiteManager has been reached, the creation steps are identical.

Figure 3-39. The Attachment Window

Field	Description
Name	Name of the attachment
Type	OLE, URL or Plug (executable)
Description	Short textual description of the attachment.
Autorun	Indicates that the attachment will be run as soon as the user opens the attachment window.

Table 3-13. The Attachment Window Field Description Table

To access the Attachments window, click the **Attachments** button, or click the **Services** menu and click **Attachments**.

Plug-In Attachment Definition
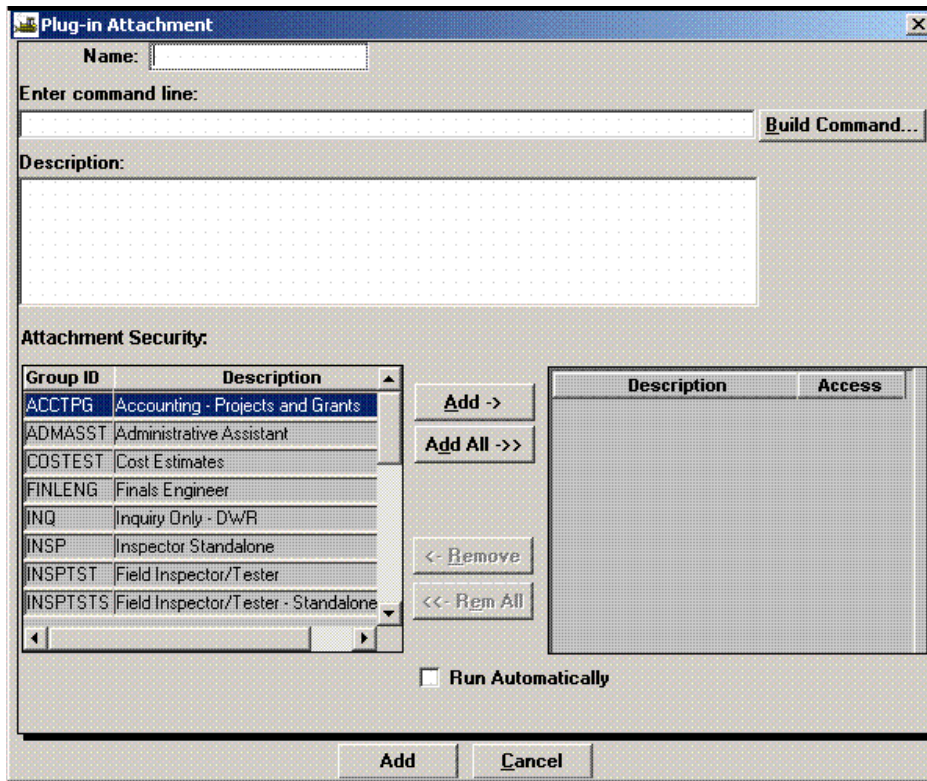
Figure 3-40. The Plug-In Attachment Window

Field	Description
Name	Required field. The user-entered name of the attachment entered in freeform text.
Enter Command Line	The executable application's command line. Either entered by the user or returned through the Build Command function.
Description	Not a required field. A short, user-entered description of the executable application in freeform text.
Attachment Security	Allows the user to restrict access to the attachment at the Group level.
Run Automatically	If checked, the Plug-In is executed upon activation of the window it is attached to.

Table 3-14. The Plug-In Attachment Window Fields Table

To create a new Plug-In Attachment:

1. Click the **New Plug-In** button to access the Plug-In Attachment window.

2. On the Plug-In Attachment window, click the **Name** field and add a name for the new plug-in.

3. Click the **Enter Command Line** field. The command line may be entered directly into this field or returned from the **Build Command** button.

   📔 **Note:** The Build Command function is discussed in the next section.

4. Click the **Description** field and enter a description.

5. In the **Attachment Security** box, choose the Group(s) to which this Attachment will be visible and click **Add** to add each one to the Access box.

6. To make the Plug-In executable upon window initialization, click the **Run Automatically** box on.

7. After all fields defining the Plug-In are entered, click the **Save** button.

   📔 **Note:** The Run Automatically check box does not appear in the stand-alone function.

The Build Command Function

The purpose of the Build Command function is to assist you in the set up of a plug-in attachment's executable command line and any additional data that needs to be passed to the application at execution.

Figure 3-41. The Plug-In Attachment Build Command Window

Field	Description
Command Line	This protected field displays the command being built from the Executable File, Parameters: Field Variables, and Parameters: Other fields. This line may not be longer than 255 characters.
Executable File	Required field. This may be entered by the user or populated by selecting a file from the Select File function.
Parameters: Field Variables	Field variables are selected from the list provided. This list will differ depending upon which function is being accessed. Variables are retrieved from the SiteManager database and passed to the executable application.
Parameters: Other	Variables entered in this field are passed as entered to the plug-in application when it is activated by a user.

Table 3-15. The Plug-In Attachment Window Fields Table

To build a command using the Build Command function:

1. On the Plug-In Attachment window, click the **Build Command** button. The Build Command window opens.

2. Enter the executable command path or click the **Select File** button.

    a. The Select File window opens, allowing browsing of the system's directories to locate and select an executable file and its path directory.

    b. Click **Open**. The file name and path are passed to both the Executable File and the Command Line fields.

3. If desired, select an item from the **Parameter Field Variable** list by clicking on the desired item. Click the **Add** button to add the field variable to the Command Line. These variables for the selected record will be passed to the plug-in attachment when it is activated.

    a. If the attachment is for Contracts, the Contract ID is a variable that may be passed to the attachment automatically by the system.

    b. Since a space is the defined parameter delimiter for plug-in command lines, there should be no spaces in the path defining where the plug-in attachment can be found by the system. For example, if a user wishes to have a plug-in attachment that initializes a Word document called form.docx, the command line might be:

    c:\program files\msoffice\winword\winword.exe c:\templates\form.docx

If the command line were written as follows, the command would not work because of the space in the My Documents directory name:

c:\program files\msoffice\winword\winword.exe c:\my documents\templates\form.docx

4. To add additional data to be passed to the application at execution, click the **Parameter: Other** field and enter the desired data.

5. Click **Add**. The additional data appears on the Command Line.

6. When the Command Line has been completed, click the **OK** button. The Build Command Line window closes, and the Command Line is passed to the Plug-In Attachment window's Enter Command Line field.

Plug-In Fields Available

The following table, organized by SiteManager functionality, lists the fields available to the Plug-In function.

Functional Area	Field ID	Field Description
All Areas		
	USER	User ID
	PSWD	User Password
Daily Work Reports		
	CONT	DWR Contract ID
	DATE	Daily Work Report Date
	INSP	DWR Inspector User ID
	PROJ	DWR Project Number
	ITEM	DWR Line Item Number
	LOCA	DWR Location Sequence Number
Materials Management		
	SMPL	Sample ID
	METH	Test Method

Functional Area	Field ID	Field Description
	TST#	Sample Test Number
	RGHT	User Rights
	MTR#	Material Code
	SPBY	Sampled By
	PSC#	Producer/Supplier Number
	ATHZ	Authorized By user ID
	RVS#	Revision Number
	SPFR	Sampled From
	GEOA	Geographic Area
	STAT	Sample Status
	MIX#	Sample Mix ID
	MIXT	Sample Mix Design
	LAB#	Lab ID
	SPDT	Date Sampled
	AZDT	Date Authorized
	CMDT	Date Completed
Contract Administration		
	CONT	Contract ID
	EST#	Estimate Number

Table 3-16. The Fields Available for Plug-Ins Table

URL Attachment Definition
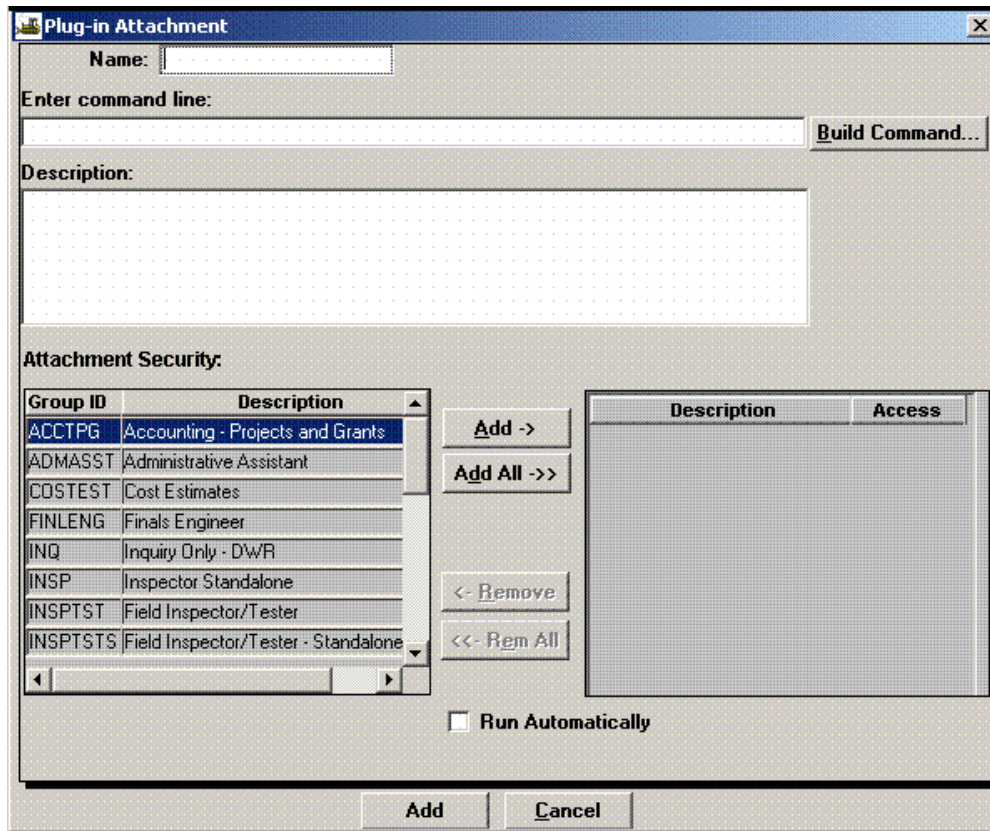
Figure 3-42. The Select File or URL Window

Field Name	Description
Name	Required field. The user-entered name of the attachment, entered in freeform text.
Enter the URL or Specify a Local File	Required field. The location of a local html document or web page address.
Description	Not required. A short, user-entered description of the html document or web page address.

Table 3-17. The Select File or URL Attachment Window Fields Table

To create a new URL or HTML File attachment:

1. Click the **New URL** button to access the Select File or URL window.

2. Click the **Name** field and add a name for the new URL.

3. Click the **Enter Command Line** field. The command line may be entered directly into this field or returned from the **Choose File** function.

4. Click the **Description** field and enter a description.

5. In the **Attachment Security** box, choose the Group(s) to which this Attachment will be visible and click the **Add** button to add each one to the Access box.

6. After all fields defining the URL or HTML file are entered, click the **Save** button.

OLE Attachment Definition
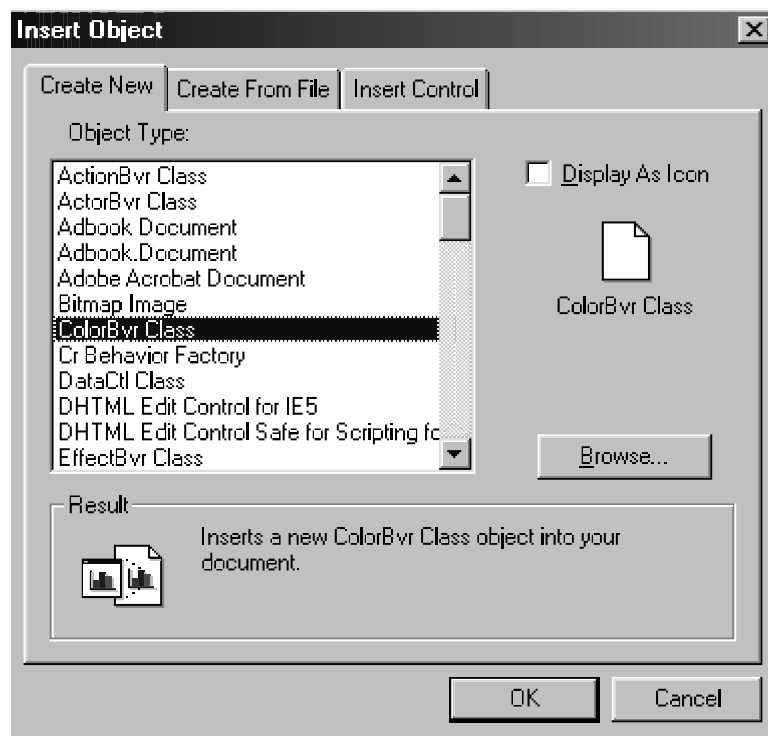
Figure 3-43. OLE Insert Object Dialog Box (Create New Tab)

Field Name	Description
Object Type	List of OLE-compliant applications that are installed on the client machine that may be used to create an OLE document.

Table 3-18. The OLE Insert Object Dialog Box Fields Table
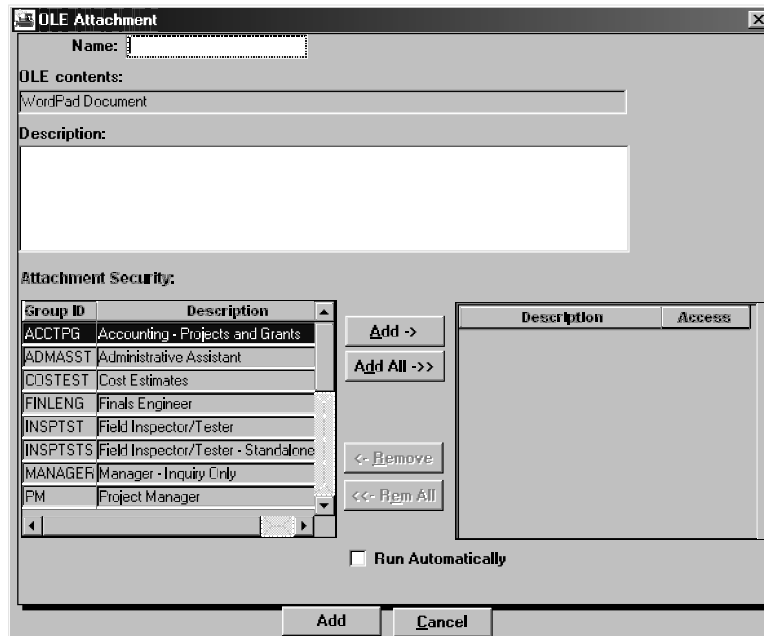
Figure 3-44. The OLE Attachment Definition Window

Field Name	Description
Name	Required field. The User-entered name of the attachment, entered in freeform text.
OLE Contents	A non-editable field which indicates the application in which the OLE attachment is generated.
Description	A freeform text explanation of the OLE attachment and its purpose.
Attachment Security: Group ID	The Group ID to which the attachment is to be accessible.
Attachment Security: Description	The full, descriptive name of the Group ID.
Run Automatically	When checked, this box indicates that the OLE will be run automatically when the Attachments icon is clicked.

Table 3-19. The OLE Attachment Definition Window Fields Table

To create a new OLE attachment:

1. Click the **OLE** button to access the Insert Object dialog box.

2. Select the type of OLE object to be created by clicking the application name in the Object Type box.

3. Click **OK**. The OLE Attachment definition window appears

4. Click the **Name** field and enter a name for the OLE attachment.

5. Click the **Description** field and enter a description.

6. In the **Attachment Security** box, choose the Group(s) to which this Attachment will be visible and click the **Add** button to add each one to the Access box.

7. If it is desirable to have the OLE attachment appear upon entering the Attachments window, select the **Run Automatically** check box.

8. After all fields defining the OLE are entered, click the **Add** button.

9. On the Attachments window, double click the OLE definition just created to begin creating the OLE document.

10. When finished, click **File** then **Update**, and close the window normally.

4. Contract Administration - Reference Tables

Contract Administration includes the reference data and program functions that are used to view, add, modify, and delete contract records. These are grouped on the following panels:

Panel Name	Description
Reference Tables (CA) Panel	The Reference Tables (CA) panel contains the contract defaults and standard data. This includes the vendors, funding sources, and items that you can add to contracts. The Interface Load Messages window displays the results of processes that load data from other systems.
Contract Records Panel	The Contract Records panel contains the functions that maintain contract records. This includes the contract description, milestones, projects, categories, items, funding, stockpiled materials, key dates, scheduled events, permits, user authority, and design evaluations.
Contractor Management Panel	The Contractor Management panel contains functions for recording contract-specific data on prime contractors and subcontractors. This includes conference and document tracking, subcontract descriptions, contractor payrolls, progress schedules, and contractor evaluations.
Reports Panel	The Reports panel contains contract-specific reports. These include reports on contract status, contractor status, subcontract value, disputes and claims, item quantity, item work, and contract history.

Table 4-1. Contract Administration Panels Table

Figure 4-1. Contract Administration Panel

To access the Contract Administration panel:

    1. On the SiteManager main panel, double-click the **Contract Administration** icon.

4.1 Reference Tables (Contract Administration)

The Contract Administration reference tables store the defaults and the agency-defined standards that are added to contracts. Typically, the reference table data is loaded into SiteManager from another system using an interface load process. This section of the manual describes how to view and maintain the reference table data in SiteManager.

Through the Reference Tables (CA) panel, you can add the following standards and defaults to the reference tables if you are an authorized user: administrative offices, funding sources, vendor information, default key date types, default checklist event types, and default liquidated damage rates. The Reference Tables (CA) panel cannot be used to add the default critical date types or items. The default critical date types were defined during system development. Items are added to the Item Master via the pre-construction system load program.

The defaults include the critical date types, key date types, checklist event types, and the liquidated damage rates. After defaults are entered in the reference tables, SiteManager adds the defaults to new contracts automatically. For other contract defaults, see the topic System Operational Parameters for Contracts.

The standards include the administrative offices, items, funding sources, and vendor information. The standards are defined by the transportation agency. After standards are entered in the reference tables, you can add standard data to a contract by selecting it on the appropriate SiteManager window. For example, the funding sources can be selected on the Contract Funding window.

> **!   Important!** SiteManager will not let users overwrite the Reference Table data loaded from the pre-construction system by the interface load process.

The Reference Tables (CA) icons represent the following windows:

- Interface Load Messages

- Administrative Offices

- Item Master

- Funding Sources

- Vendors

- Default Critical Dates

- Default Key Dates

- Default Checklist Events

- Default Liquidated Damages
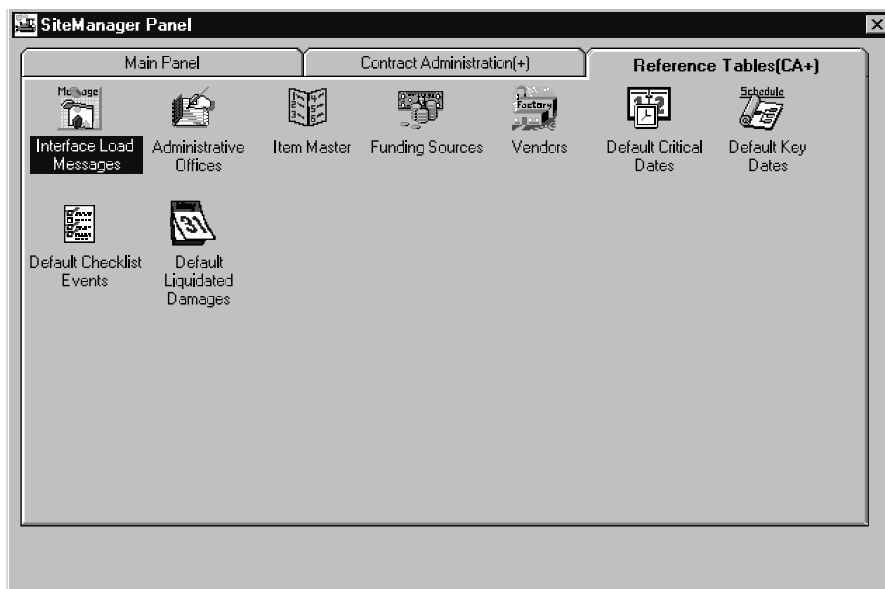
Figure 4-2. Reference Tables (CA) Panel

To access the Reference Tables (CA) panel:

1. On the Contract Administration panel, double-click the **Reference Tables (CA)** icon.

4.1.1 Interface Load Messages

This Interface Load Messages window lists the messages generated during the interface load processes. You can view and delete the messages on this window, and you can find, filter, and sort the message list.

Reference data load process (REFLOAD)	Reference Table data is loaded into SiteManager from another system by the REFLOAD process.
Pre-construction Contract data load process (PRELOAD)	New contracts are loaded into SiteManager from the pre-construction system by the PRELOAD process.
Construction Contract data load process (CONLOAD)	Contracts to be converted are loaded into SiteManager from the pre-construction system by the CONLOAD process.

Table 4-2. Interface Load Process Table
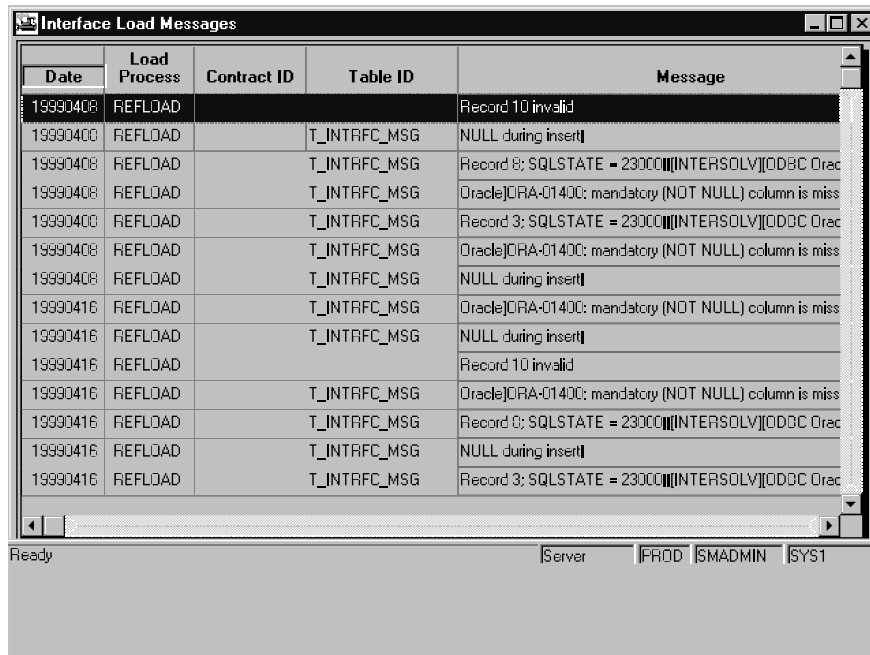
Figure 4-3. Interface Load Messages Window

Field Name	Description
Date	Date the interface load message was generated.
Load Process	Name of the interface load process that generated the message (REFLOAD, PRELOAD, or CONLOAD).
Contract ID	Transportation agency-defined ID for the contract associated with the interface load message.

Field Name	Description
Table ID	Name of the database table associated with the interface load message.
Message	Interface load message text.

Table 4-3. Interface Load Messages Window Fields Table

To delete an interface load message:

1. On the **Reference Tables (CA)** panel, double-click the **Interface Load Messages** icon.

2. To select one message to delete, click the row. To select multiple messages, hold the **Ctrl** button and **click the left mouse** button on each row.

3. Click the **Delete** button. The selected message is deleted from the list.

4. Click the **Save** button.

You can use the find, filter, or sort functions to find specific information.

4.1.2 Default Liquidated Damage Rates

The Default Liquidated Damages window lets you view and modify the default liquidated damage rates. SiteManager adds a default rate to new contracts based on the bid amount of the contract. On the Default Liquidated Damages window, you can enter the rate per day for each contract bid amount range. The system only displays the highest value for each range. The lowest possible value for the Contract Amount Range is $0.00, while the highest possible value is always $9,999,999,999.99.

If you do not enter a contract's liquidated damages rate manually, the system adds the default rate to the contract automatically when the contract status is changed to active.

Figure 4-4. Default Liquidated Damages Window

Field Name	Description
Contract Range Max Amount	The maximum amount for which the liquidated damages rate can be used. The total contract bid amount must be equal to or less than this amount and more than the previous ending amount. This value must be unique. For states with one standard amount for all contracts, this value defaults to 99,999,999,999.00 and cannot be modified.
Liquidated Damages Rate Amount	The default liquidated damages rate per day. This amount is associated with the Contract Range Maximum Amount.

Table 4-4. Default Liquidated Damages Window Fields Table

To add a default liquidated damages rate:

1. On the Reference Tables (CA) panel, double-click the **Default Liquidated Damages** icon.

2. Click the **New** button. An empty row is inserted before the selected row.

3. Type the ending range for the Contract Range Max Amt.

4. Press the **Tab** key.

5. Type the Rate Amount.

6. Click the **Save** button.

7. Click the **Yes** button.

The list is sorted in ascending order of ending range amounts.

The large value in the last row cannot be modified or deleted.

4.1.3 Default Critical Dates

The Default Critical Dates window lets you view and modify the default critical dates. The default critical date types were defined during system development. The transportation agency cannot add, modify, or delete the critical date types. However, if you are an authorized user, you can modify the default critical date settings. SiteManager adds the default critical dates automatically to each new contract. The critical date types are listed here in alphabetical order:

- Accepted Date

- Adjusted Completion Date

- Award Date

- Checked Out to Field Date

- Contract Archived Date

- Contractor Bankruptcy Date

- Contractor Default Date

- Contractor Final Release Date

- Contract Items Complete Date

- Execution Date

- Letting Date

- Notice to Proceed Date

- Open to Traffic Date

- Original Completion Date

- Physical Work Complete Date

- Price Adjustments Base Date

- Signed Date

- Substantial Work Complete Date

- Work Begin Date

These dates are considered critical because SiteManager includes them in the standard contract record reports.
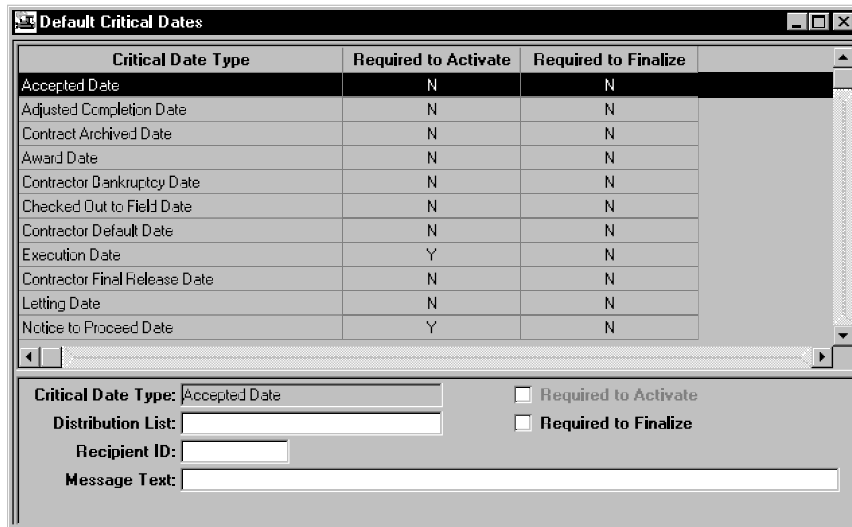
Figure 4-5. Default Critical Dates Window

Field Name	Description
Critical Date Type	System-defined default critical date type. The default critical date types were defined during system development. The transportation agency cannot add, modify, or delete the critical date types.
Required to Activate	Indicates that a critical date event must occur before the contract status can be changed from Pending to Active (e.g., the Execution Date). A critical date cannot be both Required to Activate and Required to Finalize.
Required to Finalize	Indicates that a critical date event must occur before the contract status can be changed to Complete. A critical date cannot be both Required to Activate and Required to Finalize.
Distribution List	Group to be notified when the actual date of the critical date event is entered. You can search this field. After valid entry of a distribution list, the Recipient ID field is protected.

Field Name	Description
Recipient ID	Person to be notified when the actual date of the critical date event is entered. You can search this field. After valid entry of a recipient ID, the Distribution List field is protected.
Message Text	Standard message to be sent to the recipient(s).

Table 4-5. Critical Dates Window Fields Table

To make a critical date Required to Activate:

1. On the Reference Tables (CA) panel, double-click the **Default Critical Dates** icon.

2. Click the critical date.

3. If the date is currently not required for either status change, click the **Required to Activate** radio button.

4. Click the **Save** button.

To select one or more recipients for notification that a date has occurred:

1. On the Reference Tables (CA) panel, double-click the **Default Critical Dates** icon.

2. In the **Distribution List** field or the **Recipient ID** field, type the entry or click the right mouse button and perform a Search.

3. Click the **Save** button.

4.1.4 Default Key Dates

The Default Key Dates window lets you add, modify, and delete the default key dates. The key date types are defined by the transportation agency in the system code tables. On the Default Key Dates window, you can add pre-defined key date types to the default list. You can find, filter, and sort the list, and modify the key date settings. SiteManager adds the default key dates automatically to each new contract.

The main purpose of a key date is to monitor a key contract activity and notify personnel when the activity actually occurs.
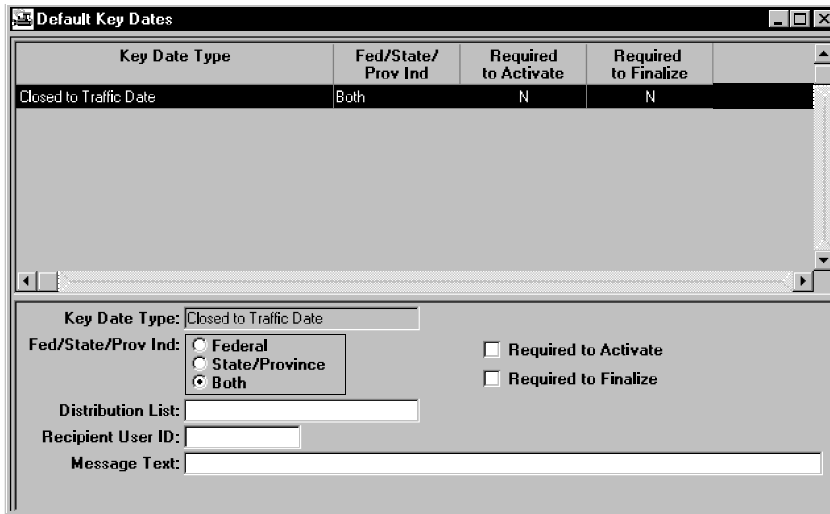
Figure 4-6. Default Key Dates Window

Field Name	Description
Key Date Type	The key date types are the names given by the transportation agency to the key dates (e.g., Closed to Traffic Date, State Final Inspection Date, Open to Traffic Date). The key date type is a required field and must be unique. This field is protected unless you select the New menu option.
Required to Activate	Indicates that a key date must occur before the contract status can be changed from Pending to Active (e.g., Letting Date, Award Date, Execution Date). A key date cannot be both Required to Activate and Required to Finalize.
Distribution List	Group to be notified when the actual date of the key date event is entered. You can search this field. After valid entry of a distribution list, the Recipient User ID field is protected.
Required to Finalize	Indicates that a key date is part of the contract finalization process. A key date cannot be both Required to Activate and Required to Finalize.
Recipient User ID	Person to be notified when the actual date of the key date event is entered. You can search this field. After valid entry of a recipient, the Distribution List field is protected.

Field Name	Description
Fed/State/ Prov Ind	Indicates that this date is for federal contracts, state/province contracts, or for both types of contracts. This is a required field.
Message Text	Standard message to be sent to the recipient(s).

Table 4-6. The Default Key Date Window Fields Table

To add a default Key Date type to the window:

1. On the **Reference Tables (CA)** panel, double-click the **Default Key Dates** icon.

2. Click the **New** button. An empty row is added to the list.

3. In the **Key Date Type** drop-down list, click the expand arrow and click a Key Date Type on the list of available Key Date Types.

4. In the **Fed/State Prov Ind** field, select one of the radio buttons.

5. Click the **Save** button.

4.1.5 Default Checklist Events

The Default Checklist Events window lets you add, modify, or delete the default checklist events. The checklist event types are defined by the transportation agency in the system code tables. On the Default Checklist Events window, you can add pre-defined Checklist Event types to the default list. You can find, filter, and sort the list, and modify the checklist event settings. SiteManager adds the default checklist events automatically to each new contract.

The main purpose of a checklist event is to schedule an event that occurs more than once or at regular intervals, and to notify personnel when a date arrives and an action (e.g., approval) has not occurred.
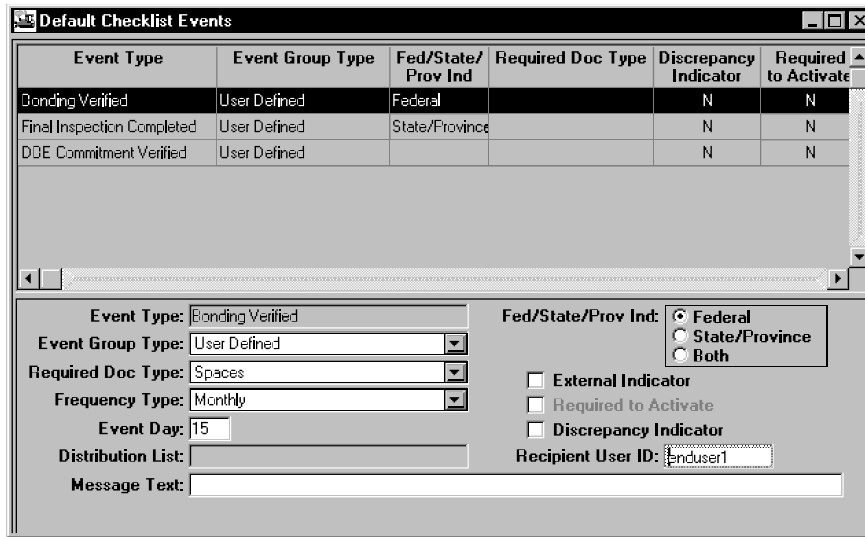
Figure 4-7. Default Checklist Events Window

Field Name	Description
Event Type	The event types are the names given by the transportation agency to the checklist events that occur throughout the life of the contract (e.g., Bonding Verified, DBE Commitment Verified, Final Inspection Completed). The Event Type is a required field and must be unique. This field is protected unless you select the New menu option.
Event Group Type	Grouping of associated event types (e.g., EEO, Training, and Certification). This is a required field.
Frequency Type	For repetitive events, the frequency with which they occur (i.e., Daily, Weekly, Biweekly, Monthly, Quarterly, Semi-Annually, Annually, and One Time Only). This is a required field. If you select One Time Only, you can also select Required to Activate.
Event Day	The day of the week or month that the event is to occur. For weekly and bi-weekly events, enter the day of the week (01-07). For monthly events, enter the day of the month (01-30). This field is protected for all other frequency types.
Required Doc Type	Transportation agency-defined codes identifying each type of document (e.g., Trainee report, EEO report, and Material Certification). This field is required when the External Indicator is checked (ON).

Field Name	Description
Required to Activate	Indicates that an event must occur before the contract status can be changed from Pending to Active (e.g., 'DBE commitment verified').
Discrepancy Ind	Indicates that if an event has not occurred before estimate generation, it will be reported as a discrepancy.
Distribution List	Group to be notified when the event's projected date expires before the actual date is entered. You can search this field. After valid entry of a distribution list, the Recipient User ID field is protected.
External Indicator	Indicates that a document is due to be received from an external source.
Recipient User ID	Person to be notified when the event's projected date expires before the actual date is entered. You can search this field. After valid entry of a recipient, the Distribution List field is protected.
Fed/State/Prov Ind	Indicates that the checklist event is for a Federal Contract, State/Province Contract, or Both. This is a required field.
Message Text	Standard message to be sent to the recipient(s).

Table 4-7. Default Checklist Event Window Fields Table

To add a checklist event to this window:

1. On the Reference Tables (CA) panel, double-click the **Default Checklist Events** icon.

2. Click the **New** button. An empty row is added to the list.

3. In the **Event Type** drop-down list, click the expand arrow and click an event type on the list of available **Event Types**.

4. In the **Fed/State Prov Ind** field, click a radio button.

5. Press the **Tab** key.

6. In the **Event Group Type** drop-down list, click the expand arrow and click an **Event Group Type** on the list of available types.

7. Press the **Tab** key.

8. To require the receipt of an external document, in the **Required Doc Type** drop-down list, click the expand arrow and click the document type.

9. Press the **Tab** key.

10. To require the receipt of an external document, click the **External Indicator** check box (ON).

11. Press the **Tab** key.

12. In the **Frequency Type** drop-down list, click the expand arrow and click the frequency of the event.

13. If the Frequency Type is Weekly, Bi-weekly, or Monthly, tab to the **Event Day** field and type a number representing the day of the time period on which the event is to occur (e.g., type 3 to represent the third day of each month).

14. If the Frequency Type is One Time Only, tab to the **Required to Activate** check box. If desired, click the check box (ON).

15. Press the **Tab** key.

16. To require a discrepancy notification, click the **Discrepancy Ind** check box (ON).

17. To select a recipient or recipients, tab to either the **Distribution List** field or the Recipient ID field and type the entry, or click the right mouse button and perform a Search.

18. Click the **Save** button.

4.1.6 Funding Sources

The Funding Sources window lets you add, modify, and delete standard funding sources. You can view but not modify funding sources loaded from the pre-construction system. After a funding source is entered on the Funding Sources window, you can add the funding source to a contract by selecting it on the appropriate SiteManager panels (e.g., Contract Funding).
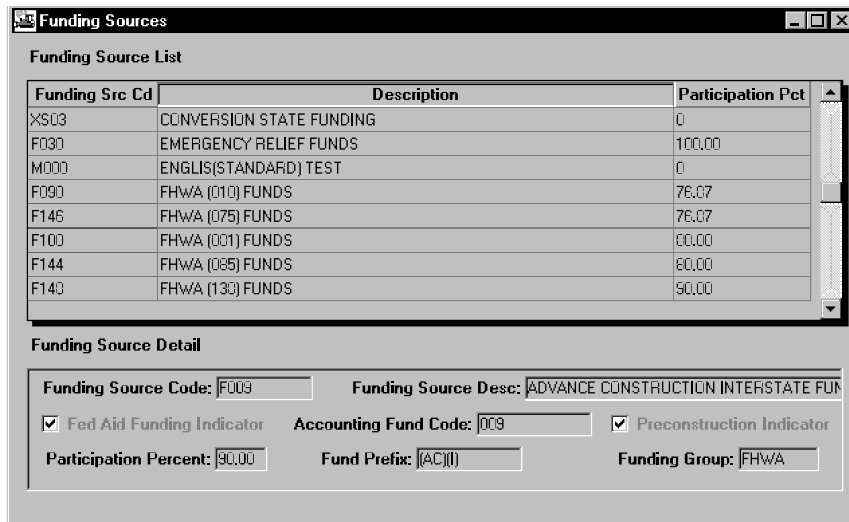
Figure 4-8. Funding Source Window

Field Name	Description
Funding Source Code	Identifies a source of funding (e.g., Federal grant, Federal fuel tax, State general fund). This is a required field. This field cannot be modified after the funding source is saved.
Description	Name or description of a funding source.
Fed Aid Funding Indicator	Indicates whether or not this fund contains federal aid dollars.
Accounting Fund Code	A code assigned to a fund by the transportation agency's accounting department. This field cannot be modified after the funding source is saved.
Pre-Construction Ind	Indicator to show that the data is from the pre-construction system and cannot be modified.
Source Participation Percent	The percentage of this fund paid by federal aid. This field is required if the Federal Aid Funding Indicator is checked (ON).
Fund Prefix	An alternate identification code for a fund.
Funding Group	Allows several funds to be associated with the same group code.

Table 4-8. Funding Source Window Fields Table

To add a funding source to the reference table:

1. On the **Reference Tables (CA)** panel, double-click the **Funding Source** icon.

2. Click the **New** button.

3. In the **Funding Source Code** field, enter the source of funding (e.g., Federal grant, Federal fuel tax, State general fund).

4. Press the **Tab** key.

5. In the **Description** field, enter a name or description of the funding source.

6. Press the **Tab** key.

7. If the funding includes federal aid money, click the **Fed Aid Funding Indicator** check box (ON).

8. Press the **Tab** key.

9. Click the **Accounting Fund Code** field and type the code assigned to the fund.

10. Press the **Tab** key.

11. If the funding includes federal aid money, in the **Participation Percent** field, type the percentage of this fund paid by federal aid.

12. Press the **Tab** key.

13. In the **Fund Prefix** field, type the fund prefix.

14. Press the **Tab** key.

15. In the **Funding Group** field, type the funding group.

16. Click the **Save** button.

17. To delete a funding source from the reference table:

    a. On the **Reference Tables (CA)** panel, double-click the **Funding Source** icon.

    b. In the **Funding Source** list box, scroll to and click the funding source.

    c. Click the **Delete** button.

    d. Click **OK**.

If the funding source is loaded from the pre-construction system, the data cannot be modified or deleted in SiteManager.

4.1.7 Item Master

The Item Master window lets you view the standard Item list. An interface load process adds the items from the pre-construction system to this list. You cannot add, modify, or delete Item Master data. The default sorting order of the list is by Item Code first, then Spec Year, and then Unit. You can find, filter, and sort any column on the list. The selected item's Historical Price is displayed only if you have the authority to view this data. You can add a standard item to a contract by selecting the item on the appropriate SiteManager window (e.g., the Items window).
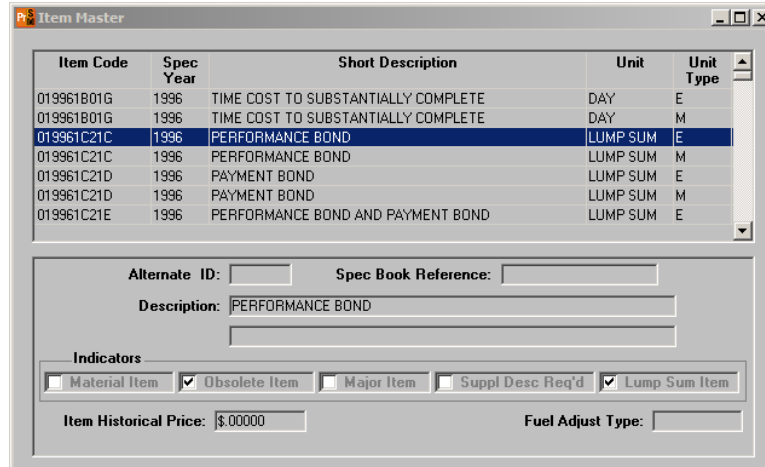
Figure 4-9. The Item Master Window

Field Name	Description
Item Code	Transportation agency-defined code that identifies an Item.
Spec Year	The year of the specification book in which the item appears.
Unit	The unit of measure for this item.
Unit Type	Indicates that the measurement system used is English (E) or Metric (M).
Short Description	Short text description of the item.
Alternate ID	Alternate ID of an item.
Spec Book Reference	Identifies an item-specific section or paragraph from the transportation agency's spec book.
Description	Text description of an item. Two lines are provided.

Field Name	Description
Material Item Indicator	Indicates that materials are associated with the item.
Obsolete Item Indicator	Indicates that this item is obsolete and no longer used.
Major Item Indicator	Indicates that an item is important enough to be printed on the notice to iontractors, regardless of the dollar amount allocated to it.
Require Supplemental Description Indicator	When checked, indicates that a supplemental description must be entered for an item being added to a project.
Lump Sum Item Indicator	Indicates that the selected item is a Lump Sum item.
Fuel Adjust Type	Fuel price adjustment type to use for this item.
Item Historical Price	Historical price of an item.

Table 4-9. Item Master Window Fields Table

To view reference table item data:

1. On the **Reference Tables (CA)** panel, double-click the **Item Master** icon.

2. In the **Item** list box, scroll to and click the item or perform a **Find**. The window displays data for the selected item.

4.1.8 Vendors

The Vendors window lets you add, modify, and delete vendors and related data in the reference table. The vendors are the material suppliers, contractors, financial institutions, insurance companies, consultants, and others who provide goods and services to the transportation agency. Typically, an interface load process adds the vendors from the pre-construction system to SiteManager. You cannot modify or delete Vendor data loaded from the pre-construction system. You can add Vendor data to a contract by selecting it on the appropriate window (e.g., the Contract Prime Contractor folder tab). The Vendors window contains the following folder tabs:

Tab Name	Description
Description	The Description folder tab displays the vendor description. The vendor addresses and remarks can be accessed from this folder tab.
Work Classes	The Work Classes folder tab displays the vendor's work classes and the qualification amount for each type.
Affiliates	The Affiliates folder tab displays the vendor's affiliates (i.e., the other vendors affiliated with this vendor) and their relationship. The affiliate addresses can also be accessed from this folder tab.
Personnel	The Personnel folder tab displays the vendor's personnel. The vendor personnel addresses can also be accessed from this folder tab. If the vendor is a prime contractor, the personnel entered here can be selected as prime contacts for specific contracts on the Contract Prime Contractor folder tab.
Prime Contacts	The Prime Contacts folder tab displays the vendor's personnel who have been selected as the prime contacts for specific contracts.
Associates	The Associates folder tab displays the vendor's associates (i.e., the other vendors associated with this vendor) and the role of the associate. If the vendor is a prime contractor, the vendor's insurance company and surety company must be entered here before they can be selected for specific contracts on the prime contractor folder tab.
Security Accounts	The Security Accounts folder tab has a security accounts section and a security transaction section. The security accounts section displays the vendor's security accounts; the security transaction section displays a history of transactions made against the selected account at the financial institution.
Securities Usage	On the Securities Usage folder tab, you can associate the vendor's security accounts to specific contracts for use in lieu of retainage. After a contract is selected, the current retainage percentage and other contract amounts are calculated by the system and displayed on this folder tab.

Table 4-10. Vendor Window Folder Tabs Table

Vendor Description

The Vendor Description folder tab lets you add and modify the vendor descriptions and addresses. You can view but not modify vendor data loaded from the pre-construction system. The vendor remarks can also be accessed from this folder tab. The Ethnic Group and Gender fields are displayed only if you are authorized to see this data. The ethnic group and gender data is required for federal reports when the vendor is a DBE.
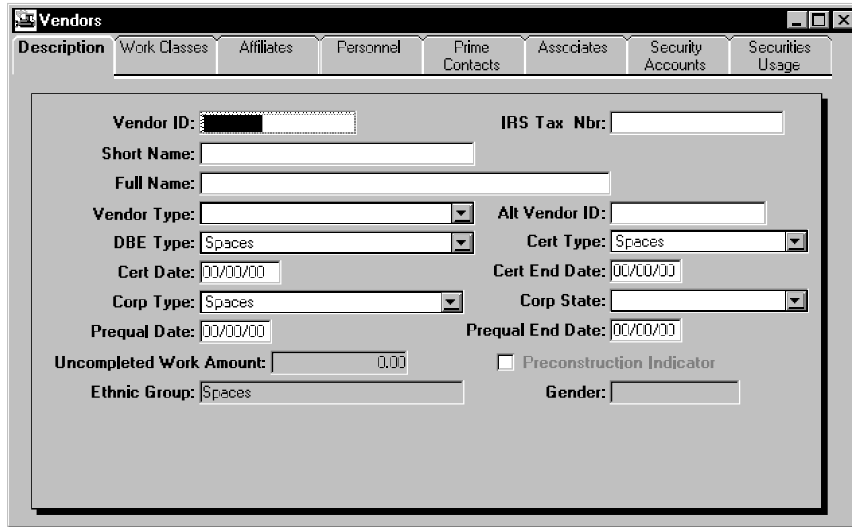
Figure 4-10. Vendor Description Folder Tab

Field Name	Description
Vendor ID	Transportation agency-defined ID for the vendor. Usually the company's Federal Tax ID.
IRS Tax Nbr	Federal Employer tax ID number.
Short Name	Short name for the vendor.
Full Name	Full name of the vendor.
Vendor Type	Identifies which type of company the vendor is (e.g., Prime, Subcontractor, Sub-Subcontractor). This is a required field.
DBE Type	Transportation-agency defined code to indicate that the vendor has certification as a Disadvantaged Business Enterprise (DBE). Examples are DBE, MBE, and WBE. 'Not a DBE' is also a valid DBE Type.

Field Name	Description
Corp Type	Identifies the vendor's company type (e.g., private corporation, public corporation, partnership).
Corp State	Identifies the vendor's state or province of incorporation.
Cert Type	Code indicating whether the DBE is certified by the federal government, state/provincial government, or both. If the vendor is a DBE, this field is required.
Cert Date	For DBEs, the DBE certification date. If the vendor is a DBE, this field is required.
Cert End Date	The date on which the vendor's DBE certification expires.
Prequal Date	For transportation agencies that pre-qualify contractors, the date on which the vendor was pre-qualified.
Prequal End Date	The date on which the vendor's pre-qualification expires.
Uncompleted Work Amount	Displays the uncompleted work amount for this vendor. The uncompleted work amount is the sum of the vendor's current prime contractor and subcontract amounts minus the vendor's installed-to-date amounts.
Preconstruction Ind	Indicates whether or not the data is from a pre-construction system.
Ethnic Group	Transportation agency-defined code identifying the vendor's certified ethnic background (e.g., Black American, Hispanic American, Native American). The Ethnic Group field is only displayed if you is authorized to see this data.
Gender	Indicates the vendor's certified gender (i.e., Male or Female). The Gender field is only displayed if the user is authorized to see this data.

Table 4-11. Vendor Description Folder Tab Fields Table

To view a vendor description:

1. On the **Reference Tables (CA)** panel, double-click the **Vendors** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. To access the vendor's address, click the **Services** menu and click the **Address** choice.

6. In the **Address Type** list box, scroll to and click the address type. If the address type has multiple addresses, use the **Prior** and **Next** toolbar buttons to access all addresses.

7. To add a new vendor:

8. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

9. Click the **New** button.

10. In the **Vendor ID** field, type the vendor's ID.

11. Press the **Tab** key.

12. In the **IRS Tax Nbr** field, type the IRS tax number.

13. Press the **Tab** key.

14. In the **Short Name** field, type the short name of the vendor.

15. Press the **Tab** key.

16. In the **Full Name** field, type the full name of the vendor.

17. In the **Vendor Type** drop-down list, click the expand arrow and click the vendor type.

18. If the vendor is a DBE, in the **DBE Type** drop-down list, click the expand arrow and click the DBE type.

19. If the vendor is a DBE, in the **Cert Type** drop-down list, click the expand arrow and click the certification type.

20. Press the **Tab** key.

21. If the vendor is a DBE, in the **Cert Date** field, type the DBE certification date.

22. Press the **Tab** key.

23. If the vendor is a DBE, in the **Cert End Date** field, type the DBE certification expiration date.

24. In the **Corp Type** drop-down list, click the expand arrow and click the vendor's corporation type.

25. In the **Corp State** drop-down list, click the expand arrow and click the vendor's state or province of incorporation.

26. Press the **Tab** key.

27. In the **Prequal Date** field, type the date on which the vendor was pre-qualified.

28. Press the **Tab** key.

29. In the **Prequal End Date** field, type the date on which the vendor's pre-qualified status expires.

30. In the **Ethnic Group** drop-down list, click the expand arrow and click the vendor's ethnic group.

31. In the **Gender** drop-down list, click the expand arrow and click the vendor's gender.

32. To enter the vendor's address, click the **Services** menu and click the **Address** choice.

33. In the **Address Type** list box, scroll to and click the address type.

34. Type the Line 1 address information. If necessary, tab to and type Line 2 and Line 3 address information.

35. Press the **Tab** key.

36. In the **City** field, type the vendor's city location.

37. In the **State/Prov** drop-down list, click the expand arrow and click the vendor's state or province.

38. Press the **Tab** key.

39. In the **Zip/Postal** field, type the vendor's zip code or other postal code.

40. In the **Country** drop-down list, click the expand arrow and click the vendor's country location.

41. Press the **Tab** key.

42. Type the vendor's primary phone number. If necessary, tab to the **ext** field and type the phone number extension.

43. Press the **Tab** key.

44. In the **FAX** field, type the Vendor's FAX number.

45. To add another address of the same type, click the **New** button and repeat steps 27 through 37.

    Or

46. To add another address type, repeat steps 26 through 37.

47. To close the **Address** box, click the **Description** folder tab.

48. To save the new vendor description, click the **Save** button.

To be selected as a prime contractor, a vendor must have a payment address.

Address Function

In SiteManager, you can enter many types of addresses depending on the functional area. For example, a vendor can have shipping address, billing address, a field address, etc. A common interface has been developed to provide the same address functionality across the system.

The Address functionality has been implemented in two ways:

1. Access to the address through Address option under Services menu or an Address button on the main toolbar. Clicking the Address button or selecting Services/Address causes a pop-up address window to appear.

2. The address information appears directly on the currently-selected window. This occurs when the window has enough space to accommodate the address. The Address window in Administrative Offices is an example of this type.

If a window does not allow address entry through the pop-up window, the Services/Address menu option and the Address button will not be available. In some cases, the Address button may appear in the toolbar, but it does not function. It beeps. The Services/Address menu option will appear dimmed and will not function when address entry is not allowed.

When the address pops up, initially it displays the address for the first address type if the address already exists. **Payment Address** is the default address type. If the vendor, trainee, etc. has multiple address types, a list of available address types and an icon adjacent to each type indicating an address exists for that type is displayed. If a new address is to be entered, the address entry area is empty and you must click the new button.

The Address Pop-up

The Address pop-up window is divided in two parts. The first part, Types, displays a list of available address types. If a check mark ✅ appears next to the address type, an address for that type has been entered. Whenever you select a type by clicking it, the corresponding address appears in the Address part of the window and the cursor is placed there. Each address type can have multiple addresses. For example, a vendor could have many Field Trailer type addresses. You can see that multiple addresses are listed because the Address part of the window shows how many pages

(addresses) are listed (i.e., 1 of 4). When the address pop-up appears, up and down arrows are present on the toolbar. The arrows are used to move through the list of addresses for a type.

Create an Address one time - Associate it thereafter

A new address is created one time only. Thereafter, the address is **associated** with the window by selecting it from the appropriate picklist. For example, a new vendor is created in the Contract Admin. Reference tables, Vendor window. In the contracts, Prime Contractor tab, the **Current Prime**, **Prime Contracts**, and **Prime Associates** fields are completed by searching, selecting and associating the address to the field. The addresses for these fields are created in the Vendor window tabs, not in the contracts window tabs.

An address is maintained, modified, or deleted in the window where the address was created. An address may not be deleted if it is associated to any contract. Clicking the Delete button deletes the address for the selected address type. The association of the address takes place in any window where the address capability exists. As in the preceding example, the address is created, maintained or deleted in the Vendor tabs, but is associated in the Contracts, Prime Contractor tab.

If an address pop-up window appears with the address fields dimmed, the address originated in a pre-construction contract and cannot be modified or deleted.

An address may be maintained without ever being associated. For example, the address and telephone numbers for an EEO officer may never be associated.

A new, modified or deleted address is saved on window where the address was opened. The address is automatically saved when the origination window is saved. Save is performed on the window, not on the address object.

The Address function is available or displayed in the following components of SiteManager:

- Contract Administration, Reference Tables, Vendors icon folder tabs:

- Description -   Create, modify or delete

- Personnel -   Create, modify or delete

- Affiliates -   Display only

- Associates -   Display only

    o Affiliates and associates are vendors. Select the Vendors ID to add, modify or delete an address for them.

- Prime Contact - Display only - associated in the Prime Contact tab

- **Civil Rights, Contract Compliance, Trainees icon**

- Materials Management, Approved Lists icon

- Inspectors

- Welders

- Producer/Supplier

- Qualified Labs

- Testing Personnel

The address function works consistently across the system. Although the following figures and procedures relate specifically to Vendors, the methodology applies across the system.
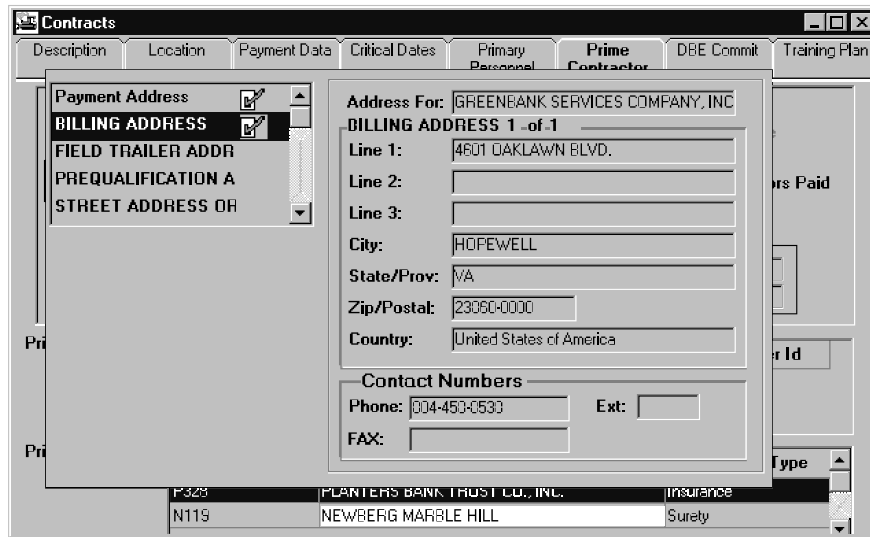
Figure 4-11. Address Pop-Up Window

Field Name	Description
Types	This is a list of available address types. You can select only one type at a time.
Address	This is the actual address for the selected type. One field of Line 1, 2, or 3 is a required field. City, State or Province and Zip/Postal are required fields. Messages will appear to complete required fields on the Address pop-up when you save the window.

Table 4-12. Vendor Description Folder Tab Fields Table

To create an address for a new vendor:

1. On the main panel, double-click the **Contract Administratio**n icon.

2. On the Contract Administration icon, double-click the **Reference Tables** icon.

3. On the Reference Tables panel, double-click the **Vendors** icon**.**

4. Select the **Description** folder tab.

5. Click the **New** button.

6. In the **Address Type** list box, scroll to and click the address type.

7. Type the Line 1 address information. If necessary, tab to and type Line 2 and Line 3 address information.

8. Press the **Tab** key.

9. In the **City** field, type the vendor's city location.

10. In the **State/Prov** drop-down list, click the expand arrow and click the vendor's state or province.

11. Press the **Tab** key.

12. In the **Zip/Postal** field, type the vendor's zip code or other postal code.

13. In the **Country** drop-down list, click the expand arrow and click the vendor's country location.

14. Press the **Tab** key.

15. Type the vendor's primary phone number. If necessary, tab to the **ext** field and type the phone number extension.

16. Press the **Tab** key.

17. In the **FAX** field, type the vendor's FAX number.

18. To add another address of the same type, click the **New** button and repeat Steps 6 through 17.

    Or,

19. To add another address type, repeat Steps 6 through 17.

20. To close the **Address** box, click the **Address button** or just outside the **Address** pop-up.

21. To save the new vendor description and address, click the **Save** button.

Figure 4-12. Vendor Window and Folder Tabs

Addresses for vendors and personnel are created using the procedures for creating a new address in the Description tab. Affiliates, Prime Contacts, and Associates folder tabs are display only.

The same procedures apply in Trainees and Materials Approved Lists.

To modify an address:

1. Navigate to the window where the address was created.

2. Click the **Open** button and select a vendor from the picklist.

3. Click **OK**.

4. Click the **Address** button or the Services/Address choice.

5. Select the desired **Address type.**

6. Type the new information.

7. Click the **Address** button or click outside the pop-up to close it.

8. **Save** the window.

9. The same procedures apply in Trainees and Materials Approved Lists.

10. To delete an address not associated to a contract

11. Navigate to the window where the address was created.

12. Click the **Open** button and select a vendor.

13. Click OK.

14. Click the **Address** button or the Services/Address choice.

15. Select the desired address type (use the up and down arrows on the toolbar to move through multiple addresses for a type.)

16. Click the **Delete** button.

17. Click the **Address** button or click just outside the pop-up to close it.

18. **Save** the window.

19. The same procedures apply in Trainees and Materials Approved Lists.

20. To associate an address with a contract:

21. On the main panel, double-click the **Contract Administratio**n icon.

22. On the Contract Administration icon, double-click the **Contract Records** icon**.**

23. On the Contract Records panel, double-click the **Contract** icon.

24. On the Contracts window, select the **Description** folder tab.

25. On the Description folder tab, click the **Open** button and select the desired contract.

26. Double-click the highlighted contract or click **OK**.

27. Select the Prime Contractor folder tab.

28. Click on the **Prime Contractor** field to focus.

29. Associate a new vendor's address by clicking the **New** button and selecting a vendor from the picklist,

30. Or

31. Change the existing vendor by clicking the **Open button** and selecting a different vendor from the picklist.

32. Click **OK** on the Vendor picklist.

33. On the Prime Contractor folder tab, click the **Services** menu and choose the **Select Address** choice.

34. Click the **Address** button or click just outside the pop-up to close it.

35. **Save** the window.

The same procedures apply in Trainees and Materials Approved Lists.

If an incorrect address is associated to a contract, the address is *replaced* with the correct address. The incorrect address is not deleted, but is replaced using the procedures for associating an address with a contract. SiteManager recognizes the most current association.

Vendor Work Classes

The Vendor Work Classes folder tab lets you add, modify, and delete the work class type and qualification amount for the selected vendor. If the vendor was loaded from the pre-construction system, you can view but not modify the data on this folder tab.
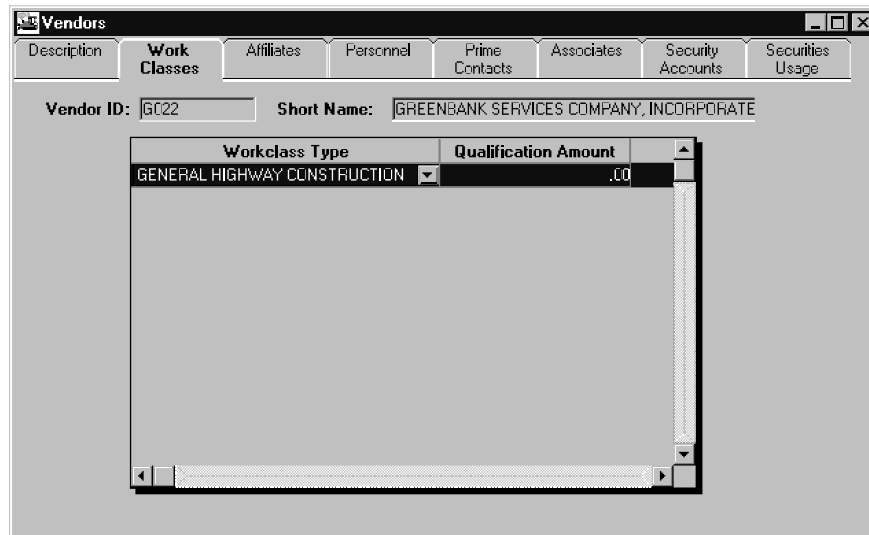
Figure 4-13. Vendor Work Classes Folder Tab

Field Name	Description
Workclass Type	Code that identifies the major type of work class for a vendor (e.g., Roadway Construction, Bridge Construction, Utilities).
Qualification Amt	Amount specified for the major type of work for which the vendor is qualified.

Table 4-13. Vendor Work Class Folder Tab Fields Table

To add a vendor work class to the reference table:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Work Class** folder tab.

6. Click the **New** button.

7. In the **Work Class Type** drop-down list, click the expand arrow and click the vendor's work class type.

8. Press the **Tab** key.

9. In the **Qualification Amt** field, type the vendor's qualification amount.

10. Click the **Save** button.

If the vendor is from a pre-construction system, both the Work Class Type and the Qualification Amount fields are protected, and no work classes can be added.

Vendor Affiliates

The Vendor Affiliates folder tab lets you add, modify, and delete the affiliates for a selected vendor. The affiliates are also vendors and must be entered in SiteManager as vendors before they can be selected as affiliates. On the Vendor Affiliates folder tab, you specify the affiliate's relationship to the vendor. For example, a 'joint venture' contract must have a prime contractor with a 'joint' affiliate. If the vendor was loaded from the pre-construction system, you can view but not modify the data on this folder tab.
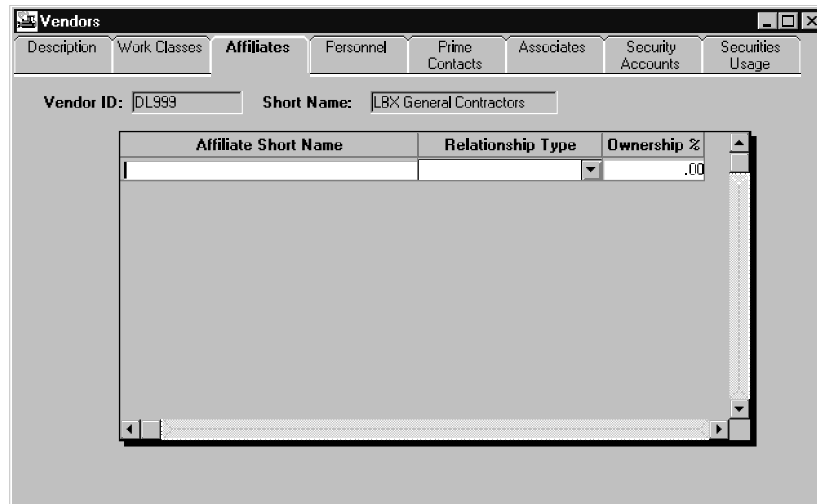
Figure 4-14. Vendor Affiliates Folder Tab

Field Name	Description
Affiliate Short Name	Abbreviated name of the vendor. You can search this field. This field is required.
Relationship Type	Type of affiliate (e.g., parent, joint, partner). This field is required.
Ownership %	The vendor's percentage of ownership of the

Field Name	Description
	affiliate. This field is required.

Table 4-14. Vendor Affiliates Folder Tab Fields Table

To add a new vendor affiliate to the reference table:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Affiliates** folder tab.

6. Click the **New** button.

7. In the **Affiliate Short Name** field, type the short name of the vendor's affiliate or perform a **Search**.

8. In the **Relationship Type** drop-down list, click the expand arrow and click the relationship of the affiliate to the vendor.

9. Press the **Tab** key.

10. In the **Ownership %** field, type the vendor's percentage of ownership of the affiliate.

11. Click the **Save** button.

If the vendor is from a pre-construction system, all the fields are protected and no affiliates can be added.

Vendor Personnel

The Vendor Personnel folder tab lets you add and modify personnel records for the selected vendor. You can also add and modify vendor addresses. This folder tab is primarily used to enter the contact person and DBE-related personnel for the vendor, especially vendors who are prime contractors. The folder tab displays the vendor personnel list and data for the person selected on the list. The Social Security Number (SSN) or Social Insurance Number (SIN), Ethnic Group, and Gender fields are displayed only if you are authorized to see this data.

Figure 4-15. Vendor Personnel Folder Tab

Field Name	Description
User ID	Transportation agency-defined ID for the user. You can search this field.
Personnel Name	The name of a person employed by the vendor. When a valid User ID is entered, this field defaults to the name associated with the User ID and cannot be modified. The name must be unique for the vendor. This is a required field.
Officer Title	Transportation agency-defined code that identifies the title of the vendor's employee (e.g., Owner).
SSN/SIN	Social Security Number or Social Insurance Number of the vendor's employee. This field is displayed only if you are authorized to see this data.
Ethnic Group	Transportation agency-defined code identifying an ethnic background (e.g., Black American, Hispanic American, Native American). This field is required when the vendor is a DBE (i.e., a DBE Type is entered on the Vendor Description folder tab). The Ethnic Group field is displayed only if the user is authorized to see this data.
Gender	Indicates the gender of the person employed by the vendor (i.e., Male or Female). This field is required when the vendor is a DBE (i.e., a DBE Type is entered on the Vendor Description folder tab). The Gender field is

Field Name	Description
	displayed only if the user is authorized to see this data.

Table 4-15.   Vendor Personnel Folder Tab Fields Table

To add vendor personnel to the reference table:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Personnel** folder tab.

6. Click the **Person Name** field and type the person's name.

7. In the **Officer Title** drop-down list, click the expand arrow and click the title.

8. Press the **Tab** key.

9. In the **SSN** field, type the person's social security number.

10. In the **Ethnic Group** drop-down list, click the expand arrow and click the ethnic group.

11. To select a **Gender**, click the 'M' or 'F' radio button.

12. To enter the vendor's address, click the **Services** menu and click the **Address** choice.

13. In the **Address Type** list box, scroll to and click the address type. If an address is displayed, click the **New** button to add another address of the same type.

14. Type the Line 1 address information. If necessary, tab to and type Line 2 and Line 3 address information.

15. Press the **Tab** key.

16. In the **City** field, type the person's city location.

17. In the **State/Prov** drop-down list, click the expand arrow and click the person's state or province

18. Press the **Tab** key.

19. In the **Zip/Postal** field, type the person's zip code or other postal code.

20. In the **Country** drop-down list, click the expand arrow and click the person's country location.

21. Press the **Tab** key.

22. In the **Phone** field, type the person's primary phone number. If necessary, tab to the **ext** field and type the phone number extension.

23. Press the **Tab** key.

24. In the **FAX** field, type the person's FAX number.

25. To close the **Address** box, click the **Personnel** folder tab.

26. To save the new personnel description, click the **Save** button.

To be selected as a contact person for a vendor who is a prime contractor, the person must have a title and an address entered.

To delete vendor personnel from the reference table:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the Vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Personnel** folder tab.

6. In the **Personnel** list box, scroll to and click the person.

7. Click the **Delete** button.

8. Click **OK**.

Vendor Prime Contacts

The Vendor Prime Contacts folder tab lets the user view the vendor's personnel who have been selected as prime contacts. A prime contact is a prime contractor's contact person for a specific contract. The Prime Contacts folder tab displays the name and contact type of the person and the Contract ID for which the person is a contact. The user cannot add, modify, or delete a prime contact on this folder tab. To add a prime contact, the user must first enter the name as personnel on the Vendor Personnel folder tab. Then the user can select the name as a prime contact for a specific contract. This is done on the Contract Prime Contractor folder tab.
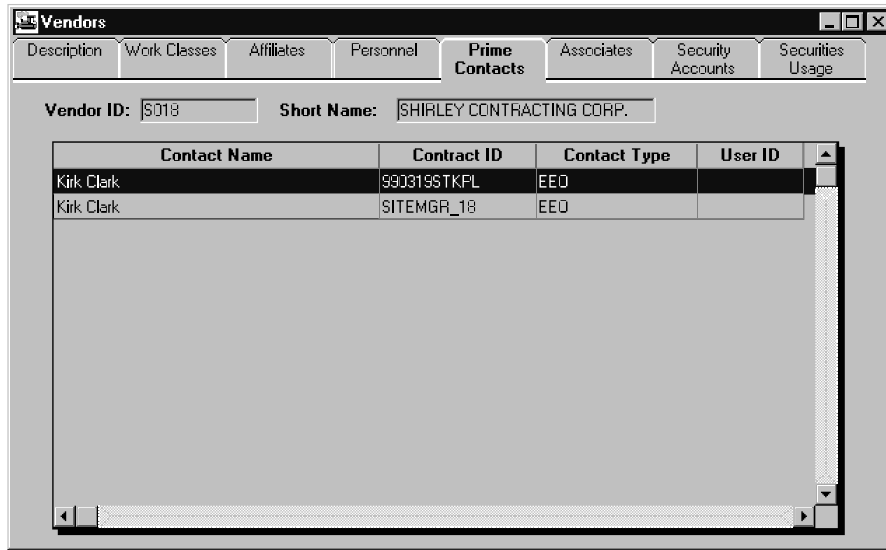
Figure 4-16. Vendor Prime Contacts Folder Tab

Field Name	Description
Contact Name	Name of the person who is a contact for this vendor.
Contact Type	Title of the person who is a contact for this vendor (e.g., EEO).
Contract ID	Transportation agency-defined ID of the contract for which this person is a contact.
User ID	Transportation agency-defined ID of the user who is a contact for this vendor.

Table 4-16. Vendor Prime Contact Folder Tab Fields Table

To view a vendor's prime contacts:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Prime Contacts** folder tab.

If prime contacts have been recorded for the selected vendor, the window displays the prime contact data.

The user cannot add, modify, or delete a prime contact on this folder tab.

Vendor Associates

The Vendor Associates folder tab lets the user add, modify, and delete the associates in the reference table. The associates are also vendors and must be entered in SiteManager as vendors before they can be selected as associates. On the Vendor Associates folder tab, select the type of association the associate has with the vendor.

To be selected as a prime contractor, a vendor must have at least two associates—an insurance company and a surety company.
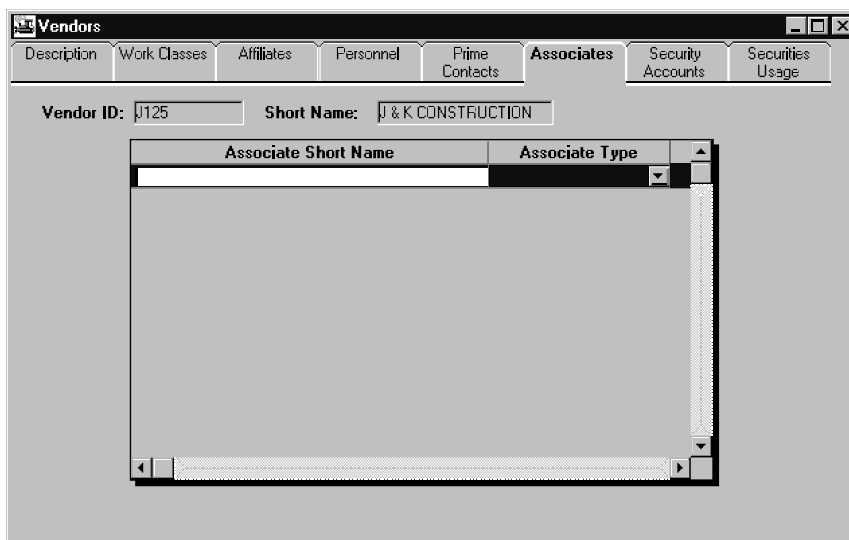
Figure 4-17. Vendor Associates Folder Tab

Field Name	Description
Associate Short Name	Short name for an associate of the vendor. The user can search this field. This field is required.
Associate Type	Type of Vendor Associate (e.g., Surety, Escrow). This field is required.

Table 4-17. Vendor Associates Folder Tab Fields Table

To add a vendor associate to the reference table:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Associates** folder tab.

6. Click the **New** button.

7. Click the **Associate Short Name** field and type the name of the associate or perform a **Search**.

8. In the **Associate Type** drop-down list, click the expand arrow and click the type of associate.

9. To save the new associate description, click the **Save** button.

10. To delete a vendor associate from the reference table:

11. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

12. Click the **Open** button.

13. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

14. Click the **OK** button. The Description folder tab displays data for the selected vendor.

15. On the **Vendors** window, click the **Associates** folder tab.

16. In the **Associate Short Name** list box, scroll to and click the vendor.

17. Click the **Delete** button.

18. Click **OK**.

Vendor Security Accounts

The Vendor Security Accounts folder tab lets the user add, modify, and delete the vendor's security accounts and account transactions. The folder tab has a security account list at the top and a transaction section at the bottom. The transaction section lists the transactions made against the selected account at the financial institution. The transactions are the amounts deposited and withdrawn, which are recorded as credits and debits to the account.

The usage of the securities on contracts is shown on the Securities Usage folder tab.
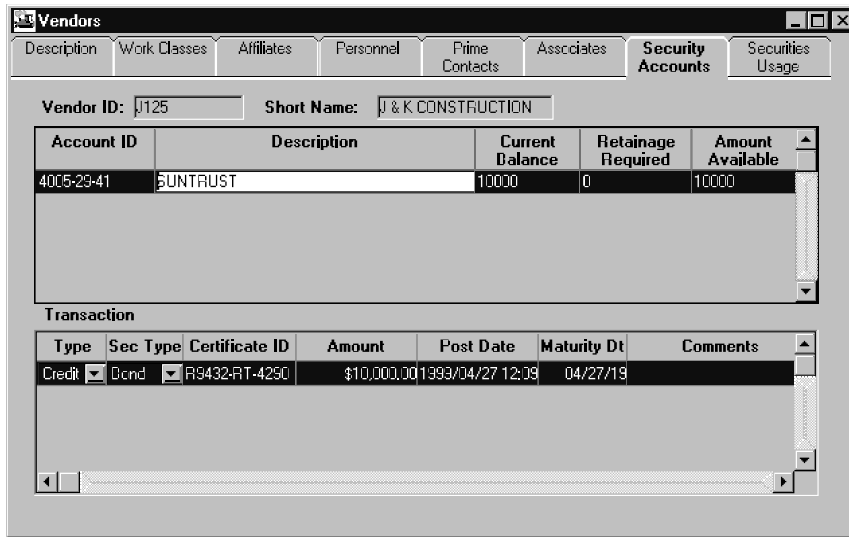
Figure 4-18. Vendor Security Accounts Folder Tab

Field Name	Description
Account ID	Transportation agency-defined ID for a security account for the vendor.
Description	Description of a security account for the vendor.
Current Balance	Current value of a security account for the vendor. The current balance is the sum of all credits to the account minus the sum of all debits to the account. This value is calculated by the system. The system will not accept account transactions that make the current balance negative.
Retainage Required	The amount required to be encumbered for all the contracts associated to this account. The required amount is the sum of all estimate retainage amounts and securities used amounts for all contracts associated with this account. This value is calculated by the system.
Amount Available	Amount of the current balance that can be encumbered. The amount available is the difference between the current balance of the account and the total amount encumbered for all contracts associated to the account. This value is calculated by the system. The system will not accept account transactions that make the amount available negative.

Field Name	Description
Transaction Type	Type of transaction (D = Debit or C = Credit).
Transaction Sec Type	Type of security (e.g., Bond, Certificate of Deposit).
Transaction Certificate ID	Certificate of Deposit ID number.
Transaction Amount	Amount of the transaction. Only positive values are accepted in this field. (If the amount is a withdrawal, enter 'D' for debit as the Transaction Type.) A value that makes the account negative cannot be entered.
Transaction Post Date	System-generated date when the transaction is entered into the system.
Transaction Maturity Date	Date on which the security matures.
Transaction Comments	Description of the transaction.

Table 4-18. Security Account Folder Tab Fields Table

To add a security account:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Security Account** folder tab.

6. In the **Account ID** field, type the security account ID.

7. Press the **Tab** key.

8. In the **Description** field, type the name of the account.

9. Click the **Save** button.

The system updates the current balance of the account when the user records transactions. The system calculates the retainage required and the amount available when the user associates contracts with the account and securities are encumbered in lieu of retainage.

To delete a security account:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Security Account** folder tab.

6. In the **Account ID** list box, scroll to and click the account.

7. Click the **Delete** button.

8. Click **OK**.

If a security account is associated with a contract, the account cannot be deleted. When an account is deleted, the account transactions are also deleted.

To add a security transaction:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Security Account** folder tab.

6. In the **Account ID** list box, scroll to and click the account description.

7. Click the Transaction datawindow.

8. Click the **New** button.

9. In the **Type** drop-down list, click the expand arrow and click the transaction type ('D' for debit or 'C' for credit).

10. In the Sec Type list box, click the expand arrow and click the security type.

11. Press the **Tab** key.

12. In the **Certificate ID** field, type the ID number.

13. Press the **Tab** key.

14. In the **Amount** field, type the amount of the transaction.

15. Press the **Tab** key. The current date is displayed in the **Post Date** field.

16. In the **Maturity Date** field, type the date on which the security matures.

17. Press the **Tab** key.

18. In the **Comments** field, type additional information about the transaction.

19. Click the **Save** button. The current balance is updated.

The user cannot add or delete an account transaction that would cause the current balance or the amount available to become negative.

Vendor Securities Usage

The Vendor Securities Usage folder tab lets the user associate security accounts with contracts, and displays the securities used in lieu of retainage. A security account can be associated to one or more contracts, or not associated with any contract. The folder tab lists the accounts at the top and displays contract data at the bottom. In the Contracts section, the user can select contracts to associate with an account.

The security accounts are entered on the Security Accounts folder tab.
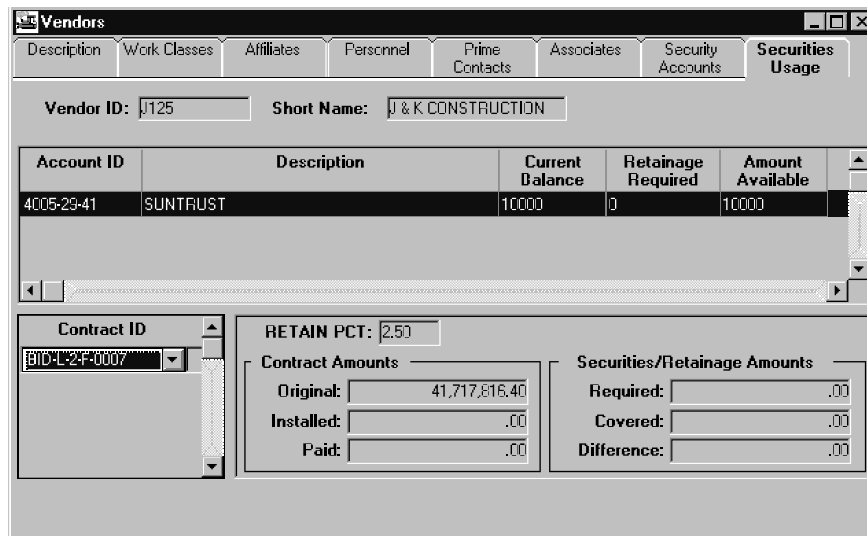
Figure 4-19. Vendor Securities Usage Folder Tab

Field Name	Description
Account ID	Transportation agency-defined ID for a security account for a vendor.
Description	Description of the security account.

Field Name	Description
Current Balance	Current value of the account. The current balance is the sum of all the credits to the account minus the sum of all debits to the account.
Retainage Required	The amount required to be encumbered for all the contracts associated to this account. The required amount is the sum of all estimates' retainage amounts and securities used amounts for all contracts associated with this account.
Amount Available	Amount available that can be encumbered. The amount available is the difference between the current balance of the account and the total amount encumbered from the amount for all the contracts associated to the account.
Contract ID	Transportation agency-defined ID for the contract.
Retain Pct	Percentage retainage for the contract.
Contract Original Amount	Displays the bid amount of the contract. The contract bid amount is the sum of the contract item amounts (item quantity * item price).
Contract Installed Amount	Displays the total installed amount for the contract. The installed amount is the sum of the installed-to-date amounts from the Daily Work Reports (quantity * item price).
Contract Paid Amount	Displays the total paid amount for the contract. The contract paid amount is the sum of the estimate net pay totals.
Covered Amount	Displays the total amount covered by the securities for this contract. The covered amount is the sum of all estimates' securities used amounts.
Required Amount	Displays the required retainage withholding from this account for this contract. The required amount is the sum of all estimates' retainage amounts and securities used amounts.
Difference Amount	Displays the difference between the covered amount and the required amount.

Table 4-19. Vendor Securities Usage Folder Tab Fields Table

To associate a contract to a security account:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected Vendor.

5. On the **Vendors** window, click the **Securities Usage** folder tab.

6. In the **Account ID** list box, scroll to and click the account description.

7. Click the **New** button.

8. In the **Contract ID** drop-down list, click the expand arrow and click the contract.

9. Click the **Save** button.

The drop-down list displays the contract IDs for which the vendor is the prime contractor. After a contract ID is selected, the window displays data for the selected contract.

To disassociate a contract from a security account:

1. On the **Reference Tables (CA)** panel, double-click the **Vendor** icon.

2. Click the **Open** button.

3. On the **Vendor Pick List** window, scroll to and click the vendor or perform a **Find**.

4. Click the **OK** button. The Description folder tab displays data for the selected vendor.

5. On the **Vendors** window, click the **Securities Usage** folder tab.

6. In the **Account ID** list box, scroll to and click the account description.

7. In the **Contract ID** drop-down list, click the expand arrow and click the contract ID.

8. Click the **Delete** button.

9. Click **OK**.

4.1.9 Administrative Offices

The Administrative Office window lets the user add, modify, and delete the offices in the reference table. Every state or province must have at least three levels of administrative offices—the transportation agency headquarters and two lower levels. No state or province can have fewer than three or more than four levels. States or provinces with three levels will display three office datawindows. States or provinces with four levels will display four office datawindows. The office

level field labels are stored in a system operational parameter table. Since the transportation agency defines the labels, this manual does not specify the actual labels that appear on the window.

The office datawindows display top to bottom on the left side of the window. The selected (highlighted or focused) office's address will display on the window's right side. Upon entry into this window, the first row in the level two office datawindow will be highlighted, and the address information pertaining to that office will appear on the datawindow on the right side.

To view the information for a different Level 2 office or a specific Level 3 or 4 office, the user must select the desired row in the proper office datawindow.   Third-level offices are subordinate to the highlighted second-level office. Fourth-level offices are subordinate to the third-level offices.

The current selected office is listed at the top of the datawindow on the right side (above the address information).
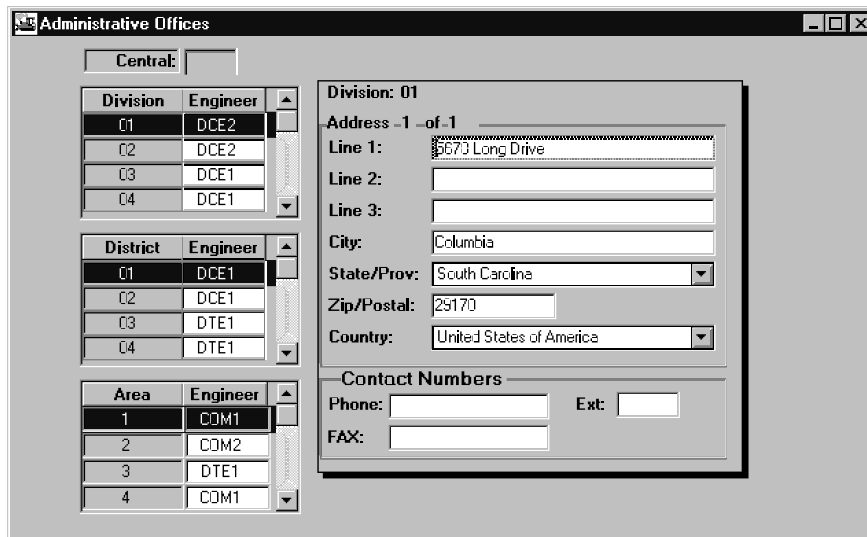
Figure 4-20. Administrative Offices Window

Field Name	Description
Level 1 Office **(user-defined label)**	The name of the Level 1 office. The Level 1 office is the transportation agency headquarters (i.e., the Central Office or Department of Transportation).
Level 2 Office **(user-defined label)**	The office number or transportation agency-defined ID of the Level 2 office. The Level 2 office can have any user-defined label, such as District, Division, Region, or Section.
Level 2 Office Engineer	User ID of the Level 2 office's chief engineer. You can search this field. The title of engineer is unrelated to the

Field Name	Description
	transportation agency's actual title used.
Level 3 Office (user-defined label)	The office number or transportation agency-defined ID of the Level 3 office. The Level 3 office can have any user-defined label, such as District, Division, Region, or Section.
Level 3 Office Engineer	User ID of the Level 3 office's chief engineer. You can search this field. The title of engineer is unrelated to the transportation agency's actual title used.
Level 4 Office (user-defined label)	The office number or transportation agency-defined ID of the Level 4 office. The Level 4 office can have any user-defined label, such as District, Division, Region, or Section. If a state a province has only three office levels this list and its columns will not display.
Level 4 Office Engineer	User ID of the Level 4 office's chief engineer. You can search this field. The title of engineer is unrelated to the transportation agency's actual title used.
Address Line 1	First address line that identifies the office location.
Address Line 2	Second address line that identifies the office location.
Address Line 3	Third address line that identifies the office location.
City	City location of the office.
Zip/Postal	Postal code for the office.
State/Prov	Two-character abbreviation for the state/province.
Country	Four-character code identifying the country.
Phone	Primary telephone number for the office.
Ext	Extension number of the primary telephone number for the office.
FAX	Primary fax number for the office.

Table 4-20. Administrative Office Window Fields Table

To add the Level 1 office:

1. On the **Reference Tables (CA)** panel, double-click the **Administrative Offices** icon.

2. Click the **Level 1 office** field. (The Level 1 office is displayed in the top left corner. The window will not have a label that says 'Level 1.' The office level labels are user-defined.)

3. Click the **New** button.

4. Type the ID of the Level 1 office.

5. Press the **Tab** key.

6. In the **Line 1** field, type the first line of the office address.

7. If necessary, tab to **Line 2** and **Line 3** and type additional address lines.

8. Press the **Tab** key.

9. In the **City** field, type the city name.

10. In the **State/Prov** drop-down list, click the expand arrow to the right of the current selection and click the state or province.

11. Press the **Tab** key.

12. In the **Zip/Postal** field, type the ZIP code or other postal number.

13. In the **Country** drop-down list, click the expand arrow to the right of the current selection and click the country.

14. Press the **Tab** key.

15. In the **Phone** field, type the office's primary phone number.

16. Press the **Tab** key.

17. In the **Ext** field, type the phone number extension.

18. In the **FAX** field, type the office's primary fax number.

19. To save the office description, click the **Save** button.

20. To add a new Level 2 office:

21. On the **Reference Tables (CA)** panel, double-click the **Administrative Offices** icon.

22. Click the **Level 2 office** datawindow. (The Level 2 office IDs are displayed directly under the Level 1 office ID. The window will not have a label that says 'Level 2.' The office level names are user-defined.)

23. Click the **New** button. A new row is added to the end of the list.

24. Type the office ID of the new office.

25. Press the **Tab** key.

26. In the **Engineer User ID** field, type the User ID of the office's Chief Engineer or perform a Search.

27. Press the **Tab** key.

28. In the **Line 1** field, type the first line of the office address.

29. If necessary, tab to **Line 2** and **Line 3** and type additional address lines.

30. Press the **Tab** key.

31. In the **City** field, type the city name.

32. In the **State/Prov** drop-down list, click the expand arrow to the right of the current selection and click the state or province.

33. Press the **Tab** key.

34. In the **Zip/Postal** field, type the ZIP code or other postal number.

35. In the **Country** drop-down list, click the expand arrow to the right of the current selection and click the country.

36. Press the **Tab** key.

37. In the **Phone** field, type the office's primary phone number.

38. Press the **Tab** key.

39. In the **Ext** field, type the phone number extension.

40. In the **FAX** field, type the office's primary fax number.

41. To save the office description, click the **Save** button.

42. To delete a **Level 2** office:

43. On the **Reference Tables (CA)** panel, double-click the **Administrative Offices** icon.

44. In the **Level 2 office** datawindow, scroll to and click the office ID. (The Level 2 offices are displayed directly under the Level 1 office ID. The window will not have a label that says 'Level 2.' The office level names are user-defined.)

45. Click the **Delete** button.

For more information on making individual users available as engineers for administrative offices, please refer to the section on User Security.

4.2 System Operational Parameters for Contracts

The following are the default settings of the system operational parameters related to contract administration. The system operational parameters are defined by the transportation agency. For information on how your SiteManager installation varies from these defaults, contact your local support personnel.

Default	Description
Number of Office Levels	The number of administrative office levels, including the central office, for the state/province. The state must have a label identifying each level as division, section, region, district, area, etc. Every state/province must have at least two levels below central office. No state/province can have more than three levels below central office. The range is 3 to 4. The default is 3.
Level 1 Office Long	Label to identify the first level office. Examples are Division, Section, Region, District, Area. The default is Central.
Level 2 Office Long	Label to identify the second level office. Examples are Division, Section, Region, District, Area. The default is District.
Level 3 Office Long	Label to identify the third level office. Examples are Division, Section, Region, District, Area. The default is Residency.
Level 4 Office Long	Label to identify the fourth-level office. Examples are Division, Section, Region, District, Area. The default is Area.
Level 1 Office Short	Label to identify the first-level office. Examples are Division, Section, Region, District, Area. The default is Cent.
Level 2 Office Short	Label to identify the second-level office. Examples are Division, Section, Region, District, Area. Default is Dist.
Level 3 Office Short	Label to identify the third-level office. Examples are Division, Section, Region, District, Area. The default is Resi.

Default	Description
Level 4 Office Short	Label to identify the fourth-level office. Examples are Division, Section, Region, District, Area. The default is Area.
Level 2 Office Left	The beginning (leftmost) position of the state's/province's second level of administrative office in the five-character AASHTOWare Project™ office number format. The first level is central or department. The second level could be division, region, district, etc. The third level could be district, area, residency, etc. Valid values are 1 through 5. The default is 0.
Level 2 Office Right	The ending (rightmost) position of the state's/province's second level of administrative office in the five-character AASHTOWare Project office number format. The first level is central or department. The second level could be division, region, district, etc. The third level could be district, area, residency, etc. Valid values are 1 through 5. This position must be equal to or greater than the beginning (left-most) position. The default is 0.
Level 3 Office Left	The beginning (leftmost) position of the state's/province's third level of administrative office in the five-character AASHTOWare Project office number format. The first level is central or department. The second level could be division, region, district, etc. The third level could be district, area, residency, etc. Valid values are 1 through 5. The default is 0.
Level 3 Office Right	The ending (rightmost) position of the state's/province's third level of administrative office in the five-character AASHTOWare Project office number format. The first level is central or department. The second level could be division, region, district, etc. The third level could be district, area, residency, etc. Valid values are 1 through 5. This position must be equal to or greater than the beginning (left-most) position. The default is 0.

Default	Description
Level 4 Office Left	The beginning (leftmost) position of the state's/province's fourth level of administrative office in the five-character AASHTOWare Project office number format. The first level is central or department. The second level could be division, region, district, etc. The third level could be district, area, residency, etc. Valid values are 1 through 5. The default is 0.
Level 4 Office Right	The ending (rightmost) position of the state's/province's fourth level of administrative office in the five-character AASHTOWare Project office number format. The first level is central or department. The second level could be division, region, district, etc. The third level could be district, area, residency, etc. Valid values are 1 through 5. This position must be equal to or greater than the beginning (leftmost) position. The default is 0.
Maximum Allowed Subcontractor %	The default value for the maximum percentage of the total contract amount the prime contractor is allowed to subcontract (excluding specialty items).
Progress Schedule Variance	The default percentage difference between a contract's scheduled completion date and the actual completion date, which will generate a warning message when exceeded. The default percentage is 0. The user can override the default while setting up a contract.
Default Funding Source Code	The user-designated code that identifies the default contract funding source. The code appears in the Funding Source Code field on the Contract Funding window. The user can override the default while setting up a contract.

Table 4-21. System Operational Parameters Fields Table

4.3 Tab-Level Security for Contracts

SiteManager provides the system administrator with the ability to establish security level access for each Contract tab for each SiteManager user group.

For example, a user group that monitors on-the-job training commitments may require Update access to the Training Plan tab, whereas a different user group might be assigned No Rights to this information.

These security levels are set on the Group Security window. Each tab name will appear on the window, and access for each tab may be set to Update, Inquiry, or No Rights.

5. Contract Administration - New Contracts

5.1 Adding New Contracts

SiteManager gives the user the option of adding new contracts either by loading the data from a preconstruction system or by entering the data into SiteManager one field at a time. The agency specifies which method to use and should provide the user with instructions for any preconstruction system used in conjunction with SiteManager.

The procedures given here describe how to add contract data to the SiteManager database through SiteManager's windows and data entry fields. An authorized user can add a new contract using these data entry procedures. New contract from the preconstruction system may also need some data added or modified by an authorized user.

New contract are given pending status by default. While a contract is in pending status, an authorized user can modify the contract data and even delete the contract, if necessary. To begin tracking the construction work in SiteManager, an authorized user must change the contract's status to active. Whenever a contract's status is changed, the system notifies selected personnel.

To add a new contract, the user must have a Level 1 or Level 2 office assignment, Contract Record window update rights, and belong to a group with office-wide access. For more information, refer to the Security Administration topic.

5.1.1 From Preconstruction Systems

AASHTOWare Project™ (formerly AASHTO Trns•port®) is one of the preconstruction systems that can be used to add a new contract to the SiteManager system. In addition to AASHTOWare Project, there are several other preconstruction systems that can be used to add a new contract to the SiteManager system. For information on the preconstruction system that your agency uses, refer to the documentation provided by your local support personnel.

Contract data can be loaded into SiteManager using the Preconstruction Contract data load process (PRELOAD) or the Construction Contract data load process (CONLOAD). When contract data is loaded into SiteManager from a preconstruction system, the SiteManager system verifies that required data is present and acceptable. If a contract fails the verification process, SiteManager generates error messages and displays them on the Interface Load Messages window. Some SiteManager windows have a check box that indicates whether a preconstruction system was used to add the selected contract. After the contract status is changed to active, the data loaded from the preconstruction system cannot be modified.

5.1.2 Entry Directly Into SiteManager

An authorized user can add contract data to the SiteManager database through SiteManager's windows and data entry fields. For field definitions and detailed data entry procedures, the user can refer to the appropriate topic. The field definitions include information about data that is subject to

limitations or validation by the system. The agency should provide the user with any agency-defined procedures for entering new contract data.

5.1.3 General Procedure for Adding New Contracts

To add a new contract to the SiteManager system, without using a preconstruction system, an authorized user can follow the general procedure below. For field definitions and detailed data entry procedures, refer to the appropriate topic.

Step 1: Saving a New Contract

Enter the data required to save the contract as follows:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens and displays the **Description** folder tab.

2. Enter contract description data on this folder tab.

3. Click the **Location** folder tab. Enter location data on this folder tab.

4. Click the **Primary Personnel** folder tab. Enter the Project Manager and Project Engineer on this folder tab.

5. Click the **Prime Contractor** folder tab. Enter the Prime Contractor and associated data on this folder tab.

6. The following data must be entered before the contract can be saved:

   - Contract ID

   - Level 2 Office (the field label is user-defined)

   - Federal/State/Province Project Number

   - Funding Indicator

   - Time Charges

   - Bid Days (if time is charged as Calendar Days or Work Days)

   - Description

   - Contract Type

   - Work Type

   - Spec Year

   - Unit System (English or metric)

- Location

- Project Manager

- Project Engineer

- Prime Contractor

7. At this point, if data is entered in all required fields, click the **Save** button. After the contract is saved, proceed to Step 2.

Step 2: Adding Contract Data

To finish defining the contract:

1. Click the **Payment Data** folder tab. Enter contract payment data on this folder tab and save the data.

2. Click the **Critical Dates** folder tab. Enter contract critical date data on this folder tab and save the data.

   📄 **Note:** Contract activation is no longer tied to the Notice to Proceed date. The user can now activate a contract using the Contract Status field on the Description tab. All functions, *except for the Estimate functions*, are available to the user after the contract status is changed to Active. Estimate functions are not available to the user until the Notice To Proceed date is entered.

3. Click the **DBE Commit** folder tab. Enter DBE commitment data on this folder tab and save the data.

4. Click the **Training Plan** folder tab. Enter training plan data on this folder tab and save the data.

5. Close the Contracts window.

6. To add milestones, double-click the **Milestones** icon on the **Contract Records** panel. The Milestones window opens. Enter contract milestone data and save the data. Close the Milestones window.

7. To add project data, double-click the **Projects** icon on the **Contract Records** panel. The Projects window opens. Enter Contract Project data and save the data. Close the Projects window.

8. To group items under a funding category, double-click the **Categories** icon on the **Contract Records** panel. The Categories window opens. Enter category data and save the data. Close the Categories window.

9. On the **Contract Records** panel, double-click the **Items** icon. The Items window opens. Enter items data and save the data. Close the Items window.

10. On the **Contract Records** panel, double-click the **Contract Funding** icon. The Contract Funding window opens. Enter funding source data and save the data. Close the Contract Funding window.

11. On the **Contract Records** panel, double-click the **Contract Authority** icon. The Contract Authority window opens. Enter contract authority data and save the data. Close the Contract Authority window.

12. On the **Contract Records** panel, double-click the **Key Dates** icon. The Key Dates window opens. Enter key date data and save the data. Close the Key Dates window.

13. On the **Contract Records** panel, double-click the **Checklist Scheduled Events** icon. The Checklist Scheduled Events window opens. Enter checklist event data and save the data. Close the Checklist Scheduled Events window.

14. On the **Contract Records** panel, double-click the **Permits** icon. The Permits window opens. Enter permit data and save the data. Close the Permits window.

15. To enter invoice data for stockpiled materials, double-click the **Stockpiled Materials** icon on the **Contract Records** panel. The Stockpiled Materials window opens. Enter stockpiled materials data and save the data. Close the Stockpiled Materials window.

16. To record construction conferences, double-click the **Construction Conference** icon on the **Contractor Management** panel. The Construction Conference window opens. Enter construction conference data and save the data. Close the Construction Conference window.

17. To enter progress schedule data, on the **Contractor Management** panel, double-click the **Progress Schedule** icon. The Progress Schedule window opens. Enter progress schedule data and save the data. Close the Progress Schedule window.

18. To enter Subcontract data, on the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens. Enter subcontract data and save the data. Close the Subcontracts window.

Step 3: Activating a Contract

Contract work cannot be recorded in SiteManager until the contract status is changed from pending to active. After all required contract data is entered, an authorized user can change the status to active. The following data is required for activation:

▪ A wage decision selected on the Description folder tab.

▪ A primary county selected on the Location folder tab.

▪ A surety company and an insurance company entered as associates on the Prime Contractor folder tab. If the selected contractor has no associates, enter these companies first as associates of the contractor in the Vendor reference tables.

- Actual dates for all dates marked Required to Activate on the Key Dates and Checklist Event Dates windows.

- At least one project defined on the Projects window.

- At least one item defined on the Items window.

- Funding sources selected on the Contract Funding window to fully fund the contract.

- Actual dates for all dates marked Required to Activate on the Critical Dates folder tab.

The user must change the contract status to Active using the Contract Status field on the Description tab. All functions, *except for the Estimate functions*, are available to the user after the contract status is changed to Active. Estimate functions are not available to the user until the Notice To Proceed date is entered.

5.2 Contract Status Validation

SiteManager looks at the data entered for a contract to determine the contract's status. When the user saves a contract, the save process determines if the contract status has been changed. If it has, the system validates the status and performs related tasks as described below. The following contract states are possible:

- Pending

- Active

- Complete

- Archived

To change the contract's status from pending to active, the following criteria must be met:

- There must be an Execution Contract Critical Date with the Actual Date filled in.

- If the contract's price adjustment allowed indicator is Yes, the Price Adjustment Base Contract Critical Date must have an Actual Date.

- The Prime Contractor must have a surety and an insurance company.

- The contract must have entries in all of the following fields:

  Wage Decision

  Primary County

  Project Manager

Project Engineer

Prime Contractor

Liquidated Damages Rate Amount

- The contract must have at least one record for each of the following:

Project

Item

Retainage

Contract Funding (all parts fully funded)

Contract Authority for the Project Manager and Project Engineer

> 📄 **Note:** For agencies that do not include Contract Funding in their construction management system, a dummy Contract Funding record is added with 100 percent non-participating no-limit funding. Funding source validation is bypassed.

When the contract's status changes to active, the system performs the following tasks:

- Personnel identified in the Primary Personnel folder are notified by an In-Box message.

- All contract item status are modified from pending to active.

- If a Contract Liquidated Damages Amount does not exist, this amount is obtained and displayed from the default Liquidated Damages table.

- If no project is indicated as the primary project, the Primary Project is defaulted as:

The only project, if the contract has only one project.

The project with greatest total dollar amount, if the contract has multiple projects.

- All Checklist Scheduled Events that do not have Next Projected Date displayed are automatically updated with the first logical date after the Notice To Proceed date.

To delete a contract, its status must be pending.

To change a contract's status back to pending, the following criteria must be met.

1. Contract items cannot have:

   - An associated change order

   - An associated dispute

- An associated stockpiled material

2. The contract cannot have:

   - An associated force account

   - An associated estimate

   - An associated dispute

   - An associated sample

   - An associated change order

   - An associated plan discrepancy

   - Been downloaded (checked out) to the field

   - Milestones cannot have an associated change order

   - The contract cannot have daily work reports associated with it

3. If a contract status change cannot be saved because the data fails validation:

   - Change the contract's status to pending.

   - Delete the contract.

If the contract has been active, delete the contract's associated record(s) or upload the contract back to the Server (check it in).

Entering the Contract Items Complete Date does not change the contract status. However, it marks the beginning of the contract completion procedure. To save the Contract Items Complete Date, all draft and pending change orders must be either approved or not approved. When the Contract Items Complete Date is entered, the Project Manager and Project Engineer are notified by In-Box message, any active items are assigned final quantities and the items' status is changed to from Active to Final (i.e., no longer able to log work to these items).

To change a contract's status from active to complete, the following criteria must be met.

- The Contract Items Complete Date must have an actual date.

- All critical dates and key dates marked Required to Finalize must have actual dates.

- All checklist scheduled events must have actual dates.

- All items must have approved final quantity.

- No change order can have a status of pending.

- All progress and final estimates must be paid.

- All disputes and claims must be resolved.

- All stockpiled materials must be zero.

When the contract status changes to complete, contract authority is end-dated for all contract personnel except the Project Manager and Project Engineer. After a contract is complete, only the Project Manager, Project Engineer, and personnel with office-wide and update access can make changes to a contract. When the contract status changes to complete, the system marks the contract To Be Sent to DSS. The archived status is used to store the archived file.

5.3 Contract Records

The Contract Records panel lets the user access other windows to view, add, modify, and delete contract records. The Contract Records panel has icons that represent the following windows:

- Contracts

- Milestones

- Projects

- Categories

- Items

- Contract Funding

- Contract Authority

- Key Dates

- Checklist Scheduled Events

- Checklist Event Dates

- Correspondence Log

- Plan Discrepancies

- Stockpiled Materials

- Force Accounts

- Design Evaluation

- Disputes/Claims
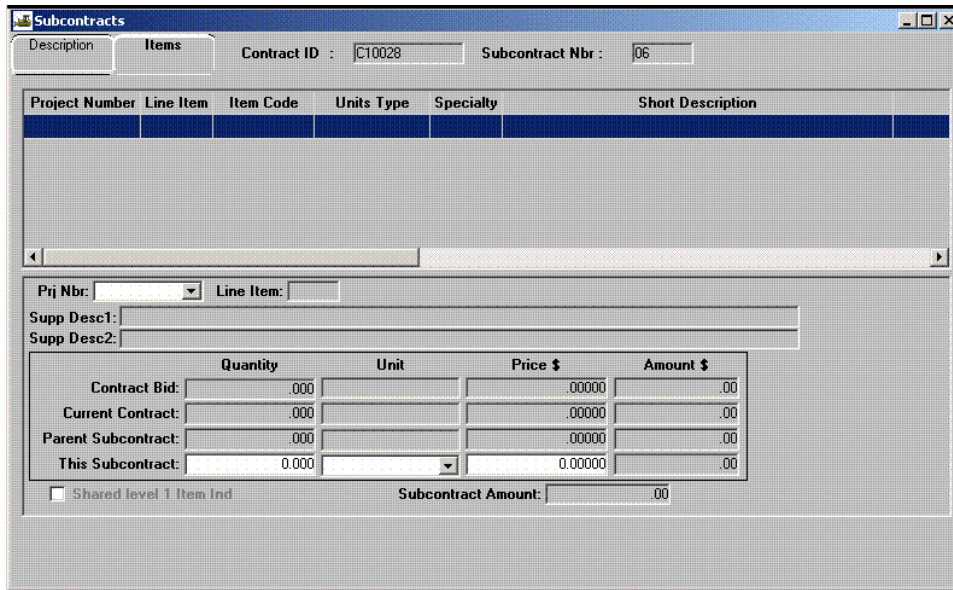
Figure 5-1. The Contract Records Panel

To access the Contract Records panel:

1. On the **Contract Administration** panel, double-click the **Contract Records** icon.

5.4 Contracts

The Contracts window lets the user add new contracts, and view, add, modify, or delete basic contract data. The following table describes the nine folder tabs on the Contracts window:

Folder Tab Name	Description
Description	The Description folder tab displays the contract description data. This includes the contract's status, project number(s), administrative offices, funding sources, and other descriptive information that determines how the system processes data for this contract.
Location	The Location folder tab displays the contract location data that can be added, modified, or deleted. This includes the list of available counties for each state or province and those associated with the selected contract. Authorized users may add and remove counties to and from the contract. A primary county must be selected.

Folder Tab Name	Description
Payment Data	The Payment Data folder tab displays the contract payment data that can be added, modified, or deleted. This data includes liquidated damages rate amount, retainage, estimate generation indicators, and limit amount.
Critical Dates	The Critical Dates folder tab displays the critical dates (letting date, notice to proceed date, etc.). These dates are required by the system for the standard contract status reports. The default date types cannot be deleted or modified.
Primary Personnel	The Primary Personnel folder tab lets the user maintain data on the contract creator, designer, Project Manager, and Project Engineer. This folder tab also identifies the personnel who will receive messages when the contract becomes active or falls behind schedule.
Prime Contractor	The Prime Contractor folder tab displays the Prime Contractor data that can be added, modified, or deleted. This data includes the Prime Contractor, contractor defaulted data, maximum subcontract amount, payroll requirements, prime contacts, and prime associates. The Prime Contractor's surety and insurance companies must be entered as prime associates.
DBE Commitment	The DBE Commitment folder tab lets the user add and modify contract or DBE commitments. This folder tab also displays system-calculated DBE amounts.
Training Plan	The Training folder tab lets the user identify the Prime Contractor's on-the-job training commitments for a contract (i.e., the training plan), which is then used during estimate generation to perform automated reimbursement. This folder tab also displays system-calculated training hour usage.

Table 5-1. The Contracts Window Folder Tabs Table
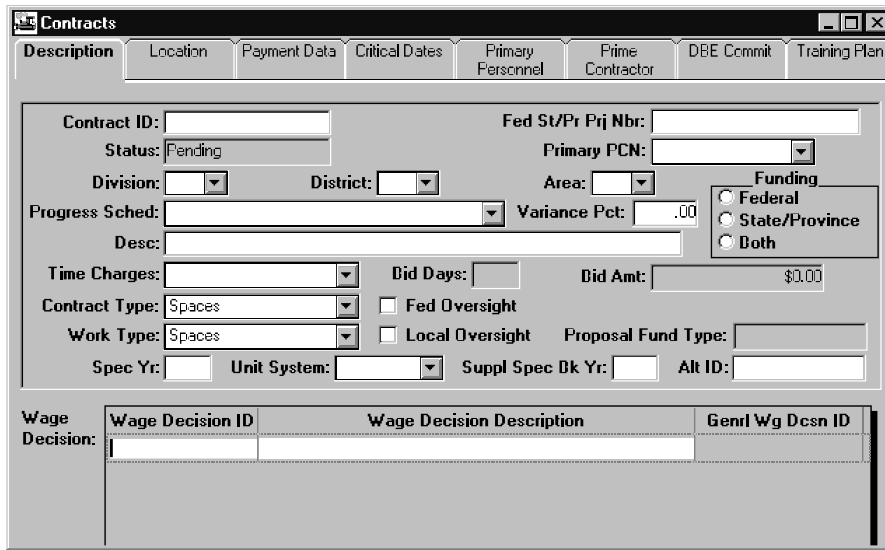
Figure 5-2. The Contracts Window

To access the Contracts window:

1. On the **Contract Administration** panel, double-click the **Contract Records** icon.

2. On the **Contract Records** panel, double-click the **Contracts** icon.

5.4.1 Contract Description

The Description folder tab displays the contract description data that can be added, modified, or deleted. This includes the contract's status, project number(s), administrative offices, funding type, and other descriptive information that determines how the system processes data for this contract.

Field Name	Description
Contract ID	Agency-defined ID for the contract. Corresponds to the Contract ID assigned by AASHTOWare Project or another preconstruction system. This is a required field.
Status	Indicates the current status of a contract (e.g., Pending, Active, Complete, Archived).
Primary PCN	The contract's primary project control number. This field lists the projects defined for this contract. If multiple contracts are defined, the user selects the primary project in this field.
Fed St/Pr Prj Nbr	The federal, state, or province project number for the contract, project, or category. This is a required field.

Field Name	Description
Level 2 Office **(user-defined label)**	The office number for the Level 2 office responsible for administering the contract. The Level 2 office can have any user-defined label, such as District, Division, or Region. This is a required field. (The Level 1 office is the agency headquarters, e.g., the Central Office or the Department of Transportation.)
Level 3 Office **(user-defined label)**	The office number for the Level 3 office responsible for administering the contract. The Level 3 office can have any user-defined label. If there are only two administration levels, this field does not display.
Level 4 Office **(user-defined label)**	The office number for the Level 4 office responsible for administering the contract. The Level 4 office can have any user-defined label. If there are only two or three administration levels, this field does not display.
Progress Sched	The type of progress schedule used for the contract (i.e., percent complete for a time period, percent of critical items complete for a time period, or critical path method). If Critical Path Method is selected, no schedule is processed for this contract in SiteManager. If the user selects a different schedule type on the Progress Schedule window, the system changes this field.
Variance Pct	The percentage difference between a schedule's anticipated and actual completion percent. A message is generated when the difference is greater than this percentage. For example, if the Variance Pct is 10 percent, and 30 percent of the work is anticipated to be complete by a certain date and the actual percentage complete is 19 percent, a message notifies the recipient(s) of the variance.
Time Charges	How time charges are assessed for the contract (i.e., work days, calendar days, or fixed completion date). This is a required field.
Bid Days	The original number of days for the contract. This field is required when the Time Charges entry is work days or calendar days.
Bid Amt	The original bid amount of the contract. This field is display only.
Desc	Text description of the contract. This is a required field.

Field Name	Description
Alt ID	An alternate transportation agency-defined ID for the contract. This field cannot be modified if an estimate has been generated.
Contract Type	Agency-defined classification of the contract type (e.g., biddable, safety, A + B, prime contract). This is a required field.
Work Type	Agency-defined classification of the major type of work being done on the contract (e.g., bridge work, beautification). This is a required field.
Spec Yr	The Item Master specification year of the items used for the contract. This is a required field.
Unit System	Indicates that the measurement system used for the contract is either English or metric. This is a required field.
Fed Oversight	Indicates that federal authorities must receive and approve any change orders for this contract.
Funding	Indicates that the contract is funded by federal funds only, non-federal funds only (state, province, etc.), or both. This is a required field. If the user selects funding sources on the Contract Funding window that do not match this field, the system changes this field. If funding is subsequently changed, the indicator changes with the funding assignment.
Suppl Spec Bk Yr	A supplemental Item Master specification year of the items used for the contract.
Local Oversight	Indicates that local authorities must be copied on and approve change orders.
Wage Decision ID	Agency-defined ID for a wage decision applicable to the contract. The user can search this field. Wage decision data is required during the loading of contractor payrolls and is used to determine potential wage rate variances. The wage decision records are maintained in the Civil Rights reference tables.
Genrl Wg Dcsn ID	General wage decision ID.

Field Name	Description
Wage Decision Description	Description of the wage decision (first 40 characters).
Proposal Fund Type	Type of funds used for the contract (e.g., ST1 = State Fund 1, FED1 = Federal Fund 1, MUNI = Municipal Fund)

Table 5-2. The Description Folder Tab Fields Table

To add a new contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. If the user is authorized to add contract s, the Description folder tab fields are empty and the user can add new contract data.

2. To add a new contract ID, click the **Contract ID** field and type the new ID.

3. Press the **Tab** key.

4. In the **Fed St/Pr Prj Nbr** field, type the federal, state, or province project number for the contract.

5. In the **Primary PCN** drop-down list, click the expand arrow and click the project's primary control number.

6. In the **Level 2 Office** drop-down list, click the expand arrow and click the office ID.

7. If a Level 3 or 4 office administers the contract, click the expand arrow and click the office ID in the **Level 3 Office** drop-down list.

8. If a Level 4 office administers the contract, click the expand arrow and click the office ID in the **Level 4 Office** drop-down list.

9. In the **Progress Schedule** drop-down list, click the expand arrow and click the schedule type.

10. To change the default variance percentage, tab to the **Variance Pct** field and type the percentage.

11. In the **Time Charges** drop-down list, click the expand arrow to the right of the current selection and click the time charges type.

12. If the Time Charges entry is Work Days or Calendar Days, tab to the **Bid Days** field and type the original number of days for the contract.

13. Press the **Tab** key.

14. In the **Desc** field, type a description of the contract.

15. In the **Contract Type** drop-down list, click the expand arrow and click the contract type.

16. If federal oversight is required, select the **Fed Oversight** check box (ON).

17. In the **Work Type** drop-down list, click the expand arrow and click the work type.

18. If Local Oversight is required, select the **Local Oversight** check box (ON).

19. Press the **Tab** key.

20. In the **Spec Yr** field, type the Item Master specification year.

21. Press the **Tab** key.

22. In the **Unit System** drop-down list, click the expand arrow and click either English or metric.

23. Press the **Tab** key.

24. If required, in the **Suppl Spec Bk Yr** field, type a supplemental Item Master spec year.

25. Press the **Tab** key.

26. In the **Alt ID** field, type an alternate ID for the contract.

27. To select a **Funding** type, click the radio button for Federal, State/Province, or Both.

28. A new contract ID cannot be saved until the following data is entered: the Location, the Primary Personnel, and the Prime Contractor. Click the **Location** folder tab and continue adding data (refer to the Location topic).

To modify a pending contract's description:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. In the **Fed St/Pr Prj Nbr** field, type the federal, state, or province project number for the contract.

5. In the **Primary PCN** drop-down list, click the expand arrow and click the project's primary control number.

6. In the **Level 2 Office** drop-down list, click the expand arrow and click the office ID.

7. If a Level 3 or 4 office administers the contract, in the **Level 3 Office** drop-down list, click the expand arrow and click the office ID.

8. If a Level 4 office administers the contract, in the **Level 4 Office** drop-down list, click the expand arrow and click the office ID.

9. To change the default variance percentage, tab to the **Variance Pct** field and type the percentage.

10. In the **Time Charges** drop-down list, click the expand arrow to the right of the current selection and click the time charges type.

11. If the Time Charges entry is work days or calendar days, tab to the **Bid Days** field and type the original number of days for the contract.

12. Press the **Tab** key.

13. In the **Desc** field, type a description of the contract.

14. In the **Contract Type** drop-down list, click the expand arrow and click the contract type.

15. If Federal Oversight is required, select the **Fed Oversight** check box (ON).

16. In the **Work Type** drop-down list, click the expand arrow and click the work type.

17. If Local Oversight is required, select the **Local Oversight** check box (ON).

18. Press the **Tab** key.

19. In the **Spec Yr** field, type the Item Master specification year.

20. Press the **Tab** key.

21. In the **Unit System** drop-down list, click the expand arrow and click either English or metric.

22. Press the **Tab** key.

23. If required, in the **Suppl Spec Bk Yr** field, type a supplemental Item Master spec year.

24. Press the **Tab** key.

25. In the **Alt ID** field, type an alternate ID for the contract.

26. To select a **Funding** type, click the radio button for Federal, State/Province, or Both.

27. Click the **Save** button.

The wage decision records are maintained in the Civil Rights reference tables. To add a Wage Decision to a contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Wage Decision ID** list box and click the **New** button. An empty row is added to the list.

5. In the **Wage Decision ID** field, type a wage decision ID or click the right mouse button and perform a **Search**.

6. Click the **Save** button.

When the user saves a contract status change, the system runs a validation process. If the contract data passes validation, the status change is saved in the database. To change a contract's status:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the status.

5. Click the **Save** button.

To delete a pending contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Delete** button.

5. Click the **Yes** button (to confirm the deletion).

6. Click the **Yes** button (to confirm deletion of associated records).

7. Click the **Save** button.

5.4.2 Contract Location

The Location folder tab lets the user add, modify, and delete Contract location data, and add or remove counties. Each contract must have one county selected as the primary county. The user cannot remove a county that is currently associated with one of the contract's projects.

Figure 5-3. The Location Folder Tab

Field Name	Description
Location	Description of the contract location. This is a required field. Two lines are provided.
Beg Sta Nbr	Precisely defines the station number where the work begins.
Beg Termini	Precisely defines the termini where the work begins.
Route Nbr	Route number where the primary work is done.
End Sta Nbr	Precisely defines the station number where the work ends.
End Termini	Precisely defines the termini where the work ends.
Highway Nbr	Highway number where the primary work is done.
Road System	Type of road system where the primary work is done (e.g., interstate, state highway, county road).
Highway Type	Type of highway where the primary work is done (e.g., asphalt, concrete, gravel).

Field Name	Description
Contract County	Name of a county in which the work is done. The user can search this field.
Primary County	Indicates the primary county in which the work is done. At least one and only one county must be indicated as the primary county.

Table 5-3. The Location Folder Tab Fields Table

To modify the contract location:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Location** folder tab.

5. In the **Location** field, type a description of the construction location. If necessary, tab to the second line and enter more text.

6. Press the **Tab** key.

7. In the **Beg Sta** field, type the Station number where the work begins.

8. Press the **Tab** key.

9. In the **Beg Termini** field, type the Termini where the work begins.

10. Press the **Tab** key.

11. In the **Route Nbr** field, type affected route number.

12. Press the **Tab** key.

13. In the **End Sta** field, type the Station number where the work ends.

14. In the **End Termini** field, type the Termini where the work ends.

15. In the **Highway Nbr**, type the primary work roadway number.

16. In the **Road System** drop-down list, click the expand arrow and click the road system.

17. In the **Highway Type** drop-down list, click the expand arrow and click the highway type.

18. Press the **Tab** key.

19. In the **Town** field, type the name of the town.

20. Click the **Contract County** datawindow and click the **New** button. An empty row is added to the datawindow.

21. In the **Contract County** field, type the name of the county or perform a **Search**.

22. To add another county, click the **New** button and repeat Step 21.

23. In the **Contract County** list box, scroll to the primary county and select the **Primary County** indicator (ON).

24. Click the **Save** button.

The user cannot remove a county that is currently associated with one of the contract's projects. To delete a county from a contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Location** folder tab.

5. In the **Contract County** list box, scroll to and click the county (select the **Primary County** indicator).

6. Click the **Delete** button.

7. In the **Contract County** list box, scroll to the primary county and select the **Primary County** indicator (ON).

8. Click the **Save** button.

5.4.3 Contract Payment Data

The Payment Data folder tab lets the user add, modify, or delete contract payment data such as the liquidated damages rate amount, the day of the month to generate estimates, contract payment amount limits, and retainage data. The retainage data includes the type of retainage allowed and the values that determine how retainage is to be applied to the contract.

Figure 5-4. The Payment Data Folder Tab

Field Name	Description
Current Contract Amt	The current amount of the contract (original bid amount plus approved change orders). This field is display only.
Generate Est1 Day	The day of the month, 1 - 30, that the contract's first monthly estimate should be generated. Three days before this day, the system notifies the Project Manager that estimate generation is approaching.
Contract Limit Amt	The amount over the original bid amount that is allowed for the contract. The limit amount is added to the bid amount to calculate the maximum amount that can be paid for the contract. If a value is entered in this field, the Contract Limit Pct field is protected.
Liquidated Dam Rate Amt	The liquidated damages rate amount for the contract.
Generate Est2 Day	The day of the month, 2 - 30, that the contract's second monthly estimate should be generated. Three days before this day, the system notifies the Project Manager that estimate generation is approaching. The value in this field must be greater than the Generate Est1 Day.

Field Name	Description
Contract Limit Pct	The percent over the original bid amount that is allowed for the contract. The total of the limit percent multiplied by the bid amount is added to the bid amount to calculate the maximum amount that can be paid for this contract. If a value is entered in this field, the Contract Limit Amt field is protected.
Auto Liquidated Dam	Indicates that liquidated damage values are generated automatically.
Price Adjmnt Ind	Indicates that price adjustments are allowed for the contract's items.
Retainage	
Retainage Securities Allowed	Indicates whether securities are allowed in lieu of retainage for the contract.
Retainage Stkpiled Ind	Indicates that retainage includes stockpiled materials in the earnings calculation.
Retainage Max Escrow Amt	Maximum amount that can be encumbered in an escrow account used in lieu of retainage.
Retainage Unlimited Escrow Ind	Indicates that there is no limit to how much retainage can be covered by the escrow account.
Retainage Changes	
Retainage Changes Work Compl Basis	Method for calculating retainage (i.e., Work Reported Per Period, Work Remaining, or Work In Place).
Retainage Changes Effect Date	Effective date of retainage. The effective date cannot be duplicated on different retainage records.
Retainage Changes Pct	The retainage percentage to be applied to the contract. Must be less than or equal to the maximum retainage percentage. This field is required if a lump sum amount is not entered.
Retainage Changes Pct Base	Indicates that retainage should be calculated as a percentage of the bid amount or the current amount.

Field Name	Description
Retainage Changes Max Pct	The maximum retainage percentage allowed for the contract.
Retainage Changes Max Amt	The maximum retainage amount allowed for the contract.
Retainage Changes Lump Amt	The lump sum amount of retainage. If a retainage percentage is not entered, a value must be entered here.
Retainage Changes Trgr Pct	The percentage of contract completion at which the retainage change is to occur.
Retainage Changes Trgr Base	Indicates that the trigger percentage should be a percentage of the bid amount or current amount.

Table 5-4. The Payment Data Folder Tab Fields Table

To modify a pending contract's payment data:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Payment Data** folder tab.

5. In the **Generate Est 1** field, select the current entry and type the day of the month the contract's first monthly estimate should be generated.

6. Press the **Tab** key.

7. In the **Contract Limit Amt** field, type the payment limit amount.

8. Press the **Tab** key.

9. To enter a Liquidated Damages Rate Amount or overwrite the default value in the **Liquidated Dam Rate Amt** field, select the current entry and type the rate.

10. Press the **Tab** key.

11. In the **Generate Est 1** field, select the current entry and type the day of the month the contract's second monthly estimate should be generated.

12. Press the **Tab** key.

13. In the **Contract Limit Pct** field, select the current entry and type the contract's limit percentage.

14. To turn off automated liquidated damage generation, select the **Auto Liquidated Dam** check box (OFF).

15. To allow item price adjustments, select the **Price Adjmnt Ind** check box (ON).

16. To allow securities to be used in lieu of retainage, select the **Securities Allowed** check box (ON).

17. To include stockpiled materials in earnings calculations, select the **Retain Stkpiled Ind** check box (ON).

18. To allow unlimited retainage coverage by the escrow account, select the **Unlimited Escrow** check box (ON).

19. In the **Max Escrow Amt** field, select the current entry and type the maximum amount to be encumbered in an escrow account.

20. Click the **Save** button.

If a retainage record is effective when an estimate is generated, the record cannot be deleted. Therefore, the user cannot delete a retainage record when:

- The Retainage Effective Date is less than or equal to the current date, and an estimate has been generated.

- The Estimate Generate date is greater than or equal to the Retainage Effective Date.

To add data that determines how retainage is to be applied to the contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Payment Data** folder tab.

5. In the **Retainage Changes** area, click the **Work Compl Basis** field and click the **New** button. An empty row is added.

6. In the **Work Compl Basis** drop-down list, click the expand arrow to the right of the current selection and click the method for calculating retainage.

7. Press the **Tab** key.

8. In the **Effect Date** field, select the current entry and type the effective date of retainage.

9. Press the **Tab** key.

10. In the **Pct** field, select the current entry and type the retainage percent to be applied.

11. In the **Pct Base** drop-down list, click the expand arrow to the right of the current selection and click either Bid Amount or Current Amount.

12. Press the **Tab** key.

13. In the **Max Pct** field, select the current entry and type the maximum retainage percentage allowed.

14. Press the **Tab** key.

15. In the **Max Amt** field, select the current entry and type the maximum retainage amount allowed.

16. Press the **Tab** key.

17. In the **Lump Amt** field, select the current entry and type the lump sum amount of retainage.

18. Press the **Tab** key.

19. In the **Trgr Pct** field, select the current entry and type the trigger percentage (percentage of contract completion at which the retainage change is to occur).

20. Press the **Tab** key.

21. In the **Trgr Base** drop-down list, click the expand arrow to the right of the current selection and click either Bid Amount or Current Amount.

22. Click the **Save** button.

5.4.4 Contract Critical Dates

The Critical Dates folder tab lets the user view and record the occurrence of Critical Dates. The user can also add or modify related data. The actual occurrence of a Critical Date event is recorded as the Actual Date of the event. Some Actual Dates are entered by the system and some are entered by an authorized user. The Critical Date types are defined during system development and cannot be added or deleted. These dates are considered critical because SiteManager includes them in the standard contract record reports. When a new contract is added, either manually or from a preconstruction system, SiteManager includes the Critical Date types defined in the Default Critical Date reference table. Therefore, every contract has the same Critical Date types.

Critical Date Type	Requirements for Entering the Actual Date
Accepted Date	This date cannot be required to activate the contract.
Adjusted Completion Date	The system enters this date and the user cannot modify it. This date is entered by the Change Order process.
Award Date	This date cannot be modified when the contract is from the preconstruction system.
Checked Out to Field Date	The system enters this date and the user cannot modify it. This date is entered by Pipeline when the contract is checked out. This date cannot be required to activate the contract.
Contract Archived Date	The system enters this date and the user cannot modify it. This date is entered by the contract archival process. This date cannot be required to finalize or activate the contract.
Contractor Bankruptcy Date	This date cannot be required to finalize or activate the contract.
Contractor Default Date	This date cannot be required to finalize or activate the contract.
Contractor Final Release Date	This date cannot be required to activate the contract.
Execution Date	This date can be modified only when the contract is pending.
Letting Date	The user cannot modify this date if the contract was transferred from a preconstruction system.
Notice to Proceed Date	The user cannot modify this date until the contract's status is changed to Active.
Open to Traffic Date	This date cannot be required to activate the contract.
Original Completion Date	If time is charged as Calendar Days, the system enters this date and the user cannot modify it. If time is charged as a Fixed Completion Date, this date can be modified while the contract is pending. If time is charged as Available Work Days, this date should not be entered.

Critical Date Type	Requirements for Entering the Actual Date
Contract Items Complete Date	This date cannot be required to activate the contract. This date can be modified only when the contract is active. Before entering this date, all change orders must be approved or denied. When this date is entered, the system notifies personnel and enters final quantities for active items and moves all active items to final status. When this date is entered, the user is notified that all items will be moved to Final status upon entering and saving this date, and is prompted to continue the operation. Once this date has been entered and saved, the user will no longer be able to post DWRs on items moved to the Final status.
Physical Work Complete Date	This date cannot be required to finalize or activate the contract.
Price Adjustments Base Date	This date can be modified only when the contract is pending.
Signed Date	This date cannot be modified when the contract is from a preconstruction system.
Substantial Work Complete Date	This date cannot be required to activate the contract. This date can be modified only when the contract is active.
Work Begin Date	This date cannot be required to activate the contract.

Table 5-5. The Critical Date Type Requirements Table

Figure 5-5. The Critical Dates Folder Tab

Field Name	Description
Critical Date Description	System-defined critical date type. All contracts have the default critical date types. The critical date types cannot be added, modified, or deleted.
Actual Date	The date the event actually occurred. In most cases, the date must be current or in the past. If time is charged as Fixed Completion Date, the Original Completion Date can be in the future. When an Actual Date is entered, the system notifies the selected recipient(s). When an Actual Date is entered for the Contract Items Complete Date, the system notifies Level 1 office personnel and enters final quantities for any active items and changes their status to final (i.e., no longer able to log work to these items).
Rqrd to Activate	Indicates that the event must occur before the contract status can be changed from pending to active (e.g., Letting Date, Award Date, Execution Date).
Rqrd to Finalize	Indicates that the event must occur before the contract status can be changed to complete.
Distribution List	Group of users to be notified that the event has occurred. Either a Distribution List or Recipient must be entered. After valid entry of either, the other is unavailable. The user can search this field.

Field Name	Description
Recipient ID	User ID of the person to be notified that the event has occurred. Either a Distribution list or recipient must be entered. After valid entry of either, the other is unavailable. The user can search this field.
Message Text	Standard message to be sent to the recipient(s).

Table 5-6. The Critical Dates Folder Tab Fields Table

The Notice to Proceed Date can only be entered when the contract status is Active. Before the Contract Items Complete Date is entered, item final quantities should be approved and all change orders must be approved or denied.

If an Original Completion Date is entered for an Available Work Days contract, the date will be removed when the contract is activated.

To enter the Actual Date of a Contract Critical Date:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Critical Dates** folder tab.

5. In the **Critical Date Description** list box, scroll to and click the date. The data for the selected date displays below the list.

6. In the **Actual Date** field, click in front of the current entry and type the date when the Critical Date event occurred.

7. To make this date Required to Activate, select the **Rqrd to Activate** check box (ON).

8. To make this date Required to Finalize, select the **Rqrd to Finalize** check box (ON).

9. To select a recipient for notification, perform a **Search** in either the **Distribution List** field or the **Recipient ID** field.

10. In the **Message Text** field, type a message to include with the notification.

11. Click the **Save** button.

5.4.5 Contract Primary Personnel

The Primary Personnel folder tab lets the user add, modify, and delete the contract's primary personnel. Every contract must have a Project Manager and a Project Engineer. When an authorized user adds the Project Manager and Project Engineer to the contract, SiteManager automatically adds them to Contract Authority. If primary personnel are later replaced, SiteManager starts authority for the new personnel and ends authority for the previous personnel.

The user can also select an individual or a group to be notified of certain conditions. Personnel can be notified when the contract status is changed to active, when the contract work falls behind schedule, or when civil rights data fails validation.
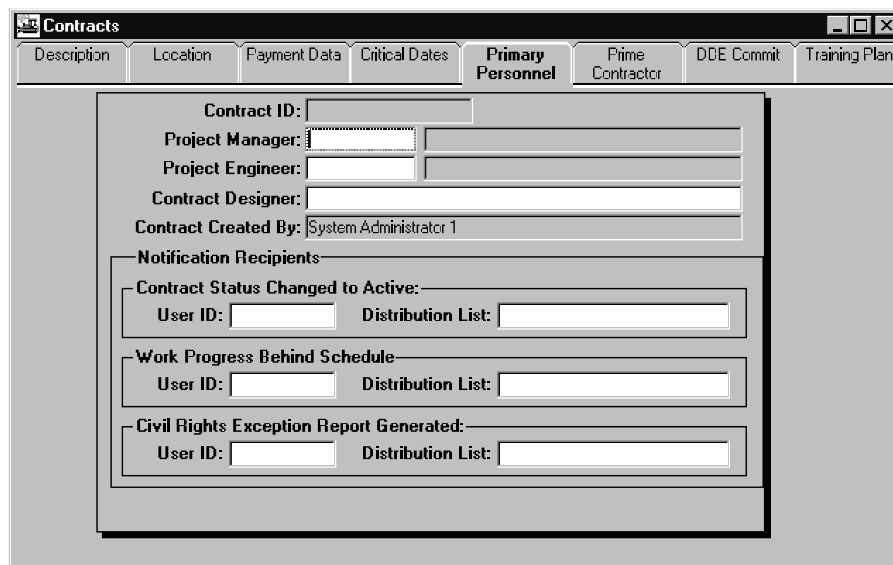
Figure 5-6. The Primary Personnel Folder Tab

Field Name	Description
Project Manager	Name of the Project Manager for the contract. Specific messages and reports are sent to this person. The user can search this field. This is a required field.
Project Engineer	Name of the Project Engineer for the contract. Specific messages and reports are sent to this person. The user can search this field. This is a required field.
Contract Designer	Name of the person or firm that designed the contract.
Contract Created By	Name of the user who added the contract, or a system indicator for contracts built by the system.
Recipient Notified when Contract Status Changed to Active	

Field Name	Description
User ID	User ID of the person to be notified when the contract's status changes from pending to active. The value is protected if a Distribution List is entered. Either a User ID or Distribution List must be entered. The user can search this field.
Distribution List	Name of the Distribution List to be notified when the contract's status changes from pending to active. The value is protected if a User ID is entered. Either a User ID or Distribution List must be entered. The user can search this field.
Recipient Notified when Work Progress Behind Schedule	
User ID	User ID of person to be notified when the contract's progress falls behind schedule equal to or greater than the variance percentage. This message is generated only if the Variance Pct is entered and the contract work is tracked by a Progress Schedule. The value is protected if a Distribution List is entered. Either a User ID or Distribution List must be entered. The user can search this field.
Distribution List	Name of the Distribution List to be notified when the contract's progress falls behind schedule equal to or greater than the variance percentage. This message is generated only if the Variance Pct is entered and the contract work is tracked by a Progress Schedule. The value is protected if a User ID is entered. Either a User ID or Distribution List must be entered. The user can search this field.
Recipient Notified when Civil Rights Exception Report Generated	
User ID	User ID of the person to be notified when the contract's civil rights monitoring generates an exception report. This field is protected if a Distribution List is entered. Either a User ID or Distribution List must be entered. The user can search this field.

Field Name	Description
Distribution List	Name of the Distribution List to be notified when the contract's civil rights monitoring generates an exception report. This field is protected if a User ID is entered. Either a User ID or Distribution List must be entered. The user can search this field.

Table 5-7. The Primary Personnel Folder Tab Fields Table

To add Primary Personnel to a pending contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the Primary Personnel folder tab.

5. In the **Project Manager** field, type the User ID of the contract's Project Manager or perform a **Search**.

6. Press the **Tab** key.

7. In the **Project Engineer** field, type the User ID of the contract's Project Engineer or perform a **Search**.

8. Press the **Tab** key.

9. In the **Contract Designer** field, type the name of the contract's Designer.

10. To select a recipient to be notified when a contract's status changes from pending to active, tab to the appropriate field and type the **User ID** or **Distribution List** name or perform a **Search**.

11. To select a recipient to be notified when a contract's progress falls behind schedule, tab to the appropriate field and type the **User ID** or **Distribution List** name or perform a **Search**.

12. To select a recipient to be notified when a contract's civil rights monitoring generates an exception report, tab to the appropriate field and type the **User ID** or **Distribution List** name or perform a **Search**.

13. Click the **Save** button.

5.4.6 Prime Contractor, Contacts, and Associates

The Prime Contractors folder tab lets the user add and delete the Prime Contractor, the Prime Contacts, and the Prime Associates. The user can also specify the Prime Contractor's payroll frequency and the maximum percentage of the contract work that can be subcontracted. If the Prime Contractor is in default, the user can record the defaulted date and reason. The Prime Contractor entities are defined as follows:

Prime Contractor	The Prime Contractor is the contractor who is awarded the contract.
Prime Contacts	The Prime Contacts are the Prime Contractor's personnel who are contact persons for the contract. This includes safety officers, contractor supervisors, and EEO compliance officers.
Prime Associates	The Prime Associates are vendors who have a contract-specific relationship with the Prime Contractor. This includes the surety and insurance companies that are supplying business services to the Prime Contractor for the contract.
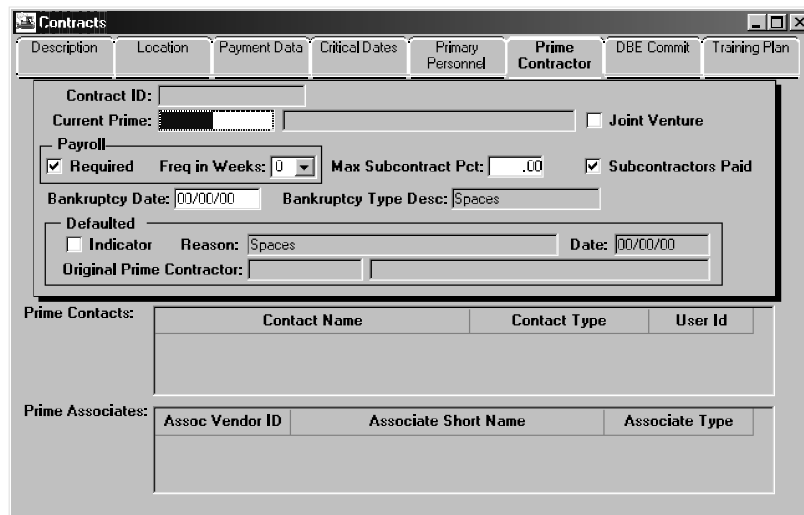
Figure 5-7. The Prime Contractor Folder Tab

Field Name	Description
Current Prime	Agency-defined Vendor ID and short name for the current Prime Contractor. The user can search this field. This is a required field. If the user changes the current Prime Contractor, the data in the other fields is deleted.
Defaulted Original Prime Contractor	Agency-defined Vendor ID and short name for the original Prime Contractor who was awarded the contract and then defaulted.
Joint Venture	Indicates that the contract was awarded to a joint venture.
Subcontractors Paid	Indicates whether the Prime Contractor has paid all of the subcontractors. This indicator is selected (ON) by default.
Payroll Required	Indicates that certified payrolls are required for the contract. Must be selected (ON) for federal contract. Must be selected (ON) to process payrolls in SiteManager. If this indicator is selected, a Payroll Frequency in Weeks must be entered.
Payroll Freq in Weeks	Weekly frequency that certified payrolls are required to be received for the contract. This field is required if the Payroll Required indicator is selected. This value must be entered before the contract status is changed to active.
Max Subcontract Pct	Maximum percentage of the total contract amount that the Prime Contractor is allowed to subcontract (excluding specialty items).
Bankruptcy Date	Date the Prime Contractor filed for bankruptcy.
Bankruptcy Type Desc	Type of bankruptcy filed (e.g., Chapter 11 or Chapter 13).
Defaulted Indicator	When selected (ON), the Defaulted Indicator indicates that the Prime Contractor is in default and another contractor or surety has taken over responsibility for the contract.
Defaulted Date	The date the Prime Contractor defaulted. This field is required if the Defaulted Indicator is selected (ON).

Field Name	Description
Defaulted Reason	Reason the Original Prime Contractor defaulted (e.g., performance or bankruptcy). This field is required if the Defaulted Indicator is selected (ON).
Defaulted Reason	Reason the Original Prime Contractor defaulted (e.g., performance or bankruptcy). This field is required if the Defaulted Indicator is selected (ON).
Prime Contact Name	The name of the contact person for the Prime Contractor. The user can search this field.
Prime Contact Type	Title of the contact person for the Prime Contractor (e.g., EEO).
Prime Contact User ID	The agency-defined user ID for the Prime Contact, if one has been assigned.
Prime Assoc Vendor ID	Agency-defined ID for the Prime Contractor's Associate. Usually the Federal Tax ID. The user can search this field.
Associate Short Name	Short name for the Prime Contractor's Associate.
Associate Type	Type of Prime Contractor Associate (i.e., Surety, Insurance, Escrow, Banking, Surety Agent, Escrow Agent, Other Payee, Other).

Table 5-8. The Prime Contractor Folder Tab Fields Table

To be selected as a Current Prime, a contractor must first be entered as a vendor in the Vendor reference tables. To save a contract, the Prime Contractor must have a Payment Address selected via the Services menu.

To add a Prime Contractor to a pending contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**.

4. Click the **Prime Contractor** folder tab.

5. In the **Current Prime** field, type the name of the contract's Current Prime Contractor or perform a **Search**.

6. If a joint venture won the award, select the **Joint Venture** check box (ON). The Prime Contractor must have affiliates defined in the Vendor reference table.

7. If the payrolls will be processed in SiteManager, select the frequency of receipt in weeks in the **Freq in Weeks** drop-down field.

    Or

8. If the payrolls will not be processed in SiteManager, select the **Payroll Required** check box (OFF).

9. Press the **Tab** key.

10. In the **Max Subcontract Pct** field, type the maximum percentage of the total contract amount that the Prime Contractor is allowed to subcontract.

11. Click the **Services** menu and select **Address**.

12. Choose the **Address** that will be used as the Prime Contractor's Payment Address.

13. Click the **Services** menu (or click the **Address** button on the Toolbar)and choose **Select Address**.

14. Click the **Save** button.

To be selected as a Prime Contact, a contact person must first be entered as personnel of the Prime Contractor on the Vendor Personnel folder tab.

To add a Prime Contractor to a contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**.

4. Click the **Prime Contractor** folder tab.

5. To add a contact, click the **Prime Contact Name** field and click the **New** button. An empty row is added to the list.

6. In the **Prime Contact Name** field, perform a **Search** and select a name. The system enters the **User ID**.

7. In the **Contact Type** drop-down list, click the contact type.

8. Click the **Save** button.

To be selected as a Prime Associate, a vendor must first be selected as an associate of the Prime Contractor on the Vendor Associates folder tab. Every contract requires two Associates: a surety company and an insurance company.

To add a Prime Associate to a contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**.

4. Click the **Prime Contractor** folder tab.

5. To add an associate, click the **Prime Assoc Vendor ID** field and click the **New** button. An empty row is added.

6. In the **Prime Assoc Vendor ID** field, perform a **Search** and select n ID. The system enters the **Associate Short Name** and the **Associate Type**.

7. Click the **Save** button.

When the user places the Current Prime in defaulted status, the user must also select a new Current Prime and Prime Associates. For example, the Original Prime Contractor's surety company can be selected as the Current Prime.

To record a Prime Contractor's defaulted status:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**.

4. Click the **Prime Contractor** folder tab.

5. If the Prime Contractor has filed for bankruptcy, type the date the bankruptcy was filed in the **Bankruptcy Date** field.

6. If the Prime Contractor has filed for bankruptcy, click the bankruptcy type in the **Bankruptcy Type Desc** drop-down list.

7. Click the **Defaulted** indicator. A popup message appears saying that defaulting the Current Prime also removes the Prime Contacts and Associates.

8. Click **Yes** to continue. The system removes the Prime Contacts and Associates and enters the defaulted Prime Contractor in the Original Prime Contractor field.

9. In the **Reason** drop-down list, click the reason for defaulting.

10. In the **Date** field, type the date the Prime Contractor defaulted.

11. In the **Current Prime** field, type the name of the contract's new Current Prime Contractor or perform a **Search**.

12. To add an Associate, click the **Prime Assoc Vendor ID** field and click the **New** button. An empty row is added.

13. In the **Prime Assoc Vendor ID** field, perform a **Search**. After the user selects an ID, the system enters the **Associate Short Name** and the **Associate Type**.

14. Click the **Save** button.

5.4.7 DBE Commitments

The DBE Commit folder tab lets the user add and modify the DBE goal percentage and view the DBE commitments for a contract. If the Prime Contractor is a DBE, the user can also enter the DBE Work Class on this folder tab. The system calculates the DBE commitment amounts displayed on this folder tab using values entered on the Subcontracts window.

Figure 5-8. The DBE Commit Folder Tab

Field Name	Description
DBE Work Class	The Prime Contractor's DBE Work Class for the contract. This value can only be entered if the Prime Contractor is a DBE.
DBE Goal Percent	DBE goal percentage for the contract. This value can be modified.
DBE Goal Value	DBE goal amount for the contract. The system calculates this field by multiplying the contract bid amount by the DBE goal percentage.
DBE Commitment	
DBE Commitment Original Amount	DBE commitment amount at award of the contract.
DBE Commitment Total Current Pct	Percentage of the current DBE commitment on the contract. The system calculates this value by dividing the total current amount of the DBE commitment by the contract bid amount.
DBE Commitment Total Current Amount	Sum of the current DBE commitments for all subcontracts to date. Calculated by the system.
Total DBE Subcontracts	
Installed to Date	Installed to Date amount for all DBE subcontracts in the contract. The sum of all DBE subcontract-reported item quantities multiplied by the item prices.
Towards Goal	Subcontract amount counted towards the DBE commitment goal. The sum of the DBE subcontract amounts multiplied by the DBE goal percentage.
Not towards Goal	Subcontract amount not counted towards the DBE commitment goal. The sum of the DBE subcontract amounts minus the amount counted towards the DBE commitment goal.
Amount	Sum of all the DBE subcontract amounts for the contract.

Table 5-9. The DBE Commitments Folder Tab Fields Table

To modify the DBE goal percentage for a contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **DBE Commitments** folder tab.

5. If the Prime Contractor is a DBE, in the **DBE Work Class** drop-down list, click the expand arrow to the right of the current selection and click the **DBE Work Class**.

6. In the **DBE Goal Percent** field, type the DBE goal percentage for the contract. The remaining fields are calculated by the system.

7. Click the **Save** button.

5.4.8 Training Plan

The Training Plan folder tab lets the user view, add, and modify the Prime Contractor's on-the-job-training commitments for a contract. If the contract includes the training plan as a line item, the system enters the training plan and the user cannot modify it. If training is not a line item, the user can enter the plan. The plan consists of the total training hours for the contract, the hourly (unit) price to be used for reimbursement, and the approximate number of trainees. This data is used by the estimate process to reimburse the Prime Contractor.

If a training plan is specified, the trainees must be entered on the Trainees window in Civil Rights. The training plan hour usage is typically entered through certified payrolls. To accrue training plan hours, the trainee data (names, SSN/SIN numbers, and training program) must match the payroll employee data. The Total Hours Used to Date field is updated automatically via the Accrue Training Experience batch process. The hours are accrued from certified payrolls that include trainee data. The Total Hours Paid to Date field is calculated during the estimate generation process. For more information, refer to the Civil Rights, Contractor Payroll, and Contract Adjustment topics.

If the training plan is a line item, it must be a single line item. The Training Plan folder tab retrieves only the first item code of the type (metric or English) specified in the system operational parameter table.
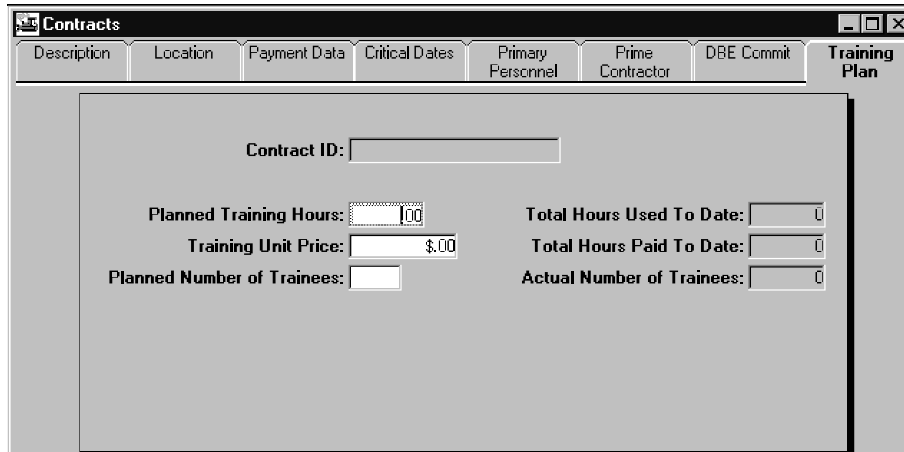
Figure 5-9. The Training Plan Folder Tab

Field Name	Description
Planned Training Hours	Specifies the planned number of training hours committed by the Prime Contractor. If specified by a training item code, this field defaults to the item's bid quantity and cannot be modified.
Planned Number of Trainees	Specifies the planned number of trainees committed by the Prime Contractor. If specified by a training item code, this field defaults to the item's bid quantity divided by the system operational parameter's average training program hours and cannot be modified.
Training Unit Price	Specifies the hourly (unit) price to reimburse a Prime Contractor for training hours logged via Contractor Payrolls. If specified by a training item code, this field defaults to the item's bid unit price and cannot be modified.
Total Hours Used To Date	Total number of hours used by the trainees on the contract to date. This value is calculated by a batch process using data from Contractor Payrolls and Civil Rights. The user can modify this value by entering DOT Hours on the Trainee window.
Actual Number of Trainees	Actual number of trainees allocated to the contract. This value is calculated by a batch process using Trainee data from Civil Rights.

Field Name	Description
Total Hours Paid To Date	Total number of hours used by the trainees on the contract after the last paid date. This value is calculated during estimate generation.

Table 5-10. The Training Plan Folder Tab Fields Table

To add a Training Plan to a contract:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contracts window opens.

2. Click the **Open** button. The Select Contract list displays.

3. In the **Select Contract** list box, scroll to and double-click the **Contract ID** or perform a **Find**. The Select Contract list closes and the Description folder tab displays.

4. Click the **Training Plan** folder tab.

5. In the **Planned Training Hours** field, type the number of planned training hours.

6. Press the **Tab** key.

7. In the **Training Unit Price** field, type the unit price (hourly) that the contractor will be reimbursed for training.

8. Press the **Tab** key.

9. In the **Planned Number of Trainees** field, type the number of trainees.

10. Click the **Save** button.

5.4.9 Custom Records

The Custom Template (List & Record) window lets the user create custom templates to collect contract records and PCC and SUPERPAVE Mix Design records and custom templates to list records not related to specific contracts. Custom templates are sometimes needed to collect data that cannot be entered on the standard windows provided with SiteManager. The user creates the template by defining the required window elements. The user can then preview the template design before making the template accessible to end users. Multiple detail records can be associated with each Custom Contract Record, Custom List, Custom PCC and SUPERPAVE Mix Design custom template that has been defined.

These four types of templates are defined as follows.

▪   Custom Contract Record template
    Collects contract data not currently associated to any SiteManager window.

- ▪ Custom List template
  Maintains lists not currently associated to any SiteManager window. For example, phone
  and address lists for welders, carpenters, and other non-contract personnel.

- ▪ Custom PCC Mix Design Record template
  Collects PCC Mix Design data not currently associated to any SiteManager window.

- ▪ Custom SUPERPAVE Mix Design Record template
  Collects SUPERPAVE Mix Design data not currently associated to any SiteManager
  window.
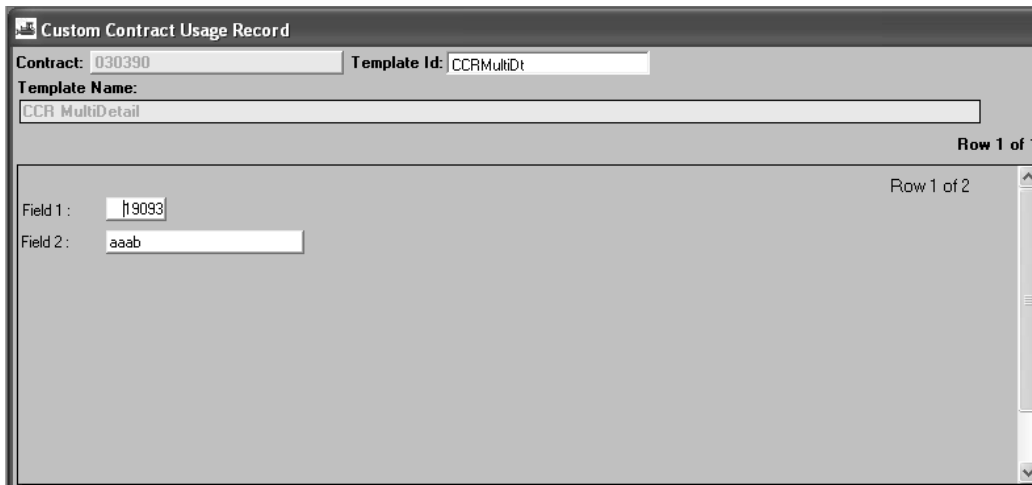
Figure 5-10. The Custom Contract Record Usage Window

Field Name	Description
Contract	Agency-defined ID for the selected contract.
Template ID	Templates available for selection. The user can search this field.
Template Name	Name of the template selected on the window.

Table 5-11. The Custom Contract Record Usage Window Fields Table

To modify custom contract records:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contract Description
   folder tab displays.

2. Click the **Open** button. The Select Contract window opens.

3. In the **Contract** list box, scroll to and double-click the Contract ID.

4. Click the **Services** menu and click the **Custom Record** choice. The Custom Contract Record Usage window opens.

5. In the **Template ID** field, type the template ID or perform a **Search**. The window displays the template.

6. Add or modify the data.

7. Click the **Save** button.
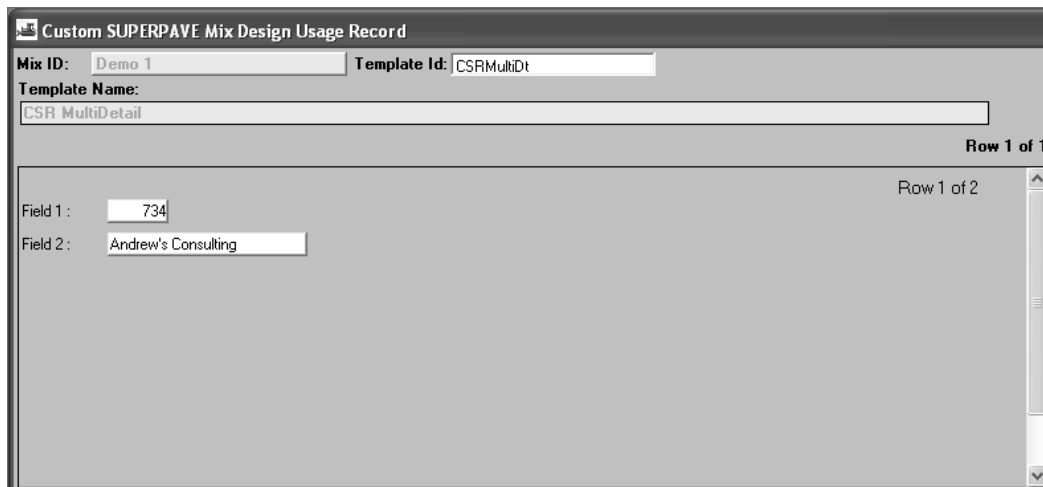
Figure 5-11. The Custom SUPERPAVE Mix Design Record Usage Window

Field Name	Description
Mix ID	The Mix ID for the current Mix Design.
Template ID 🔍	This column is editable and standard search lens feature is provided to select from the list of available Custom SUPERPAVE Mix Design Record templates. The list displays Template ID and Template Description in the datawindow. This column is editable and the user can enter the partial Template ID and use the search or filter search facility.
Template Name	The description of the template chosen by the user. This field is protected.
Template Content	This area contains the fields that are included in the Template. This field is editable unless the Mix Design is Approved.

Table 5-12. The Custom SUPERPAVE Mix Design Record Usage Window Fields Table

To modify custom SUPERPAVE Mix Design records:

1. On the **Contract Records** panel, double-click the **Contracts** icon. The Contract Description folder tab is displayed.

2. Click the **Open** button. The Select Contract window opens.

3. In the **Contract** list box, scroll to and double-click the Contract ID.

4. Click the **Services** menu and click the **Custom SUPERPAVE Mix Design Record** choice. The Custom Contract Record Usage window opens.

5. In the **Template ID** field, type the template ID or perform a **Search**. The window displays the template.

6. Add or modify the data.

7. Click the **Save** button.

5.5 Contract Milestones

The Milestone window lets the user add, modify, and delete contract milestones. The user can enter an incentive or disincentive rate for each milestone and specify either days or hours to be used in calculating the amount to be paid or withheld. The user also enters the dates the milestone work was started and completed.
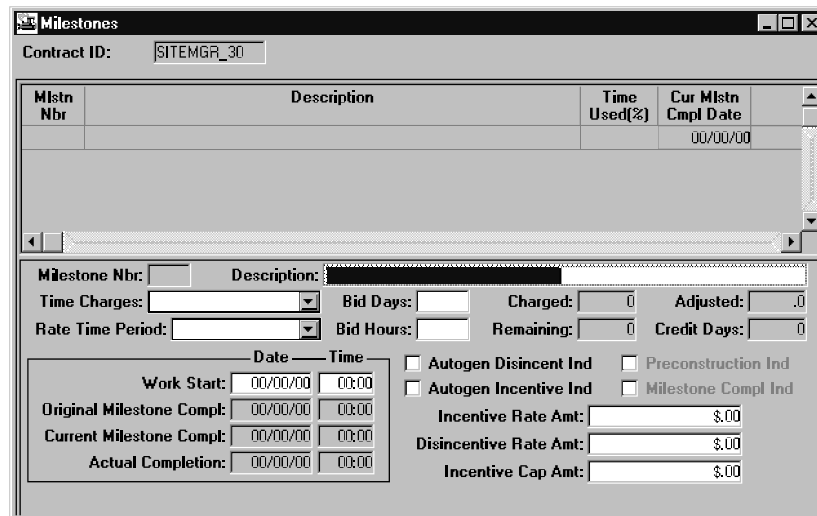
Figure 5-12. The Milestones Window

Field Name	Description

Field Name	Description
Milestone Nbr	System-generated sequential number of the milestone. This value cannot be modified.
Description	Text description of the milestone.
Time Charges	How time charges are assessed for the contract. Can be Available Work Days, Calendar Days, or Fixed Completion Date.
Bid Days	The original number of days bid for the milestone. This field is required if the Time Charges value is Available Work Days or Calendar Days and the Rate Time Period value is Days. A value cannot be entered if the Time Charges value is Fixed Completion Date.
Charged	The total number of days charged to the milestone to date. Calculated by the system. Can be Available Work Days or Calendar Days, depending on the Time Charges entry. This field is empty if the Time Charges value is Fixed Completion Date.
Adjusted	Adjustment to the days charged for a milestone. This value is provided by the Change Order function.
Remaining	Total days remaining to complete the milestone work on time. This value is calculated by the system [(Bid Days + Adjusted Days) - Charged Days].
Credit Days	The total number of credit days recorded for the milestone to date. Calculated by the system.
Bid Hours	The original number of hours for the milestone. This field is required if the Time Charges value is Available Work Days or Calendar Days and the Rate Time Period value is Hours. The Bid Hours value must be evenly divisible by 12. A value cannot be entered if the Time Charges value is Fixed Completion Date.
Original Milestone Compl Date	Original date the milestone is to be completed. If the Time Charges entry is Calendar Days, the system calculates this value (Work Start Date + Bid Days). This field is required if the Time Charges entry is Fixed Completion Date.

Field Name	Description
Original Milestone Compl Time	Original time the milestone is to be completed. Calculated from the Work Start Time if the Time Charges entry is Calendar Days (Work Start Time + Hours).
Current Milestone Compl Date	Current expected date of completion. Calculated by the system. The Change Order function enters this date when time adjustments for milestones are approved. For new milestones, this field defaults to the milestone's original completion date.
Current Milestone Compl Time	Current expected time of completion. Always calculated from the Work Start Time if the Time Charges entry is Available Work Days or Calendar Days (Work Start Time + Hours).
Actual Completion Date	The date the work was completed for the milestone. Must be greater than or equal to the Work Start Date.
Actual Completion Time	The time the work was completed for the milestone.
Work Start Date	The date the work is expected to begin and time is charged against the milestone. Must be less than or equal to the Current Milestone Completion Date.
Work Start Time	The time the work is expected to begin and time is charged against the milestone.
Incentive Rate Amt	Rate in dollars paid to the contractor if the milestone work has progressed beyond expectations.
Disincentive Rate Amt	Rate in dollars the contractor is to be penalized if the milestone work has not progressed to expectations.
Incentive Cap Amt	Maximum incentive amount allowed for this milestone.
Rate Time Period	The rate time period (days or hours) used to calculate the incentive or disincentive for the milestone.
Autogen Disincent Ind	Indicates whether a disincentive is automatically generated for the milestone.
Autogen Incentive Ind	Indicates whether an Incentive is automatically generated for the milestone.

Field Name	Description
Preconstruction Ind	Indicates the data was entered from a preconstruction system and cannot be modified.
Milestone Compl Ind	Indicates that the Milestone work is completed.

Table 5-13. The Milestones Window Fields Table

To add a milestone with time charges of Available Work Days or Calendar Days:

1. On the **Contract Records** panel, double-click the **Milestones** icon. The Milestone window opens and a contract select list displays.

2. In the **Contract ID** list box, scroll to and double-click the contract. The Milestones for the selected contract display.

3. Click the **New** button. An empty row is inserted in the Milestone list box.

4. In the **Description** field, type a description of the Milestone.

5. In the **Time Charges** drop-down list, click the expand arrow and select Available Work Days or Calendar Days.

6. In the **Rate Time Period** drop-down list, click the expand arrow and select either Hours or Days to be used for the incentive or disincentive calculation.

7. If the Rate Time Period is days, type the number of days bid for the milestone in the **Bid Days** field.

8. If the Rate Time Period is hours, type the number of hours bid for the milestone in the **Bid Hours** field.

9. To generate a disincentive automatically, select the **Autogen Disincent Ind** check box (ON).

10. To generate an incentive automatically, select the **Autogen Incentive Ind** check box (ON).

11. In the **Incentive Rate Amt** field, type the rate in dollars a contractor is to be compensated if work has progressed beyond expectations.

12. Press the **Tab** key.

13. In the **Disincentive Rate Amt** field, type the rate in dollars a contractor is to be penalized if work has not progressed to expectations.

14. Press the **Tab** key.

15. In the **Incentive Cap Amt** field, type the maximum incentive amount for this milestone.

16. Click the **Save** button. The system enters the next sequential milestone number for the new milestone.

To add a milestone with a Fixed Completion Date:

1. On the **Contract Records** panel, double-click the **Milestones** icon. The Milestone window opens and a contract select list displays.

2. In the **Contract ID** list box, scroll to and double-click the contract. The milestones for the selected contract display.

3. Click the **New** button. An empty row is inserted in the Milestone list box.

4. In the **Description** field, type a description of the milestone.

5. In the **Time Charges** drop-down list, click the expand arrow and select Fixed Completion Date.

6. In the **Rate Time Period** drop-down list, click the expand arrow and select either Hours or Days to be used for the incentive or disincentive calculation.

7. In the **Original Milestone Compl Date** field, type the date the milestone is to be completed.

8. In the **Original Milestone Compl Time** field, type the time the milestone is to be completed.

9. To generate a disincentive automatically, select the **Autogen Disincent Ind** check box (ON).

10. To generate an incentive automatically, select the **Autogen Incentive Ind** check box (ON).

11. In the **Incentive Rate Amt** field, type the rate in dollars a contractor is to be compensated if work has progressed beyond expectations.

12. Press the **Tab** key.

13. In the **Disincentive Rate Amt** field, type the rate in dollars a contractor is to be penalized if work has not progressed to expectations.

14. Press the **Tab** key.

15. In the **Incentive Cap Amt** field, type the maximum incentive amount for this milestone.

16. Click the **Save** button. The system enters the next sequential milestone number for the new milestone.

To record a Milestone Actual Completion date:

1. On the **Contract Records** panel, double-click the **Milestones** icon. The Milestone window opens and a contract select list displays.

2. In the **Contract ID** list box, scroll to and double-click the contract. The milestones for the selected contract display.

3. In the **Milestone** list box, scroll to and click the milestone. Data for the selected milestone is displayed in the fields.

4. In the **Actual Completion Date** field, type the date of completion.

5. Press the **Tab** key.

6. In the **Actual Completion Time** field, type the time of completion.

7. Click the **Save** button.

A milestone cannot be deleted if it has an associated record, such as a change order or an estimate adjustment, or if the contract is checked out to the field.

To delete a Milestone:

1. On the **Contract Records** panel, double-click the **Milestones** icon. The Milestone window opens and a contract select list displays.

2. In the **Contract ID** list box, scroll to and double-click the contract. The milestones for the selected contract display.

3. In the **Milestone** list box, scroll to and click the milestone. Data for the selected Milestone is displayed in the fields.

4. Click the **Delete** button. The system asks the user to confirm the deletion.

5. Click **Yes**.

6. Click the **Save** button.

5.6 Projects

The Projects window contains descriptions of the contract projects. Every contract must have at least one project. The Projects window folder tabs are described in the following table:

Description	The Description folder tab displays the project description. The user can add, modify, and delete the project data.
Counties	The Counties folder tab displays a list of available counties and a list of those associated with the selected project. The user can add and remove counties to and from the project.

| Adjustment Indices | The Adjustment Indices folder tab displays a list of available price adjustment indices and a list of those associated with the selected project. The user can add and remove price adjustment indices to and from the project. |

Table 5-14. The Projects Window Folder Tab Fields Table
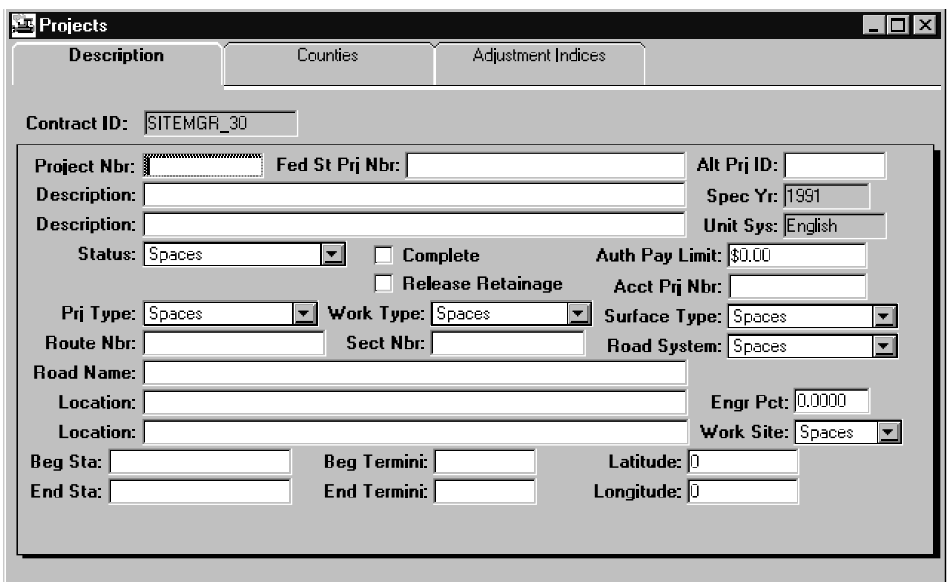
Figure 5-13. The Project Description Window

To access the Project Description folder tab:

1. On the **Contract Records** panel, double-click the **Projects** icon. The Project window opens with the Description folder tab selected by default.

5.6.1 Project Description

The Project Description folder tab lets the user add, modify, and delete projects. New projects can be added while the contract is in pending or active status. To add a projects to an active contract, an authorized user may create the projects on the Project Description folder tab of the Project window. Before any items may be added to a new project, at least one category and one funding source must be associated to that project. A projects with dependent data, such as categories or items, cannot be deleted. When a contract has multiple projects, the user must select the primary projects on the Contract Description folder tab.

Field Name	Description
PCN	Agency-defined project control number. This field is required.

Field Name	Description
Fed St Prj Nbr	The federal/state number for the project. Must be unique within a contract. Cannot be modified after an estimate has been generated. This field is required.
Alt Prj ID	Alternate agency-defined ID for the project. Cannot be modified after an estimate has been generated.
Auth Pay Limit	The Authorized Payment Limit is used to determine if a voucher will be processed. If the total payments exceed this amount, the voucher will not be processed. Leaving this field blank indicates that no cap exists for total payments. The Authorized Payment Limit cannot be modified after an estimate has been generated.
Status	Indicates the current status of a project (e.g., Complete, Construction, Active Construction, Awaiting Award).
Acct Prj Nbr	An accounting department-defined project number. Cannot be modified if an estimate has been generated.
Engr Pct	The engineering construction percentage represents the state or province's cost of managing a project. This percentage of the total project item amounts can be used to compute the total project estimated cost as follows: [total Project Item amount $\times$ (100 + Engr Pct)]
Description	Text description of the project. This field is required. Two lines are provided.
Prj Type	Identifies the type of project (e.g., Federal). This field is required.
Work Type	Agency-defined code that identifies the major type of work being done in the project (e.g., Grading, Widening, Overlay, Construction). This field is required.
Surface Type	Type of surface grading used in the project (e.g., Asphalt).
Road Name	Name of the road where the project work is done.
Route Nbr	Route number where the project work is done.

Field Name	Description
Road System	Type of road system where the project work is done (e.g., interstate, federal highway, state highway, or county highway).
Sect Nbr	Road section number where the project work is done.
Location	Description of the physical location of the project. This field is required. Two lines are provided.
Work Site	Identifies the landscape of the project work site (e.g., Urban).
Beg Sta	Precisely defines the station number where the project work begins.
Beg Termini	Precisely defines the termini where the project work begins.
Latitude	The midpoint latitude of the project location.
End Sta	Precisely defines the station number where the project work ends.
End Termini	Precisely defines the termini where the project work ends.
Longitude	The midpoint longitude of the project location.
Complete	Indicates that the project work is complete.
Release Retainage	Indicates that the project retainage is to be automatically released when the project status is changed to complete.

Table 5-15. The Projects Description Folder Tab Fields Table

To add a project to a contract:

1. On the **Contract Records** panel, double-click the **Projects** icon. The Projects window opens.

2. To select a contract, click the **Services** menu and click the **Choose Keys** choice. The Select Contract ID window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The Project window opens with the selected contract ID displayed in the Contract ID field.

5. In the **PCN** field, click the **Open** button, highlight the desired PCN and click **OK**.

6. Press the **Tab** key.

7. In the **Fed St Prj Nbr** field, select the current entry and type the federal or state project number.

8. Press the **Tab** key.

9. In the **Alt Prj ID** field, select the current entry and type an alternate ID.

10. Press the **Tab** key.

11. In the **Description** field, type a description of the project. If necessary, tab to the next line and add to the description.

12. In the **Status** drop-down list, click the expand arrow and click the current status of the project.

13. To indicate that the project is complete, select the **Complete** check box (ON).

14. In the **Auth Pay Limit** field, select the current entry and type a limit value for payment.

15. To automatically release retainage when the project is completed, select the **Release Retainage** check box (ON).

16. In the **Acct Prj Nbr** field, select the current entry and type an accounting project number.

17. In the **Prj Type** drop-down list, click the expand arrow to the right of the current selection and click the project type.

18. In the **Work Type** drop-down list, click the expand arrow to the right of the current selection and click the work type.

19. In the **Surface Type** drop-down list, click the expand arrow to the right of the current selection and click the surface type.

20. In the **Route Nbr** field, select the current entry and type the affected route number.

21. Press the **Tab** key.

22. In the **Sect Nbr** field, select the current entry and type the affected section number.

23. In the **Road System** field, select the current entry and type the road system type.

24. In the **Road Name** field, select the current entry and type the name of the road affected by the project.

25. In the **Location** field, type a description of the location. If necessary, tab to the next line and add to the description.

26. Press the **Tab** key.

27. In the **Engr Pct** field, select the current entry and type the percentage of the project cost charged to the state or province.

28. In the **Urb/Rural** drop-down list, click the expand arrow and click Urban or Rural.

29. In the **Beg Sta** field, select the current entry and type the station where the work begins.

30. Press the **Tab** key.

31. In the **End Sta** field, select the current entry and type the station where the work ends.

32. Press the **Tab** key.

33. In the **Beg Termini** field, select the current entry and type the termini where the work begins.

34. Press the **Tab** key.

35. In the **End Termini** field, select the current entry and type the termini where the work ends.

36. Press the **Tab** key.

37. In the **Latitude** field, select the current entry and type the midpoint latitude of the job.

38. Press the **Tab** key.

39. In the **Longitude** field, select the current entry and type the midpoint longitude of the job.

40. Click the **Save** button.

If the selected project has dependent data such as categories or items associated to it, the project cannot be deleted.

To delete a project:

1. On the **Contract Records** panel, double-click the **Projects** icon. The Projects window opens.

2. To select both a contract and a project, click the **Open** button. The Select Contract ID window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract. The Project List for the selected contract is displayed.

4. In the **Project** list box, scroll to and click the project.

5. Click **OK**. The Projects window displays data for the selected project.

6. Click the **Delete** button. The system asks the user to confirm the deletion.

7. Click **Yes**. When the project is deleted, the corresponding project counties and adjustment indices are also deleted.

5.6.2 Project Counties

The Counties folder tab lets the user add and remove counties to and from the project. For every county included in the project, the user must enter the percentage of the project work to be done in the county. The percentages for all counties must add up to 100 percent.

To select the Counties folder tab, the user must open or create a project record on the Description folder tab.
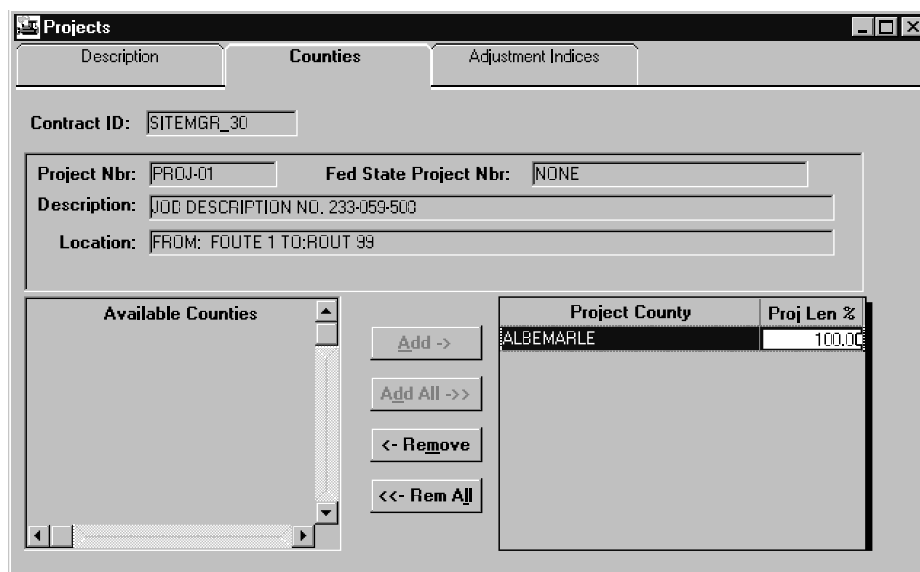
Figure 5-14. The Project Counties Folder Tab

Field Name	Description
Fed State Project Number	The federal or state project number for the contract or project.
PCN	Agency-defined project control number.
Description	Description of the project.
Location	Description of the project location.
Available Counties	Counties included in the contract that have not been associated with this project.
Project Counties	Counties that have been associated with this project.

Field Name	Description
Proj Len %	Percentage of the total length of the work to be done in each county. This field is required for every project county. The percentages for all counties must add up to 100 percent.

Table 5-16. The Project Counties Folder Tab Fields Table

Button	Description
Add	The Add button adds a county to the project. If all available counties have been associated with the project, this button is disabled.
Add All	The Add All button adds all the counties to the project. If all available counties have been associated with the project, this button is disabled.
Remove	The Remove button removes a county from the project. There is no message confirming the removal.
Remove All	The Remove All button removes all the counties from the project. There is no message confirming the removal.

Table 5-17. The Project Counties Folder Tab Buttons Table

To add a Project County:

1. On the **Contract Records** panel, double-click the **Projects** icon. The Projects window opens.

2. To select both a contract and a project, click the **Open** button. The Select Contract ID window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract. The project for the selected contract are listed.

4. In the **Project** list box, scroll to and click the project.

5. Click **OK**. The Projects window opens with the Description folder tab displayed with data for the selected project.

6. Click the **Project Counties** folder tab.

7. In the **Available Counties** list box, scroll to and click the county or use the **CTRL** key to select multiple counties. To clear a county, click it again.

8. Click the **Add** button. The selection is added to the **Project County** list on the right.

9. In each **Proj Len %** field, type the percentage of the project work to be done in the county.

10. Click the **Save** button.

5.6.3 Project Price Adjustment Indices

The Adjustment Indices folder tab lets the user add or delete a Price Adjustment Index to or from a project. Price Adjustment Indices are used to adjust the cost of items that are known to have fluctuating prices, such as gas and oil products. If the user adds an item's Price Adjustment Index to a project, the index is used during estimate generation to calculate the cost of the item.

To select the Adjustment Indices folder tab, the user must open or create a project record on the Description folder tab.
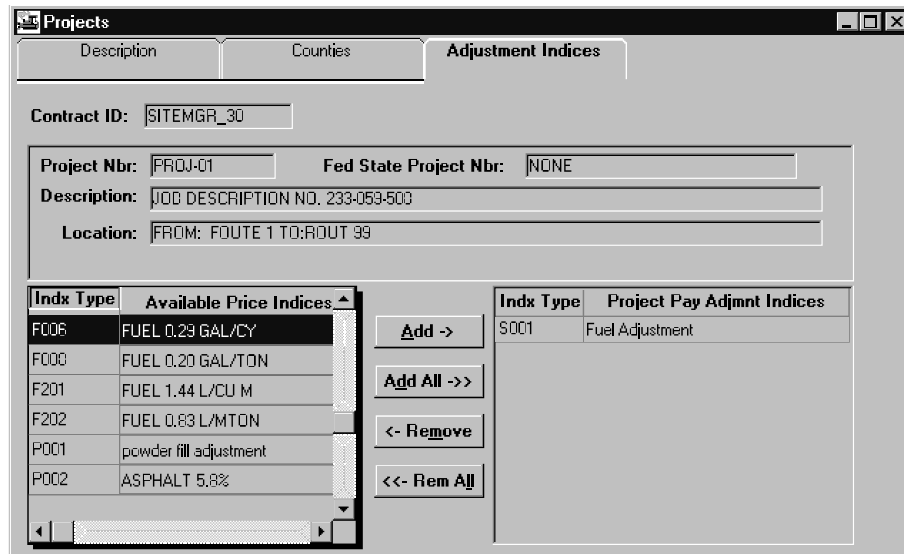
Figure 5-15. The Adjustment Indices Folder Tab

Field Name	Description
Fed State Project Number	Federal or state project number for the project.
PCN	Agency-defined project control number.
Description	Description of the project.
Location	Description of the project location.
Indx Type	Identifying code of a Price Adjustment Index.

Field Name	Description
Available Price Indices	Price Adjustment Indices that can be associated with this project.
Project Pay Adjmnt Indices	Price Adjustment Indices that have been selected for this project.

Table 5-18. The Adjustment Indices Folder Tab Fields Table

Button	Description
Add	The Add button adds the selected price adjustment index to the project. If all available indices have been associated with the project, this button is disabled.
Add All	The Add All button adds all the price adjustment indices to the project. If all available indices have been associated with the project, this button is disabled.
Remove	The Remove button removes the price adjustment index from the project. There will be no message confirming the removal. If no indices are associated with the project, this button is disabled.
Remove All	The Remove All button removes all the price adjustment indices from the project. There will be no message confirming the removal. If no indices are associated with the project, this button is disabled.

Table 5-19. The Adjustment Indices Folder Tab Buttons Table

To add a project Price Adjustment Index:

1. On the **Contract Records** panel, double-click the **Projects** icon. The Projects window opens.

2. To select both a contract and a project, click the **Open** button. The Select Contract ID window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract. The projects for the selected contract are listed.

4. In the **Project** list box, scroll to and click the project.

5. Click **OK**. The Projects window opens with the Description folder tab displayed with data for the selected project displayed.

6. On the Projects window, click the **Adjustment Indices** folder tab.

7. In the **Available Price Indices** list box, scroll to and click the index or use the **CTRL** key to select multiple indices. To clear an index, click it again.

8. Click the **Add** button. The selection is added to the **Project Pay Adjmnt Indices** list on the right.

9. Click the **Save** button.

5.7 Categories

The Categories window lets the user add, modify, and delete categories. Categories are typically used to group items funded by the same source within a project. To do this, the user can create a category, associate items with the category, and select a funding source for the category. Each category in a project can have a different funding source. A category with associated items cannot be deleted.

The Categories window lists the categories for the selected contract and project. The window displays detailed data for the selected category below the list. After a category is saved, the project control number (PCN) and category number cannot be modified. The project number cannot be modified after an estimate has been generated. When a new project is added to a contract, it must be associated with at least one category.

Figure 5-16. The Category Window

Field Name	Description
Catg Nbr	Category number assigned to items during preconstruction. Items can be grouped in categories, primarily for funding. This number must be unique within a project. The Category Number cannot be modified. Categories created in error must be deleted.
PCN	Agency-defined Project Control Number.
Fed St/Pr Prj Nbr	Federal, state, or province project number for the category. If not entered, defaults to the Fed St/Pr Prj Nbr for the project. The user can find, filter, and sort this field.
Desc	Description of the category. Two lines are provided. The user can find, filter, and sort these fields.
Length	The length of road represented by this category. If more than one category contains work for the same portion of road, the length is split between them. The user can find, filter, and sort this field.
Width	The width of road represented by this category. If more than one category contains work for the same portion of road, the width is split between them. The user can find, filter, and sort this field.
Catg Wk Cls Type	Classification of work for a category within a project (e.g., Roadway Construction, Bridge Construction, Beautification, Furnished Materials, Utilities).
Bridge ID	Agency-defined value that identifies a bridge or other structure. This field is empty if the category does not represent structure work. The user can find, filter, and sort this field.
Engr Pct	Engineering construction percentage that represents the state or province's cost of managing a category. This percentage of the total category item amounts can be used to compute the total category estimated cost as follows: [total Category Item amount $\times$ (100 + Engr Pct)]. The user can find, filter, and sort this field.
Brdg Type	Type of bridge represented by this category (e.g., Concrete Bridge, Steel Bridge, First Tier Overpass, Second Tier Overpass). This value cannot be modified if the Bridge ID field is empty.

Field Name	Description
Fed Wrk Catg Type	Identifies the type of work for the category (e.g., General, Roadway, Construction & Engineering, Alternates).
Bridge Span Nbr	Number of spans within the bridge structure. Protected if the Bridge ID field is empty.
Rd Sect Nbr	Road section number where the category work is done. The user can find, filter, and sort this field.
Fed Wrk Cls Type	Class of construction used for the category (e.g., General, Roadway, Construction & Engineering, Alternates).
Brdg Lth	Length of the structure represented by this category. Protected if the Bridge ID field is empty.
Hwy Nbr	Highway number where the primary category work is done. The user can find, filter, and sort this field.
Suppl Wrk Cls Type	Federal supplementary work class for a category (e.g., Emergency Evacuation Routing, Rest Areas, Safety Improvements).
Brdg Wth	The width of the structure represented by this category. Protected if the Bridge ID field is empty.
Hwy Type	Highway type where the primary category work is done. Agency-defined values such as interstate, state route, county route, and rest area.
Beg Sta Nbr	Precisely defines the station number where the category work begins. The user can find, filter, and sort this field.
Beg Termini	Precisely defines the termini where the category work begins. The user can find, filter, and sort this field.
End Sta Nbr	Precisely defines the station number where the category work ends. The user can find, filter, and sort this field.
End Termini	Precisely defines the termini where the category work ends.
Unit Nbr	Unit number under which the category is grouped. Categories can be grouped under a unit number for reporting purposes. The user can find, filter, and sort this field.

Field Name	Description
Desc	Description of the unit number under which the category is grouped. Categories can be grouped under a unit number for reporting purposes. The user can find, filter, and sort this field.

Table 5-20. The Category Window Fields Table

To add a category to a project:

1. On the **Contract Records** panel, double-click the **Categories** icon. The Categories window opens.

2. To select both a contract and a project, click the **Open** button. The Select Contract Project window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract. The projects for the selected contract are listed.

4. In the **Project** list box, scroll to and click the project.

5. Click **OK**. The Categories window opens with data for the first category on the list displayed in the fields below the list.

6. Click the **New** button.

7. In the **Catg Nbr** field, type the Category Number.

8. Press the **Tab** key.

9. To change the default Project Number in the **Fed St/Pr Prj Nbr** field, select the current entry and type the Project Number for the category.

10. Press the **Tab** key.

11. In the **Desc** field, type a description of the category.

12. Press the **Tab** key.

13. In the **Length** field, type the length of road represented by this category for the selected project.

14. Press the **Tab** key.

15. If necessary, in the second **Desc** field, add a second line to the description of the category.

16. Press the **Tab** key.

17. In the **Width** field, type the width of road represented by this category for the selected project.

18. In the **Catg Wk Cls Type** drop-down list, click the expand arrow click the work class type.

19. Press the **Tab** key.

20. To identify a structure, in the **Bridge ID** field, type an agency-defined value to identify the structure.

21. Press the **Tab** key.

22. In the **Engr Pct** field, type the engineering construction percentage.

23. Press the **Tab** key.

24. If a structure has been entered in the **Bridge ID** field, in the **Brdg Type** drop-down list, click the expand arrow and click the bridge type.

25. In the **Fed Wrk Catg Type** drop-down list, click expand and click the work category type.

26. Press the **Tab** key.

27. If a structure has been entered in the **Bridge ID** field, in the **Bridge Span Nbr** field, type the number of spans.

28. Press the **Tab** key.

29. In the **Rd Sect Nbr** field, type the road section number where construction will take place.

30. In the **Fed Wrk Cls Type** drop-down list, click the expand arrow and click the work class type.

31. Press the **Tab** key.

32. If a structure has been entered in the **Bridge ID** field, in the **Brdg Lth** field, type the length of the structure.

33. Press the **Tab** key.

34. In the **Hwy Nbr** field, type the primary work roadway number.

35. In the **Suppl Wrk Cls Type** drop-down list, click the expand arrow and click the federal supplementary work type for the category.

36. If a structure has been entered in the **Bridge ID** field, in the **Brdg Wth** field, type the width of the structure.

37. In the **Hwy Type** drop-down list, click the expand arrow and click the type of the primary work roadway.

38. Press the **Tab** key.

39. In the **Beg Sta Nbr** field, type the station number where the work begins.

40. Press the **Tab** key.

41. In the **Beg Termini** field, type the termini where the work begins.

42. Press the **Tab** key.

43. To group this category in a Unit with other categories, in the **Unit Nbr** field, type the unit number.

44. Press the **Tab** key.

45. In the **End Sta Nbr** field, type the station number where the work ends.

46. Press the **Tab** key.

47. In the **End Termini** field, type the termini where the work ends.

48. Press the **Tab** key.

49. If a Unit number has been entered in the **Unit Nbr** field, in the **Desc** field, type a description of the Unit.

50. Click the **Save** button.

A category can only be deleted if there are no items associated to it.

To delete a category:

1. On the **Contract Records** panel, double-click the **Categories** icon. The Categories window opens.

2. To select both a contract and a project, click the **Open** button. The Select Contract Project window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract. The projects for the selected contract are listed.

4. In the **Project** list box, scroll to and click the project.

5. Click **OK**. The Categories window opens with data for the first category on the list displayed.

6. In the **Category** list box, scroll to and click the category. The fields display data for the selected category.

5.8 Items

The Items window lets the user add, modify, and delete items on the selected contract and project. The agency defines standard items and lists them on the Item Master. The user can add an item to a contract by selecting the item from the Item Master. While the contract is pending, this can be done on the Items window. After the contract is active, items are added through change orders. The Items window fields have specific display, protection, and calculation requirements depending on whether the data was added through a change order. These requirements are included in the field definitions.
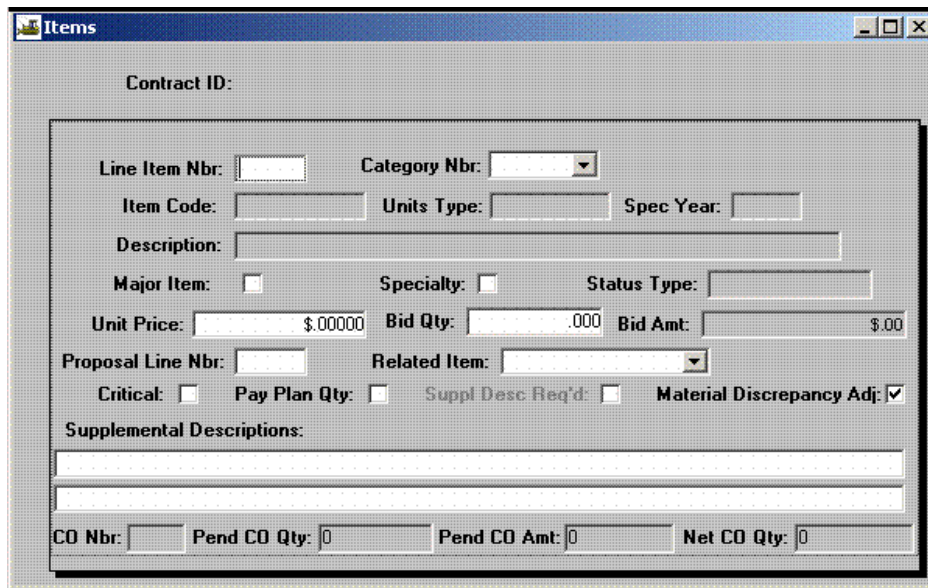
Figure 5-17. The Items Window

Field Name	Description
Line Item Nbr	The Contract Line Item number that identifies each item as it appears on the contract. The user supplies this value for all items added to the contract after construction begins and all contracts entered online. When entered, must be unique within the contract. Once saved, this value cannot be modified. Items added with wrong line item numbers must be deleted and added again.
Project Nbr	Agency-defined ID for the project. There can be multiple project Control Numbers per contract. After a value is entered and saved, it cannot be modified. Items added to wrong projects must be deleted and added again.

Field Name	Description
Category Nbr	Category number under which items are grouped for funding or other various reasons. After a category number is saved, it cannot be modified. Items added to wrong categories must be deleted and added again.
Status Type	Code indicating the current status of an item. Pending. Status defaults to pending when the item is added. Active. When a contract's status is changed to active, the status of all of the contract's items is changed to active. An active item cannot be deleted. Final. When a Final Item Quantity Change Order is approved, the status of all of the change order's items is changed to Final. Audited. When an item has been approved or accepted through an audit, the user must indicate its status as Audited. Complete. When a contract's status is changed to complete, the status of all of the contract's items is changed to complete.
Item Code	Agency-defined code used to identify an item. This value is supplied by the Item Master list. The user can search this field. This value is protected from modification once the contract status is changed from pending to active.
Description	Text description of the item. This value is supplied by the Item Master list. An Item Description cannot be modified.
Units Type	The unit of measure for this item. This value is supplied by the Item Master list and cannot be modified.
Unit Price	Unit price of the item, identified on the invoice and contract documents. Protected from modification once the contract status is changed from pending to active.
Spec Year	Specification year from the Item Master record.

Field Name	Description
Bid Quantity	This is the original quantity of the line item, as indicated on the proposal or contract. Must be greater than zero. Must be equal to one, if the item's unit of measure is Lump Sum. Protected from modification once the contract status is changed from pending to active. Protected from entry if item is being added through a change order. If the bid quantity is zero, the item was added through a change order and its quantity is obtained through the Change Order Item quantity amount and not the item bid amount.
Bid Amount	Total dollar amount of item at bid. Protected and is derived from the formula [Bid Qty * Unit Price].
Proposal Line Nbr	The line number that identifies the item as it appears on the proposal. This field is populated by a preconstruction system and is for display only.
Specialty	Indicates if the line item is a specialty item. Specialty items are excluded from the calculation to determine the amount of the contract which can be sublet. Protected from modification if the contract has an associated estimate or if the item has any of the following: An associated Change Order An associated dispute An associated plan discrepancy (through a Change Order) An associated stockpiled material
Major	Indicates that the item is considered major rather than minor. Major items can have different overrun limits and parameters for change order approvals. Protected from modification if the contract has an associated estimate, or if the item has any of the following: An associated Change Order An associated dispute An associated plan discrepancy (through Change Order) An associated stockpiled material

Field Name	Description
Critical	Indicates that the item is considered critical. Used for tracking the progress of contracts with the Critical Items Installed progress schedule type. Non-critical items such as landscaping are not included in progress tracking. If the Allow Critical Item Indicator Update System Operational Parameter is set to No., the indicator is protected from modification if the contract has an associated estimate or if the item has any of the following: An associated Change Order An associated dispute An associated plan discrepancy (through a Change Order) An associated stockpiled material An associated Subcontract If the Allow Critical Item Indicator Update System Operator Parameter is set to Yes, the indicator is available at all times until the item has a Final status.
Pay Plan Qty	Indicates if the line item is paid to plan quantity. If this indicator is ON, an in-box message indicating that the item has exceeded the notified quantity is issued to the user who generated the estimate. Protected from modification if the contract has an associated estimate or if the item has any of the following: An associated Change Order An associated dispute An associated plan discrepancy (through a Change Order) An associated stockpiled material

Field Name	Description
Related Item	Allows grouping of line items (e.g., all traffic control items or all items for a structure) for reporting and funding purposes. To report items together, the user may create a related item code such as RPT1 = Report #1 and then develop a report which selects and groups these items together. Similarly, to fund a group of items the same but not within the same category, the user may create a related item code such as FND1 = Funding Source #1 and select those items with this code in the funding process, thereby funding all these items with the same source and participation percentages. Protected from modification if the contract has an associated estimate or if the item has any of the following: An associated Change Order An associated dispute An associated plan discrepancy (through a Change Order) An associated stockpiled material
Supplemental Description	User-entered description that is supplemental to the item's description from the Item Master. Two lines are provided.
Material Discrepancy Adjustment	When an authorized user adds contract items online in SiteManager, the item's adjustment flag is set according to the settings in System Operational Parameters. This flag's check box defaults to On if system-wide discrepancy adjustments flag is selected and if the default calculation for all items flag is turned on. The default setting for the item may be changed at any time during the course of a contract. The item's check box isdisabled if the system setting for the discrepancy adjustments flag is cleared.

Table 5-21. The Item Window Fields Table

A Contract Line Item can be deleted only if the contract status is pending. A supplemental description is required if the Require Supplemental Description indicator is turned on in an item's Master List entry.

To view or modify a contract line item:

1. On the **Contract Records** panel, double-click the **Items** icon. The Items window opens.

2. To select a contract, project, and contract item, click the **Open** button. The **Select Contract ID** window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract. The projects for the selected contract are listed.

4. In the **Project** list box, scroll to and click the project. The contract items for the selected project are listed.

5. In the **Items** list box, scroll to and click the item.

6. Click **OK**. The Items window opens and displays data for the selected item.

7. To change the item's status, click the expand arrow to the right of the current selection and click the status type in the **Status Type** drop-down list,.

8. To save modifications, click the **Save** button.

Items that are not on the Item Master cannot be added to a contract through the Items window. To add an item to an active contract, refer to the change order topic.

To add an item to a pending contract:

1. On the **Contract Records** panel, double-click the **Items** icon. The Items window opens.

2. To select both a contract and a project, click the **Services** menu and click the **Choose Keys** choice. The **Select Contract ID** window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract. The projects for the selected contract are listed.

4. In the **Project** list box, scroll to and click the project.

5. Click **OK**. The Items window opens and displays data for the selected item.

6. In the **Line Item Nbr** field, type a unique contract line item to identify the item on the contract.

7. Press the **Tab** key.

8. To group this item under a category, click the expand arrow and click the category in the **Category** drop-down list.

9. In the **Item Code** field, perform a **Search**. After an item is selected from the Item Master, the system fills in some of the data on the Items window.

10. To indicate that the item is considered major, select the **Major** check box (ON).

11. To indicate that the item is considered a specialty item, select the **Specialty** check box (ON).

12. Press the **Tab** key.

13. In the **Unit Price** field, type the unit price of the item.

14. Press the **Tab** key.

15. In the **Bid Quantity** field, type the original quantity of the Line item.

16. To group this item with other Line items, click the expand arrow and click the related item code in the **Related Item** drop-down list.

17. To indicate that the item is considered critical, select the **Critical** check box (ON).

18. To indicate that the item is paid to plan quantity, select the **Pay Plan Qty** check box (ON).

19. If desired, tab to the **Supplemental Description** field(s) and type a description.

20. Click the **Save** button.

5.9 Contract Funding

The Contract Funding window lets the user specify funding for the whole contract, and for the contract's projects, categories, and line items. The Contract Funding window lists the current funding specifications in the top datawindow. Data for the selected funding record is displayed in the bottom datawindow. If the user adds funding that does not match the funding selection on the Contract Description folder tab (i.e., Federal, State/Province, or Both), SiteManager automatically updates the Contract Description folder tab.

Active contracts must be fully funded. For any part of the contract funded by multiple sources, the combined funding must equal 100 percent. If more than one priority level is assigned, the combined funding for each priority level must equal 100 percent. In addition, each funding source can be assigned a cap amount. When the highest priority funding source reaches its cap amount, the funding source with the next highest priority continues the funding. If the lowest priority level fund has a cap amount, the cap amount is ignored until a lower level fund is added.

When adding a project to an existing active contract, the project must have funding associated with it prior to creating the change order that adds items to the project. Change orders cannot be approved without a funding source for line items associated with the project or category.

5.9.1 Related Item Codes

Line items with the same Proposal Line Number or Related Item Code can be funded together. Related Item Codes can be created specifically to group line items (e.g., all traffic control items) for funding purposes. To do this, the user creates a Related Item Code in the system code tables and associates Line items with this code on the Items window. The user can then select a funding source for Related Items on the Contract Funding window.

Funding sources are defined in the Contract Administration reference tables.
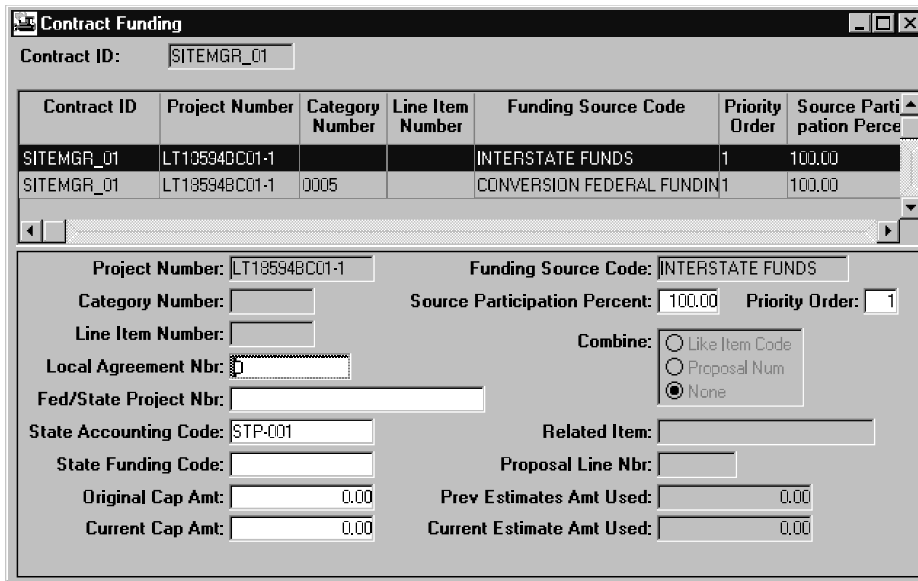
Figure 5-18. The Contract Funding Window

Field Name	Description
Funding Source Code	Identifies a particular source of funding (e.g., federal grant, federal fuel tax, state general fund). This is a required field. After a record is saved, this field is protected. To change the Funding Source Code, delete the record and add it again.
Project Number	Agency-defined ID for the project. Lists projects within the contract.
Fed/State Project Nbr	The federal or state project number for the project.
Category Number	A grouping of items assigned during preconstruction. Items can be grouped within categories for various reasons, primarily for funding. Lists categories within the contract and project.
Priority Order	Indicates the order in which funds are appropriated to the contract. The valid range is between 1 and 9.

Field Name	Description
Line Item Number	The Contract Line Item Number that identifies each item as it appears on the contract. All bid Line Item Numbers are assigned by the preconstruction function. Line Item Numbers added to the contract after construction begins are assigned by the user.
Local Agreement Nbr	Number used to identify an agreement between a local authority and the agency. The agreement defines the funding provided by the local authority with regard to a particular job.
Source Participation Percent	The percentage of the total amount in the project or category provided by the Funding Source. (For example, many federal aid funding sources provide 80 percent of the funding for the project or category.). This is a required field; a valid percentage is between 1 and 100.
Combine	This field indicates whether items are combined by Related Item Code or Proposal Line Number for funding purposes. This is a required field. Select None to combine no items. To combine items under the same funding source, the user selects either Like Item Code or Proposal Number. When Like Item Code is selected, an entry in the Related Item field is required. When Proposal Number is selected, an entry in the Proposal Line Nbr field is required.
Proposal Line Nbr	The line number that identifies the item as it appears on the proposal. This is a required field when the user selects the Proposal Number radio button.
Related Item	Related item codes allow grouping of items (e.g., all traffic control items) for reporting and funding purposes. To group items for funding by the same source and percentage, if the items are not in the same category, the user creates a Related Item code and selects items with this code in the funding process. To report Items together, the user creates a Related Item code, such as RPT1 = Report 1, and then creates a report that selects and groups these items together. This is a required field when the user selects the Like Item Code radio button. The Related Item codes are defined in the system code tables.
State Funding Code	Agency-defined code needed by financial system.

Field Name	Description
State Accounting Code	Agency-defined code needed by financial system.
Original Cap Amt	Original funding limit.
Current Cap Amt	Current funding limit.
Total Amt Used	Amount used up to the last paid estimate.
Current Amt Used	Amount used in the current estimate.

Table 5-22. The Funding Source Window Fields Table

To add funding to a contract:

1. On the **Contract Records** panel, double-click the **Contract Funding** icon. The Contract Select List opens.

2. In the **Contract ID** list box, scroll to and click the contract.

3. Click **OK**. The Contract Funding window opens.

4. Click the **New** button.

5. To select a project number, click the expand arrow and click the project number in the **Project Number** drop-down list.

6. To select a Category Number, in the **Category Number** drop-down list, click the expand arrow and click the Category Number.

7. To select a Line Item Number, click the expand arrow and click the Line Item Number in the **Line Item Number** drop-down list.

8. Press the **Tab** key.

9. In the **Local Agreement Nbr** field, type the number used to identify an agreement between a local authority and the transportation agency.

10. Press the **Tab** key.

11. In the **Fed/State Project Nbr** field, type the federal or state project number.

12. Press the **Tab** key.

13. In the **State Accounting Code** field, type the state accounting code.

14. Press the **Tab** key.

15. In the **State Funding Code** field, type the state funding code.

16. Press the **Tab** key.

17. In the **Original Cap Amt** field, type the original funding limit.

18. Press the **Tab** key.

19. In the **Current Cap Amt** field, type the current funding limit.

20. In the **Funding Source Code** drop-down list, click the expand arrow and click the source of funding (e.g., Federal grant, Federal fuel tax, State general fund).

21. In the **Source Participation Percent** field, type the percentage of the selected project, category, or line item provided by the source.

22. Press the **Tab** key.

23. In the **Priority** field, type a value between one and nine that indicates the order in which the fund is appropriated to the contract.

24. To apply funding to combined Line items, click the Like Item Code or Proposal Number radio button in the **Combine** field.

25. If Like Item Code is selected, tab to the **Related Item** field, click the expand arrow and click the Related Item Code.

    Or

26. If Proposal Number is selected, tab to the **Proposal Line Nbr** field, click the expand arrow and click the Proposal Line Number.

27. Press the **Tab** key.

28. In the **Total Amt Used** field, type the amount of funding used, up to the last paid estimate.

29. Press the **Tab** key.

30. In the **Current Amt Used** field, type the amount of funding used in the current estimate.

31. Click the **Save** button.

Active contracts must be fully funded. The system prompts the user to fully fund the contract if any part of the contract is not funded 100 percent.

To modify contract funding:

1. On the **Contract Records** panel, double-click the **Contract Funding** icon. The Contract Select List opens.

2. In the **Contract ID** list box, scroll to and click the contract.

3. Click **OK**. The Contract Funding window opens.

4. In the **Contract Funding** list box, scroll to and click the funding record.

5. In the bottom datawindow, tab to the fields to be modified and enter data.

6. Click the **Save** button.

5.10 Contract Group Authority

Contract Group Authority works in conjunction with other security features to give users the authority to access and modify contracts. The user's ability to add, modify, or delete contract data also depends on the user group window access rights, the office level assignment, and whether or not the user is assigned to a group that has Office-wide contract Access. This section includes a brief summary of Contract Authority and the following three security features:

- Window Access Rights

- Office-wide Contract Access

- Contract Authority (Contract-specific)

5.10.1 Window Access Rights

Window security is the highest security level in SiteManager. Window access rights determine the user's ability to view and modify SiteManager windows. To view or modify a specific type of window, the user must belong to a user group that has been assigned inquiry or update access rights for that window. Inquiry access rights let the user view the window. Update access rights let the user add and delete data on a window. The states and provinces assign user groups and window access rights to meet their specific needs. To be given Contract Authority, a user must first be assigned to a user group with window access rights to the Contract windows.

5.10.2 Office-Wide Contract Access

Office-Wide Contract Access for a group gives a user the authority to view or modify any contract delegated to the office to which the user is assigned when the user is logged on under that group. Most states and provinces have three office levels. In SiteManager, the office labels are user-defined. The Level 1 office is always the transportation agency headquarters.

- Level 1 Office (Central office or DOT)

- Level 2 Offices

- Level 3 Offices

- Level 4 Offices

Each user is assigned to an office level.

For example, a user is assigned to the Level 1 office and the user has office-wide contract access for the Project Manager group. When the user is logged on under the Project Manager group, the user can view, add, modify, or delete any contract delegated to the user's state or province.

A user who is assigned to the Level 2 office and who has been assigned to the office-wide contract access Project Manager group can view, add, modify, or delete any contract within the user's Level 2 office. A user must have at least Level 2 Office-Wide Contract Access to add or delete contracts, milestones, projects, categories, and items.

5.10.3 Contract Authority Examples

Window security can give the user window access rights to contract panels. Contract Authority can only give the user access to specific contracts. The assignment of Office-Wide Contract Access groups to a user allows the user to access all the contracts administered by their respective office when the user is logged on under those groups. All states and provinces require a Project Manager and Project Engineer for all contracts. To give a user the authority to view, modify, or add and delete contract data, the following assignments are required:

To view contract data, the user must

Belong to a user group with inquiry access rights to the contract panels, and have one of the following:

- Contract Authority and group access assignment specific to the contract

    OR

- Office-Wide Access with group assignment

To modify contract data, the user must

Belong to a user group with update access rights to the contract panels, and have one of the following:

- Contract Authority and group access assignment specific to the contract

    OR

- Office-Wide Access with group assignment

To add or delete a contract, the user must

- Belong to a user group with update access rights to the contract panels

- Have at least Level 2 Office-Wide Contract Access

▪ Belong to the office that administers the contract

Contract Authority Example 1

The state or province needs personnel authorized to view and modify all state or province-wide contracts, add new contracts online, and delete contracts that are incorrectly built.

1. Assign specific users to the Level 1 office.

2. Create a user group, e.g. Contract Administrators, with window update access to all contract windows.

3. Assign Level 1 office users to the Contract Administrators user group with office-wide contract access.

To implement Example 1, the Contract Administrators user group would be assigned update access rights for all contract windows except Daily Work Reports, which would be inquiry access only. Additionally, the user's assigned office would be Level 1. The user would be assigned to the Contract Administrator group and the office-wide check box would be selected ON. If a Contract Administrator attempts to open a Contract window, the window will first look at the user's window access rights. Since the user has window access rights, the window will next look at the user's Contract Access, and permit or deny access accordingly. In the case of the Daily Work Report window, the system would discover that the user has inquiry rights. The system would permit the user to view the Daily Work Report window but not add, update, or delete a Daily Work Report.

Contract Authority Example 2

The state or province needs personnel authorized to view and modify all Level 2 office contracts. These users would not be able to view or modify any contracts not assigned to their office.

1. Assign specific users to the Level 2 office.

2. Create a user group, e.g., District Project Engineers, with window update access to all Contract windows except:

   ▪ Windows relevant to an inspector's Daily Work Reports (inquiry only)

   ▪ Daily Work Report approval window (inquiry only)

3. Assign Level 2 office users to the District Project Engineers user group with office-wide contract access.

If a user in Example 2 needs to view or update a contract out of the office's jurisdiction, the user will need Contract Authority for that contract. Because the user group has window update access, the user would be able to modify any contract he is assigned to through Contract Authority. The user would not be limited to view-only access for this contract.

Contract Authority Example 3

The state or province needs Level 3 office personnel assigned as Daily Work Report Inspectors who can view and modify specific contracts only.

1. Assign users to the Level 3 office.

2. Create a user group, e.g., Project Inspectors, with the following window access rights:

   ▪ Inquiry access to specific Contract windows, such as those related to daily work items and reporting.

   ▪ Update access to windows relevant to an inspector's Daily Work Reports.

3. Assign the Level 3 office users to the Project Inspectors user group.

4. Assign Contract Authority for specific contracts to individual Project Inspector users.

5.10.4 Contract Authority

The Contract Authority window displays the users, office level assignments, and group assignments for each individual user. When the Project Manager and Project Engineer are added to the contract, the system automatically adds a row for each user's group assignment to the Contract Authority window. An authorized user can end Contract Authority for personnel no longer needed to work on the contract.
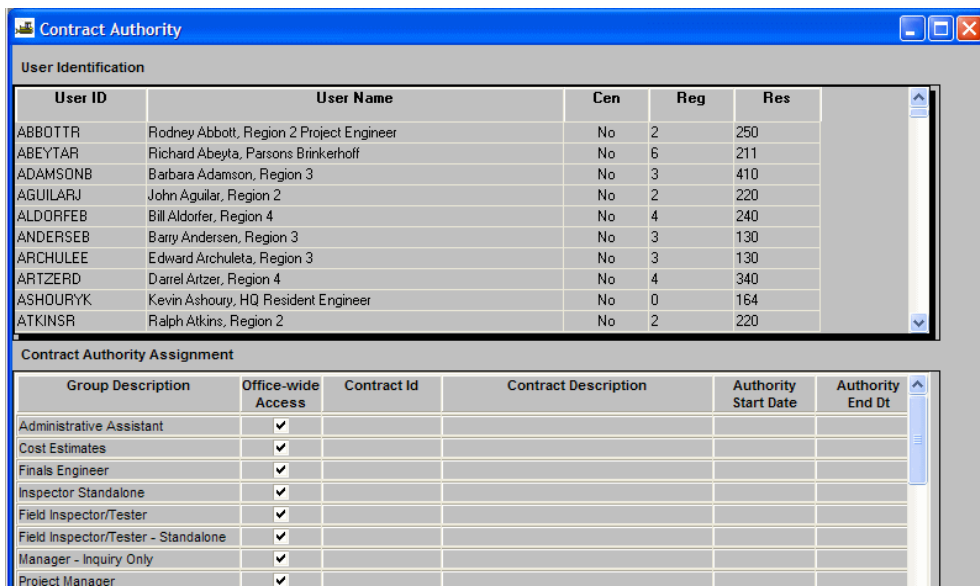
Figure 5-19. The Contract Authority Window

Field Name	Description

Field Name	Description
User ID	Agency-defined ID of the user.
User Name	Name of the user with this ID.
Cen	Central Office Assignment. Indicates whether the user is assigned to the central office.
Reg	Region. The user's level 2 region assignment.
Res	Residency. The user's level 3 office assignment.
Group Description	Drop-down list containing all the current user's active group assignments. The administrator selects from among these groups to assign the user office-wide or specific contract authority. Upon selecting a new value, the office-wide access and contract ID fields are cleared. Required field.
Office-wide Access	This field indicates whether the user has been assigned group access rights to all contracts within the user's assigned office. This field is protected if the user already has current, non-end-dated, office-wide contract authority for the specified group. Once this field is selected, the contract field is cleared and protected.
Contract ID	This field is required if Office-wide Access is not selected. Identifies the contract to which the user is assigned group access rights. The search capability for this field is limited to contracts on which the user is not currently assigned authority.
Contract Description	Protected field. Describes the contract to which the user is assigned group access rights.
Authority Start Date	The date Contract Authority begins for this user. The value defaults to the current date when a save is performed. This field is only populated for contract-specific rows. It is not used for office-wide contract authority.

Field Name	Description
Authority End Date	The date Contract Authority ends for this user. Upon choosing End Contract Authority from the window's Services menu, a popup window displays, allowing the end user to enter the desired Contract Authority ending date. This date can be the current or future date. The current date is the default date. This field is only populated for contract-specific rows. It is not used for office-wide contract authority.

Table 5-23. The Contract Authority Window Fields Table

To grant a user Contract Authority:

1. On the **Contract Records** panel, double-click the **Contract Authority** icon. The Contract Authority window opens.

2. Select and click the desired user ID.

3. Click the **New** button. The **New Contract Group Authority** window opens.

4. In the **Group Description** field, click the down arrow to the right of the field, and select the desired group.

5. If desired, use the Search function to select a specific contract.

6. Click the **Save** button.

To end a user's Contract Authority:

1. On the **Contract Records** panel, double-click the **Contract Authority** icon. The Contract Authority window opens.

2. Select and click the desired user ID.

3. Select and click the desired group in the lower datawindow.

4. If the authority is specific to a contract, click the **Services** menu and select the **End Contract Authority** choice. In the Contract Authority End Date popup window, enter a valid date and click the **OK** button. Valid dates that can be entered in this field are the current date or a date in the future.

5. If the authority is office-wide access, click the **Delete** button.

6. Click the **Save** button.

5.11 Key Dates and Checklist Events

Key Dates and Checklist Events allow the user to establish, monitor, and maintain a series of key dates and scheduled events specifically related to the administration of the contract. The messages and discrepancy tracking associated with Key Dates and Checklist Events enhance the ability of the user to administer the contract. For more information, refer to the Key Dates, Checklist Scheduled Events, and Checklist Event Dates topics.

5.12 Progress Schedule

The Progress Schedule window lets the user add, modify, and view a contract's Progress Schedule. The user selects a schedule type, enters time periods, and enters the percentage of contract work to be completed in each time period. The time periods are measured in either days or dates, depending on the Time Charges Type of the contract. If the Critical Path Method schedule type is selected, only the final day or date can be tracked. If a schedule type is not selected, SiteManager does not track the contract's progress.

A daily batch process calculates the actual percentages of the contract time and work completed in each time period. If the work falls behind schedule by an amount that exceeds the Variance Percentage, the batch process notifies contract personnel. The user can override the percentages calculated by the batch process and enter new values. If the user changes the schedule type, any time period with an actual percentage value is deleted and the user can enter new time periods.

The Progress Schedule window displays a column graph corresponding to the schedule data. The graph displays the actual percentage completed (amount and time) versus the schedule. The user can maximize the graph by clicking the maximize box and return it to original size by clicking the original box.
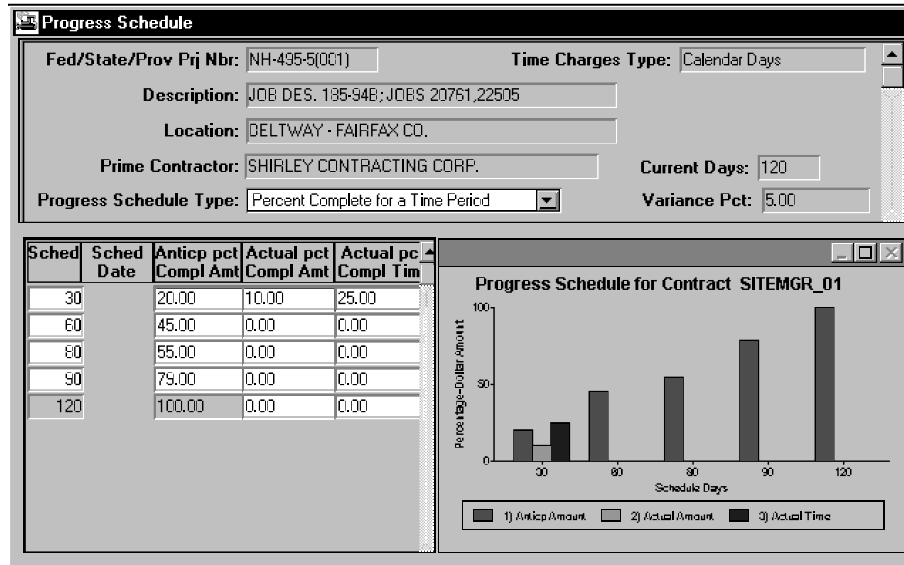
Figure 5-20. The Progress Schedule Window

Field Name	Description
Fed/State/Prov Prj Nbr	Federal, state, or province project number for the contract, project, or category.
Current Days	The current number of days required to complete the contract. This is the sum of the bid days and the total adjustment days for the contract.
Description	Text description of the contract.
Location	Text describing the physical location of the contract work site.
Prime Contractor	Short name for the Prime Contractor for the contract.
Time Charges Type	Indicates how time charges are assessed for the contract (i.e., Available Work Days, Calendar Days, Fixed Completion Date).
Progress Schedule Type	Type of Progress Schedule used for the contract (i.e., Percent Complete for a Time Period, Percent of Critical Items Complete for a Time Period, and Critical Path Method). If the Progress Schedule type is changed, the data is deleted and the user can enter a new Progress Schedule. If the selected schedule type is Critical Path Method, only the final day or date is tracked.

Field Name	Description
Sched Days/Date	Number of days or date in which the work is expected to be done. Either Schedule Days or Schedule Date is displayed, depending on the time charges type of the contract. If the time charges type is Available Work Days or Calendar Days, only days are tracked. If the time charges type is Fixed Completion Date, only dates are tracked.
Anticp Pct Compl Amt	Anticipated Percentage Completion of the Contract's scheduled dollar amount by the end of the scheduled period. The sum of the percentages for all time periods in the schedule must equal 100.
Actual Pct Compl Amt	Actual Percentage Completion of the Contract's dollar amount by the end of the scheduled period. A daily batch process calculates this value. The user can override this value. Actual percentages cannot be entered for future days. The formula for computation of this field is as follows: **Earnings to date / Contract amount * 100**
Actual Pct Compl Time	Actual Percentage Completion of the contract's scheduled time by the end of the scheduled period. A daily batch process calculates this value. The user can override this value. Actual percentages cannot be entered for future days.

Table 5-24. The Progress Schedule Window Fields Table

A daily batch process calculates the actual percentages of the contract time and work completed in each time period.

To create a Progress Schedule:

1. On the **Contractor Management** panel, double-click the **Progress Schedule** icon. The Contract Select list opens.

2. In the **Contract ID** list box, scroll to and click the contract.

3. Click **OK**. The top datawindow displays information about the selected contract.

4. In the **Progress Schedule Type** drop-down list, click the expand arrow and click the progress schedule type. (If Critical Path Method is selected, the schedule can be saved at this point because only the final day or date can be tracked.)
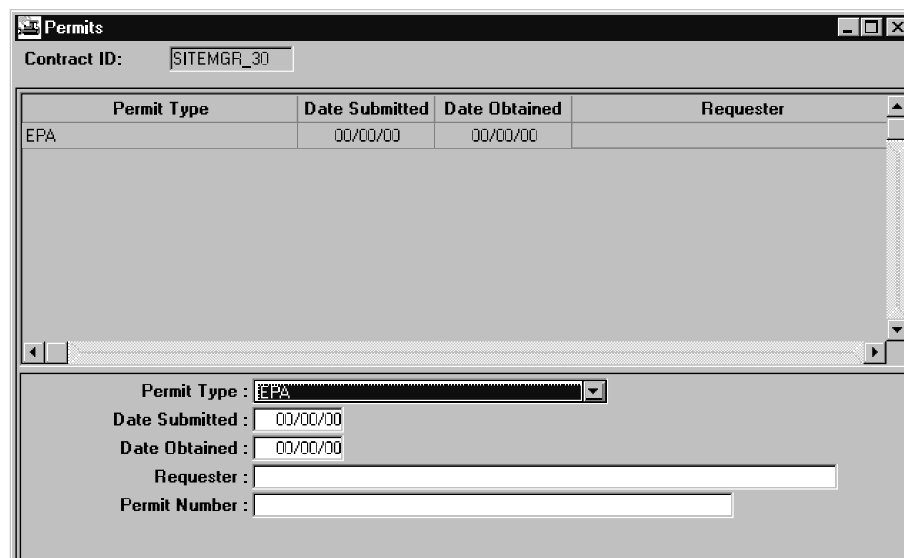
5. Click the **New** button. An empty row is added to the schedule.

6. If the Time Charges Type is Fixed Completion Date, type the date on which the scheduled work is expected to be complete in the **Schedule Date** field.

   Or

7. If the Time Charges Type is Available Work Days or Calendar Days, type the number of days in which the scheduled work is expected to be complete in the **Schedule Days** field.

8. Press the **Tab** key.

9. In the **Anticp Pct Compl Amount** field, type the percentage of the total contract expected to be completed in this time period.

10. To add another time period, repeat Steps 5 through 9.

11. Click the **Save** button. The Progress Schedule graph is updated immediately.

5.13 Permits

The Permits window lets the user add, modify, and delete contract permit data. This is a record of the permits obtained for the contract, including the permit type, the person who requested the permit, and the date the request was submitted. The top datawindow lists the permits for the selected contract. The data for the selected record is displayed in the bottom datawindow.

Figure 5-21. The Permits Window

Field Name	Description
Permit Type	Agency-defined value for the type of permit (e.g., EPA, Water, Environmental, Hazardous Waste, and Electrical). This is a required field.
Date Submitted	The date the permit was requested. This is a required field. When entered, the date should not be in the future.
Date Obtained	The date the permit was received. When entered the date should not be in the future.
Requester	The person who requested the permit. This is a required field.
Permit Number	The number associated with the permit (if available).

Table 5-25. The Permits Window Fields Table

To add a Permit record to a contract:

1. On the **Contract Records** panel, double-click the **Permits** icon. The Contract Select List opens.

2. In the **Contract ID** list box, scroll to and click the contract.

3. Click **OK**. The Permits window displays the permits for the selected contract. Data for the selected permit is shown in the fields below the list.

4. Click the **New** button. An empty row is added to the Permit list.

5. In the **Permit Type** drop-down list, click the expand arrow and click the permit type.

6. Press the **Tab** key.

7. In the **Date Submitted** field, type the date the permit was requested.

8. Press the **Tab** key.

9. In the **Date Obtained** field, type the date the permit was obtained.

10. Press the **Tab** key.

11. In the **Requester** field, type the name of the person who requested the permit.

12. Press the **Tab** key.

13. In the **Permit Number** field, type the permit number.

14. Click the **Save** button.

5.14 Stockpiled Materials

The Stockpiled Materials window allows the user to select materials to stockpile for the contract and enter invoice data for the materials. The window also allows the user to replenish depleted material stockpiles as needed. Contract line item data is displayed in the top datawindow and stockpiled material data in the bottom datawindow. This data is used during estimate generation to determine the amount to be paid for the items installed. When using Choose Keys in the Stockpiled Materials window, only Active contract items appear in the Stockpiled Material Select list. The estimate process enters the installed quantity and the amount paid to date on the Stockpiled Materials window.

When the user closes out a stockpile, the estimate process also generates a line item adjustment that retains any of the initial payment amount indicated on the stockpile that has not been recouped during usage of the stockpile. The system automatically closes a stockpiled material record when the remaining quantity reaches zero, or the user can manually close out the balance of a stockpiled material and transfer it to another contract.

The stockpiled material data is downloaded with the Basic Contract Data for viewing by the inspector while posting the Daily Work Reports. It can also be viewed in Contractor Payments.

The Stockpile Materials window allows updates of the conversion factor of active stockpiles when the Allow Editable Active Stockpile Material conversion factor option on the System Operational Parameters window is set to Y (Yes). The Stockpile Materials window allows a zero conversion factor when the Allow Stockpile Material zero conversion factor on the System Operational Parameter window is set to Y (Yes).

Changing the Conversion Factor gives the user the ability to change payment item adjustments based on how stockpile materials are used during a given estimate period. When the Conversion Factor is set to zero, line item adjustments are not calculated during the estimate process.

> 📄 **Note:** The Attachments functionality is available in the Stockpiled Materials window. If the Attachment icon appears with a paperclip, there is an attachment associated with the record.
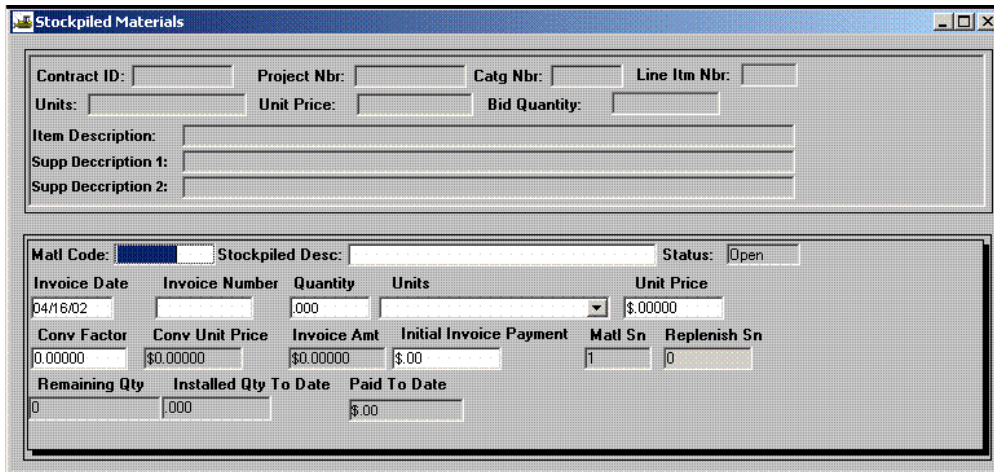
Figure 5-22. The Stockpiled Materials Window

Field Name	Description
Contract ID	Agency-defined ID for the contract.
Project Nbr	Agency-defined ID for the project.
Catg Nbr	Category number assigned to the line item.
Line Item Nbr	Contract line item number that identifies each item as it appears on the contract.
Units	Description of the unit of measurement for the line item.
Unit Price	Unit price of the line item, as indicated on the proposal or contract.
Bid Quantity	The quantity of the line item, as indicated on the proposal or contract.
Item Description	Short text explanation of the item.
Material Code	Agency-defined ID for the material. The search lens displays the materials for the selected contract line item. If the user selects a material code using the search lens, the stockpiled description is entered by the system. If the user types a description, the Material Code field is protected.
Stockpiled Description	Description of the material (or item) being stockpiled. If the user selects a material code using the search lens, the stockpiled description is entered by the system. If the user types a description, the Material Code field is protected.

Field Name	Description
Status	The status of a stockpiled material is either Open, Active, or Closed. New materials are given an open status. Materials included in an estimate are given an active status. When a balance is closed out, the material is given closed status. Open and active materials can be modified unless an estimate is pending. Only open materials can be deleted.
Invoice Date	Date of the invoice.
Invoice Number	Identifies the invoice with which the material was received. This field is required.
Quantity	Number of units received. This field is required. When modified, this value cannot be less than Installed Qty To Date.
Units	Description of the unit of measure for the material.
Unit Price	Unit price of the material; identified on the invoice. This field is required.
Conv Factor	The Conversion Factor is derived from the contract line item information. It is the number of units of the material used in one unit of the line item. The user can modify the default value. The Conversion Factor can be set to zero if the system parameter Allow Stockpile Material zero conversion factor is set to Y (Yes). The Conversion Factor can be changed while the stockpiled record is active if the system parameter All Editable Stockpile Material conversion factor is set to Y (Yes). When the Conversion Factor is set to zero, line item adjustments are not calculated during the estimate process.
Conv Unit Price	Unit price of the material multiplied by the Conversion Factor. This field is display only.
Invoice Amount	System-calculated product of the material quantity and unit price.

Field Name	Description
Matl Sn	The stockpile material sequence number. A stockpiled material record receives a Material Sequence number when it is created. The first stockpile material record is assigned the number 1 for the Material Sequence number and subsequent Material Sequence numbers (for each newly created stockpile record) increase by increments of 1.
Replenish Sn	The replenishment sequence number. Each time the user replenishes a stockpile, SiteManager copies the existing stockpile information to a new stockpile record which the user can modify. When the new stockpile record is saved, it is assigned the same Material Sequence Number as the original stockpile. The first replenishment stockpile is assigned the number 0 for the Replenish Sequence number and subsequent Replenish Sequence numbers increase by increments of 1.
Initial Invoice Payment	The initial payment to be applied to the invoice upon generation of the first estimate for the stockpiled material. This value cannot be more than the Invoice Amount.
Remaining Qty	The quantity of the material that remains. Calculated as the difference between Quantity and Installed Quantity To Date. May be zero if the project is closed or the contract is ended.
Installed Qty To Date	The quantity of the material installed to date. This value is calculated by the estimate generation process. This is a protected field.
Paid To Date	The amount that has been paid for the stockpiled material to date. This value is calculated by the estimate generation process. This is a protected field.
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supp Description 2	This field contains a second textual description that is supplemental to the item's description and may be required by the transportation agency.

Table 5-26. The Stockpiled Materials Window Fields Table

5.14.1 Before Adding Data

SiteManager calculates payments for stockpiled materials based on the quantity of material used per contract item. SiteManager does not automatically apply portions of the invoiced material quantity and payment amount to different contract items. This means the user must decide how to allocate the invoiced amounts for a stockpiled material. Before adding invoice data to SiteManager, the user must determine the following:

- Which items include the invoiced material

- Which contracts include these items

- How much of the total invoiced material quantity to allocate to each item

- If an initial payment amount is due, which contracts or contract items pay this amount

From these numbers, the user can calculate the values to enter in the Quantity field of the Stockpiled Materials window

Example

The user receives an invoice for 100,000 bolts. The total amount due on the bolts is $8,000.00. These bolts are stockpiled for use on retaining walls and bridges. Contracts A, B, and C are active contracts that include either retaining walls or bridges or both as line items. The user splits the total invoiced quantity as follows:

	Contract A		Contract B	Contract C	
Item Description	Retaining Wall	Bridge	Retaining Wall	Retaining Wall	Bridge
Stockpiled Description	Bolt	Bolt	Bolt	Bolt	Bolt
Quantity	5,000	1,000	29,000	15,000	50,000
Invoice Amount	$400.00	$80.00	$2,320.00	$1,200.00	$4,000.00

To add the invoice data, the user must enter the quantity values per contract item. To do this, the user enters new invoice data on the Stockpiled Materials window five times, selecting the stockpiled material (i.e., Bolt) under a different contract item each time. The system calculates the Invoice Amount by multiplying the quantity by the unit rice of the material.

Conversion Factor

The conversion factor is derived from the contract information. It indicates how many units of the stockpiled material are used in one unit of the contract line item. The conversion factor defaults to 1.0. This value indicates that one unit of the material is used in each unit of the item. The user should verify that the conversion factor is correct and, if not, enter the correct value. For example, if each linear foot of retaining wall requires three bolts, the user enters a conversion factor of three 3.0 for the bolts.

The payment conversion factor for a stockpiled material may be changed during the stockpile lifecycle if the Allow Editable Active Stockpile Material conversion factor System Operational Parameter is set to Yes. This means that while the stockpile is in active use (i.e., payment of some form has been made for the stockpile by the estimate process), instead of all fields on the stockpile being protected, the conversion factor remains editable. If an agency does not want its users to have this capability, the parameter can be set to No. Once the stockpile is closed, all fields are protected.

The conversion factor may be zero if the Allow Stockpile Material zero conversion factor System Operational Parameter is set to Yes. When the conversion factor is set to zero, line item adjustments are not calculated during the estimate process.

To view a stockpiled materials record:

1. On the **Contract Records** panel, double-click the **Stockpiled Materials** icon. The Stockpiled Materials window opens.

2. Click the **Open** button. The **Stockpiled Material Select** window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract.

4. In the **Stockpiled Materials** list box, scroll to and click the stockpiled material.

5. Click **OK**. The Stockpiled Materials window displays data for the selected material.

To add stockpiled materials to a contract:

1. Read and understand the **Before Adding Data** topic. Calculate the invoiced quantity to add to each contract.

2. On the **Contract Records** panel, double-click the **Stockpiled Materials** icon. The Stockpiled Materials window opens.

3. Click the **Services** menu and click the **Choose Keys** choice.

4. In the **Contract ID** list box, scroll to and double-click the contract.

5. In the **Contract Project** list box, scroll to and double-click the project.

6. In the **Contract Item** list box, scroll to and click the Contract Line Item that uses the material.

7. Click **OK**. The Stockpiled Materials window displays the Contract Line Item data.

8. In the **Material Code** field, perform a **Search** and select the material.

    Or

9. In the **Stockpiled Description** field, type a description of the material.

10. In the **Invoice Date** field, type the date of the invoice.

11. Press the **Tab** key.

12. In the **Invoice Number** field, type the number of the invoice.

13. Press the **Tab** key.

14. In the **Quantity** field, type a previously determined quantity of the stockpiled material to be applied to this item and this contract.

15. In the **Units** drop-down list, click the expand arrow and click the unit of measurement in which the material is sold.

16. In the **Unit Price** field, type the price per unit from the invoice.

17. In the **Conv Factor** field, select the current value and type the conversion factor.

18. If the invoice requires only an initial payment, in the **Initial Invoice Payment** field, type the previously determined dollar amount of the initial payment to be applied to this item and this contract.

19. To add another stockpiled material to the selected Item, click the **New** button and repeat Steps 8 through 18.

20. Click the **Save** button.

To replenish a stockpiled material:

1. On the **Contract Records** panel, double-click the **Stockpiled Materials** icon. The Stockpiled Materials window opens.

2. Click the **Services** menu and click the **Choose Keys** choice.

3. In the **Contract ID** list box, scroll to and double-click the contract.

4. In the **Contract Project** list box, scroll to and double-click the project.

5. In the **Contract Item** list box, scroll to and click the Contract Line Item that uses the material.

6. Click **OK**. The Stockpiled Materials window displays the contract line item data.

7. Click the **Services** menu and click the **Replenish Material** choice. SiteManager copies the existing stockpile information to a new stockpile record and assigns a new Replenish Sequence number.

8. In the **Invoice Date** field, type the date of the invoice.

9. Press the **Tab** key.

10. In the **Invoice Number** field, type the number of the invoice.

11. Press the **Tab** key.

12. In the **Quantity** field, type the replenishment quantity of the stockpiled material.

13. If the invoice requires an initial payment, in the **Initial Invoice Payment** field, type the previously determined dollar amount of the initial payment to be applied to the current item and contract.

14. Click the **Save** button.

To close out the balance of a stockpiled material:

1. On the **Contract Records** panel, double-click the **Stockpiled Materials** icon. The Stockpiled Materials window opens.

2. Click the **Open** button. The **Stockpiled Material Select** window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract.

4. In the **Stockpiled Materials** list box, scroll to and click the stockpiled material.

5. Click **OK**. The Stockpiled Materials window displays data for the selected material.

6. Click the **File** menu and click the **Print** choice to produce a copy of the data (or copy the data by hand).

7. Click the **Services** menu and click the **Close Out Balance** choice. Zero is entered in the Remaining Quantity field. The status changes to closed. All fields are protected.

8. Click the **Save** button.

The user cannot delete a stockpiled material with active or closed status.

To delete a stockpiled material from a contract:

1. On the **Contract Records** panel, double-click the **Stockpiled Materials** icon. The Stockpiled Materials window opens.

2. Click the **Open** button. The **Stockpiled Material Select** window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract.

4. In the **Stockpiled Materials** list box, scroll to and click the stockpiled material.

5. Click **OK**. The Stockpiled Materials window displays data for the selected material.

6. Click the **Delete** button. The system asks the user to confirm the deletion.

7. Click **OK**.

5.15 Construction Conferences

The Construction Conference window lets the user view and add construction conference data. The user typically adds conference data after the conference occurs. This window is used to record the conference title, date, attendees, and notes on the directives, issues, and major topics discussed at the conference. The system assigns a serial number to the conference record. If attendees are listed on the window, the conference record cannot be deleted.

> 📄 **Note:** The standard attachment functionality will be available on the Construction Conference window. If the Attachment icon appears with a paperclip, there is an attachment associated with the record.
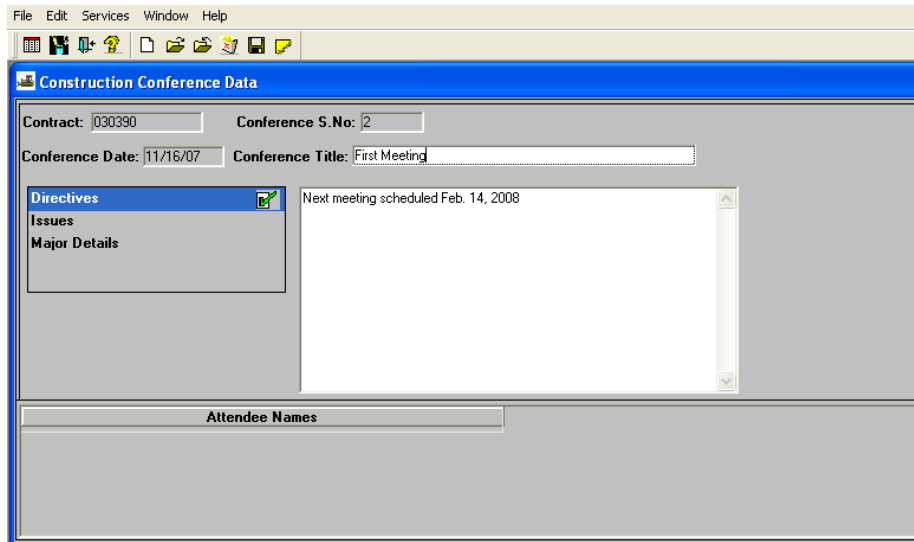
Figure 5-23. The Construction Conference Window
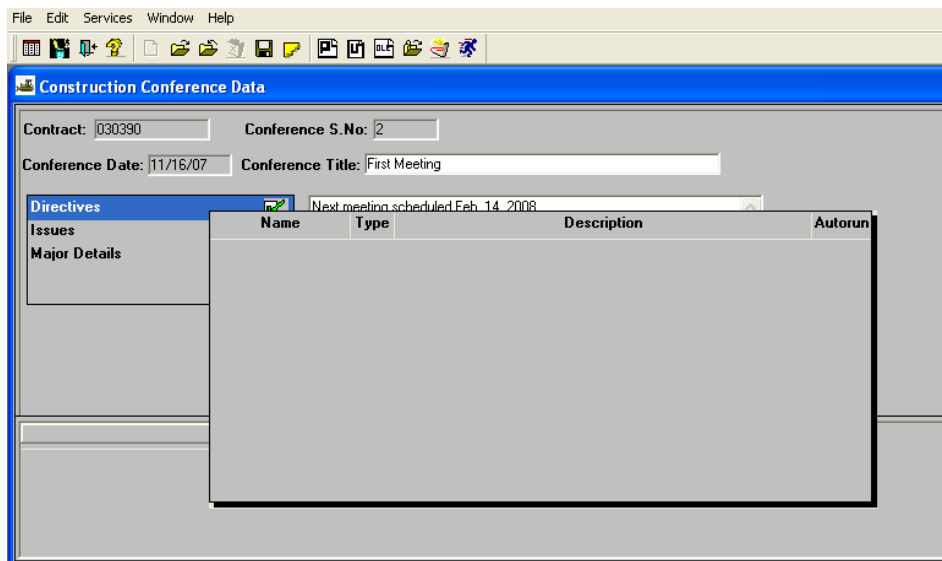
Figure 5-24. The Construction Conference - Attachments

Field Name	Description
Contract	Agency-defined ID of the selected contract.
Conference S No	Conference Serial Number that the system assigns when the user adds the conference.

Field Name	Description
Conference Date	Date that the conference was held. For new conference data, the value defaults to the system date. This date cannot be in the future. The user cannot modify the date after saving the conference data.
Conference Title	The title of the conference.
Major Topics	The topics of the conference. This is stored as a remark on the window. If this field has a check mark next to it, click the field once to see the remark in the box to the right.
Directives	The directives issued to the contractor. This is stored as a remark on the window. If this field has a check mark next to it, click the field once to see the remark in the box to the right.
Issues	The issues that were discussed in the conference. This is stored as a remark on the window. If this field has a check mark next to it, click the field once to see the remark in the box to the right.
Attendee Names	The names and affiliations of the attendees.

Table 5-27. The Construction Conference Window Fields Table

To view a Construction Conference record:

1. On the **Contractor Management** panel, double-click the **Construction Conference** icon. The Construction Conference window opens.

2. Click the **Open** button. The Select Construction Conference window opens.

3. In the **Contract ID** list box, scroll to and double-click the contract.

4. In the **Construction Conference** list box, scroll to and click the conference.

5. Click **OK**. The Construction Conference window displays data.

6. To view **Major Topics**, **Directives**, or **Issues**, click the field and read the notes in the box to the right.

To add Construction Conference records:

1. On the **Contractor Management** panel, double-click the **Construction Conference** icon. The Construction Conference window opens.

2. Click the **Services** menu and click the **Choose Keys** choice. The Contract Select window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The Construction Conference window displays the Contract ID.

5. In the **Conference Date** field, type the date the conference was held.

6. Press the **Tab** key.

7. In the **Conference Title** field, type the title of the conference.

8. Press the **Tab** key.

9. To add a remark, select either the **Major Topics**, **Directives**, or **Issues** check box (ON), and type the remark.

10. To add an attachment, click on the Attachments icon and select either the **Plug-in, URL** or **Ole** attachment type.

11. Click the **Save** button. The system enters the conference serial number.

12. To add an attendee, click the **Attendee Names** datawindow and click the **New** button. An empty row is added to the datawindow.

13. In the **Attendee Names** field, type the attendee's name.

14. Click the **Save** button.

15. To add another conference record for the same contract, click the **New** button and repeat Steps 5 through 13.

5.16 Subcontracts

The Subcontract window lets the user add, modify, and delete subcontracts and subcontract data. The window also displays calculated DBE commitment amounts. The user can define both parent subcontracts and lower level subcontracts. The Subcontract window has two folder tabs:

- Descriptions

- Items

If the subcontractor is not a supplier or hauler, items must be added to the subcontract.

5.16.1 Subcontract Descriptions

The user enters the subcontractor and DBE commitments on the Description folder tab. To be selected as a subcontractor, a contractor must first be entered as a vendor in the Vendor reference tables. When a new subcontract is saved, the system adds the subcontract amount to the total amount of uncompleted work for the subcontractor. This value is displayed on the Vendors window in Reference Tables (CA). The contract's Prime Contractor cannot be selected as a subcontractor on the contract.

The percentage of the subcontract that can be counted towards the contract's DBE goal depends on the subcontract's level, the subcontractor's DBE status, and whether the subcontract includes items. A parent subcontract with a DBE subcontractor and items is always counted 100 percent towards the contract's DBE goal. If the subcontract has no items (i.e., the subcontractor is a supplier/hauler), the user enters the percentage counted towards the DBE goal. For nested subcontracts, if a higher-level DBE subcontract is counted 100 percent towards the DBE goal, the percentage of the nested subcontract is always zero.

Figure 5-25. The Subcontract Description Folder Tab

Field Name	Description
Contract ID	The agency-defined ID for the contract.
Subcont Nbr	User-entered number associated with each subcontract. After saving, it cannot be modified. This field is required.

Field Name	Description
Parent Subcont Nbr	Subcontract number for the parent subcontract. After saving, it cannot be modified. The user can search this field.
Subcontractor	Short name for the subcontractor. The user can search this field. This field is required.
Effective Date	Used in conjunction with the Approval Date: Date that a subcontractor may begin working on the contract. This date must be the same as or after the Approval Date. If the Effective Date is not prior to or equal to the DWR Date, SiteManager will not display the subcontractor name in the Contractor drop down list on the Contractors tabs in the DWR window.
Expiration Date	Used in conjunction with the Approval and Effective Dates: After this date a subcontractor can no longer work on the contract; this date must be after the Effective Date. If an Expiration Date is not entered, SiteManager will display the subcontractor name in the Contractor drop down list on the Contractors tabs in the DWR window (based on Effective Date).
Subcont Type	Agency-defined subcontract type. This field is required.
Work Type	Agency-defined code of work class. A warning is displayed if the work class selected does not match one of the work classes associated to the vendor. This field is required.
Approval Date	The date the approval was given for this Subcontract. Must be equal to or later than the contract award date. If the sum of the subcontractor's uncompleted work amount for all contracts (including the total amount of the new subcontract) exceeds the sum of the subcontractor's work class qualification amounts, a warning message displays. If an Approval Date is not entered, SiteManager will not display the subcontractor name in the Contractor drop down list on the Contractors and Record Work Items tabs in DWR.
DBE Type	Agency-defined code for the subcontractor's DBE type. Defaults to the DBE type in the vendor reference table. The DBE Type can be changed on the Subcontracts window. If the selected DBE Type does not match the reference table data, a message is displayed, but the change can be saved.
Cert Type	System-defined code for whether the subcontractor is certified as a DBE by the State or Federal government, or Both. This value is from the DBE Cert Type on the Vendor reference table and cannot be changed.
Supp/Hauler Ind	Indicates that the subcontractor is a supplier or hauler only. If so, the subcontract cannot have items. The user must enter the Total Subcontract Amount manually. This field cannot be modified when there are existing items on the subcontract.

Field Name	Description
Contract DBE Goal Pct	DBE goal percent for the contract.
Pct Twrds DBE Goal	Percentage of the subcontract amount counted towards the DBE commitment goal. For nested subcontracts, if any higher-level DBE subcontract has counted the item towards the DBE goal, then this field defaults to 0 percent and cannot be modified. For non-nested DBE subcontracts with no line items (i.e., a supplier or hauler), the field defaults to 100 percent and can be modified. For other non-nested DBE subcontracts, the field defaults to 100 percent and cannot be modified.
Fed Supp/Haul Fund Pct	Percentage of the subcontract DBE commitment goal that is covered by federal funding for a DBE supplier or hauler. Defaults to 100 when Contract Funding is Federal. Defaults to zero when Contract Funding is State. Entered by the user when Contract Funding is Both.
Last Verified Payment Amt	Last verified amount that has been paid to the subcontractor. Positive or negative values may be entered.
Total Verified Payment Amt	Total verified amount that has been paid to the subcontractor. Must be a positive number.
Amounts	
This Subcontract Amount	Quantity multiplied by subcontract line item unit price for all subcontract items. Must be entered manually if a subcontract without any items is entered (i.e., a supplier or hauler).
This Original Commitment Amount	Original amount that the Prime Contractor committed to subcontract to the DBE. Cannot be modified if this data is from a preconstruction system or if the contract's status is active. Must be a positive number.
This Current Commitment Amount	For subcontracts where DBE type is indicated. This is calculated by multiplying the Subcontract Amount by the Pct Towards DBE Goal.
Total Original Commitment Amount	Sum of the original commitment amounts for all the DBE subcontracts for a contract.
Total Current commitment Amount	Sum of current commitment amounts for all the DBE subcontracts for a contract.
Total Allowable Max Amount (non-spclty)	Maximum allowed amount (excluding specialty items) for all subcontracts in a contract. This is the Max Allowed Subcontract Percent in the System Operational Parameter table multiplied by the difference of the total contract amount minus the specialty items amount.
Total Towards Max Amount (non-spclty)	Current amount of all subcontracts that contribute towards the Max Allowable Amount (non-spclty). This is the sum of all of the non-line item subcontract amounts plus all of the non-specialty subcontract line item amounts.
Total Spclty Subcontracted Amount	Sum of all specialty item amounts for all first-tier subcontracts in the contract.
Total Subcontracted Amount	Sum of all parent subcontract amounts for the contract.

Field Name	Description
Pct of Total Subcontracted	
Percentage of Total Subcontracted This Subcontract	Percentage of the sum of the parent subcontract amounts covered by this subcontract.
Percentage of Total Subcontracted This Original Commitment	Percentage of the sum of the subcontract original commitment amounts covered by this subcontract.
Percentage of Total Subcontracted This Current Commitment	Percentage of the sum of the subcontract current commitment amounts covered by this subcontract current commitment amount.
Pct of Original Contract	Total amount subcontracted as a percentage.
Pct of Total Contract	
Percentage of Total Contract This Subcontract	Percentage of the contract's current amount covered by this subcontractor's total amount.
Percentage of Total Contract This Original Commitment	Percentage of the contract's current amount covered by this subcontract's original commitment amount.
Percentage of Total Contract This Current Commitment	Percentage of the contract's current amount covered by this subcontract's current commitment amount.
Percentage of Total Contract Total Original Commitment	Percentage of the contract's current amount covered by the total original commitment amount.
Percentage of Total Contract Total Current Commitment	Percentage of the contract's current amount covered by the total current commitment amount.
Percentage of Total Contract Total Allowable Max (non-spclty)	Percentage of the contract's current amount covered by the total allowable max (non-spclty) amount.
Percentage of Total Contract Total Towards Max (non-spclty)	Percentage of the contract's current amount covered by the total towards max (non-spclty) amount.
Percentage of Total Contract Total Spclty Subcontracted	Percentage of the contract's current amount covered by the total spclty subcontracted amount.
Percentage of Total Contract Total Subcontracted	Percentage of the contract's current amount covered by the sum of the entire parent subcontract amounts.

Table 5-28. The Subcontract Description Folder Tab Fields Table

To add a subcontract with a non-DBE subcontractor:

1. On the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Contract window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The window displays the Contract ID.

5. In the **Subcontract Nbr** field, type the ID number of the new subcontract.

6. Press the **Tab** key.

7. If this subcontract is not a parent subcontract, type the ID number of the parent subcontract in the **Parent Subcontract Nbr** field or perform a **Search**.

8. In the **Subcontractor** field, type the short name of the subcontractor or perform a **Search**.

9. In the **Subcont Type** drop-down list, click the expand arrow and click the subcontract type.

10. In the **Work Type** drop-down list, click the expand arrow to the right of the current selection and click the Work Class type. (If the selected Work Type does not match the reference table data, a message is displayed. To acknowledge the message, click **OK**.)

11. In the **Last Verified Payment Amt** field, type the last verified amount that was paid to the subcontractor.

12. Click the **Save** button.

To add a subcontract with a DBE subcontractor (non-hauler/supplier):

1. On the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Contract window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The window displays the Contract ID.

5. In the **Subcontract Nbr** field, type the ID number of the new subcontract.

6. Press the **Tab** key.

7. If this subcontract is not a parent subcontract, type the ID number of the parent subcontract in the **Parent Subcontract Nbr** field or perform a **Search**.

8. In the **Subcontractor** field, type the short name of the subcontractor or perform a **Search**. The DBE Type is entered on the Subcontracts window.

9. In the **Subcont Type** drop-down list, click the expand arrow and click the subcontract type.

10. In the **Work Type** drop-down list, click the expand arrow to the right of the current selection and click the Work Class type. (If the selected Work Type does not match the reference table data, a message is displayed. To acknowledge the message, click **OK**.)

11. In the **Last Verified Payment Amt** field, type the last verified amount that was paid to the subcontractor.

12. Click the **Save** button.

A message is displayed if the subcontractor's work class qualification amount has been exceeded.

To add a subcontract with a supplier or hauler as subcontractor:

1. On the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Contract window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The window displays the Contract ID.

5. In the **Subcontract Nbr** field, type the ID number of the new subcontract.

6. Press the **Tab** key.

7. If this subcontract is not a parent subcontract, type the ID number of the parent subcontract in the **Parent Subcontract Nbr** field or perform a **Search**.

8. Select the **Supp/Hauler Ind** check box (ON).

9. In the **Subcontractor** field, type the short name of the subcontractor or perform a **Search**. If the subcontractor is a DBE, the DBE Type is entered on the Subcontracts window.

10. In the **Subcont Type** drop-down list, click the expand arrow and click the subcontract type.

11. In the **Work Type** drop-down list, click the expand arrow to the right of the current selection and click the Work Class type. (If the selected Work Type does not match the reference table data, a message is displayed. To acknowledge the message, click **OK**.)

12. In the **Last Verified Payment Amt** field, type the last verified amount that was paid to the subcontractor.

13. In the **Pct Towards DBE Goal** field, type the percentage of the subcontract amount that counts towards DBE goals.

14. If the contract has both Federal and State funding, in the **Fed Supp/Haul Fund Pct** field, type the percentage of the subcontract amount that is paid by Federal funds.

15. In the **This Subcontract Amount** field, type the dollar amount of the subcontract.

16. Click the **Save** button.

Items cannot be entered on a subcontract with a supplier or hauler. Enter the subcontract items (or Subcontract Amount for a supplier/hauler) before approving the subcontract. Then the amount of the new subcontract is included in the subcontractor's Uncompleted Work Amount when the approval is saved.

To approve a subcontract:

1. On the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens.

2. Click the **Open** button. The Select Contract window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The window displays a list of subcontracts for the selected contract.

5. In the **Subcontract** list box, scroll to and click the subcontract.

6. Click **OK**. The window displays data for the selected subcontract.

7. In the **Approval Date** field, type the date approval was given for this subcontract. (If the subcontractor's total uncompleted work amount exceeds the subcontractor's work class qualification amount, a message is displayed. To acknowledge the message, click **OK**.)

8. Click the **Save** button.

A subcontract cannot be deleted if there is work recorded against it, or if the subcontract was part of the contract award.

To delete a subcontract:

1. On the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens.

2. Click the **Open** button. The Select Contract window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The window displays a list of subcontracts for the selected contract.

5. In the **Subcontract** list box, scroll to and click the subcontract.

6. Click **OK**. The window displays data for the selected subcontract.

7. Click the **Delete** button. The system asks the user to confirm the deletion.

8. Click **Yes**. When the subcontract is deleted, the corresponding items are also deleted.

9. Click the **Save** button.

5.16.2 Subcontract Items

The Subcontract Items folder tab lets the user add, modify, and delete subcontract items. Items that appear on an authorized DWR cannot be deleted. If the subcontractor is a hauler or supplier only, the subcontract will not have items. If the subcontract has no items, the user must enter the subcontract amount manually. If the subcontract has items, the subcontract amount is the sum of all of the item amounts and the user cannot modify it.
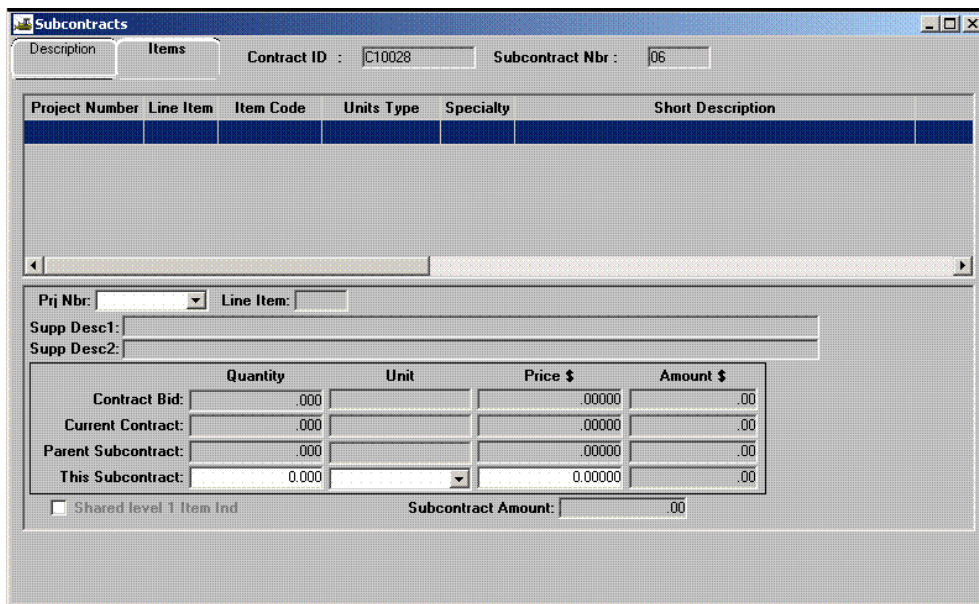
Figure 5-26. The Subcontract Items Window

Field Name	Description
Contract ID	Agency-defined ID for the contract
Subcontract Nbr	User-entered number associated with each subcontract.
Project Number	Agency -defined ID for the project.

Field Name	Description
Line Item	Contract line item to be worked on by the subcontractor. The user can search this field.
Item Code	Agency -defined code that identifies a particular item.
Unit Type	Unit of measure for the subcontract line item.
Specialty	Indicates if the line item is a specialty item. Specialty items are excluded from the calculation to determine the maximum amount of the contract that can be subcontracted.
Short Description	Text description of the line item.
Line Item Nbr	The user can search this field. For a parent subcontract, the line item is selected from the Contract Item list. For lower level subcontracts, the line item is selected from the parent subcontract line item drop-down list.
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the agency.
Supp Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the agency.
Quantity	
Contract Bid Quantity	Contract bid quantity of the contract line item.
Current Contract Quantity	Current quantity of the contract line item including any change orders. Current quantity is calculated by the sum of bid quantity and the net change order quantity
Parent Subcontract Quantity	The quantity of the line item that is subcontracted to the parent subcontract. If this is a parent subcontract, this field is empty.

Field Name	Description
This Subcontract Quantity	The quantity of the line item subcontracted to this subcontract. The Subcontract Quantity must be a positive value. It must be less than or equal to the parent Subcontract Quantity for a lower level subcontract. For a parent subcontract, it must be less than or equal to the current quantity minus all other parent subcontract quantities for this item. The quantity edit will not be performed if the unit on this subcontract or the parent subcontract is changed.
Unit	
Contract Bid Unit	Unit of the item identified on the invoice.
Current Contract Unit	Unit of the item identified on the invoice.
Parent Subcontract Unit	Unit of the parent subcontract line item.
This Subcontract Unit	Unit of this subcontract line item. Defaults to the unit on the contract bid item.
Price	
Contract Bid Price	Unit price of the item identified on the invoice.
Current Contract Price	Unit price of the item identified on the invoice
Parent Subcontract Price	Unit price of the item for parent subcontract. If this is a parent subcontract, it will be blank.
This Subcontract Price	Unit price of the item for this subcontract.
Amount	
Contract Bid Amount	Total amount of the bid item available for subcontract. Contract Bid Amount item amount is calculated by the contract bid unit price of the item multiplied by the contract bid quantity.

Field Name	Description
Current Contract Amount	Total amount of the current item available for subcontract. Current contract amount is calculated by the contract bid unit price of the item multiplied by the current contract quantity.
Parent Subcontract Amount	Total amount of the item available for lower level subcontract. Parent subcontract item amount is calculated by multiplying the parent subcontract unit price of the item times the parent subcontract quantity.
This Subcontract Amount	Total amount of the subcontract item. Sub item amount is calculated by multiplying the subcontract unit price of this subcontract item times the subcontract quantity. If this amount exceeds the current contract amount (for level one subcontract), or the parent subcontract amount (for lower level subcontract), a warning will be displayed.
Subcontract Amount	The sum of quantity times the unit price for all subcontract items, or the value entered directly if the subcontract has no line items (i.e., a supplier or hauler).
Shared Level 1 Item Ind	Indicates whether this item is included on any other Level 1 subcontract for this contract.

Table 5-29. The Subcontract Item Folder Tab Fields Table

To add an item to a Subcontract:

1. On the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens.

2. Click the **Open** button. The Select Contract window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The window displays a list of subcontracts.

5. In the **Subcontract** list box, scroll to and click the subcontract.

6. Click **OK**. The window displays data for the selected subcontract.

7. Click the **Items** folder tab.

8. Click the **New** button.

9. In the **Line Item Nbr** field, perform a **Search**.

10. Press the **Tab** key.

11. In the **This Subcontract Quantity** field, type the quantity of the line item subcontracted to this subcontract.

12. To change the unit type for the item, click the expand arrow to the right of the current selection in the **This Subcontract Unit** drop-down list and click the unit type.

13. In the **This Subcontract Price** field, type the unit price of the line item.

14. Click the **Save** button.

To delete an item from a Subcontract:

> 🗎 **Note:** You cannot delete items that that exist on an authorized DWR.

1. On the **Contractor Management** panel, double-click the **Subcontracts** icon. The Subcontracts window opens.

2. Click the **Open** button. The Select Contract window opens.

3. In the **Contract ID** list box, scroll to and click the contract.

4. Click **OK**. The window displays a list of subcontracts.

5. In the **Subcontract** list box, scroll to and click the subcontract.

6. Click **OK**. The window displays data for the selected subcontract.

7. Click the **Items** folder tab.

8. In the **Items** list box, scroll to and click the item.

9. Click the **Delete** button. The system asks the user to confirm the deletion.

10. Click **Yes**.

11. Click the **Save** button.

This page intentionally left blank.

6. Contract Administration - Maintenance

6.1 Correspondence Log

The Correspondence Log window lets the user add and modify records of correspondence related to a specific contract. A correspondence record describes a document that has been either sent or received by a user. The user can describe the document, identify related records and disputes, attach and view URLs, plug-ins and OLE documents, and forward the correspondence record to other users.

> 🗒 **Note:** The Attachment icon appears with a paperclip if attachments are associated with the record in the currently opened window.

Figure 6-1. The Correspondence Log Window

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract associated with the correspondence.
Contract Correspondence Serial Number	System-generated serial number for the correspondence record.
Received/Sent	Field in which the user can select Received or Sent from a drop-down list to identify the correspondence as received or sent.

Field Name	Description
On	Date on which the correspondence was received or sent. This date cannot be in the future. Defaults to the system date.
Correspondence Type	Transportation agency-defined type of correspondence.
Correspondence ID	User-defined alphanumeric field to identify the correspondence (e.g., USRTE-47-8).
Sent From	Name of the person or agency sending the document.
Sent To	Name of the person or agency receiving the document.
Document Category	Transportation agency-defined category of correspondence used for retrieval and analysis.
Document Location	Physical location of the correspondence.
Major Topics	Major topics associated with the correspondence.
Related Correspondence	Serial number and type of a related correspondence record. The user can search this field.
Required Response Text	Description of the response to the correspondence that is required.
Dispute	ID of a dispute associated with this correspondence. This field can be searched.

Table 6-1. The Correspondence Log Window Fields Table

To add a correspondence record:

1. On the **Contract Records** panel, double-click the **Correspondence Log** icon.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Contract list opens.

3. In the **Select Contract** list box, scroll to and double-click the contract.

4. In the **Document Type** drop-down list, click the expand arrow and click the document type.

5. In the **Received/Sent** drop-down list, click the expand arrow and click either Received or Sent to indicate the direction of the correspondence.

6. In the **Date** field, type the date the correspondence was received or sent.

7. In the **Correspondence ID** field, type the ID of the document.

8. In the **Sent From** field, type the name of the person or agency that sent the correspondence.

9. In the **Sent To** field, type the name of the person or agency to whom the correspondence was sent.

10. In the **Document Category** drop-down list, click the expand arrow and click the document category.

11. In the **Major Topics** field, type the major topics associated with the correspondence.

12. To assign related correspondence, in the **Related Correspondence** field, type the document serial number or perform a **Search**.

13. In the **Required Response Text** field, type the response required to the correspondence.

To assign a related dispute:

1. In the **Dispute** field, type the Dispute ID, or perform a **Search**.

2. Click the **Save** button.

To forward a correspondence record:

1. On the **Contract Records** panel, double-click the **Correspondence Log** icon.

2. Click the **Open** button.

3. In the **Select Contract** list box, scroll to and double-click the contract.

4. In the **Select Correspondence** list box, scroll to and double-click the document.

5. Click the **Services** menu and click the **Forward to** choice. The Forward to Selected User window opens.

6. In the **Forward to Selected User** list box, scroll to and click or shift-click the user(s).

7. Click **OK**. SiteManager sends In-Box messages to the selected users and the window displays a Mail sent message.

8. Click **OK**.

9. Click the **Save** button.

6.2 Force Accounts

The purpose of a force account is to record unexpected and unplanned expenses. A new force account describes the work to be done and lists the equipment, labor, and materials to be used, including rates per hour and costs per unit. To expedite the work, the equipment, labor, and materials can be listed generically (e.g., Equipment 1 and Equipment 2) when the account is created. Force accounts are created on the Force Accounts window, which has the following folder tabs:

- Equipment

- Labor

- Materials

- Summary

After the office creates the account, the inspector can download the force account data and begin recording the actual usage values (hours and quantities) in Daily Work Reports. The Force Account Summary folder tab calculates and displays the total actual force account costs. The user can adjust the actual costs by entering a lump sum adjustment to the whole account, and by entering adjustment percentages to the labor, equipment, and materials costs. To determine adjustment amounts, the user can create or view OLE, URL or plug-in attachments.

The system does not automatically include force account data in estimates. To pay for force account work, the user creates a force account change order for each item (equipment, labor, and materials) used on the force account. After approval of the change order(s), the inspector reports the item(s) as installed in Daily Work Reports. The installed items are then included in estimates and paid for along with other contract items.
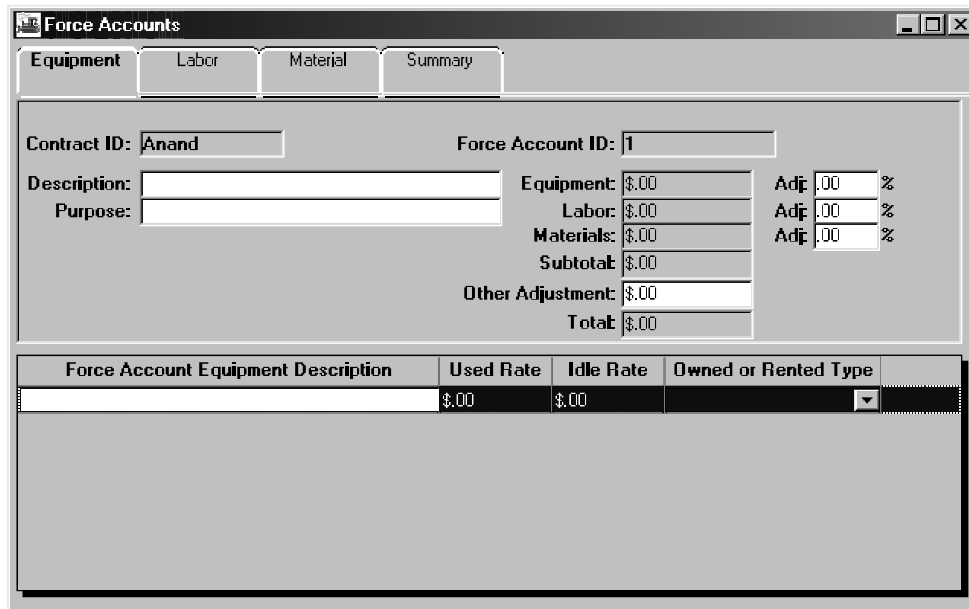
Figure 6-2. The Force Account Window

Field Name	Description
Contract ID	Transportation agency-defined ID for the contract that includes the force account.
Force Acct	System-generated ID for the force account.
Description	Work the force account is intended to cover. This field is required.
Purpose	Reason for the force account. This field is required.
Equipment	Total amount of force account equipment costs derived from the usage reported by daily inspectors and the adjustment percentage. This field is display only.
Equipment Adj %	Percentage of the equipment cost added as an adjustment to the equipment cost. This is an optional field.
Labor	Total amount of force account labor costs derived from the usage reported by daily inspectors and the adjustment percentage. This field is display only.
Labor Adj %	Percentage of the labor cost added as an adjustment to the labor cost. This is an optional field.
Materials	Total amount for force account material costs derived from the daily usage reported by inspectors and the adjustment percentage. This field is display only.
Materials Adj %	Percentage of the material cost added as an adjustment to the material cost. This is an optional field.
Subtotal	Sum of the equipment, labor, and material costs after adjustment. This field is display only.
Other Adjustment	Additional lump sum cost incurred by the force account. This is an optional field.
Total	Sum of the Subtotal and Other Adjustment amounts. This field is display only.

Table 6-2. The Force Account Window Header Fields Table

To add a force account to a contract:

1. On the **Contract Records** panel, double-click the **Force Account** icon.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Contract list opens.

3. In the **Select Contract** list box, scroll to and click the contract.

4. Click **OK**.

5. In the **Description** field, type a description of the work covered by the force account.

6. Press the **Tab** key.

7. In the **Purpose** field, type the reason for the force account.

8. Click the **Save** button.

9. Click the bottom datawindow and click the **New** button.

10. In the **Force Account Equipment Description** field, type a description of the piece of equipment.

11. Press the **Tab** key.

12. In the **Used Rate** field, type the used rate for the equipment.

13. Press the **Tab** key.

14. In the **Idle Rate** field, type the idle rate for the equipment.

15. In the **Owned or Rented Type** drop-down list, click the expand arrow and click the ownership type.

16. Click the **Save** button.

17. Click the **Labor** folder tab.

18. Click the **New** button.

19. In the **Worker Name** field, type the worker's name.

20. In the **Class** drop-down list, click the expand arrow and click the job classification of the worker.

21. Press the **Tab** key.

22. In the **Regular Rate** field, type the regular hourly rate for the worker.

23. Press the **Tab** key.

24. In the **Fringe Rate** field, type the fringe hourly rate for the worker.

25. Press the **Tab** key.

26. In the **Overtime Rate** field, type the overtime hourly rate for the worker.

27. Click the **Save** button.

28. Click the **Material** folder tab.

29. Click the **New** button.

30. In the **Invoice ID** field, type the invoice for the material.

31. In the **Invoice Date** field, type the date of the invoice.

32. In the **Contract FA Material Description** field, type a description of the material.

33. Press the **Tab** key.

34. In the **Delivered Qty** field, type the invoice quantity of the delivered material.

35. In the **Units Type** drop-down list, click the expand arrow and click the unit of measure to be used in installing the material.

36. Press the **Tab** key.

37. In the **Unit Price** field, type the unit price of the material.

38. Click the **Save** button.

When a new force account is created, the equipment, labor, and materials can be listed generically so that the inspector can begin recording usage data in Daily Work Reports.

To adjust force account actual costs:

1.   On the **Contract Records** panel, double-click the **Force Account** icon.

2.   Click the **Open** button. The Force Account Select window opens. The Select Contract list is displayed.

3.   In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of force accounts.

4.   In the **Force Account** list box, scroll to and click the force account.

5.   Click **OK**.

6.   In the **Equipment Adj%** field, type the percentage of the equipment cost added as an adjustment to the equipment cost.

7.   Press the **Tab** key.

8.   In the **Labor Adj%** field, type the percentage of the labor cost added as an adjustment to the labor cost.

9. Press the **Tab** key.

10. In the **Materials Adj%** field, type the percentage of the materials cost added as an adjustment to the materials cost.

11. Press the **Tab** key.

12. In the **Other Adjustment** field, type the lump sum amount of other costs to be added to this force account.

13. Click the **Save** button.

14. To delete a force account:

15. On the **Contract Records** panel, double-click the **Force Account** icon.

16. Click the **Open** button. The Force Account Select window opens. The Select Contract list is displayed.

17. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of force accounts.

18. In the **Force Account** list box, scroll to and click the force account.

19. Click **OK**.

20. Click the **Delete** button. The system asks the user to confirm the deletion.

21. Click **Yes**.

22. Click the **Save** button.

If any Items are paid for, the force account cannot be deleted.

6.2.1 Force Account Equipment

The Force Account Equipment folder tab lets the user create and maintain a list of equipment and usage rates for the selected force account.
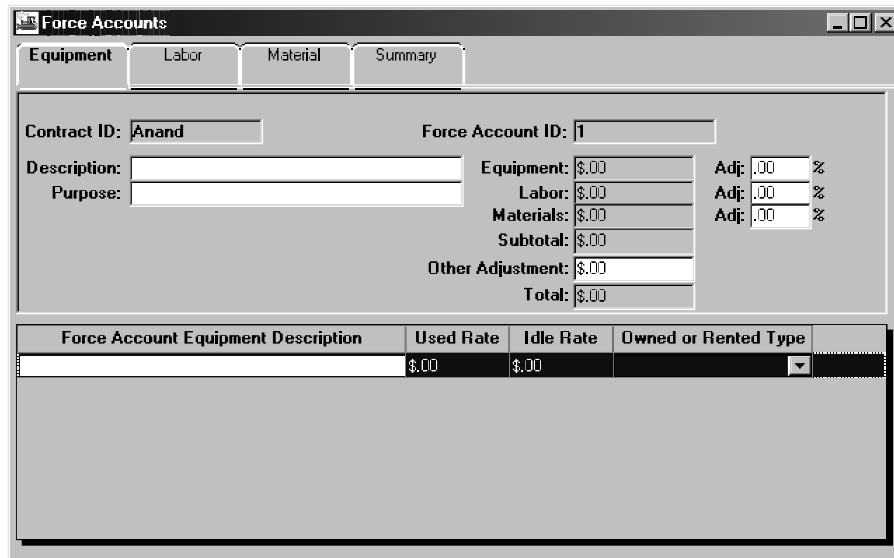
Figure 6-3. The Force Account Equipment Folder Tab

Field Name	Description
Force Account Equipment Description	Text description of the piece of equipment or a type of equipment. This is a required field. This field scrolls horizontally.
Used Rate	Used rate for the equipment. This is a required field.
Idle Rate	Idle rate for the equipment. This is a required field.
Owned or Rented Type	Indicates if the equipment is owned by the contractor and kept on the site, owned by the contractor and brought to the site, or rented. This is a required field.

Table 6-3. The Force Equipment Fields Table

To add equipment to a force account:

1. On the **Contract Records** panel, double-click the **Force Account** icon.

2. Click the **Open** button. The Force Account Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of force accounts.

4. In the **Force Account** list box, scroll to and click the force account. The Force Account window opens with the Equipment folder tab displayed.

5. Click the **New** button.

6. In the **Force Account Equipment Description** field, type a description of the piece of equipment.

7. Press the **Tab** key.

8. In the **Used Rate** field, type the used rate for the equipment.

9. Press the **Tab** key.

10. In the **Idle Rate** field, type the idle rate for the equipment.

11. In the **Owned or Rented Type** drop-down list, click the expand arrow and click the ownership type.

12. Click the **Save** button.

6.2.2 Force Account Labor

The Force Account Labor folder tab lets the user create and maintain a list of force account workers and their wage rates.

Figure 6-4. The Force Account Labor Folder Tab

Field Name	Description
Worker Name	Name of the worker for the force account work. This is a required field.
Class	Job classification of the worker for the force account work. The user can search this field. This is a required field.
Regular Rate	Regular hourly rate of the worker for the force account work. This is a required field.
Fringe Rate	Fringe hourly rate of the worker for the force account work. This is an optional field.
Overtime Rate	Overtime hourly rate of the worker for the force account work. This is a required field.

Table 6-4. The Force Account Labor Fields Table

To add a force account labor record:

1. On the **Contract Records** panel, double-click the **Force Account** icon.

2. Click the **Open** button. The Force Account Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of force accounts.

4. In the **Force Account** list box, scroll to and click the force account. The Force Account window opens with the Equipment folder tab displayed.

5. Click the **Labor** folder tab.

6. Click the **New** button.

7. In the **Worker Name** field, type the worker's name.

8. In the **Class** drop-down list, click the expand arrow and click the job classification of the worker.

9. Press the **Tab** key.

10. In the **Regular Rate** field, type the regular hourly rate for the worker.

11. Press the **Tab** key.

12. In the **Fringe Rate** field, type the fringe hourly rate for the worker.

13. Press the **Tab** key.

14. In the **Overtime Rate** field, type the overtime hourly rate for the worker.

15. Click the **Save** button.

6.2.3 Force Account Materials

The Force Account Material folder tab lets the user create and maintain a list of force account materials and related invoice quantities and costs.
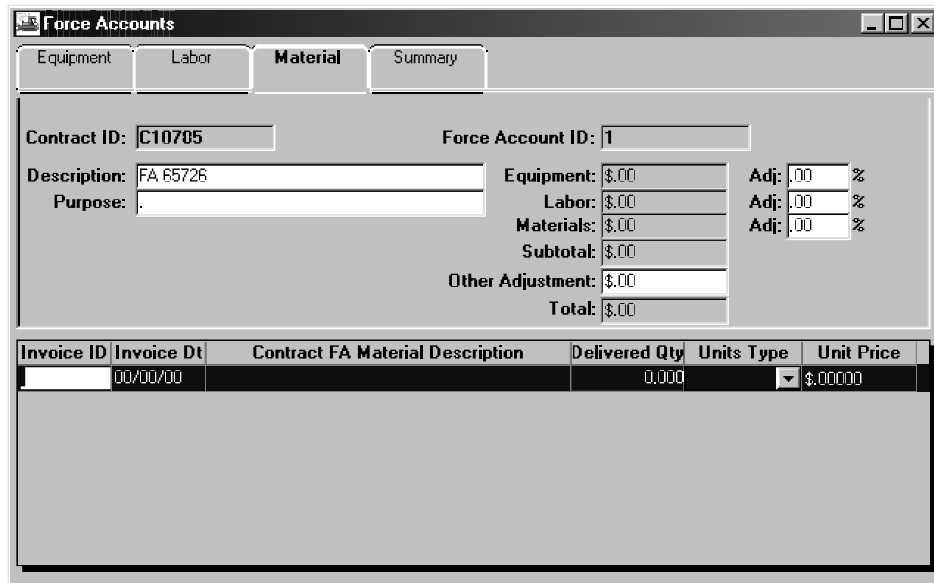
Figure 6-5. The Force Account Materials Folder Tab

Field Name	Description
Invoice ID	Invoice received with the material used for the force account. This is an optional field.
Invoice Dt	Date of the invoice received with the material used for the force account. This is an optional field.
Contract FA Material Description	Description of the material used for the force account. This is a required field.
Delivered Qty	Invoiced quantity of the delivered material used for the force account. This is a required field.
Units Type	Unit of measurement of the material used for the force account. This is a required field.

Field Name	Description
Unit Price	Unit price of the material used for the force account. This is a required field.

Table 6-5. The Force Account Materials Fields Table

To add force account materials:

1. On the **Contract Records** panel, double-click the **Force Account** icon.

2. Click the **Open** button. The Force Account Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of force accounts.

4. In the **Force Account** list box, scroll to and click the force account. The Force Account window opens with the Equipment folder tab displayed.

5. Click the **Material** folder tab.

6. Click the **New** button.

7. In the **Invoice ID** field, type the invoice for the material.

8. In the **Invoice Date** field, type the date of the invoice.

9. In the **Contract FA Material Description** field, type a description of the material.

10. Press the **Tab** key.

11. In the **Delivered Qty** field, type the invoice quantity of the delivered material.

12. In the **Units Type** drop-down list, click the expand arrow and click the unit of measure to be used in installing the material.

13. Press the **Tab** key.

14. In the **Unit Price** field, type the unit price of the material.

15. Click the **Save** button.

6.2.4 Force Account Summary

The Force Account Summary folder tab calculates and displays the total actual cost of the force account and the actual costs per type and per day. This is a view-only window. The total actual

costs are derived from the hours and quantities reported on Daily Work Reports. The user can access the Daily Work Reports from this window.

Figure 6-6. The Force Account Summary Folder Tab

Field Name	Description
Daily ID	Date and user ID of the Daily Work Report that includes the force account information.
Labor Costs	Accumulated amount of regular and overtime labor costs for the force account.
Fringe Costs	Accumulated amount of regular and overtime fringe labor costs for the force account.
Equipment Costs	Accumulated amount of used and idle equipment costs for the force account.
Material Costs	Accumulated amount of material costs for the force account.
Total Costs	Total labor, fringe, equipment, and material costs on one Daily ID for the force account.
Daily ID Totals	Total labor, fringe, equipment, and material costs on all Daily IDs for the force account.

Field Name	Description
Daily ID Adjustments	Adjusted labor, equipment, and material costs computed with the adjustment percentage entered for each. The Total Daily ID Adjustment is the total of the adjusted labor, equipment, and material costs for the force account.
Force Account Adjustment	Additional lump sum cost adjustment to the force account.
Total Cost	Sum of the Daily ID Totals, Total Daily ID Adjustments, and force account adjustment for the force account.

Table 6-6. The Force Account Summary Fields Table

To view a Daily Work Report related to a force account:

1. On the **Contract Records** panel, double-click the **Force Account** icon.

2. Click the **Open** button. The Force Account Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of force accounts.

4. In the **Force Account** list box, scroll to and click the force account.

5. Click **OK**.

6. Click the **Summary** folder tab.

7. In the **Daily Work Report** list box, scroll to and click the Daily Work Report.

8. Click the **Services** menu and click the **Daily Work Report** choice.

9. Click the **Close** button to return to the Force Accounts window.

6.3 Design Evaluation

The Design Evaluation window lets the user rate contract designs by design category. The user can add, modify, or delete a design evaluation. The contract can be evaluated for any of the design categories in the system. Only one evaluation can be made for a design category per evaluator. The numeric rating is required.

Figure 6-7. The Design Evaluation Window

Field Name	Description
Design Category	User-defined design category description. Only one rating allowed for a design category. This is a required field.
Rating	Numeric rating assigned to an evaluation. This is a required field. Valid values are on a scale from 1 to 10.
Evaluation Date	Date on which the design category was evaluated. Cannot be in the future. Defaults to the date on which the evaluation is entered in the system.
Evaluator	User ID of the individual entering the evaluation data. Defaults to the current user name. This value cannot be modified after it is saved.
Position	Designation of the evaluator. Defaults to the current user. This value cannot be modified after it is saved.
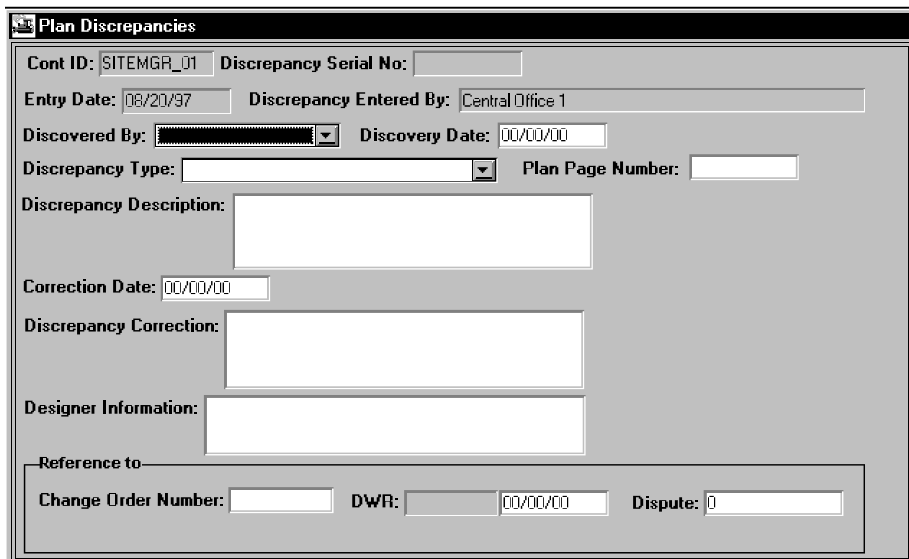
Table 6-7. The Design Evaluation Window Fields Table

To add a design evaluation:

1. On the **Contract Records** panel, double-click the **Design Evaluation** icon. The Contract Select window opens.

2. In the **Contract ID** list box, scroll to and click the contract.

3. Click **OK**. The Design Evaluation window lists design evaluations.

4. Click the **New** button. An empty row is added to the list.

5. In the **Design Category** drop-down list, click the expand arrow and click the design category.

6. Press the **Tab** key.

7. In the **Rating** field, type the numeric rating for the evaluation.

8. Press the **Tab** key.

9. In the **Evaluation Date** field, type the date of the evaluation.

10. Click the **Save** button.

6.4 Plan Discrepancy

The Plan Discrepancies window lets the user record discrepancies to the contract plan. The discrepancy types are defined by the transportation agency.

Figure 6-8. The Plan Discrepancies Window

Field Name	Description
Cont ID	Transportation agency-defined ID for the contract.
Discrepancy Serial No	System-generated serial number for the discrepancy record.
Entry Date	Date when the discrepancy record was entered. Defaults to the current date.
Discovered By	The entity discovering the discrepancy, e.g., Consultant, Contractor, Department, or Other.
Discrepancy Entered By	Name of the person entering the discrepancy. Defaults to the name of the logged on SiteManager user.
Reference to Change Order Number	Change order number associated with the discrepancy. The user can search this field.
Discrepancy Description	Description of the discrepancy. This is a required field.
Discrepancy Correction	Description of the correction of the discrepancy. This field is optional.
Discrepancy Type	Transportation agency-defined type of the discrepancy. This is a required field.
Discovery Date	Discovery date of the discrepancy. The discovery date cannot be after the current date or before the Daily date. This field is required.
Correction Date	Correction date of the discrepancy. This field is optional and cannot be after the current date.
Plan Page Number	Page number of the design plan associated with the discrepancy. This field is optional.
Reference to Dispute	ID of the dispute associated with the discrepancy. The user can search this field. This field is optional.
Reference to DWR	Date and user ID on the Daily Work Report associated with the discrepancy. The user can search this field. This field is optional.
Designer Information	Information about the designer associated with the discrepancy. This field is optional.

Table 6-8. The Plan Discrepancies Window Fields Table

To add a plan discrepancy to the contract:

1. On the **Contract Records** panel, double-click the **Plan Discrepancy** icon.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Contract list opens.

3. In the **Select Contract** list box, scroll to and click the contract.

4. Click **OK**.

5. In the **Discovered By** drop-down list, click the expand arrow and click the entity that found the discrepancy.

6. Press the **Tab** key.

7. In the **Discovery Date** field, click in front of the current entry and type the date the discrepancy was discovered.

8. In the **Discrepancy Type** drop-down list, click the expand arrow and click the discrepancy type.

9. Press the **Tab** key.

10. To enter a reference to the design plan, in the **Plan Page** field, type the page number.

11. Press the **Tab** key.

12. In the **Discrepancy Description** field, type a description of the discrepancy.

13. Press the **Tab** key.

14. In the **Correction Date** field, type the date the discrepancy was corrected.

15. Press the **Tab** key.

16. In the **Discrepancy Correction** field, type a description of the discrepancy correction.

17. In the **Designer Information** field, type desired data.

18. Press the **Tab** key.

19. To add a reference to a change order, in the **Change Order Number** field, perform a **Search**.

20. Press the **Tab** key.

21. To add a reference to a Daily Work Report, in the **DWR** field, perform a **Search**.

22. Press the **Tab** key.

23. To add a reference to a dispute, in the **Dispute** field, perform a **Search**.

24. Click the **Save** button.

To modify a plan discrepancy record:

1. On the **Contract Records** panel, double-click the **Plan Discrepancy** icon.

2. Click the **Open** button. The Discrepancy Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract ID. The window displays a list of discrepancies.

4. In the **Plan Discrepancy** list box, scroll to and double-click the record. The Plan Discrepancy Select window closes and the Plan Discrepancy window is displayed.

5. Modify data on the window.

6. Click the **Save** button.

6.5 Dispute/Claim

The Dispute/Claim window lets the user add, modify, and delete dispute and claim records. The Dispute/Claim window contains the following folder tabs:

Tab Name	Description
Description	Displays the basic dispute or claim description data that can be added, deleted, updated, or viewed.
Recipients	Displays the dispute or claim recipient's data that can be added, deleted, updated, or viewed. This folder tab records data on people who have been assigned to respond to the dispute or claim. In addition, the system notifies each recipient of his pending assignment with an In-Box message.
Related Records	Displays a list of SiteManager records related to the selected dispute or claim. This lets the user navigate automatically to the related record's window (e.g., Plan Discrepancies, Change Order, Correspondence Log).

Table 6-9. The Dispute/Claim Folder Tabs Table

6.5.1 Dispute/Claim Descriptions

The Description folder tab lets the user add, modify, or delete the contract disputes and claims.

Figure 6-9. The Dispute/Claim Description Folder Tab

Field Name	Description
Contract ID	Transportation agency-defined ID for the contract.
Dispute ID	System-generated ID for the dispute or claim.
Type Ind	Identifies whether this is a dispute or a claim. This is a required field.
Status	Status of the dispute or claim (e.g., Received, Logged, Open, Rescinded, Resolved, Denied, Closed). This is a required field.
Subcontr ID	Transportation agency-defined ID for the subcontractor associated with the dispute or claim.
Category Type	Transportation agency-defined category of the dispute or claim. Categories are defined for reporting, inquiry, and analysis purposes. Normally based on the nature of the dispute or claim (e.g., material, utility, time). This is a required field.
Requested Amt	Dollar amount requested by the contractor in the dispute or claim. Either Requested Amt or Requested Days is required.

Field Name	Description
Requested Days	Number of days requested by the contractor in the dispute or claim. Either Requested Amt or Requested Days is required.
Settled Amt	Amount settled for the dispute or claim.
Settled Days	Days settled for the dispute or claim.
Estimate Nbr	System-generated number assigned to the estimate during the estimate generation process. The user can search this field.
Received Date	Date the dispute or claim was received by the department. This is a required field.
Logged Date	Date the dispute or claim was entered into SiteManager. Assigned by the system.
Contractor Accepted Date	Date the resolution was accepted by the contractor. Cannot be after the current date or equal to the Dept Resolved Date.
FHWA Concurrence Date	Date the FHWA concurred with the resolution. Cannot be after the current date.
Diary Start Date	Start date of a range of diaries that document the dispute or claim. Cannot be after the current date.
Diary End Date	End date of a range of diaries that document the dispute or claim. Must be greater than or equal to the Diary Start Date.
Release/Payment Date	Date the payment was released for the dispute or claim. Cannot be after the current date.
Dept Resolved Date	Date the dispute or claim was resolved or overridden by the department. Cannot be after the current date.
Resolution Reason Type	Resolution reason type that identifies how the dispute or claim was resolved (e.g., Change Order issued).
Remark	Remarks about the dispute or claim.
Project Number	Transportation agency-defined ID for the project related to the dispute or claim.

Field Name	Description
Line Item	Line item number of an item associated with the dispute or claim. The user can search this field. An item can be in multiple disputes (e.g., a paving item can be disputed one day because of density controversy and the next day because of an aggregate mix). This field is protected in update mode.
Seq Nbr	System-generated sequence number that identifies the project and line item associated with the dispute or claim.
Item Code	Transportation agency-defined code for the item associated with the dispute or claim.
Short Description	Short description of the item associated with the dispute or claim.

Table 6-10. The Dispute/Claim Description Folder Tab Fields Table

To add a dispute or claim record to a contract:

1. On the **Contract Records** panel, double-click the **Dispute/Claim** icon.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Contract list opens.

3. In the **Select Contract** list box, scroll to and click the contract.

4. Click **OK**.

5. In the **Type Ind** drop-down list, click the expand arrow and click either Dispute or Claim.

6. In the **Status** drop-down list, click the expand arrow and click the status of the dispute or claim.

7. In the **Subcontractor ID** drop-down list, click the expand arrow and click the ID of the subcontractor who started the dispute or claim.

8. In the **Category Type** drop-down list, click the expand arrow and click the category of the dispute or claim.

9. Press the **Tab** key.

10. In the **Estimate Nbr** field, type an estimate number or perform a **Search**.

11. Press the **Tab** key.

12. In the **Requested Days** field, type the number of days requested by the contractor, or tab to the **Requested Amt** field and type the dollar amount requested by the contractor.

13. Press the **Tab** key.

14. In the **Settled Amt** field, type the amount for which the dispute or claim was settled.

15. Press the **Tab** key.

16. In the **Received Date** field, type the date the dispute or claim was received by the transportation agency.

17. Press the **Tab** key.

18. In the **Diary Start Date** field, type the start date of a range of diaries that captured information about the dispute or claim.

19. Press the **Tab** key.

20. In the **Diary End Date** field, type the end date of a range of diaries that captured information about the dispute or claim.

21. Press the **Tab** key.

22. In the **Contractor Accepted Date** field, type the date the resolution was accepted by the contractor.

23. Press the **Tab** key.

24. In the **Dept Resolved Date** field, type the date that the dispute or claim was resolved by the transportation agency.

25. Press the **Tab** key.

26. In the **FHWA Concurrence** field, type the date the FHWA concurred with the resolution.

27. Press the **Tab** key.

28. In the **Release/Payment Date** field, type the date the payment was released for this dispute or claim.

29. In the **Resolution Reason Type** drop-down list, click the expand arrow and click the reason that identifies how the dispute or claim was resolved.

30. Press the **Tab** key.

31. In the **Remarks** field, type remarks about the dispute or claim.

32. Click the **Save** button.

To add an Item to a dispute or claim record:

1. On the **Contract Records** panel, double-click the **Dispute/Claim** icon.

2. Click the **Open** button. The Dispute/Claim Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of disputes.

4. In the **Dispute/Claim** list box, scroll to and click the dispute.

5. Click **OK**.

6. Click the bottom datawindow and click the **New** button.

7. In the **Project Number** drop-down list, click the expand arrow and click the number of the project that includes the item.

8. In the **Line Item** field, type the line item number or perform a **Search**.

9. Click the **Save** button.

To view a line item related to a dispute or claim:

1. On the **Contract Records** panel, double-click the **Dispute/Claim** icon.

2. Click the **Open** button. The Dispute/Claim Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of disputes.

4. In the **Dispute/Claim** list box, scroll to and click the dispute.

5. Click **OK**.

6. In the **Line Item** list box, scroll to and click the line item.

7. Click the **Services** menu and click the **View Item** choice.

8. Click the **Close** button to return to the Dispute/Claim window.

To view an estimate related to a dispute or claim:

1. On the **Contract Records** panel, double-click the **Dispute/Claim** icon.

2. Click the **Open** button. The Dispute/Claim Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of disputes.

4. In the **Dispute/Claim** list box, scroll to and click the dispute.

5. Click **OK**.

6. Look at the **Estimate Nbr** field to make sure the selected dispute or claim has a valid estimate number.

7. Click the **Services** menu and click the **View Estimate** choice.

8. Click the **Close** button to return to the Dispute/Claim window.

If the View Estimate menu option is not available, make sure that focus is on the top datawindow and there is a valid number in the Estimate Nbr field.

6.5.2 Dispute/Claim Recipients

The Dispute/Claim Recipients folder tab lets the user add, modify, and delete the recipients of the dispute and claim records. This folder tab lets the user maintain tracking and deposition information on personnel assigned to respond to the dispute. This includes assigning the personnel, documenting when the dispute or claim documentation was sent and received and recording the recipient's comments or deposition. Each newly assigned recipient is notified of the assignment by an In-Box message.

Figure 6-10. The Dispute/Claim Recipient Folder Tab

Field Name	Description
Recipient	User ID of a person assigned to receive dispute or claim documents (e.g., Project Engineer). The user can search this field. This is a required field. Should be unique within the dispute or claim.
Due Date	Date the dispute or claim document is due to be received by the recipient. This is a required field. Cannot be before the current date.
Doc Sent Date	Date the dispute or claim document was sent to the recipient. Cannot be after the current date.
Doc Received Date	Date the recipient received the dispute or claim document. Should be greater than or equal to the Doc Sent Date. Cannot be after the current date.
Remark	Remarks received from the recipient of dispute or claim documents.
Recipient Response Date	Date the recipient responded to the dispute or claim document. Should be greater than or equal to the Doc Sent Date. Cannot be after the current date.

Table 6-11. The Dispute/Claim Recipients Folder Tab Fields Table

To add a recipient:

1. On the **Contract Records** panel, double-click the **Dispute/Claim** icon.

2. Click the **Open** button. The Dispute/Claim Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of disputes.

4. In the **Dispute/Claim** list box, scroll to and click the dispute or claim.

5. Click **OK**.

6. On the **Dispute/Claim** window, click the **Recipients** folder tab.

7. Click the **New** button.

8. In the **Recipient** field, type the title of the person who has been assigned to respond to the dispute or perform a **Search**.

9. Press the **Tab** key.

10. In the **Due Date** field, type the date the document is due to be received by the recipient.

11. Press the **Tab** key.

12. In the **Doc Sent Date** field, type the date the document was sent to the recipient.

13. Press the **Tab** key.

14. In the **Doc Received Date** field, type the date the recipient received the document.

15. Press the **Tab** key.

16. In the **Recipient Response Date** field, type the date the recipient responded to the dispute or claim.

17. Press the **Tab** key.

18. In the **Remarks** field, type the recipient's remarks.

19. Click the **Save** button.

When a new recipient is added to the list and the record is saved, the system notifies the recipient by In-Box message.

6.5.3 Dispute/Claim Related Records

The Dispute/Claim Related Records folder tab lets the user view and navigate to the plan discrepancies, change orders, and correspondence logs related to the dispute or claim.
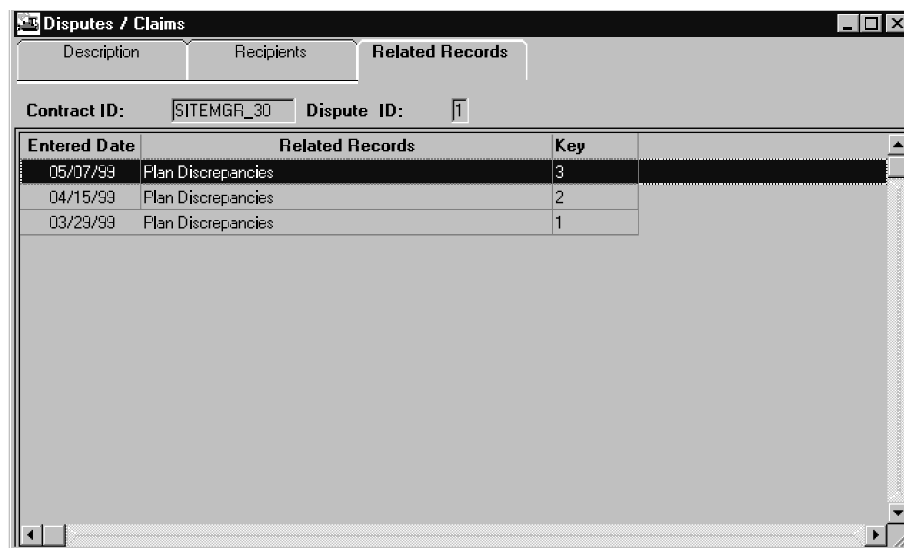
Figure 6-11. The Dispute/Claim Related Records Folder Tab

Field Name	Description
Entered Date	Date the record related to the dispute or claim was entered.
Related Records	Records that are related to the dispute or claim (i.e., correspondence log, plan discrepancy, Change Order).
Key	System-generated sequence number that identifies the record associated with the dispute or claim.

Table 6-12. The Dispute/Claim Related Records Folder Tab Fields Table

To navigate to a related record:

1. On the **Contract Records** panel, double-click the **Dispute/Claim** icon.

2. Click the **Open** button. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract. The window displays a list of disputes.

4. In the **Dispute/Claim** list box, scroll to and click the dispute or claim.

5. Click **OK**.

6. Click the **Related Records** folder tab.

7. Click the **Related Record** and click an option on the **Services** menu, depending on the type of record selected as follows:

   ▪ To view a Plan Discrepancy record, click **View Plan Discrepancies**.

   ▪ To view a Change Order record, click **View Change Orders**.

   ▪ To view a Correspondence Log record, click **View Correspondence Log**.

8. To return to the **Dispute/Claim** window, close the open window.

6.6 Contractor Payrolls

The Contractor Payrolls window lets the user add and modify contractor payroll data and related employee information. The user can enter the payroll data manually or upload the payroll data electronically (refer to the Contractor Payroll Load topic). The employee information is used primarily for civil rights and government reporting functions. The payroll data can be used to track on-the-job training commitments and training reimbursements to the contractor.

Certain factors must be considered for payroll entry:

- SiteManager accepts payroll data only if the Prime Contractor folder tab on the contract indicates that payrolls are required.

- The Work Begin Date on the contract's Critical Dates tab must be populated.

- The payroll frequency is determined by the Frequency In Weeks field on the contract's Prime Contractor folder tab. This value determines the ending date for the payrolls.

- A payroll for the prime contractor must be entered before a subcontractor payroll may be entered and saved.

- The payroll information for the prime contractor is present from the beginning of the contract until the end allowing for no gaps.

- The payroll frequency cycle for subcontractors must be the same as that of the prime contractor, but it does not have to be continuous.

Tab Name	Description
Payroll Information	The Payroll Information folder tab displays the payroll dates, the payroll's certified status, and whether the payroll includes employee hours.
Employee Information	The Employee Information folder tab displays a list of employees for the selected payroll and details for the employee selected on the list.
Employee Daily Information	The Employee Daily Information folder tab displays the daily records for each employee during a payroll period.

Table 6-13. The Contractor Payrolls Window Folder Tabs Table

To access the Contractor Payrolls window:

1. On the **Contractor Management** panel, double-click the **Contractor Payrolls** icon.

2. Click the **Services** menu and click the **Choose Keys** choice. The Select Payroll for Vendor window opens.

3. In the Select Contract list box, scroll to and double-click the contract.

4. In the Vendor list box, scroll to and click the prime contractor.

5. Click **OK**.

6.6.1 Payroll Information

The Payroll Information folder tab lets the user add and modify payroll data. This information is submitted to the transportation agency by prime contractors and subcontractors who employ at least one non-supervisory employee. The user may enter payrolls manually on this window or the payrolls may be uploaded electronically. (See the Contractor Payroll Load topic for details.)

If there is no employee data, the No Employees for Period indicator is selected. If a payroll with employee hours is selected, the user can access all three folder tabs.

When the payroll has been processed via the Payroll Exceptions batch process, the Payroll Exception Process indicator is selected automatically by the system. This indicates that the employee wage rates have been checked against the contract's wage decision and trainee hours have been processed for on-the-job training reimbursement.

Once a payroll has been included in an estimate – meaning its trainee hours have been processed for on-the-job training reimbursement – the On Estimate field displays the corresponding estimate number. The estimate number are removed if the estimate is deleted.

> 📄 **Note:** Once a payroll has been processed and included on a paid estimate, the payroll can later be decertified and modified manually or reloaded electronically into the system. However, any employee hour modifications will not be processed by the next Payroll Exceptions batch job. Therefore, any changes to a trainee's work hours will not be reflected on the trainee record and an on-the-job training reimbursement adjustment will not be calculated on the next estimate. If the DOT hours accrued for a trainee must be modified, then the changes must be manually made on the Trainee window.
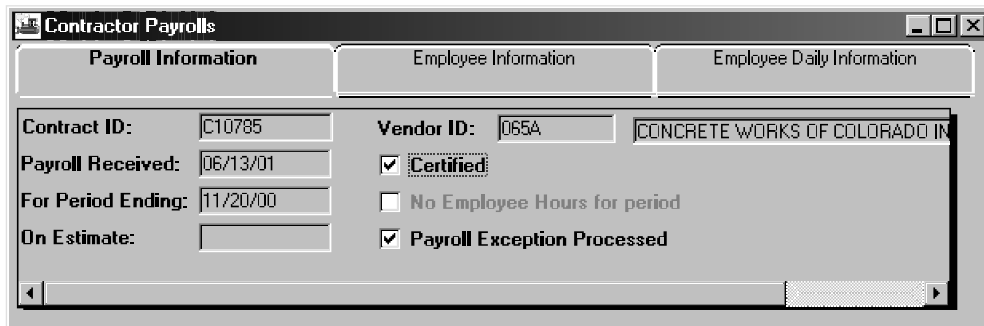
Figure 6-12. The Payroll Information Folder Tab

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract. This field is also displayed on the Employee Information and the Daily Employee Information tabs.
Vendor ID	Vendor ID of the prime contractor or subcontractor. This field is also displayed on the Employee Information and the Daily

Field Name	Description
	Employee Information tabs.
Payroll Received	This is the payroll received date. Defaults to the current date. Cannot be after the current date.
For Period Ending	The end of the payroll period. Defaults to a date based on the payroll frequency of the prime contractor. If a prime contractor is selected, this field cannot be modified. This date is also displayed on the Employee Information and the Daily Employee Information tabs in the Payroll Ending Date field.
Certified	Indicates that the payroll is certified.
No Employee Hours for period	Indicates that no employees worked in the payroll period.
Payroll Exception Processed	Indicates that the payroll has been processed via the Payroll Exceptions batch process.
On Estimate	Displays the number of the estimate that included the payroll.

Table 6-14. The Payroll Information Folder Tab Fields Table

To manually add the first payroll:

1. On the **Payroll Information** tab, in the **Payroll Received** field, type the date the payroll was received.

2. In the **For Period Ending** field, type the ending date of the payroll period.

3. Click the **Save** button.

To manually add a payroll with no employee hours:

1. On the **Payroll Information** tab, in the **Payroll Received** field, type the date the payroll was received.

2. In the **For Period Ending** field, type the ending date of the payroll period.

3. Click the **No Employees for Period** indicator.

4. Click the **Save** button.

   📄 **Note:** After the system verifies that the period ending date corresponds to the prime contractor's payroll period, the record is saved.

6.6.2 Employee Information

The Employee Information folder tab displays a list of employees for the selected payroll and details for the employee selected on the list. To add payroll employee information, the user can search the Vendor's personnel list by name or SSN/SIN and select the employees who worked on the payroll. The user can also enter employee information manually. If the selected payroll is not certified, the user can modify the data.

If the employee is a trainee, the data on this record (Class Type, Class Group, Program Type, etc.) should match exactly the information on the trainee record.

Figure 6-13. The Employee Information Folder Tab

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract.
Vendor ID	Vendor ID of the prime contractor or subcontractor.
Payroll Ending Date	End of the payroll period for the selected payroll.
Name	Name of a non-supervisory employee. The user can search this field.
SSN/SIN	Social Security Number or Social Insurance Number of the employee. The user can search this field.
Ethnicity	Transportation agency-defined ethnic background of the employee.
Gender	Gender of the employee.

Field Name	Description
Class Group	Class Group of the employee.
Class Type	Class Type of the employee.
Program Type	Program type in which the employee is enrolled.
Deductions	Deductions to the employee's payroll for the payroll period.
Net Pay	Gross Pay minus Deductions for the payroll period.
Deduction Type	A drop-down list from which the user can select a deduction type, such as FICA, State, Federal, Local or other deductions.
Deduction Amount	The amount to be withheld from the employee's gross pay for the specified Deduction Type.

Table 6-15. The Employee Information Folder Tab Fields Table

To add an employee payroll record:

1. On the **Employee Information** folder tab, click the **New** button.

2. In the **Name** field, type the name or, using the right mouse button, click the field and perform a Search . The system automatically enters existing data for the employee. The user can modify this data as needed.

3. In the **SSN/SIN** field, type the number or perform a **Search**.

4. In the **Ethnicity** drop-down list, click the expand arrow and select the ethnic group.

5. In the **Gender Typ**e drop-down list, click the expand arrow and select the gender.

6. In the **Class Typ**e drop-down list, click the expand arrow and select the work class type.

7. In the **Class Group** field, type a new work class group or perform a **Search**.

8. In the **Program Type** drop-down list, click the expand arrow and select the program type.

9. In the **Deductions** field, type the deduction value.

10. In the **Total Hours** field, type the total hours worked for the pay period.

11. In the **Gross Amount** field, type the gross pay amount for the pay period.

12. Click the **Save** button.

Or

13. In the **Total Hours** field, type the total hours worked for the pay period.

14. In the **Gross Amount** field, type the gross pay amount for the pay period.

15. Click the **Save** button.

16. Click in the bottom data window.

17. Click the **New** button.

18. In the **Deduction Type** drop-down list, click the expand arrow and select the desired deduction type.

19. In the **Deduction Amount** field, type the amount for the selected deduction type.

20. To enter additional deductions, repeat Steps 11 through 13.

21. Click in the **Total Hours** field and type the total hours worked for the pay period.

22. In the **Gross Amount** field, type the gross pay amount for the pay period.

23. Click the **Save** button.

> 📄 **Note:** The user should not manually enter a value in the Deductions field if the employee has more than one type of deduction.

To modify employee payroll information for a selected pay period:

1. On the **Contractor Management** panel, double-click the **Contractor Payrolls** icon.

2. Click the **Open** button. The Select Payroll for Vendor window opens.

3. In the **Select Contract** list box, scroll to and double-click the contract ID.

4. In the **Vendor** list box, scroll to and double-click the prime contractor or subcontractor.

5. In the **Payroll** list box, scroll to and click the payroll.

6. Click **OK**. The Payroll Information folder tab displays data for the selected payroll.

7. Click the **Employee Information** folder tab.

8. In the **Employee** list box, scroll to and click the employee name. The window displays data for the selected employee below the list.

9. In the **Name** field, type the name or perform a **Search**.

10. In the **SSN/SIN** field, type the number or perform a **Search**.

11. In the **Ethnicity** drop-down list, click the expand arrow and click the ethnic group.

12. In the **Gender** drop-down list, click the expand arrow and click the gender.

13. In the **Class Type** drop-down list, click the expand arrow and click the work class type.

14. In the **Class Group** field, type a new work class group or perform a **Search**.

15. In the **Deductions** field, type the deduction value.

16. In the **Total Hours** field, type the total hours worked for the pay period.

17. In the **Gross Amount** field, type the gross pay amount for the pay period.

18. Click the **Save** button.

Or

19. In the **Total Hours** field, type the total hours worked for the pay period.

20. In the **Gross Amount** field, type the gross pay amount for the pay period.

21. Click the **Save** button.

22. Click in the bottom data window.

23. Click the **New** button.

24. In the **Deduction Type** drop-down list, click the expand arrow and select the desired deduction type.

25. In the **Deduction Amount** field, type the amount for the selected deduction type.

26. To enter additional deductions, repeat Steps 11 through 13.

If the selected payroll is certified, the employee data cannot be modified or deleted.

6.6.3 Employee Daily Information

The Employee Daily Information folder tab shows the daily record for each employee during a payroll period. This includes the dates worked on this payroll, the number of hours worked per day, and the hourly rates paid to the employee. The work dates entered must fall within the payroll period. Once the user enters and saves the data on this tab, the application calculates and displays the total hours worked and gross pay on the Employee Information tab in the Total Hours and Gross Amount fields. The application then displays these fields in read-only mode.
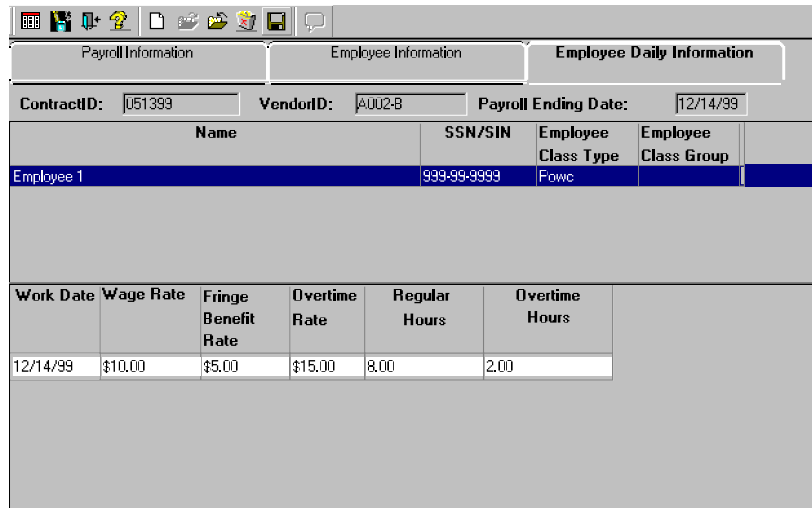
Figure 6-14. The Employee Daily Information Folder Tab

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract.
Vendor ID	Vendor ID of the prime contractor or subcontractor.
Payroll Ending Date	End of the payroll period for the selected payroll.
Name	Name of a non-supervisory employee on the payroll.
SSN/SIN	Social Security Number or Social Insurance Number of the employee on the payroll.
Employee Class Type	Class Type of the employee on the payroll.
Employee Class Group	Class Group of the employee on the payroll.
Work Date	Date on which the employee worked in the payroll period.
Wage Rate	Hourly wage rate for the employee on this date in the payroll period.
Fringe Benefit Rate	Hourly fringe benefit rate for the employee on this date in the payroll period.
Overtime Rate	Hourly overtime rate for the employee on this date in the payroll period.
Regular Hours	Regular hours worked by the employee on this date in the payroll period.

Field Name	Description
Overtime Hours	Overtime hours worked by the employee on this date in the payroll period.

Table 6-16. The Employee Daily Information Folder Tab Fields Tab

To modify employee daily information:

1. Click the **Employee Daily Information** folder tab.

2. In the **Employee** list box, scroll to and click the employee name. The window displays data for the selected employee below the list.

3. Click the **New** button. An empty row is added.

4. Click in front of the current Work Date and type the date.

5. Press the **Tab** key.

6. In the **Wage Rate** field, type the wage rate.

7. Press the **Tab** key.

8. In the **Fringe Benefit Rate** field, type the fringe benefit rate.

9. Press the **Tab** key.

10. In the **Overtime Rate** field, type the overtime rate.

11. Press the **Tab** key.

12. In the **Regular Hours** field, type the number of regular hours.

13. Press the **Tab** key.

14. In the **Overtime Hours** field, type the number of overtime hours.

15. To record hours worked by this employee on another date, repeat Steps 3 through 14. To record hours worked by another employee, repeat Steps 1 through 15.

16. Click the **Save** button.

The prime contractor's payrolls must be recorded before the subcontractor's payrolls.

To delete a payroll:

1. On the **Contractor Management** panel, double-click the **Contractor Payrolls** icon.

2. Click the **Open** button. The **Select Payroll for Vendor** window opens.

3. In the **Select Contract** list box, scroll to and double-click the contract.

4. In the **Vendor** list box, scroll to and double-click the prime contractor or subcontractor.

5. In the **Payroll** list box, scroll to and click the payroll.

6. Click **OK**. The Payroll Information folder tab displays data for the selected payroll.

7. If the payroll is certified, click the Certified check box (OFF). SiteManager displays the message that uncertifying the payroll permits changes to this payroll and associated data.

8. Click **OK**.

9. Click the **Employee Daily Information** folder tab.

10. In the **Employee** list box, click the **Employee** name. The window displays data for the selected employee below the list.

11. Select a row of daily data and click the **Delete** button. SiteManager displays the message, Do you want to delete Employee's Daily Information?

12. Click **Yes**.

13. Repeat Steps 10 and 11 until all employee daily information is deleted for every employee payroll record.

14. Click the **Save** button.

15. Click the **Employee Information** folder tab.

16. In the **Employee** list box, click the **Employee** name.

17. Click the **Delete** button. SiteManager displays the message, Do you want to delete Employee's Information?

18. Click **Yes.** Delete each employee listed.

19. Click the **Payroll Information** folder tab.

20. Click the **Delete** button. A delete confirmation message displays.

21. Click **Yes**.

22. Click the **Save** button.

If the selected payroll has Employee Information and/or Employee Daily Information, all records must be deleted before the payroll may be deleted.

6.7 Contractor Payroll Load

Contractor Payroll Load is a two-step process which loads payroll data electronically received from the contractor from the server to the database. (To enter payroll data manually, refer to the Contractor Payrolls topic.) The first step is accomplished by the user selecting payroll files to be loaded via the Contractor Payroll Load window. The files must be correctly formatted and contain valid data. When the user selects payroll files to be loaded, the system performs preprocessing validation of the following:

- Correct file format.

- Valid contract ID, vendor ID, and payroll ending date.

- Payroll data for only one payroll period per file.

- Multiple files must be entered in increasing order by payroll ending date.

A payroll must be loaded for the prime contractor before a subcontractor payroll can be loaded.

After the file selection is saved, the system copies the files that passed validation to a specific directory on the server. The system also generates a Payroll Preprocessing report and sends the report name to the user who selected the files. This report gives the preprocessing results.

The second step involves a batch process which loads data from the files queued on the server to the database. The loaded payroll data can be viewed and modified on the Contractor Payrolls window. If a payroll has no employee data, the No Employees for Period indicator is selected (ON) automatically. If a payroll is certified, the Certified indicator must be selected (ON) manually. If any files fail to load, the batch process generates a Payroll Batch report and notifies the contract's primary personnel. This report lists the files that failed and the reasons for failure. Possible load failure reasons include:

- Missing data, e.g., if non-supervisory employees are on the payroll, specific employee data is required.

- Invalid data, e.g., regular hours not between zero and 24.

- Invalid data format, e.g., numeric vs. non-numeric.

- If one payroll fails, all subsequent payrolls fail because the payroll ending dates are out of sequence.

6.7.1 Contractor Payrolls Text File Format

Payroll files to be uploaded must have the text file format described below with required fields and delimited by semi-colons (;). An example is provided.

Rec Type	Field	Ord	Req	Type/Length	Notes/Issues
Contract ID:	Contract ID	1	Y	Char 15	Must be a valid contract ID in the SiteManager database
Vendor ID:	Vendor ID	1	Y	Char 14	Must be a valid Vendor ID in the SiteManager database for the above listed contract ID
Payroll Ending Date:	Payroll Ending Date	1	Y	Num 8	Must be a date greater than the last Payroll Ending Date
EMPLOYEE:	SSN	1	Y	Char 9	
EMPLOYEE:	Name	2	Y	VarChar 50	
EMPLOYEE:	Gender	3	Y	Char 1	Must be F or M
EMPLOYEE:	Ethnicity	4	Y	Char 4	Must be a valid code in the SiteManager Ethnicity code table
EMPLOYEE:	Class Group	5	Y	Char 2	Spaces or valid code in the SiteManager Job Class code table
EMPLOYEE:	Class Type	6	Y	Char 4	Must be a valid code in the SiteManager Class Type code table
EMPLOYEE:	Program Type	7	Y	Char 4	Must be either a space or a valid code in the SiteManager Program Type code table
EMPLOYEE:	Deductions	8	Y	Dec 14.3	Spaces or valid sum if itemized deductions exist. Otherwise value must be >= 0
EMPLOYEE:	Tot Hrs	9	Y	Dec 7.2	Spaces or valid sum if employee details exist. Otherwise value must be >= 0
EMPLOYEE:	Gross amount	10	Y	Dec 14.3	Spaces or valid sum if employee details exist. Otherwise value must be >= 0

Rec Type	Field	Ord	Req	Type/Length	Notes/Issues
REMARK:	Employee remark	1	N	0 to 2,147483,647 PB String length 32 bit. 60,000 for 16 bit	Not required
ADDRESS:	Employee address Line 1	1	Y	Char 40	Spaces or value
ADDRESS:	Line 2	2	Y	Char 40	Spaces or value
ADDRESS:	Line 3	3	Y	Char 40	Spaces or value
ADDRESS:	City	4	Y	Char 40	Spaces or value
ADDRESS:	State/prov	5	Y	Char 2	Spaces or value
ADDRESS:	Zip	6	Y	Char 10	Spaces or value
ADDRESS:	Country	7	Y	Char 14	Spaces or value
ADDRESS:	Phone	8	Y	Char 13	Spaces or value
ADDRESS:	Ext	9	Y	Char 6	Spaces or value
ADDRESS:	Fax	10	Y	Char 13	Spaces or value
DEDUCTION	TYPE	1	N	Char 4	Must be a valid code in the SiteManager Deduction Type code table
DEDUCTION	Deductions Amount	2	N	Dec 14.3	Must be >= 0.00
EMPLOYEE DAILY:	Date	1	Y	Num 8	No duplicates allowed and should lie within the Payroll Frequency Cycle
EMPLOYEE DAILY:	Reg Hours	2	Y	Dec 5.2	Valid range of 0.00 to 24.00
EMPLOYEE DAILY:	Overtime Hours	3	Y	Dec 5.2	Valid range of 0.00 to 24.00

Rec Type	Field	Ord	Req	Type/Length	Notes/Issues
EMPLOYEE DAILY:	Wage Rate	4	Y	Dec 5.2	Valid range of 0.00 to 999.99. If Reg Hours field from above is > 0.00, then it must be > 0.00.
EMPLOYEE DAILY:	Fringe Rate	5	Y	Dec 5.2	Valid range of 0.00 to 999.99.
EMPLOYEE DAILY:	Overtime Rate	6	Y	Dec 5.2	Valid range of 0.00 to 999.99. If Overtime Hours field from above is > 0.00, then it must be > 0.00.

Example of a Payroll Text File

Contract ID:TESTCONTRACT

Vendor ID:G022

Payroll Ending Date:12/17/99

EMPLOYEE:250992222;SHIRLEY M. SMITH;F;01;II;ELEC;UNN;150;40;480

REMARK:NEW EMPLOYEE AND FIRST WEEK ON SITE;

ADDRESS:88 BAKER ST.;SECOND FLOOR;SUITE 200;COLUMBIA;SC;29170;USA;803-123-4567;;803-222-1111

DEDUCTION:FEDL;100

DEDUCTION:STAT;50

EMPLOYEE DAILY:12/13/99;8.00;0.00;12;0.00;0.00

EMPLOYEE DAILY:12/14/99;8.00;0.00;12;0.00;0.00

EMPLOYEE DAILY:12/15/99;8.00;0.00;12;0.00;0.00

EMPLOYEE DAILY:12/16/99;8.00;0.00;12;0.00;0.00

EMPLOYEE DAILY:12/17/99;8.00;0.00;12;0.00;0.00

EMPLOYEE:250136184;FRANK G. MOORE;M;02;II;PLUM;UNN;200;50;750

REMARK:ADDRESS NOT KNOWN

EMPLOYEE DAILY:12/13/99;10.00;0.00;15;0.00;0.00

EMPLOYEE DAILY:12/14/99;10.00;0.00;15;0.00;0.00

EMPLOYEE DAILY:12/15/99;10.00;0.00;15;0.00;0.00

EMPLOYEE DAILY:12/16/99;10.00;0.00;15;0.00;0.00

EMPLOYEE DAILY:12/17/99;10.00;0.00;15;0.00;0.00

EMPLOYEE:248116767;TERRY CRANE;F;01;;POWD;UNN;25;40;500

DEDUCTION:EDUC;25

EMPLOYEE:248558812;CHRIS SULLIVAN;M;02;;POWC;UNN;;40;425

The Employee and Employee Daily Rec Types are not required to store a payroll, but if they are supplied, all the associated fields must be completed.

The user may leave the Total Hours and Gross Amount records empty or enter a valid sum. Otherwise, the user may enter values that are greater than or equal to zero for the Total Hours and Gross Amount.

The user may leave the Deduction records empty or enter the sum of the itemized deductions (if applicable). Otherwise, the user may enter a value that is greater than or equal to zero for the Deductions Amount.

> ▤ **Note:** Address, Remarks and Deductions are not required. Only one address may be entered for each Employee Name/SSN combination. When adding an existing employee and new address, SiteManager updates the employee's old address.

Figure 6-15. The Contractor Payroll Load Window

Field Name	Description
Vendor ID	The transportation agency-assigned ID of the vendor
Vendor Name	Full name of the vendor
Payroll Ending Date	The end of the payroll period
Files to be Uploaded	The name of the electronic payroll file which needs to be uploaded
Prompt for Messages	A check box that is selected if the user wants to be prompted for informational and warning messages

To select payroll files to upload:

1. On the **Contractor Management** panel, double-click the **Contractor Payroll Load** icon. The Payroll Load window opens.

2. In the **Select Contract** list box, scroll to and double-click the contract.

3. Select the **Prompt for Messages** check box (ON).

4. Click the **Services** menu and click the **Select Another** choice.

5. In the **Select File for Payroll** window, select a payroll file and click **OK**. The preprocessing validation results are displayed.

6. Click **OK**.

7. To select another payroll file, repeat Steps 4 through 6.

8. Click the **Save** button. A message says Mail sent.

9. Click **OK**.

The preprocessing validation messages are displayed only when the Prompt for Messages check box is selected (ON).

6.8 Document Submission

The Document Submission window lets the user track documents that have been submitted for approval or resolution. Examples include drawings, catalog cuts, changes to traffic control plans, EEO reports, and complaints from the public. The user can enter or view the document type, the document category, the submission date, the submitter's name, and a document description. The user can modify or delete a record only if there are no reviewers assigned to the document.

To begin the review process, the user selects one or more reviewers. The reviewer receives an In-Box notification that the document is ready for review. After reviewing the document, the reviewer records his recommendation on the Review Submitted Document window. A recommendation cannot be modified after it is saved, but a reviewer can add another recommendation. A new tracking record is created for every new recommendation. The user can track the document reviews in the bottom datawindow of the Document Submission window.

6.8.1 Checklist Event Documents

Some documents are entered in the system as Checklist Scheduled Events with projected due dates. A daily process, Monitor Contract Status, looks for Checklist Event documents that are due from external sources. The process creates document submission records to track the date the document is received. When the user records the submission of such a document on the Document Submission window, the date is also added to the Checklist Event Dates window for the corresponding event date. For more information, refer to the Checklist Scheduled Event topic.

Figure 6-16. The Document Submission Window

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract associated with the submitted document.
Document Serial No	Serial number assigned to the submitted document by the system.
Submitted By	Name of the person submitting the document.

Field Name	Description
On	Date on which the document was submitted. Cannot be after the current date. Cannot be changed after the record is saved.
Document Type	Transportation agency-defined code for the type of the submitted document.
Document Category	Transportation agency-defined category of correspondence for the submitted document (used for retrieval and analysis).
Description	Description of the submitted document.
Reviewer	Name of the reviewer of the submitted document. This field is display only.
Review Date	Date of review of the submitted document. This field is display only.
Recommendation	Recommendation given by the person who reviewed the submitted document (Approved or Denied). This field is display only.
Remarks	Remarks given by the person who reviewed the submitted document. This field is display only.

Table 6-17. The Document Submission Window Fields Table

To add a document submission record:

1. On the **Contractor Management** panel, double-click the **Document Submission** icon.

2. Click the **Services** menu and click the **Choose Key** choice. The Select Contract list opens.

3. In the **Select Contract** list box, scroll to and click the contract ID.

4. Click **OK**.

5. In the **Submitted By** field, type the name of the person submitting the document.

6. Press the **Tab** key.

7. In the **On** field, type the date on which the document was submitted.

8. In the **Document Type** drop-down list, click the expand arrow and click the document type.

9. In the **Document Category** drop-down list, click the expand arrow and click the document category.

10. Press the **Tab** key.

11. In the **Description** field, type a description of the document.

12. Click the **Save** button.

To assign a document reviewer:

1. On the **Contractor Management** panel, double-click the **Document Submission** icon.

2. Click the **Open** button. The Document Submission Select window opens. The Select Contract list is displayed.

3. In the **Select Contract** list box, scroll to and double-click the contract ID.

4. In the **Submitted Document** list box, scroll to and click the document.

5. Click **OK**. The Document Submission window displays information about the submitted document.

6. Click the **Services** menu and click the **Forward to** choice.

7. In the **Forward to Selected Users** list box, scroll to and click the reviewer.

8. Click **OK**.

9. Click the **Save** button.

10. A message says Mail sent.

11. Click **OK**.

12. To select another reviewer, repeat Steps 6 through 9.

13. Each reviewer is listed in the bottom datawindow with a Pending recommendation.

After reviewers are assigned, the record cannot be deleted.

To modify a document submission record:

1. On the **Contractor Management** panel, double-click the **Document Submission** icon.

2. Click the Open button. The Document Submission Select window opens. The Select Contract list is displayed.

3. In the Select Contract list box, scroll to and double-click the contract ID.

4. In the Submitted Document list box, scroll to and click the document.

5. Click **OK**. The Document Submission window displays information about the submitted document.

6. Modify data as needed.

7. Click the Save button.

6.9 Document Submission Review

The Document Submission Review window lets the user enter recommendations for a submitted document. To access this window, the user must be one of the reviewers assigned to review the document. When a submitted document is forwarded for review, the system notifies all reviewers by In-Box message that the document is ready for review.

The top datawindow displays the document type, document category, submission date, name of the submitter, and document description. The reviewer adds a recommendation in the bottom datawindow. The three valid choices are Approved, Approved as Noted, and Denied. The reviewer can add comments in the Remarks field. A recommendation cannot be changed or deleted after it is saved, but the reviewer can add another recommendation. A new record is created for each new recommendation.
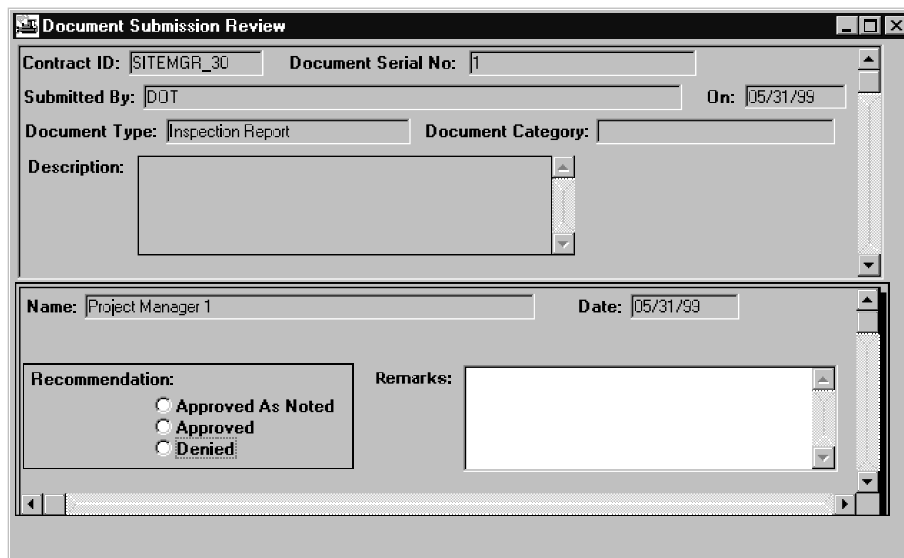
Figure 6-17. The Document Submission Review Window

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract associated with the submitted document.

Field Name	Description
Document Serial No	Serial number assigned to the submitted document by the system.
Submitted By	Name of the person submitting the document. This field is display only.
On	Date on which the document was submitted. This field is display only.
Document Type	Transportation agency-defined code for the type of the submitted document. This field is display only.
Document Category	Transportation agency-defined category of correspondence for the submitted document. This field is display only.
Description	Description of the submitted document. This field is display only.
Name	Name of the reviewer of the submitted document. This field is display only.
Date	Date of the review of the submitted document. Cannot be after the current date. This field is display only.
Recommendation	Recommendation given by the person who is reviewing the submitted document. Can be Approved, Approved as Noted, or Denied.
Remarks	Comments that the reviewer adds to the recommendation for the submitted document.

Table 6-18. The Document Submission Review Window Fields Table

To add a review record for a submitted document:

1. Receive notification by In-Box message that the document is ready for review.

2. Review the document, which could be either hard copy or soft copy.

3. On the **Contractor Management** panel, double-click the **Document Submission Review** icon. The Documents Submitted Select window opens.

4. In the **Select Contract** list box, scroll to and double-click the contract ID.

5. In the **Submitted Document** list box, scroll to and click the document.

6. Click **OK**. The Document Submission Review window displays information about the submitted document.

7. In the **Recommendation** area, click the Approved, Approved As Noted, or Denied radio button.

8. In the **Remarks** field, type comments to add to the review.

9. Click the **Save** button.

10. To add another review, click the **New** button and repeat Steps 7 through 9.

The reviews are displayed as view only on the Document Submission window.

6.10 Contractor Evaluation

The Contractor Evaluation window lets the user rate the contract's prime contractor and subcontractors. The user can add, modify, or delete a contractor evaluation. The user can specify the period of time for which the contractor is being evaluated or give a final rating for the entire contract. The window lists all contractors for the selected contract, with the prime contractor listed first. Evaluation data for the selected contractor is displayed below the list.
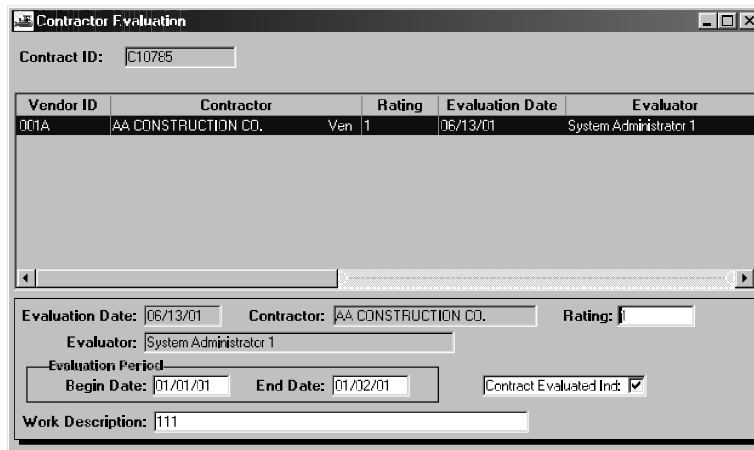
Figure 6-18. The Contractor Evaluation Window

Field Name	Description
Vendor ID	Transportation agency-defined Vendor ID of the contractor.
Contractor	Short name of the contractor. Selected from a list of Vendors approved to work on the contract. This is a required field.

Field Name	Description
Rating	Numeric rating assigned to the contractor evaluation. This is a required field.
Documents	External reference documents attached to the evaluation record.
Evaluation Date	Date of the contractor evaluation. Defaults to the current date. This is a required field.
Evaluator	User ID of the person entering the contractor evaluation. Defaults to the current User ID.
Evaluation Period Begin Date	Beginning date of the evaluation period of the contractor evaluation. This is a required field.
Evaluation Period End Date	End date of the evaluation period of the contractor evaluation. This is a required field.
Contract Evaluated Ind	Indicates that the evaluation is for the entire contract period.
Work Description	Description of the work for which the contractor is evaluated.

Table 6-19. The Contractor Evaluation Window Fields Table

To add a contractor evaluation:

1. On the **Contractor Management** panel, double-click the **Contractor Evaluation** icon. The Contract Select window opens.

2. In the **Contract ID** list box, scroll to and double-click the contract.

3. Click the **New** button. An empty row is added to the list of evaluations.

4. In the **Evaluation Date** field, type the date of the evaluation.

5. In the **Contractor** drop-down list, click the expand arrow and click the name of the evaluated contractor or subcontractor.

6. Press the **Tab** key.

7. In the **Rating** field, select the current entry and type a numerical rating of the contractor.

8. Press the **Tab** key.

9. In the **Evaluation Period Begin Date** field, type the beginning date of the evaluation period.

10. Press the **Tab** key.

11. In the **Evaluation Period End Date** field, type the ending date of the evaluation period.

12. To indicate that this evaluation applies to the entire contract, select the **Contract Evaluated Ind** check box (ON).

13. Press the **Tab** key.

14. In the **Work Description** field, type a description of the work for which this contractor is being evaluated.

15. Click the **Save** button.

6.11 Contract Completion

The contract completion procedure includes any activity related to changing the contract status from active to complete. The general procedure described here can be adapted to the specific needs of the transportation agency.

The procedure typically begins after the physical work is done and the Item final quantities have been approved. When the user enters the Contract Items Complete Date, the system notifies contract personnel that it is time to complete the contract. At this point, the user looks for any contract data that would prevent final estimate generation or approval. After all required data is entered and all discrepancies are resolved, the final estimate can be generated and approved. After the final estimate is approved, the contract status can be changed to complete.

There are several SiteManager reports that can be used to track data during the completion procedure. The user can run these reports to make sure that all required data has been entered, or to find data that causes a discrepancy. The following reports are particularly helpful:

- Contract Status Report

- Item Quantity Report

- Change Order Report

- Required Documents Report

- Dispute/Claim Report

6.11.1 Contract Items Complete Date Requirements

Entering the Contract Items Complete Date begins the contract completion procedure. Before entering this date, the user should verify the following:

- Final quantities have been approved for any Items that need a Final Quantity Change Order. Otherwise, the system enters the Item final quantities.

- All Change Orders are either approved or not approved. If there are any pending or draft Change Orders, the date cannot be saved.

Final quantities are normally determined at the end of the contract. Before completion, the user can generate Final Quantity Change Orders to approve final quantities. When the Contract Items Complete Date is entered, any Item that has not had a final quantity approved on a Change Order is automatically assigned a final quantity by the system. The user can run an Item Quantity report to find out which contract items have approved final quantities and which Items do not. If the contractor must agree on the final quantities, the report can be sent to the contractor.

Some contract items include Stockpiled Materials. During completion, any Stockpiled Materials with a balance remaining on the contract must have the balance closed (i.e., changed to zero).

The remaining quantity of the Stockpiled Material can be transferred to another contract.

After the Contract Items Complete date is saved, the system does the following:

- Notifies all Level 1 personnel

- Notifies the Project Manager and Project Engineer that Contract Authority should be end-dated for personnel no longer working on the contract.

- Automatically assigns final quantities and changes status to Final for any Item that does not have a final quantity approved on a Change Order.

6.11.2 Final Estimate Requirements

Typically, the final estimate is generated after the Contract Items Complete Date is entered. To generate the final estimate, the following criteria must be met:

- All progress estimates must be approved

The transportation agency defines the requirements for final estimate approval. Discrepancies cannot be overridden during the processing of the final estimate. This means that all discrepancies must be resolved before the final estimate is approved. As a part of the completion process, the user can search for contract data that the estimate process would identify as a discrepancy. Discrepancies can include:

- Contractor payrolls missing or not certified (if payrolls are required)

- Material sampling incomplete

- Checklist Events incomplete

- DBE compliance criteria not met

- ▪ Item overruns

- ▪ Contract Completion date missed

- ▪ Milestone Completion date missed

Required Documents

Required documents are the documents that have been identified on the Checklist Event schedule as Required to Finalize. SiteManager provides a Required Documents report that lists a contract's current document requirements. As a part of the completion process, the user can run a Required Documents report on external document requirements and send it to the contractor who submits the documents. This reminds the contractor to submit any documents that are required for completion. The user can also run a Required Documents report on internal documents, which are produced by the transportation agency.

Required Actual Dates

The transportation agency identifies some Critical Dates and Key Dates as requirements for the completion of the contract. This begins with the Contract Items Complete Date and generally includes audit dates, review dates, the final Federal voucher date (for Federal jobs), and the date the final estimate is paid. SiteManager performs a daily batch process that monitors contract status and notifies the Project Manager when specific dates have not been entered as required. This tells the Project Manager which dates need to be entered before the contract can be completed. To track the status of the required dates, the Project Manager can view the following contract Records panels:

- ▪ Contract Critical Dates folder tab

- ▪ Key Dates window

- ▪ Checklist Event Dates window

6.11.3 Complete Status Requirements

After the final estimate is approved, the user can change the contract's status from active to complete. To save this status change, the following criteria must be met:

- ▪ Critical Dates, Key Dates, and Checklist Event Dates marked Required to Finalize must be entered

- ▪ Items must have approved final quantities

- ▪ Change Orders must be approved or not approved (none pending or draft)

- ▪ Disputes, and claims must be resolved

- ▪ Stockpiled Material balances must be zero

▪ The final estimate must be approved

Most of these requirements are already met in preparation for the final estimate. If the system does not accept the status change, it displays error messages that identify the type of data that did not meet the validation criteria (e.g., Change Order). The user can run reports or look at the appropriate SiteManager windows to pinpoint the data that prevented the status change.

When the contract status is changed to complete, the system performs the following tasks:

▪ Automatically end-dates Contract Authority for all users except for the Project Manager and Project Engineer and personnel with Global Contract Access and Update rights.

▪ Marks the contract To Be Sent to DSS. Any contract that is marked To Be Sent to DSS is sent automatically by a daily batch process.

6.12 DSS Contracts

The DSS Contracts window lets the user select or deselect a contract to be sent to the Decision Support System (DSS). A batch process creates flat files for all contracts marked To Be Sent to DSS and loads the contract data to the flat files. The system enters the date the contract is loaded to a flat file as the contract's DSS Last Sent Date. When a contract's status is changed to complete, the system selects it to be sent to DSS automatically.
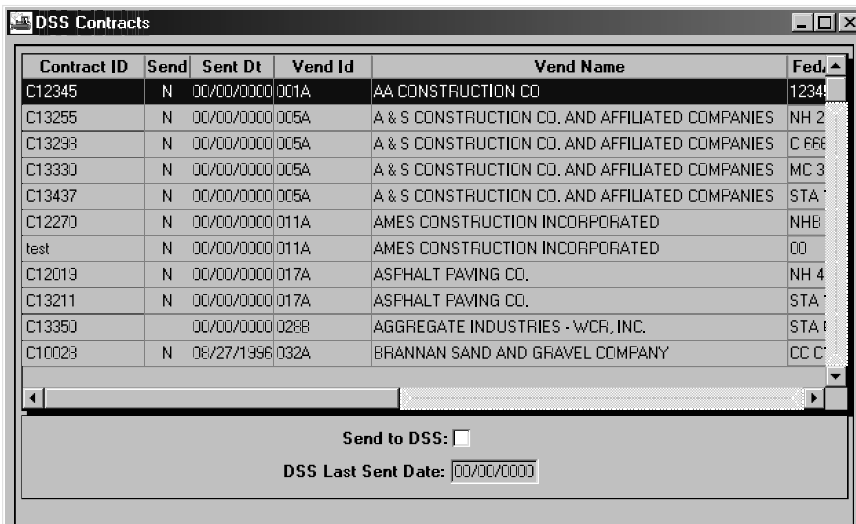
Figure 6-19. The DSS Contracts Window

Field Name	Description
Lv2 Ofc	Contract's Level 2 office.
Lv3 Ofc	Contract's Level 3 office.

Field Name	Description
Lv4 Ofc	Contract's Level 4 office.
Contract ID	Transportation agency-defined ID for the contract.
Vend ID	Transportation agency-defined Vendor ID for the contract's prime contractor.
Vend Name	Full name of the Vendor.
Fed St/Prov Prj Nbr	Federal, state, or province Project Number that identifies the contract.
Status	Current status of the contract (e.g., Pending, Active, Finalization, Complete, Archived).
Cnty	Contract's primary county. The county in which most of the work will be performed.
Location Description	Description of the contract's work location. Describes where the work in being done.
Send	Indicates whether (Y or N) a contract is to be sent to DSS.
Sent Dt	Date the contract was last loaded to DSS.
Send to DSS	Indicates whether a contract is to be sent to DSS.
DSS Last Sent Date	Date the contract was last loaded to DSS.

Table 6-20. The DSS Contracts Window Fields Table

To select a contract to be sent to DSS:

1. On the **Contract Records** panel, double-click the **DSS Contracts** icon. The DSS Contracts window opens.

2. In the **Contract** list box, scroll to and click the contract ID.

3. Select the **Send to DSS** check box (ON). The value in the Send column changes from N to Y.

4. Click the **Save** button.

When a contract's status is changed to complete, the system selects it to be sent to DSS automatically.

To deselect a contract to be sent to DSS:

1. On the **Contract Records** panel, double-click the **DSS Contracts** icon. The DSS Contracts window opens.

2. In the **Contract** list box, scroll to and click the contract ID.

3. Click the **Send to DSS** check box (OFF). The value in the Send column changes from Y to N.

4. Click the **Save** button.

6.13 Reports (Contract Administration)

The Contract Administration Reports panel generates commonly used contract reports. The following report topics are available on this panel:

- Contract Status

- Required Documents

- Item Quantity

- Item Work

- Contract Dispute/Claim

- Subcontract Value

- Contractor Current Status

- Contractor Behind Schedule

- Past History - Work Completion

- Past History - Claims

- View Saved Reports (PSR)
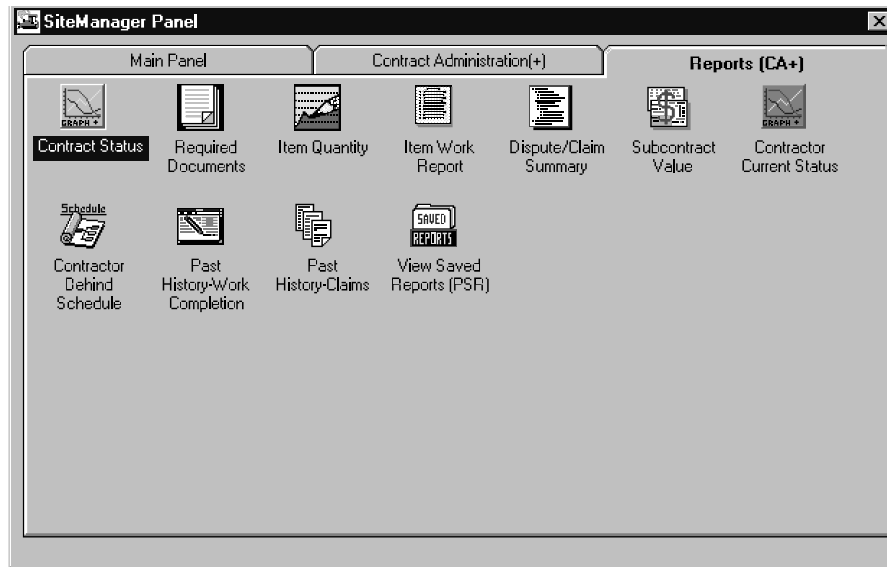
Figure 6-20. The Reports (CA) Panel

To access Contract Administration Reports:

1. On the **Contract Administration** panel, double-click the **Reports (CA)** icon.

2. Double-click the icon for the report.

For more report details, please see the Reports section in Chapter 3.

6.13.1 Contract Status Report

The Contract Status Report window lets the user generate a contract status report consisting of a report header, the contract critical dates, the percentage of work complete by time and dollars, the current contract amounts, and a Project breakdown. The current contract amounts include values from approved estimates; pending estimates are not included.

The Contract Status Report displays information on contracts with a status of Active or Pending, unless the user specifically selects an Archived or Complete contract through the contract ID field on the report criteria window. In all other instances, a filter is applied to the report so that only Active and Pending contracts are displayed.
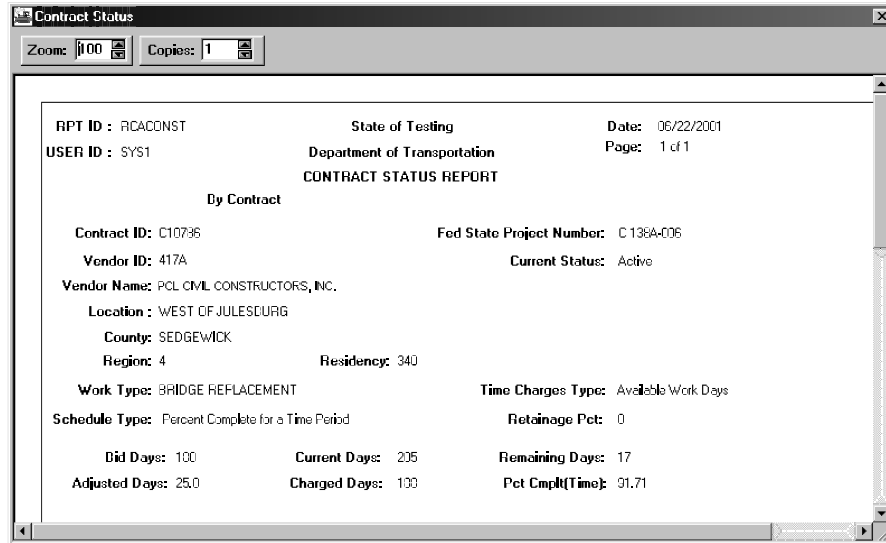
Figure 6-21. The Contract Status Report Window

Field Name	Description
Rpt ID	Report ID number.
Date	Date the report was run.
User ID	Transportation agency-defined ID of the user running the report.
Contract ID	Transportation agency-defined ID for the contact.
Fed/State Project Nbr	The federal or state Project number for the contract.
Vendor ID	Transportation agency-defined Vendor ID of the contract's prime contractor.
Current Status	Current status of the contract.
Location	Text describing the physical location of the work.
County	Primary county where most of the contract work is done.
Level 2 Office (user-defined label)	Office number for the Level 2 office responsible for administering the contract.

Field Name	Description
Level 3 Office **(user-defined label)**	Office number for the Level 3 office responsible for administering the contract. If there are only two office levels, this field will not report.
Level 4 Office **(user-defined label)**	Office number for the Level 4 office responsible for administering the contract. If there are only two or three office levels, this field will not report.
Work Type	Transportation agency-defined code to identify the major type of work being done on the contract.
Time Charges Type	How time charges are assessed for the contract. Can be Work Days, Calendar Days, or Fixed Completion Date.
Schedule Type	The type of progress schedule used for the contract. Can be Percent Complete for a Time Period, Percent of Critical Items Complete for a Time Period, or Critical Path Method. If Critical Path Method, no schedule is held on SiteManager.
Retainage Pct	Current percentage required to be retained for the contract.
Bid Days	Original number of work days or calendar days of the awarded contract.
Current Days	Total current number of work days or calendar days of the contract. Calculated: bid days + adjusted days
Remaining Days	Total current number of work days or calendar days available for construction. Calculated: current days - charged days
Adjusted Days	Total positive or negative number of work days or calendar days added or removed from the contract by Change Orders. Sum of adjusted days on all approved contract time extension Change Orders.
Charged Days	Total number of days worked recorded on the daily work reports. Sum total of days worked recorded on the daily work reports.

Field Name	Description
Pct Cmpl (Time)	Work completion percentage by time. For Work Days and Calendar Days: (charged days / current days) * 100. For Fixed Date: (current date - notice to proceed date) / (current estimated date - notice to proceed date) * 100.
Date Let	Date the proposal for the contract was let.
Open to Traffic	Date the road construction area was open to traffic.
Original Completion	Contract's original (bid) estimated completion date.
Notice to Proceed	Date the contractor was given notice to proceed with the work.
Work Complete	Date the contract's physical work was completed.
Extension Date	Date the contract's current completion date is extended to.
Work Began	Date the contractor actually began work on the contract.
Substantial Cmplete	Date the contract's physical work was substantially completed.
Current Completion	The current estimated date the contract's physical work is/was expected to be completed. For completed contract this is the last estimated completion date.
Current Contract Amounts	
Bid	Sum of all the contract's Item dollar amounts. Item dollar amount is the contract item's bid quantity times the unit price. Calculated once at contract activation time and then stored.
Approved CO	Contract's net CO amount. The amount of the contract's approved Change Orders.
Current	Total current amount for the contract. Bid amount + approved CO amount.
Pend CO	Contract's pending CO amount. The amount of the contract's unapproved Change Orders.
Anticipated	Anticipated or expected amount for the contract. Current amount + pending CO amount.

Field Name	Description
Pos Adjmnt	Total of the contract's positive contract and line Item adjustments. The sum of the contract's positive contract adjustments and line Item adjustments amounts.
Installed	Total dollar amount for all contract items installed to date. Calculated sum of all the contract items' installed amounts.
Over/Under	Total current amount of contract over/under runs. Installed amount minus current amount for contracts with complete status.
Paid to Date	Total amount paid to date for the contract. If latest contract estimate status = paid, then paid to date = previous amount paid + current amount paid, else paid to date = previous amount paid
Pend Paid	Amount allocated for payment but not actually paid to the contractor. Does not include amounts for estimates which do not meet the minimum amount required for payment.
Remaining	Amount of work remaining on the contract. Current amount - installed amount.
Neg Adjmnt	Total of the contract's negative contract and line Item adjustments. The sum of the contract's negative contract adjustments and line Item adjustments amounts.
Liq Damages	Total liquidated damages assessed to the prime contractor. If latest contract estimate status = paid, then total liquidated damages = (previous Project liquidated damages + current Project liquidated damages) summed for all Projects, else total liquidated damages = sum of all the Project previous liquidated damages
Subcontract	Total amount of all contract's Subcontracts. Sum of all the contract's Subcontract amounts.

Field Name	Description
Total Retainage	Total of all retainage for the contract. If latest contract estimate status = paid, then total retainage = (previous partic retainage + current partic retainage + previous non-partic retainage + current non-partic retainage) summed for all Projects + contract (previous total escrow amt + current escrow amt + previous total securities used amt + current securities used amt), else total retainage = (previous partic retainage + previous non-partic retainage) summed for all Projects + contract (previous total escrow amt + previous total securities used amt)
Paymnt Retain	Total of all payment (cash) retainage for the contract. If latest contract estimate status = paid, then total cash retainage = (previous partic retainage + current partic retainage + previous non-partic retainage + current non-partic retainage) summed for all Projects, else total cash retainage = (previous partic retainage + previous non-partic retainage) summed for all Projects
Securities Ret	Total of all securities encumbered for the contract. If latest contract estimate status = paid, then total securities retained = contract (previous total securities used amt + current securities used amt), else total securities retained = contract previous total securities used amt
Escrow Retain	Total of all escrow retainage for the contract. If latest contract estimate status = paid, then total escrow retained = contract (previous total escrow amt + current escrow amt), else total escrow retained = contract previous total escrow amt
Current Project Breakdown	
Project ID	Project number for a contract Project.
Bid Amount	Sum of the Project's Item dollar amounts. Item dollar amount is the item's bid quantity times the unit price. This value is calculated when the contract is activated.
Approved CO Amt	Sum of the Project's approved Change Order dollar amounts.

Field Name	Description
Installed Amount	Total dollar amount for all Project Items installed to date.
Pct Cmplt($)	The Project's percent completion calculated from dollar amounts. Installed Amount/(Bid Amount + Approved CO Amt).

Table 6-21. The Contract Status Report Window Fields Table

6.13.2 Contract Dispute/Claim Report

The Contract Dispute/Claim report lists all of the disputes and claims that are found in the database based on user-selected criteria. This report can be generated for a contract, prime contractor, dispute category, or for all disputes.
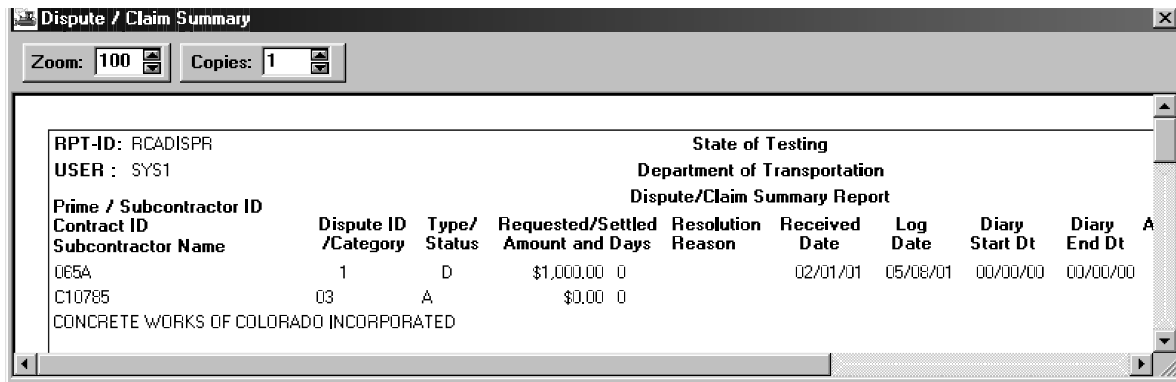
Figure 6-22. The Contract Dispute/Claim Report Window

Field Name	Description
Report Criteria	
Generate Report By	Report selection criteria (i.e., Contract, Prime Contractor, Dispute Category, All Disputes). This is a required field.
Contract ID	Transportation agency-defined ID for the contract. The user can search this field.
Prime Contractor ID	Transportation agency-defined Vendor ID for the prime contractor. This is the prime contractor who filed the dispute or claim. The user can search this field.

Field Name	Description
Dispute Category	Transportation agency-defined category of disputes or claims based on the nature of the dispute or claim (e.g., material, utility, time).
Dispute/Claim Report	
Contract ID	Transportation agency-defined ID for the contract.
Prime Contractor ID	Transportation agency-defined Vendor ID for a prime contractor. This is the prime contractor who filed the dispute or claim.
Subcontractor ID	Transportation agency-defined Vendor ID for the subcontractor. This is the subcontractor where the dispute or claim possibly originated.
Dispute ID	System-generated ID for a specific dispute or claim within a contract.
Dispute Category	Transportation agency-defined category of disputes or claims based on the nature of the dispute or claim (e.g., material, utility, time).
Type	Identifies whether this is a Dispute (D) or a Claim (C).
Status	Identifies the current status of this dispute or claim record (i.e., Received, Logged, Open, Denied, Rescinded, Resolved, Closed).
Requested Amount	The dollar amount requested by the contractor.
Settled Amount	Amount settled for the dispute or claim.
Requested Days	Number of days requested by the contractor.
Settled Days	Number of days settled for the dispute or claim.
Received Date	Date the dispute or claim was received by the transportation agency.
Log Date	Date the dispute or claim was entered into SiteManager.
Accepted Date	Date the resolution was accepted by the contractor.
FHWA Con. Dt	Date the FHWA concurred with the resolution.

Field Name	Description
Diary Start Dt	Starting date of a range of diaries pertaining to the dispute or claim.
Diary End Dt	Ending date of a range of diaries pertaining to the dispute or claim.
Payment Date	Date the payment was released for this dispute or claim.
Resolved Date	System date the discrepancy was resolved or overridden, or the date a final resolution was reached by the transportation agency.
Resolution Reason	Resolution reason type that identifies how the dispute or claim was resolved. Both the type and the description are printed on the report.

Table 6-22. The Contract Dispute/Claim Report Fields Table

6.13.3 Item Quantity Report

The Item Quantity Report lists all contract item quantities that are found in the database based on user-selected criteria. This report can be generated on all contract items (i.e., Original, Change Order, Current, Installed, Paid, Final). The Items are grouped by Item Code and Project Number. An Item cost summary is displayed for each group.
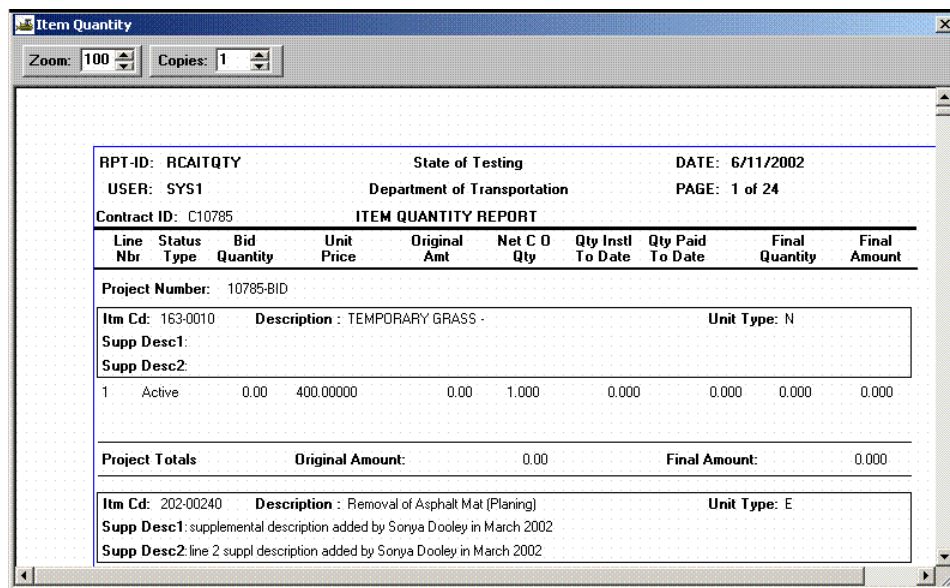
Figure 6-23. The Item Quantity Report Window

Field Name	Description
Report Criteria	
Contract ID	Transportation agency-defined ID for the contract. The user can search this field.
Status	Identifies the current status of the contract item (i.e., Audit, Final, Complete, Pending, None).
All Item Status	Indicates that all Items will be printed on the report regardless of status.
Item Quantity Report	
Line Item	The Contract Line Item number that identifies each Item as it appears on the contract. For all bid Items, the Line Item number is assigned by the Pre-construction function. For all Items added to the contract after construction begins, the Line Item number is user-entered.
Item Code	Transportation agency-defined code that identifies the Item.
Description	Short description of the Item.
Unit	The unit of measure for the Item (e.g., cubic foot, gallon, square yards, acre).
Unit Price	Unit price of the Item from the invoice.
Status Type	Identifies the current status of the Item (i.e., Audit, Final, Complete, Pending, None).
Bid Qty	The bid quantity on the selected line item.
Original Qty	Quantity of the Item as indicated on the proposal or contract.
Original Amt	Original Qty multiplied by Unit Price.
Project Nbr	Transportation agency-defined ID for a Project within the contract.
CO Qty	The net change to the Item quantity from all approved Change Orders.

Field Name	Description
Current Qty	Sum of Original Qty plus CO Qty.
Installed Qty	Total of all quantities installed for this Item prior to the last paid estimate.
Over/under	Installed Qty minus Current Qty.
Paid Qty	Total of all quantities paid for this Item prior to the last paid estimate.
Final Qty	The final quantity for the Item in the contract.
Final Amt	Final Qty multiplied by Unit Price.
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supp Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the transportation agency.
Qty Reported to Date	The total of all reported quantities on DWRs, regardless of whether the quantities are authorized or unauthorized and regardless of whether they are included on an estimate.
Qty Authorized to Date	The total of all reported quantities on DWRs that are authorized.
Qty Installed to Date	The total of all reported authorized reported quantities included on estimates (of all statuses).
Qty Paid to Date	The total of all authorized reported quantities included on estimates (of all statuses). This value is always the same as Qty Installed to Date unless the quantity to pay has been adjusted on the Estimate Item Detail window. This window includes a Pay This Est field which can be modified when an estimate is pending. If the quantity in this field is adjusted, the Qty Paid to Date field reflects the modification, which causes the value to differ from the Qty Installed to Date.

Table 6-23. The Item Quantity Report Fields Table

6.13.4 Item Work Report

The Item Work Report lists all of the contract item work records found in the database based on user-selected criteria. This report displays the original bid quantity, current quantity, and installed quantity of the selected Item. The data is grouped according to the Item Code and Project Number. The bid quantity, current quantity, and installed quantity of Items is summarized for each group.
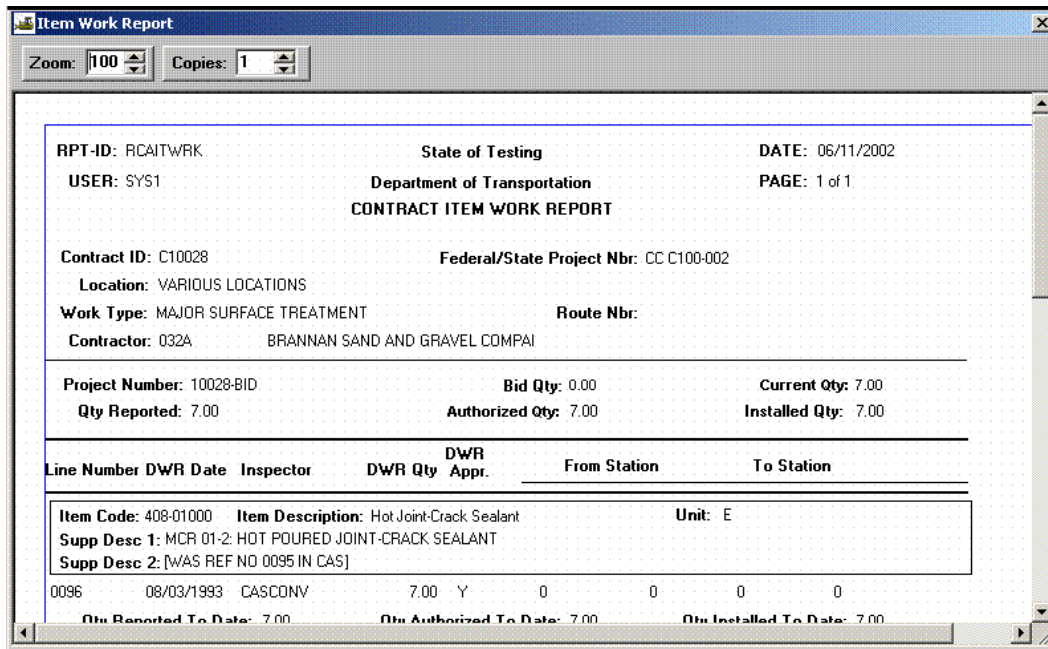
Figure 6-24. The Item Work Report Window

Field Name	Description
Report Criteria	
Contract ID	Transportation agency-defined ID for the contract. The user can search this field.
Project Nbr	Transportation agency-defined ID for a Project within the contract.
Item Code	Transportation agency-defined code that identifies the Item.
Item Work Report	
Contract ID	Transportation agency-defined ID for the contract.
Fed/State Project Nbr	The federal or state Project number for the contract.

Field Name	Description
Location	Description of the physical location of the contract work.
Work Type	Transportation agency-defined code that identifies the major type of work (e.g., road, bridge work, beautification).
Route Nbr	The route number of the affected road.
Contractor	Transportation agency-defined Vendor ID for the contractor.
Item Code	Transportation agency-defined code that identifies the Item.
Item Description	Short description of the Item.
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supp Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the transportation agency.
Unit	Unit of measure for the Item (e.g., cubic foot, gallon, square yards, acre).
Project Nbr	Transportation agency-defined ID for a Project within the contract.
Bid Qty	Quantity of the Item as indicated on the proposal or contract.
Current Qty	Sum of the net approved change order plus the bid quantity
Installed Qty	Total of all quantities installed for this Item prior to the last paid estimate.
Line Item Nbr	Contract Line Item number that uniquely identifies each Item as it appears on the contract. For all bid Items, the number is assigned by the Pre-construction function. For all Items added to the contract after construction begins, the number is user-entered.
DWR Date	Date the Daily Work Report was created.

Field Name	Description
Inspector	The user who wrote the Daily Work Report.
DWR Approved	Flag indicating if the DWR or Diary has been approved by the Project Manager.
DWR Qty	The quantity installed on the Daily Work Report date. This quantity should represent what the inspector estimates as being eligible for payment.
From Station	The From Station distance, offset distance, and offset type.
To Station	The To Station distance, offset distance, and offset type.
Reported Qty	The total of all reported quantities on DWRs, regardless of whether the quantities are authorized or unauthorized and regardless of whether they are included on an estimate.
Authorized Qty	The total of all reported quantities on DWRs that are authorized.
Qty Paid to Date	The total of all authorized reported quantities included on estimates (of all statuses). This value is always the same as Qty Installed to Date unless the quantity to pay has been adjusted on the Estimate Item Detail window. This window includes a Pay This Est field which can be modified when an estimate is pending. If the quantity in this field is adjusted, the Qty Paid to Date field reflects the modification, which causes the value to differ from the Qty Installed to Date.

Table 6-24. The Item Work Report Fields Table

6.13.5 Required Documents Report

The Required Documents report lists the required documents for a contract. This report can be generated to list the documents that are External (produced by the contractor), Internal (produced by the transportation agency), or Both (internal and external).
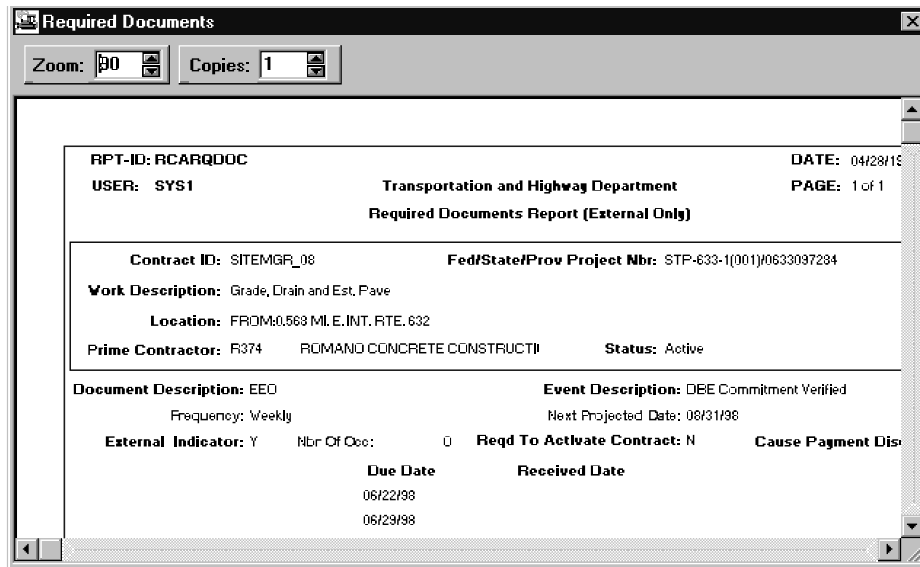
Figure 6-25. The Required Documents Report Window

Field Name	Description
Report Criteria	
Prime Contractor (External)	Documents required from the prime contractor (External documents).
Department of Transportation (Internal)	Documents required from the transportation agency (Internal documents).
Both (Internal and External)	Documents required from both the transportation agency (Internal documents) and the prime contractor (External documents).
Required Documents Report	
Contract ID	Transportation agency-defined ID for the contract.
Fed/State/Prov Project Nbr	Federal, State or Province Project Number for the contract, project or category.
Status	Identifies the current status of the contract item record. Values can be none, Audit, Final, or Complete.
Description	Description of the contract.
Location	Description of the physical location of the contract work.

Field Name	Description
Contractor	Short name of the contractor.
Document Description	Description of the document.
Due Date	Due date for submission of the document.
Event Description	Description of the event that is documented.
Frequency	How often the document is required.
Next Projected Date	When the document is due next.
Number of Occurrences	How many times the document has been submitted.
External Indicator	Indicates whether the document is External (produced by the contractor).

Table 6-25. The Required Document Report Fields Table

6.13.6 Contractor Behind Schedule Report

The Contractor Behind Schedule report lists all contracts that are behind schedule relative to a user-selected percentage. The report can be generated for all contractors or one contractor. The system generates the report by reading the Contract Progress Schedule table in descending order by Progress Schedule Day. Only the most recent values are reported.
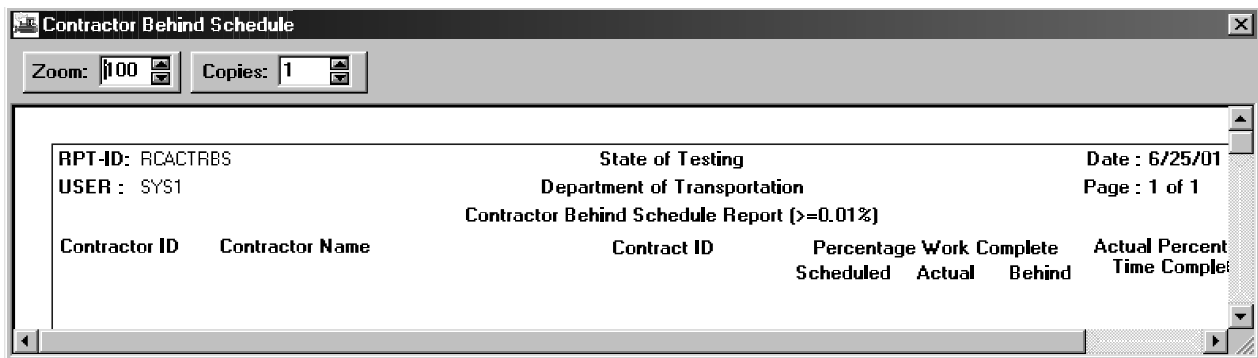
Figure 6-26. The Contractor Behind Schedule Report Window

Field Name	Description
Contractor ID	Transportation agency-defined Vendor ID of a contractor.

Field Name	Description
Contract ID	Transportation agency-defined ID of a Contact.
Percent Work Complete	
Scheduled	Anticipated completion percentage of the contract's dollar amount by the end of the contract month/year.
Actual	Actual completion percentage of the contract's dollar amount by the end of the contract month/year.
Behind	Difference between the Scheduled and Actual percentage of work completed.
Percent Time Complete	Actual completion percentage of the contract's scheduled time by the end of the contract month/year.

Table 6-26. The Contractor Behind Schedule Report Fields Table

6.13.7 Past History Reports

The Past History - Work Completion report lists the completed contracts for a selected contractor. It also reports the percentage that the contracts were ahead of or behind schedule at the time of completion. For each contract ID, the system reads the Contract Critical Date table for the following Critical Date types:

- Estimated Completion Date

- Work Begin Date

- Physical Work Complete Date

If the Physical Work Complete Date has a value, the system lists the contract and calculates the following values:

- Scheduled days = Number of days between the Estimated Completion Date and the Work Begin Date

- Difference days = Number of days between the Estimated Completion Date and the Physical Work Complete Date

- Percent Ahead/Behind Schedule = (Difference days / Scheduled days) * 100%

- If the percentage is positive, the contract was ahead of schedule

- If the percentage is negative, the contract was behind schedule

- ▪ If the percentage is zero, the contract was on schedule

The Past History - Claims report lists the completed contracts for a selected contractor that resulted in a claim. It also reports the percentage of contracts per resolution reason. To generate this report, the system reads the contract, Contract Critical Date, Contract Dispute, and Contract Vendor tables for records that match the report criteria.
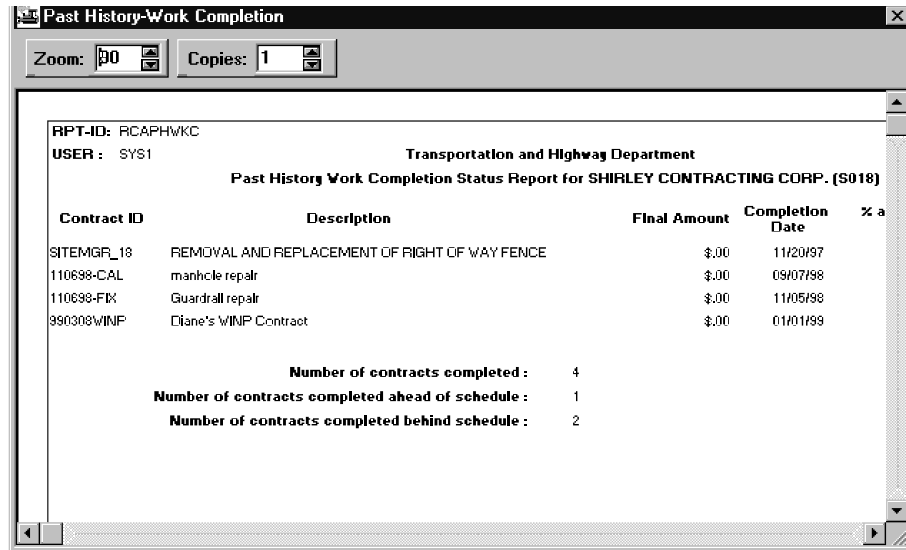
Figure 6-27. The Past History - Work Completion Report Window

Field Name	Description
Contractor	The transportation agency-defined Vendor ID of a contractor.
(Contractor Name)	Short name of the contractor.
Contract ID	Transportation agency-defined ID for the contract.
Description	Description of the contract.
Final Amount	The sum of the final amounts for all contract items plus any net adjustments.
Completion Date	Physical Work Completion Date for the contract.
Pct Schedule	
Ahead	The percentage the contract was completed ahead of schedule.

Field Name	Description
Behind	The percentage the contract was completed behind schedule.
Summary	
(Number of Contracts completed)	Number of contracts that were completed within the report's time period.
(Number of Contracts completed ahead of schedule)	Number of contracts that were completed within the report's time period and were completed ahead of the original schedule.
(Number of Contracts completed behind schedule)	Number of contracts that were completed within the report's time period and were completed behind the original schedule.

Table 6-27. The Past History - Work Completion Report Fields Table
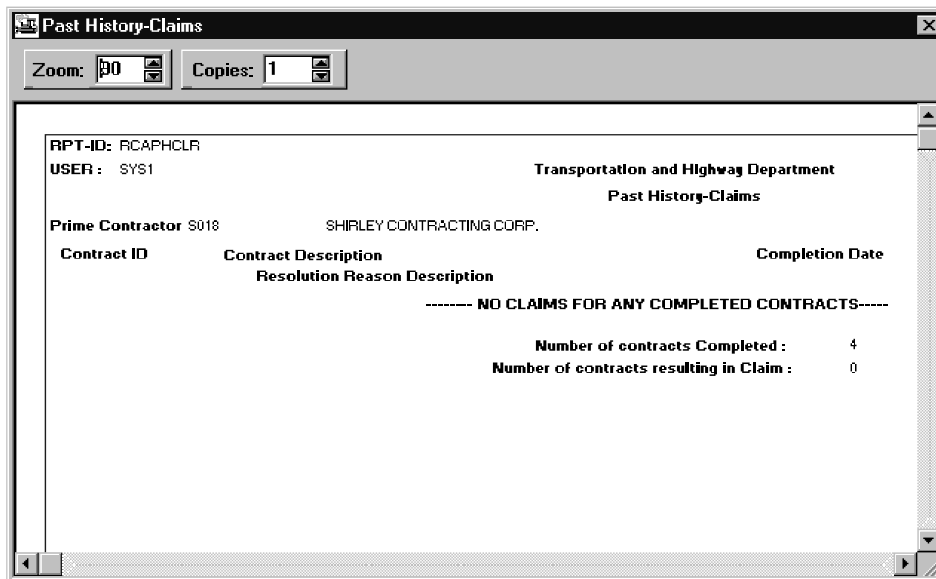
Figure 6-28. The Past History - Claims Report Window

Field Name	Description
Contractor	Transportation agency-defined Vendor ID of the contractor

Field Name	Description
(Contractor Name)	Short name of the contractor.
Contract ID	Transportation agency-defined ID for the contract.
Description	Description of the contract.
Contract Completion Date	Physical Work Complete Date for the contract.
Resolution Reason Type	The reason for the resolution of a dispute.
Claim Date	For disputes, the date the dispute or claim was received by the transportation agency.
Claim Amount	The dollar amount requested by the contractor.
Claim Time	Number of days requested by the contractor.
Resolution Date	Date a final resolution of a dispute was reached by the transportation agency.
Resolution Amount	Amount of the resolution.
Resolution Time	Number of days granted.
Number of Contracts completed	Number of contracts that were completed within the report's time period.
Number of Contracts resulting in a claim	Number of contracts that were completed within the report's time period and resulted in a claim.
Resolution Reason	Description of the resolution reason.
Percentage	The percentage of contracts that resulted in a claim for each resolution reason.

Table 6-28. The Past History - Claims Report Window Fields Table

6.13.8 Contractor Current Status Report

The Contractor Current Status report lists all contractors, their contracts, and contract status. Status is defined as the progress of the contract relative to both time and amount. If an office ID is indicated, the contractors and contracts in the selected office are listed. If no office ID is indicated, all contractors and contracts are listed. The system generates the report by reading the Contract, Contract Vendor, and Contract Progress Schedule tables.
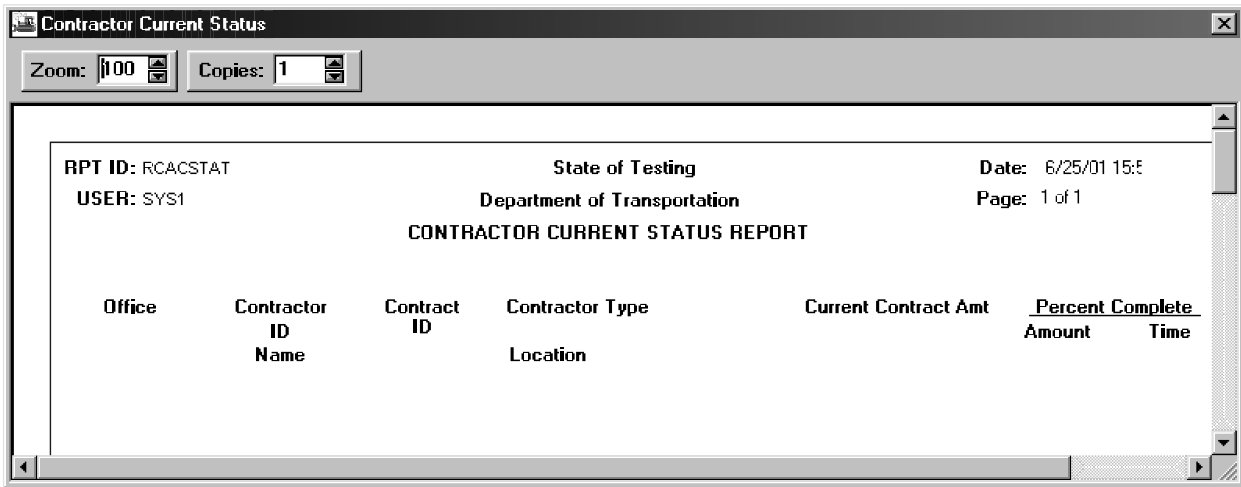
Figure 6-29. The Contractor Current Status Report Window

Field Name	Description
Report Criteria	
Level 2 Office (user-defined label)	Transportation agency-defined ID of a Level 2 office.
Level 3 Office (user-defined label)	Transportation agency-defined ID of a Level 3 office.
Level 4 Office (user-defined label)	Transportation agency-defined ID of a Level 4 office.
Contractor Current Status Report	
Contractor ID	Transportation agency-defined Vendor ID of the contractor.
Contractor Type	Identifies which type of company the contractor is.
Contract ID	Transportation agency-defined ID for the contract.
Current Contract Amount	The sum of Bid Amount and Net Change Order Amount.
Percent Complete Amount	Actual completion percentage of the contract's dollar amount by the end of the contract month/year.
Percent Complete Time	Actual completion percentage of the contract's scheduled time by the end of the contract month/year.

Field Name	Description
Location	Description of the physical location of the contract work (two lines).

Table 6-29. The Contractor Current Status Report Fields Table

6.13.9 Subcontract Value Report

The Subcontract Value report lists the value of Subcontracts for a specific contract or administrative office. When a contract is specified, the Contract Line Item data is included in the report.
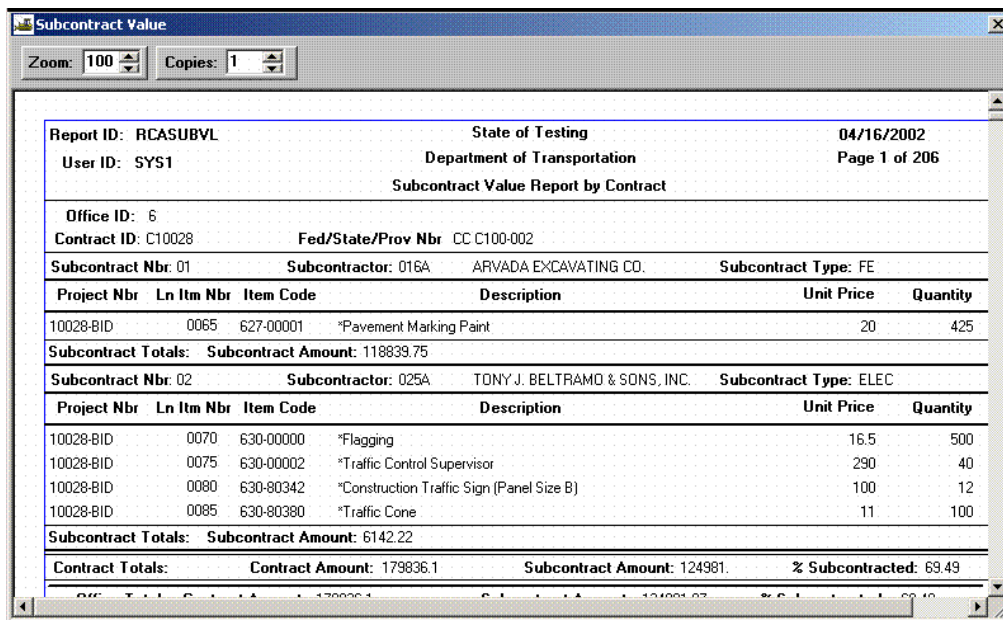
Figure 6-30. The Subcontract Value Report Window

Field Name	Description
Report Criteria	
By Contract	When selected, the office fields are protected. If By Contract is checked, a contract ID is required.

Field Name	Description
By Office	When selected, the contract ID field is protected. If By Office is checked, one of the following must be entered: State/Province-wide indicator selected (ON) Level 2 office Level 3 office Level 4 office
Contract ID	Transportation agency-defined ID for the contract. The user can search this field. Required if By Contract is checked.
State/Province-Wide	Indicates that the report is to be generated for all active contracts within the state or province.
Level 2 Office (user-defined label)	Level 2 office responsible for administering the contract.
Level 3 Office (user-defined label)	Level 3 office responsible for administering the contract. If there are only two office levels, this field will not report.
Level 4 Office (user-defined label)	Level 4 office responsible for administering the contract. If there are only two or three office levels, this field will not report.
Subcontractor ID	Transportation agency-defined Vendor ID for a subcontractor. If not entered, all subcontractors will be included in the report.
Generate Off Line File	Indicates that the report is to be generated off line.
Generate Off Line Print	Indicates that the report is to be printed off line.
Subcontract Value Report	
Date	Date the status report was run.
User ID	User ID of the person running the status report.

Field Name	Description
Office ID	Office number for the Level 2, Level 3, or Level 4 office responsible for the contract. If there are only two or three office levels, only the applicable fields are displayed.
Contract ID	Transportation agency-defined ID for the Contact.
Fed/State Project Nbr	The federal or state project number for the contract.
Subcontract Nbr	user-entered number associated with each Subcontract.
Subcontractor	The subcontractor's Vendor ID and short name.
Subcontract Type	Identifies the type of Subcontract.
Subcontract Amount	Current value (Bid Amt plus Approved CO Amt) of the Subcontract.
Project Number	Transportation agency-defined ID for a Project within the contract.
Line Item Nbr	Contract Line Item number that uniquely identifies each Item as it appears on the contract.
Item Code	Transportation agency-defined code that identifies the Item.
Item Description	Short description of the Item.
Supplemental Description	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Unit	Unit of measure for the Item (e.g., cubic foot, gallon, square yards, acre).
Unit Price	Price for this Subcontract line Item per unit.
Quantity	The quantity of the line Item Subcontracted to this Subcontract.
Totals	
Contract Amount	Total current value (Bid Amt plus Approved CO Amt) of the contract, office, or state/province.
Subcontract Amount	Total current value (Bid Amt plus Approved CO Amt) of the contract, office, or state/province Subcontract amounts

Field Name	Description
% Subcontracted	Subcontract Amount divided by the contract Amount.

Table 6-30. The Subcontract Value Report Fields Table

6.14 Process List (Contract Administration)

The Process List window lists processes that are available to the authorized user. Available processes depend upon the functional area of the process list, for example, Contractor Payment processes are available by clicking the Process List icon located on the Contractor Payments panel. Processes appearing in Process Lists also depend upon the user security assigned to the individual process.

The Contract Administration Process List contains the following standard process:

- Monitor Contract Status (BMONCONT)

- Pre-Construction Reference Load (BREFLOAD)

- Payroll Upload (BCRPAYRL)

- Payroll Exceptions Batch Job (BCVTPEXP)

- Pre-Construction Contract Load (BPRELOAD)

- Load DSS Data (BCALDSSD)

Processes may be RTF reports, or batch processes. From this window, authorized users may submit processes for batch and background execution.

A process is run from the Process List window by clicking on the named process, and choosing Run Process from the Services menu, or by clicking the named process and clicking the Run Process button or double-clicking the process.

7. Key Dates and Checklist Events

Key Dates and Checklist Events are the SiteManager components that let the user establish and monitor a series of key dates and scheduled events. Key Dates and Checklist Events, although similar in functionality, are independent events.

- **Key Dates** are dates that are important when they occur. Personnel are notified when a Key Date is accomplished. They are also notified when a Key Date is not accomplished by the projected date. A Key Date can be set up to be required either when the contract is activated or when it is finalized. The user creates the Key Date schedule and records the actual occurrences of Key Dates on the Key Dates window.

- **Checklist Events** are actions that are important when they do not occur. Personnel are notified when a Checklist Event is not accomplished by the projected date. For Checklist Events that occur more than once or at regular intervals (e.g., monthly or weekly), the system tracks each occurrence. A Checklist Event can be set up to be required when the contract is activated, or to cause a discrepancy when the estimates are generated. The user creates the Checklist Event schedule on the Checklist Scheduled Events window.

- The **Checklist Event Dates** window lets the user view the Checklist Event schedule, including multiple occurrences of each event, and provides a chronological history of the events. The user records the actual occurrences of the Checklist Events on this window or, if the event is a document submitted by an external source, on the Document Submission window.

7.1 Contract and Civil Rights Applicability

Key Dates and Checklist Events enhance your ability to administer the contract and comply with civil rights provisions. Every contract includes a default set of Key Dates and Checklist Events, which are defined by the transportation agency. You can modify these defaults and add other agency-defined Key Date types and Checklist Event types to the contract schedule.

The date and event types are defined by the transportation agency in the system code tables.

Messaging is an important function of Key Dates and Checklist Events. For each Key Date and Checklist Event, you select either a distribution list or a recipient to be notified as required. Note that when Default Key Dates and Default Checklist Events are created, a distribution list and recipient ID are not required. However, once the defaults are added to contracts, a distribution list or recipient ID is required on the Key Dates and Checklist Scheduled Events windows.

7.1.1 Key Dates

Key Dates can be used to schedule and track key contract dates which need to be reported to contract personnel when the activity is done, such as testing, final inspection, and dates where roads are closed to traffic. To schedule Key Dates and record the actual dates of Key Dates that have occurred, users access the Key Dates window. SiteManager sends In-Box messages related to Key Dates as follows:

- When a Key Date's actual date is recorded, its distribution list or recipient is notified.

- When a Key Date's projected date expires before the actual date is recorded, the Project Manager is notified.

7.1.2 Checklist Events

Checklist Events are useful for scheduling events that occur more than once or depend on an action or response by external sources and may be difficult to track. This includes the documents required for civil rights compliance, such as DBE and EEO reports, and documents required by the contract, such as material certification. Checklist Events can be associated with contract milestones.

To schedule the Checklist Events, access the Checklist Scheduled Event window. To view the scheduled Checklist Events and record the actual dates of Checklist Events, access the Checklist Event Dates window and the Document Submission window.

SiteManager sends In-Box messages to its distribution list or notifies its recipient when a Checklist Event's projected date expires before the actual date is recorded.

In addition, Checklist Events can cause discrepancies when they do not occur. You define which Checklist Events will cause discrepancies. If any of these Checklist Events have not occurred when an estimate is generated, a discrepancy is reported. The estimate process identifies a Checklist Event as a discrepancy if the projected date has expired and the actual date is not recorded. Estimate discrepancies are reported on the Estimate Summary window, and the details are given on the Estimate Discrepancy window.

Every contract schedule also includes a default set of contract Critical Dates. For more information, refer to the Contract Critical Dates topic.

7.2 Key Dates

The Key Dates window lists the Key Dates for the selected contract in the top datawindow. The data for the selected Key Date is displayed in the bottom datawindow. The Key Date Types are pre-defined in the system code tables. SiteManager adds a set of default Key Dates automatically to each new contract. The user creates the Key Date schedule and records the actual occurrence of Key Dates on this window. The user can add, modify, and delete the Key Dates.

When a Key Date is logged, an In-Box Message is sent to the distribution list or recipient specified, including the specified text and the details of the key date. A recipient ID or distribution list is required for each Key Date. When a Key Date is missed, an In-Box Message with the details is sent to the Project Manager.

Figure 7-1. The Key Dates Window

Field Name	Description
Contract ID	The transportation agency-defined ID for the contract.
Key Date Type	Transportation agency-defined type of key date (e.g., Closed to Traffic Date, State Final Inspection Date, Open to Traffic Date). The key date type is a required field and should be unique within the contract. After the record is saved, this field is protected.
Projected Date	The date the event is targeted to occur.
Actual Date	The date the event actually occurs. When entered, the date must be current or in the past. The Recipient or Distribution List is notified when this date is entered.
Required to Activate	Indicates that a key date must occur before the contract status can be changed from Pending to Active (e.g., Letting Date, Award Date, Execution Date). A Key Date cannot be both Required to Activate and Required to Finalize.
Required to Finalize	Indicates that a key date is part of the contract finalization process. A Key Date cannot be both Required to Activate and Required to Finalize.
Distribution List	Group to be notified that the event has occurred. Either a Distribution List or Recipient field must be entered. After a valid entry in either field, the other field is protected.

Field Name	Description
Recipient	User ID of a person to be notified that the event has occurred. Either a Distribution List or Recipient must be entered. After a valid entry in either field, the other field is protected.
Message Text	Standard message to be sent to the recipient(s).

Table 7-1. The Key Dates Window Fields Table

To schedule a Key Date:

1. Select **Reference Tables** from the **Contract Administration** panel.

2. Select **Default Key Dates**.

3. In the **Key Dates** list box, scroll to and click the Key Date.

4. In the **Projected Date** field, with the cursor in the first space, type the date the Key Date event is expected to be completed.

5. Press the **Tab** key.

6. If this Key Date must occur before the contract status can be changed to Active, select the **Required to Activate** check box (ON).

7. If this Key Date is to be part of the contract finalization process, select the **Required to Finalize** check box (ON).

8. Press the **Tab** key.

9. In the **Distribution List** field, perform a **Search** and select a Group ID.

10. OR

11. In the **Recipient** field, perform a **Search** and select a User ID.

12. Press the **Tab** key.

13. In the **Message** field, type a short notice that will be sent to the Distribution List or Recipient when the Actual Date is entered.

14. Click the **Save** button.

The Key Date Type field cannot be modified on a saved record. To change the Key Date Type, delete the old record and add a new one.

To enter the Actual Date of a Key Date:

1. In the **Key Dates** list box, scroll to and click the Key Date.

2. In the **Actual Date** field, with the cursor in the first space, type the date that the event occurred.

3. Click the **Save** button.

To delete a Key Date:

1. In the **Key Dates** list box, scroll to and click the Key Date to delete.

2. Click the **Delete** button.

3. Click the **Yes** button to confirm the deletion.

4. Click the **Save** button.

To add a Key Date:

1. On the **Key Dates** window, click any row in the top datawindow.

2. Click the **New** button to insert a blank row in the top datawindow for the new Key Date.

3. In the **Key Date Type** drop-down list, click the expand arrow to the right of the current selection and click the **Key Date Type**.

4. Press the **Tab** key.

5. In the **Projected Date** field, with the cursor in the first space, type the date the key date event is expected to be completed.

6. Press the **Tab** key.

7. If this Key Date must occur before the contract status can be changed to Active, select the **Required to Activate** check box (ON).

8. If this Key Date is to be part of the contract finalization process, select the **Required to Finalize** check box (ON).

9. Press the **Tab** key.

10. In the **Distribution List** field, perform a **Search** and select a Group ID.

    OR

11. In the **Recipient** field, perform a **Search** and select a User ID.

12. Press the **Tab** key.

13. In the **Message** field, type a short notice that will be sent to the Distribution List or Recipient when the Actual Date is entered.

14. Click the **Save** button.

7.3 Checklist Scheduled Events

The Checklist Scheduled Events window lists the scheduled events for the selected contract. The data for the event selected in the top datawindow is displayed in the bottom datawindow. The Event Types are pre-defined in the system code tables. SiteManager adds a set of default Checklist Events automatically to each new contract. You create the Checklist Event schedule on this window. You can add, modify, and delete the Checklist Events. A recipient ID or distribution list is required for each Checklist Scheduled Event.

When an event is scheduled on this window, the Monitor Contract Status process creates records for the projected dates so you may record the actual dates of occurrence. These records appear on the Checklist Event Dates window. You can record the Actual Date of each occurrence of an event on either the Checklist Event Dates window or the Document Submission window, depending on the event. If the Checklist Event is a document supplied by an external source, the Actual Date is recorded on the Document Submission window. The Monitor Contract Status process notifies the recipient(s) when a Checklist Event is overdue.

When an Event Date is missed, an In-Box Message is sent to the distribution list or recipient specified and includes the specified text and the details of the event date. When and Event Date is logged, no notification is sent.

Figure 7-2. The Checklist Scheduled Events Window

Field Name	Description
Contract ID	The transportation agency-defined ID for the contract.

Field Name	Description
Event Type	Transportation agency-defined type of event (e.g., bonding verified DBE commitment verified, Final Inspection Completed). The Event Type is a required field and should be unique within the contract. After the record is saved, this field is protected.
Event Group Type	A grouping of associated event types (e.g., EEO, Training, or Certification). This is a required field.
Frequency Type	For repetitive events, the frequency with which those events occur (i.e., Daily, Weekly, Biweekly, Monthly, Quarterly, Semi-Annually, or Annually). One Time Only is for non-repetitive events. This is a required field.
Event Day	For weekly and bi-weekly events, the day of the week (01-07) the events are to occur. For monthly events, the day of the month (01-30) they are to occur. This field is protected for all other frequency types.
Milestone No.	Identifies a milestone number within the contract.
Next Proj Date	Next target date for the repetitive event to occur. For a new checklist event, it is the first occurrence date. This is a required field.
Required to Activate	Indicates that the event must occur before the contract status can be changed from Pending to Active. Only events with a frequency of One Time Only can be Required to Activate. An event type cannot be both Required to Activate and associated with a Discrepancy. If one of these fields is selected, the other field is protected. This field is protected if the contract is already active.
Number of occurrences	Number of times the event is scheduled to occur in the specified frequency type. This is a required field. If the frequency type is One Time Only, this field defaults to 1.
Discrepancy	Indicates that if the event has not occurred by the time of estimate generation, it is noted as a Discrepancy. An event type cannot be both Required to Activate and associated with a Discrepancy. If one of these fields is selected, the other field is protected.

Field Name	Description
Required Doc Type	Transportation agency-defined codes identifying the type of document when an external document is expected (e.g., Trainee report, EEO report, Material Certification). This is a required field when the External Indicator is selected.
External Indicator	Indicates that a document is expected to be received from an external source. A valid Document Type must be entered when this field is selected.
Distribution List	Group to be notified when the Checklist Event's projected date expires and the actual date is not entered. Either a Distribution List or Recipient field must be entered. After a valid entry in either field, the other field is protected.
Recipient	User ID of a person to be notified when the Checklist Event's projected date expires and the actual date is not entered. Either a Distribution List or Recipient field must be entered. After a valid entry in either field, the other field is protected.
Message Text	Standard message to be sent to recipient(s).

Table 7-2. The Checklist Scheduled Events Window Fields Table

To schedule a Checklist Event:

1. On the **Checklist Scheduled Events** window, scroll to and click the scheduled event.

2. In the **Event Group Type** drop-down list, click the expand arrow to the right of the current selection and click the event group type.

3. Press the **Tab** key.

4. In the **Frequency Type** drop-down list, click the expand arrow to the right of the current selection and click the frequency type. If the frequency type is either monthly or weekly, the **Event Day** field is enabled.

5. Press the **Tab** key.

6. If the **Event Day** field is enabled, type the corresponding day of the week (2-6) or day of the month (1-30).

7. Press the **Tab** key.

8. In the **Milestone No.** drop-down list, click the expand arrow to the right of the current selection and click the milestone to associate with this scheduled event.

9. Press the **Tab** key.

10. In the **Next Proj Date** field, with the cursor in the first space, type the next date this scheduled event is expected to occur.

11. Press the **Tab** key.

12. If the event must occur before the contract status can be changed to Active, select the **Required to Activate** check box (ON).

13. Press the **Tab** key.

14. In the **Number of Occurrences** field, type number of times this scheduled event will occur.

15. Press the **Tab** key.

16. To generate a discrepancy if the event has not occurred by the time of estimate generation, select the **Discrepancy** check box (ON).

17. Press the **Tab** key.

18. If the event is a document, in the **Required Doc Type** drop-down list, click the expand arrow to the right of the current selection and click the required document type.

19. Press the **Tab** key.

20. If the required document is expected from an external source, select the **External Indicator** check box (ON).

21. In the **Distribution List** field, perform a **Search** and select a Group ID to be notified when the Actual Date is overdue.

    OR

22. In the **Recipient** field, perform a **Search** and select a user ID to be notified when the Actual Date is overdue.

23. Press the **Tab** key.

24. In the **Message** field, type a short message that is sent to the Distribution List or Recipient when the scheduled event Actual Date is not completed by the Next Projected Date.

25. Click the **Save** button.

To delete a Checklist Scheduled Event:

1. On the **Checklist Scheduled Events** window, scroll to and click the scheduled event.

2. Click the **Delete** button.

3. Click the **Yes** button to confirm the deletion.

4. Click the **Save** button.

Deleting a Checklist Scheduled Event also deletes:

- Any corresponding Document Submission records, and

- Checklist Event Date records.

To add a Checklist Event:

1. On the **Checklist Scheduled Events** window, click any row in the top datawindow to return focus to that datawindow.

2. Click the **New** button to insert a blank row for the new scheduled event entry.

3. In the **Event Type** drop-down list, click the expand arrow to the right of the current selection and click the event type.

4. Press the **Tab** key.

5. In the **Event Group Type** drop-down list, click the expand arrow to the right of the current selection and click the event group type.

6. Press the **Tab** key.

7. In the **Frequency Type** drop-down list, click the expand arrow to the right of the current selection and click the frequency type. If the frequency type is either monthly or weekly, the **Event Day** field is enabled.

8. Press the **Tab** key.

9. If the **Event Day** field is enabled, type the corresponding day of the week (2-6) or day of the month (1-30).

10. Press the **Tab** key.

11. In the **Milestone No.** drop-down list, click the expand arrow to the right of the current selection and click the milestone to associate with this scheduled event.

12. Press the **Tab** key.

13. In the **Next Proj Date** field, with the cursor in the first space, type the next date this scheduled event is expected to occur.

14. Press the **Tab** key.

15. If the event must occur before the contract status can be changed to Active, select the **Required to Activate** check box (ON).

16. Press the **Tab** key.

17. In the **Number of Occurrences** field, type number of times this scheduled event will occur.

18. Press the **Tab** key.

19. To generate a discrepancy if the event has not occurred by the time of estimate generation, select the **Discrepancy** check box (ON).

20. Press the **Tab** key.

21. If the event is a document, in the **Required Doc Type** drop-down list, click the expand arrow to the right of the current selection and click the required document type.

22. Press the **Tab** key.

23. If the required document is expected from an external source, select the **External Indicator** check box (ON).

24. In the **Distribution List** field, perform a **Search** and select a Group ID to be notified when the Actual Date is overdue.

    OR

25. In the **Recipient** field, perform a **Search** and select a user ID to be notified when the Actual Date is overdue.

26. Press the **Tab** key.

27. In the **Message** field, type a short message that is sent to the Distribution List or Recipient when the scheduled event Actual Date is not completed by the Next Projected Date.

28. Click the **Save** button.

7.4 Checklist Event Dates

The Checklist Event Dates window lists the scheduled events for the selected contract. The data for the event selected in the top datawindow is displayed in the bottom datawindow. The data shows a chronological history of each occurrence of a repetitive scheduled event and the Actual Date recorded by the user for each occurrence. This window lets you record the actual dates of the Checklist Scheduled Events and add or delete Checklist Event Date records.

One day prior to a scheduled event, the Monitor Contract Status process automatically writes the projected date for the checklist event to this window (if the projected event has not already been added). If the Checklist Event is a document supplied by an external source, the Monitor Contract Status process also creates a corresponding Document Submission record for the event. When the date is recorded on the Document Submission window, the Actual Date field on the Checklist Event Dates window is automatically populated with this date.

> 📄 **Note:** If the Checklist Event is an external document and the projected date for the event is entered manually, the system automatically creates a corresponding Document Submission record when the row is entered by the user. This document record should be used to record the actual date of occurrence.

You cannot modify the Checklist Event schedule (in the top datawindow) on this window. The schedule can only be modified on the Checklist Scheduled Events window.

Figure 7-3. The Checklist Event Dates Window

Field Name	Description
Contract ID	The transportation agency-defined ID for the contract.
Event Type	Transportation agency-defined code representing a type of event (e.g., bonding verified, DBE commitment verified, Final Inspection Completed).
Frequency Type	For repetitive events, the frequency with which those events occur (i.e., Daily, Weekly, Biweekly, Monthly, Quarterly, Semi-Annually, or Annually). One Time Only is for non-repetitive events.
Event Group Type	A grouping of associated event types (e.g., EEO, Training, Certification).
Next Proj Date	Next Projected Date field. The next targeted date for the event.
Nbr of Occurnc	Number of times the event is expected to occur.

Field Name	Description
Required to Activate	Indicates that an event must occur before the contract status can be changed from Pending to Active.
Discr Ind	Discrepancy indicator that indicates if an event has not occurred by the time of the estimate generation, this event needs to be noted on a discrepancy.
Required Doc Type	Required Document Type field. Agency-defined codes identifying each type of document (e.g., Trainee report, EEO report, Material Certification document).
Ext Ind	The external indicator that indicates a document is expected to be received from an external source.
Projected Date	The date the event is targeted to occur. This field is protected after the record is saved. When entered, the date must be in the future and cannot be greater than next projected date. For a new row default to Next Proj Date.
Actual Date	The date the event actually occurs, protected when external indicator is selected. When entered, the date must be current or in the past.
Comments	Comments about this record.

Table 7-3. The Checklist Event Dates Window Fields Table

To record the Actual Date of a Checklist Scheduled Event:

1. On the **Checklist Event Dates** window, scroll to and click the Checklist Event.

2. In the **Actual Date** field, with the cursor in the first space, type the date that the event occurred.

3. Press the **Tab** key.

4. In the **Comments** field, type comments to add to the record.

5. Click the **Save** button.

If the Checklist Event is a document supplied by an external source, enter the Actual Date on the Document Submission window.

To delete a Checklist Event Date record:

1. On the **Checklist Event Dates** window, scroll to and click the scheduled event.

2. In the bottom datawindow of the **Checklist Event Dates** window, scroll to and click the record to be deleted.

3. Click the **Delete** button.

4. Click the **Yes** button (to confirm deletion).

5. Click the **Save** button.

If the Checklist Event is a document supplied by an external source, deleting the date record also deletes the associated document submission record.

To add an unscheduled Checklist Event Date record:

1. On the **Checklist Event Dates** window, click any row in the top datawindow to return focus to that datawindow.

2. Click the **New** button to insert a blank row for the new scheduled event entry.

3. In the **Projected Date** field, with the cursor in the first space, type the date for the next occurrence of the scheduled event.

4. Press the **Tab** key.

5. In the **Actual Date** field, with the cursor in the first space, type the date the scheduled event occurred.

6. In the field, type the actual date.

7. Press the **Tab** key.

8. In the **Comments** field, type any comments that apply to this event date occurrence.

9. Click the **Save** button.

An unscheduled event does not have to occur at the scheduled frequency.

8. Daily Work Reports

8.1 General Concepts

Daily Work reports and Diaries are created to document the work that is done daily on the contract. The data recorded in a Daily Work report or Diary is the contract activity data rather than the contract plan. The documentation of contract activity includes daily information about the weather, the personnel who worked at the construction site, the hours worked, and the equipment used. This data is collected in the field by the project manager, project engineer, and the inspectors working on the contract. The project manager uploads the Diaries and authorized Daily Work reports to the SiteManager Server database. This method is used to enter most of the contract activity data in SiteManager. This information is essential for the administration of the contract.

The Installed Work report, located in the Contractor Payments functional area, compiles all placed quantities for a contract that have not yet been included in an estimate. See Section 10.3.5 for more details.

The inspectors record daily information in Daily Work reports. Typically, for each contract, each inspector submits one Daily Work report per day to the project manager. The project manager either authorizes a Daily Work report or sends it back to the inspector to be modified and resubmitted. The project manager creates daily Diaries. Each Diary is a collection of the Daily Work reports submitted by all inspectors working on the contract. Typically, for each contract, the project manager submits one daily Diary per day. In the daily Diary, the project manager authorizes the Daily Work reports and enters the charge information for the day.

Following the general rule that only one Daily Work report (DWR) per day per inspector per contract can be created:

- A message appears if an inspector attempts to create a second DWR for a contract. A second DWR cannot be created for a contract.

- A message appears that the DWR can be opened as Read Only (no changes can be made) if the DWR:

  - Has been transferred to the project manager.

  - Has been authorized by the project manager.

  - The current user is not the DWR author.

- A DWR cannot be deleted. It can be amended the next day or data can be deleted on the Contractor or Contractors Equipment Tabs.

You can access the Daily Work Report and Diary functions on the Daily Work Reports panel. This panel has three icons that represent the following functions:

- Daily Work Reports

- Diary

- History
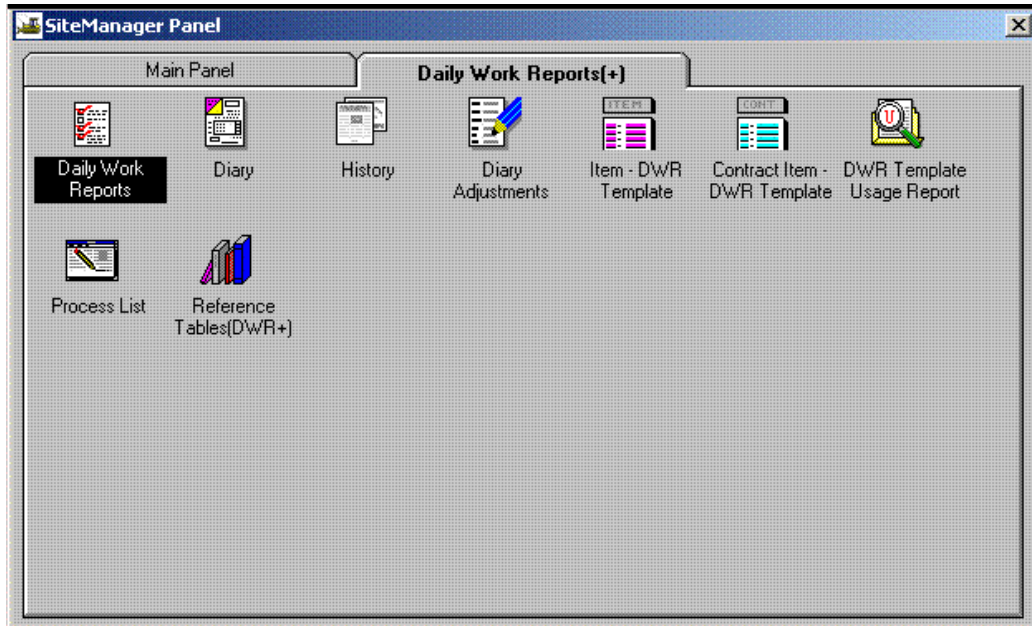
Figure 8-1. The Daily Work Reports Panel

8.1.1 Pipeline

Project managers and inspectors use pipeline to transfer contract data and Daily Work reports. Throughout the life of a contract, the project manager uses the pipeline process to download contract plan data from the server to the field. Only the project manager can download data from the server. This data is not modified in the field; it is used as a basis for recording contract activity data.

First, the project manager downloads basic contract data to the workstation using the pipeline process. Basic contract data includes any force accounts or change orders for the contract. The project manager then pipes specific contract data to the inspector. After the inspector receives the data, the inspector can begin recording contract activity data in the form of Daily Work reports.

The inspector pipes all Daily Work reports and transfers them to the project manager for authorization. The project manager authorizes the Daily Work reports and uploads them to the server using the pipeline process. Unauthorized Daily Work reports can be piped back to the inspector for modification. The project manager also uploads the Diaries to the server. If necessary, the project manager can download Daily Work reports and Diaries from the server for modification. For more information, refer to the Daily Work Report Applicability topic in the Pipeline section of this manual.

8.1.2 Accessing SDMS

You can access the Survey Data Management System (SDMS) application from the Daily Work Report panels by selecting the SDMS menu option on the Services menu.

8.1.3 Stockpiled Materials Information

The stockpiled materials data is entered on the server and downloaded to the inspector using pipeline. You can view stockpiled materials data from the Daily Work Report panels by selecting the Stockpiles menu option on the Services menu. The data includes the invoiced quantities and amounts of a stockpiled material, and their usage.

8.1.4 Installed Work Reports

After the Daily Work reports have been submitted, you can run a report of work items that have installed amounts but are not included on an estimate. The inspector and project manager can run this report in either environment—Server or Standalone. The report lists only the data in the current system's database. For more information, see the Installed Work Report topic under Contractor Payments in this manual.

8.1.5 Pen-enabled Data Entry

Daily Work reports support the use of a pen on pen-enabled workstations. To enter data with a workstation pen, double-click the data entry field.

8.2 Data Collection

8.2.1 Daily Work Reports

The inspector creates daily records of construction activity in Daily Work reports. SiteManager lets the inspector create DWRs on the workstation in the field. Before the inspector can create the first DWR for a contract, the project manager must download the contract plan data from the SiteManager Server database to the inspector's workstation. After the inspector loads the contract plan data onto the workstation's local database, the inspector can begin creating reports. Typically, for each contract, each inspector submits one Daily Work report per day to the project manager. The project manager either authorizes a Daily Work report or sends it back to the inspector to be modified and resubmitted.

To create or modify a Daily Work report, the inspector double-clicks the DWR icon on the Daily Work Reports panel. This opens the DWR Info folder tab. To access the other Daily Work Report folder tabs, the inspector must either create or open a DWR. After the inspector saves each tab in a DWR, he can modify it until it is transferred to the project manager. A Daily Work report cannot be modified if it has been transferred to the project manager (checked in and locked on the workstation), authorized by the project manager, or opened by a user who is not the author. The Daily Work Reports panel contains the following folder tabs:

Tab Name	Description
DWR Info	The DWR Info folder tab lets you create a new Daily Work report and collect information about the day for which the report was created.
Contractors	The Contractors folder tab lets you enter daily data on the contractor, supervisor(s), and variable labor (by personnel type).
Contractors Equip	The Contractor Equip folder tab lets you document the daily presence and use of equipment on the job site for the selected contractor.
Daily Staff	The Daily Staff folder tab lets you enter daily information on state employees and consultants. Each entry shows how many hours the staff member worked, the type of work performed, and data on state vehicle usage.
Work Items	The Work Items folder tab lets you view and add daily usage data for installed work items.
Force Accounts	The Force Accounts folder tab in Daily Work reports lets you view or add daily information on a force account. The force accounts are created and maintained in Contract Administration. However, the daily force account data is collected by the inspector in Daily Work reports.

Table 8-1. The Daily Work Reports Folder Tab Table
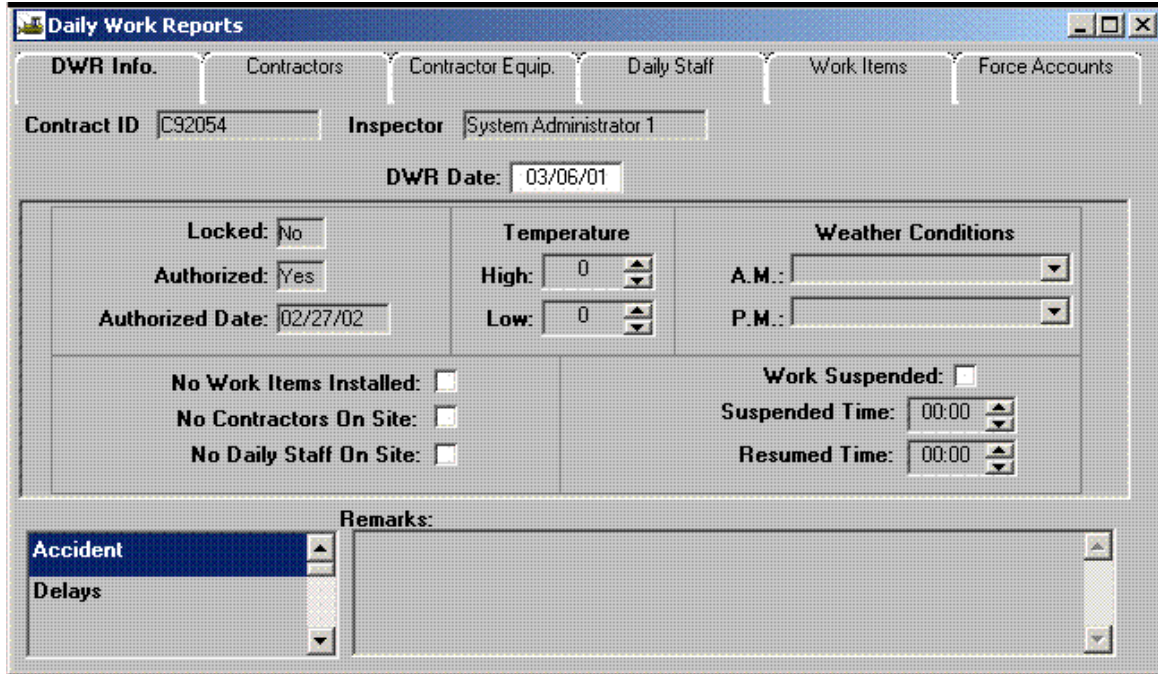
Figure 8-2. The DWR Info Folder Tab

To access the DWR folder tab:

1.   On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2.   On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon.

Selecting a Daily Work Report

The Daily Work Report Select panel lets you open a Daily Work report. The panel lists all of the DWRs stored on the workstation for the selected contract and the selected User ID. You can only access the DWRs stored in the local database. You can open any DWR in the database, but cannot modify a report you did not create. The DWR opens as view-only if the system finds one of the following:

- Daily Work report has been transferred to the project manager.

- Daily Work report has been authorized.

- The current user is not the author of the Daily Work report.
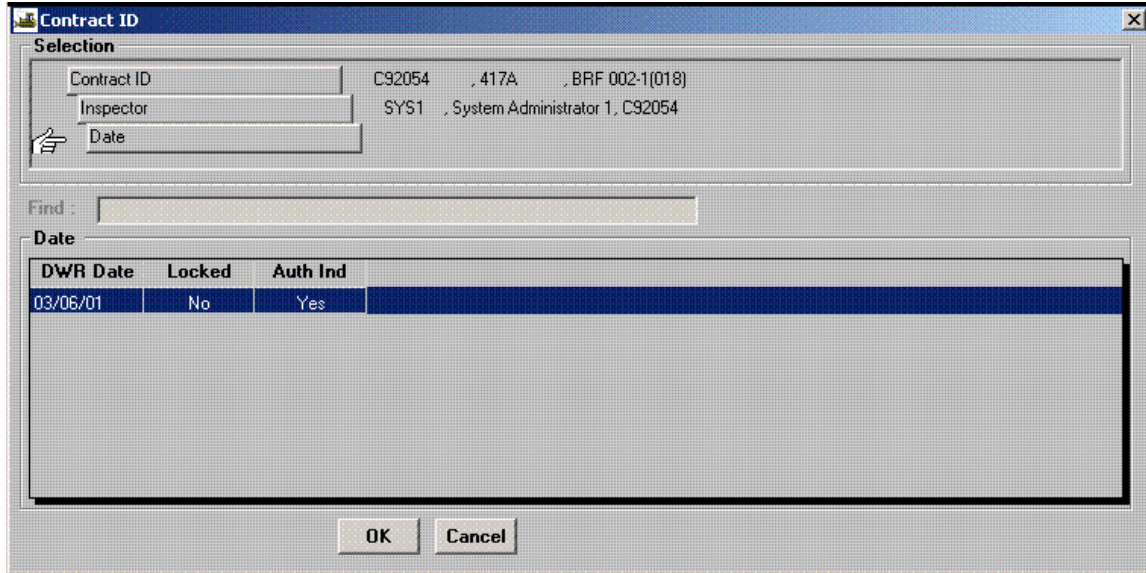
Figure 8-3. The Daily Work Reports Select Panel

To access the Daily Work Report Select panel:

1. On the **SiteManager** main panel, double-click the **DWRs** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

The fields on the DWR Select panel are defined in the following table:

Field Name	Description
DWR Date	Date the DWR was created. This date represents both the DWR date and the Diary date.
Locked	Indicates whether or not the DWR has been transferred to the project manager (Yes or No).
Auth Ind	Indicates whether or not the DWR has been authorized by the project manager (Yes or No).

Table 8-2. The Daily Work Report Select Panel Fields Table

To select a Daily Work report:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWR**s panel, double-click the DWRs icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the User ID of the report's author.

6. In the **DWR** list box, scroll to and click the DWR Date of the report.

7. Click **OK**.

You can open any DWR in the database, but cannot modify a report you did not create, a report that has been authorized, or a report that has been sent to the project manager.

Creating a New Daily Work Report

Daily Work reports are created as follows:

- When the DWR Info folder tab opens, the system enters the current date and user.

- When creating a new Daily Work Report, you select a Contract ID.

  You can click the New button, enter a date, and select a Contract ID.

  You can open a Daily Work report and change the date, allowing the copy function to copy the contractor and daily staff data recorded on the DWR.

In any case, the system verifies that the DWR is new. If the database already contains a DWR with the selected date, User ID, and Contract ID, the existing DWR will open. When a new DWR is created from an existing DWR, choose whether or not to copy the contractor information from the existing DWR to the new DWR. (Data must exist for the copy capability to be used.) If you choose **Yes**, the information copied includes the contractor, contractor equipment, contractor supervisors, contractor personnel, daily staff, and all associated data.

In DWRs, you can enter a date by selecting it from a calendar. If you double-click the DWR Date field, a calendar displays where you can select the date.

Figure 8-4. The Calendar

You cannot enter a date that is after the current system data.

To create a new Daily Work report:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the DWRs panel, double-click the **DWRs icon**. The DWR Info folder tab opens by default.

3. Click the Services menu and click the **Choose Keys** choice. The Contract Select panel opens.

4. In the **Contract ID** list box, scroll to and click the desired contract.

5. To change the date, double-click the **DWR Date field**. This opens a calendar on which a date prior to the current date can be selected. To select a prior month, click the left arrow. To enter the selected date on the DWR Info panel, click **OK**.

6. Click the **Save** button.

To create a new Daily Work report from an existing Daily Work report:

1. On the SiteManager main panel, double-click the **Daily Work Reports** icon.

2. On the DWRs panel, double-click the **DWRs icon**. The DWR Info folder tab opens by default.

3. Click the **Open** button. The DWR Select panel opens.

4. Scroll to and click the desired DWR to copy. The DWR appears.

Double-click the **DWR Date field**. This opens a calendar on which a new DWR date can be selected. To enter the selected date on the DWR Info panel, click **OK**.

A message box asks if contractor information should be copied. To copy the contractor information from the last DWR for this contract, click **Yes**. Otherwise, click **No**.

8.2.2 DWR Information Tab in Daily Work Reports

The DWR Info folder tab lets you create a new DWR and collect information about the day for which the DWR was created. For example, you would enter information regarding the weather conditions and high and low temperatures for the day on this tab. The name of the author of this report is displayed in the Inspector field. The date covered by this report is displayed in the DWR Date field. The Locked and Authorized fields indicate the state of the DWR. If either the Locked or Authorized field displays **Yes**, you cannot modify the DWR.

This folder tab has three check boxes — No Contractors On Site, No Daily Staff On Site, and No Work Items Installed — that indicate there is no data for the subject. These boxes are checked by default. When you enter data for the subject on another folder tab, the corresponding check box is cleared automatically.

General remarks are also recorded on this folder tab. To record a remark, you must first select a remark type. If a remark has already been entered for the selected type, as indicated by a check mark next to the type, the remark appears in the Remarks field. A remark does not have a size limit, and can be pasted to and from a word processor. You can maintain these types of remarks in the transportation agency's code tables. If work is suspended during the day, record the time in the Suspended Time field. Additional suspended times for that day can be recorded in the Remarks field.

A Spell Check button is available in the Remarks area. The Spell Check option will be visible if the following are true:

- "Enable Spell Check Remarks" system operational parameter is set to Yes.

- Microsoft Office is installed.

The Spell Check button will be enabled if the current window rights are set to 'Update' and the Daily Work Report is not locked, protected or authorized.

Once the Spell Check button has been clicked, the Microsoft Spell Checker will be called using the text entered in the Remarks field. The spell check uses the dictionary that is utilized by Microsoft Office applications, in addition to the custom dictionary, 'custom.dic.' The Spell Check function allows for the addition of new words not in the current dictionary.

The standard attachment functionality is also available on this tab.

On the Work Items tab, attachments are associated with individual work items.

The Attachment icon will appear without a paperclip if there are no attachments associated with the record in the currently opened window.

The Attachment icon will appear with a paperclip if attachments are associated with the record in the currently opened window.
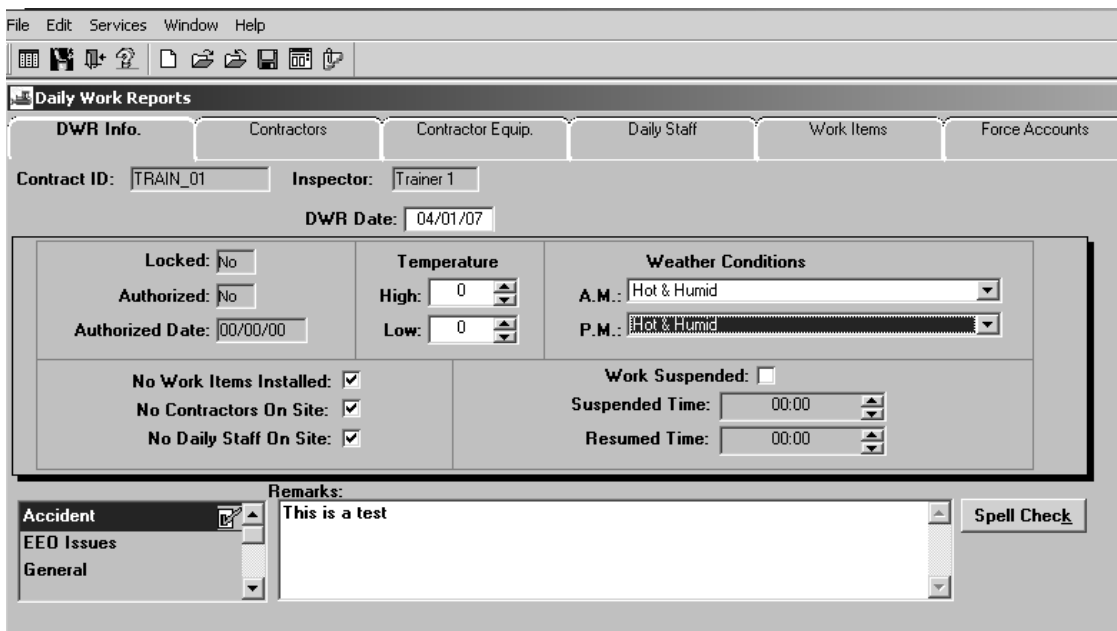
Figure 8-5. The DWR Info Folder Tab
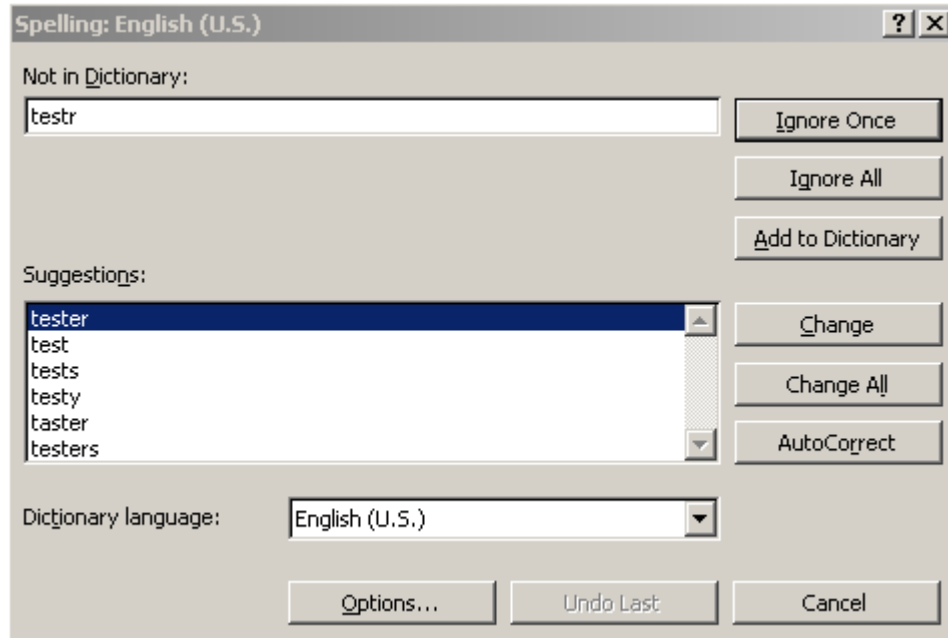
Figure 8-6. The DWR Info Tab – Spell Checker

The DWR Info folder tab fields are defined in the following table:

Field Name	Description
Locked	Indicates if the DWR has been sent to the project manager for authorization (Yes), if the project manager has sent the DWR back to the inspector for modification (No), or if neither has occurred (the field is blank).
Authorized	Indicates if the DWR has been authorized by the project manager (Yes), if the project manager did not authorize the DWR (No), or if neither has occurred (the field is blank).
Authorized Date	Date on which the project manager authorized the DWR.
Temperature High	The high temperature recorded for the workday. The high temperature must be higher than the low temperature, and is required.
Temperature Low	The low temperature recorded for the workday. The low temperature must be lower than the high temperature, and is required.
Weather Conditions A.M.	A user-defined drop-down list from which you select the significant weather condition for the morning (i.e. Rain, Snow, Cloudy, Sunny, etc.). This field is required.
Weather Conditions P.M.	A user-defined drop-down list from which you select the significant weather condition for the afternoon. This field is required.
No Work Items Installed	A check in this box indicates that no work items were installed.
No Contractors On Site	A check in this box indicates that no contractors were present on the work site.
No Daily Staff On Site	A check in this box indicates that no daily staff was present on the work site.
Work Suspended	A check in this box indicates that work was suspended during the day. Payrolls are not required for any payroll period when work is suspended; no workdays are charged to the contract.
Work Suspended Time	The inspector enters the time of day when work was suspended.

Field Name	Description
Work Resumed Time	The inspector enters the time of day when work was resumed. Work cannot be resumed unless it has previously been suspended.
Remark Type	Denotes the types of remarks entered in the Remarks field, and lets you select a remark type to enter or view.
Remarks	General remarks for the current DWR. Each remark is associated with a remark type. The inspector can enter only one remark for each remark type, but you can enter multiple remark types on each DWR. Remarks are optional.
Spell Check	The Spell Check function will be available if the "Enable Spell Check Remarks" system operational parameter is set to yes and if the current window rights are set to 'Update' and the Daily Work report is not locked, protected or authorized. Microsoft Office must be installed for the spell check feature to function. Default value is 'N.'

Table 0-3 The DWR Info Panel Fields Table

To enter data on the DWR Info folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. The DWR Info folder tab opens by default.

3. To create a new DWR, click the **Services** menu and click the **Choose Keys** choice. The Contract Select panel opens.

4. In the **Contract ID** list box, scroll to and click the desired contract.

5. Click **OK**. A message box asks if contractor information should be copied.

6. To copy the contractor information from the last DWR for this contract, click **Yes**. Otherwise, click **No**.

7. To change the date, double-click the **DWR Date** field. This opens a calendar on which a date prior to the current date can be selected. To select a prior month, click the left arrow. To enter the selected date on the DWR Info panel, click **OK**.

8. To enter the high temperature for the day, in the **High** field, click the up (or down) spin button until the high temperature appears.

9. To enter the low temperature for the day, in the **Low** field, click the up (or down) spin button until the low temperature appears.

10. To enter the A.M. weather conditions, in the **Weather Conditions A.M.** drop-down list, click the expand arrow and select the prevailing weather condition for the A.M. hours of the work period.

11. To enter the P.M. weather conditions, in the **Weather Conditions P.M.** drop-down list, click the expand arrow and select the prevailing weather condition for the P.M. hours of the work period.

12. If work was suspended during the day, in the **Suspended Time** field, click the up (or down) spin button until the time appears. (If work was resumed, enter the time in the **Resumed Time** field.)

13. To enter a remark, in the **Remark Type** list box, scroll to and click the remark type. Then type the remark in the **Remarks** field.

14. Click on the **Spell Check** button.

15. Close the **Spell Check** window.

16. Click the **Save** button.

17. Click **OK**.

Every time a temperature value is changed, the values are compared. If the high temperature becomes lower than the low temperature, the system adjusts the values.

8.2.3 Contractors Tab in Daily Work Reports

The Contractors folder tab in Daily Work reports lets you enter daily data on the contractor, supervisor(s), and variable labor (by personnel type). Equipment usage is recorded on the Contractors Equipment folder tab. When you create a Daily Work report, you can copy the contractor information from the last opened or saved DWR for the contract. This includes any recent modifications of the contractor information. If you choose not to copy the contractor information, you can select the contractor from a drop-down list of contractors and subcontractors who are authorized to work on the contract. The subcontractor is not available to a DWR prior to that subcontractor's approval date for the contract. In addition, the associated subcontractor is not available to a DWR prior to that subcontractor's Effective Date. The associated subcontractor is also not available to a DWR after that subcontractor's Expiration Date has passed The prime contractor is always at the top of the drop-down list. You may also enter remarks for each contractor.

You must select a contractor before entering information related to the contractor or before recording work items. After selecting a contractor, you can select supervisors and personnel types associated with the selected contractor from the drop-down lists in these fields. The records that appear on the drop-down lists are stored on the Master List. To add a record (supervisor, equipment, etc.) that does not appear on a drop-down list, the record must first be added to the Master List.

The Supervisor list on the Contractors folder tab displays all of the supervisors who worked for the selected contractor on this date. After selecting a supervisor, you can record the number of hours worked by the supervisor. You may also enter remarks for each supervisor. The Personnel Type list displays all of the non-supervisory personnel types who worked for the selected contractor on this date. This list is also referred to as the *variable labor list*. You can record the number of workers present for each personnel type. For example, you can record the number of painters present for the prime contractor. After selecting a Personnel Type and number, you can enter the number of hours worked by each person. You may also enter remarks for each personnel type used.

When you enter Supervisors and Personnel Types, the system updates the Number of Supervisors, Number of Workers, and the Contractor Hours Worked fields.
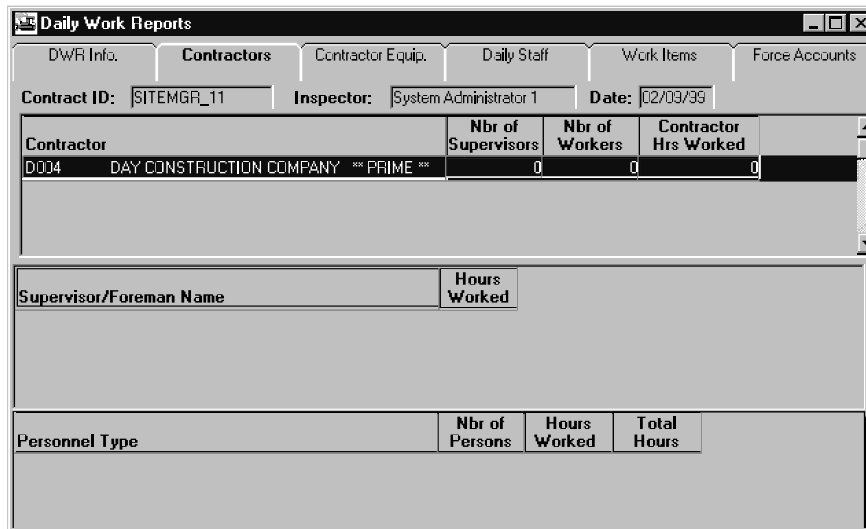
Figure 8-7. The Daily Contractors Panel

To access the Contractors folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Contractors** folder tab.

The fields on the Contractors folder tab are defined in the following table:

Field Name	Description
Contractor	Drop down list containing the short name for the contractor who worked on the contract on this date. • **Note:** Subcontractors associated with the contract will not appear in this drop-down list unless an approval date for the subcontract has been entered on the Subcontracts window. In addition, the associated Subcontractors must have an Effective Date prior to or equal to the DWR Date. If an Expiration Date was entered, the Expiration Date must be the same as or after the DWR Date.
Nbr of Supervisors	Number of supervisors present on this date. This field is calculated every time you record a supervisor as present. The calculation is the total of all the present supervisors. You can change the value manually.
Nbr of Workers	Number of non-supervisory personnel present on this date. This field is calculated every time you record a personnel type as present. The calculation is the total of all the present non-supervisory personnel. You can manually change the value.
Contractor Hrs Worked	Hours worked by the contractor on this date. This is the system-calculated sum of the Hours Worked fields for Supervisors and Personnel Types. This value must be greater than zero.
Supervisor Name	The Contractor's supervisors who worked on this date.
Supervisor Hours Worked	The number of hours worked by this supervisor. The number of hours worked must be greater than zero.
Personnel Type	The personnel type of non-supervisory workers who worked for the selected contractor. Personnel types can be added from the drop-down list.
Nbr of Persons	The number of persons of each personnel type who worked on this date for the selected contractor. The number of persons must be greater than zero.

Field Name	Description
Hours Worked	Hours worked by this personnel type. Hours cannot be recorded until the number of persons is greater than zero.
Total Hours	System-generated total hours worked by this personnel type on this date.

Table 8-4. The Daily Contractors Folder Tab Fields Table

To add a supervisor to a Daily Work report:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the User ID of the report's author.

6. In the **DWR** list box, scroll to and click the DWR Date of the report.

7. Click **OK**.

8. Click the **Contractors** folder tab.

9. If there is more than one Contractor listed, click the **Contractor** who employs the supervisor.

10. Click the **Supervisor** field and click the **New** button. An empty row is added to the list.

11. In the **Supervisor** drop-down list, click the expand arrow and click the desired supervisor.

12. In the **Hours Worked** field, type the number of hours worked by this supervisor on this date.

13. Click the **Save** button.

To add a personnel type to a Daily Work report:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the User ID of the report's author.

6. In the **DWR** list box, scroll to and click the DWR Date of the report.

7. Click **OK**.

8. Click the **Contractors** folder tab.

9. If there is more than one Contractor listed, click the **Contractor** who employs the worker.

10. Click the **Personnel Type** field and click the **New** button. An empty row is added to the list.

11. In the **Personnel Type** drop-down list, click the expand arrow and click the desired personnel type.

12. In the **Nbr of Persons** field, type the number of workers of this Personnel Type who worked on this date.

13. In the **Hours Worked** field, type the number of hours worked by this personnel type on this date. The system calculates the value in the Total Hours field.

14. Click the **Save** button.

8.2.4 Contractor Equipment Tab in Daily Work Reports

The Contractor Equipment folder tab lets you document the presence and use of equipment on the job site for the selected contractor. Enter the number of pieces of each equipment-type on the site on this date, the number of pieces used, and the number of hours each equipment-type was used. You may also enter remarks for each piece of equipment used. You must select a contractor before entering equipment information for the contractor.

After you select a contractor, you can select Equipment IDs from the drop-down list in the Equipment ID field. The records that appear on the drop-down list are stored in the Master List.
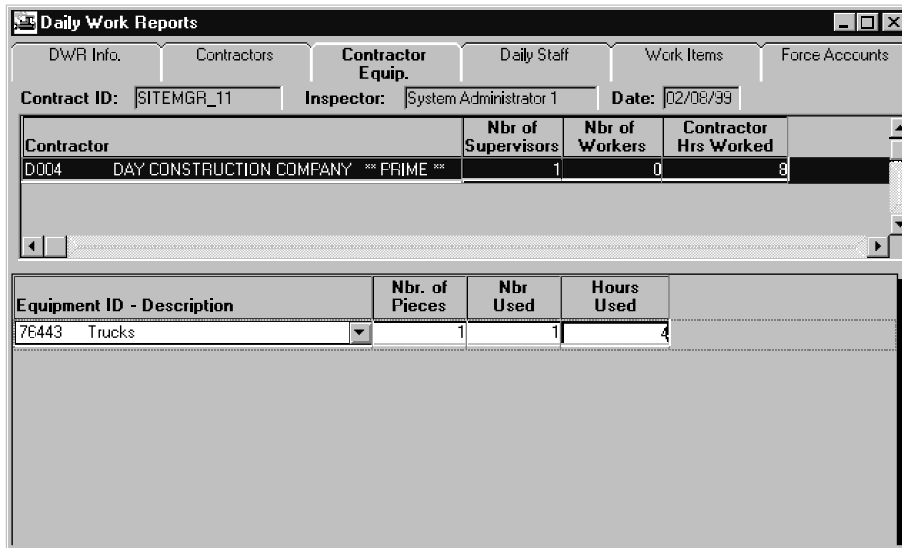
Figure 8-8. The Daily Contractor Equipment Folder Tab

To access the Contractor Equipment folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Contractor Equipment** folder tab.

The Remarks function is available for each piece of equipment recorded.

The fields on the Contractor Equipment folder tab are defined in the following table:

Field Name	Description
Contractor	Short name for the contractor who worked on the contract on this date.
Nbr of Supervisors	Number of supervisors present on this date. This field is calculated every time you record a supervisor as present. The calculation is the total of all the present supervisors. You can change the value manually.
Nbr of Workers	Number of non-supervisory personnel present on this date. This field is calculated every time you record personnel as present. The calculation is the total of all the present non-supervisory personnel. You can change the value manually.
Contractor Hrs Worked	Hours worked by the Contractor on this date. This is the system-calculated sum of the Hours Worked fields for supervisors and personnel types. This value must be greater than zero.
Equipment ID - Description	Text description of the piece of equipment. Can be used to describe a type of equipment.
Nbr of Pieces	This field is used to record the quantity of an equipment type. The equipment quantity must be greater than zero, before quantity used can be recorded.
Nbr Used	Identifies how many pieces of the equipment type were used that day. The equipment quantity must be greater than zero, before the quantity used can be recorded. The quantity used cannot be greater than the equipment quantity.
Hours Used	Number of hours the vehicle or equipment was used on that day. The equipment quantity used must be greater than zero, before equipment hours can be recorded.

Table 8-5. The Daily Contractor Equipment Folder Tab Fields Table

To add equipment to a Daily Work report:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the User ID of the report's author.

6. In the **DWR** list box, scroll to and click the DWR Date of the report.

7. Click **OK**.

8. Click the **Contractor Equipment** folder tab.

9. If there is more than one contractor listed, click the **Contractor** who supplied the equipment.

10. Click the **Equipment ID** field and click the **New** button. An empty row is added to the list.

11. In the **Equipment ID** drop-down list, click the expand arrow and click the desired Equipment ID.

12. In the **Nbr of Pieces** field, type the number of pieces of this equipment present on this date.

13. In the **Nbr Used** field, type the number of pieces of this equipment used on this date.

14. In the **Hours Used** field, type the number of hours this equipment was used on this date.

15. Click the **Save** button.

8.2.5 Daily Staff Tab in Daily Work Reports

The Daily Staff folder tab lets you enter daily information on state employees and consultants. A staff member can be entered more than once per DWR with a different work code. Each entry shows how many hours the staff member worked, the type of work performed, and if a state vehicle was used. If a state vehicle was used, its identification number must be recorded along with its starting and ending miles. Select staff members from the drop-down list in the Staff Member field. You may also enter remarks for each line of Daily Staff recorded. The records that appear on the drop-down list are stored in the Master List. Records that do not appear on the drop-down list must first be added the Master List.

Figure 8-9. The Daily Staff Folder Tab

To access the Daily Staff folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Daily Staff** folder tab.

The Daily Staff folder tab fields are defined in the following table:

Field Name	Description
Staff Member	The name of a state employee or a consultant who worked on the contract on this date. In the list portion of the screen, this value is display only. Staff members must be added to the Master List before they can be added to the DWR.
Work Code	Transportation agency-defined code that identifies work activities, including sick time and vacation. This field is required if there is more than one entry for the same individual.
S/C	Indicates if the staff member is a consultant or state employee (C=Consultant, S=State Employee).
Reg Hours	The number of regular pay hours worked by the staff member for the time period. This field is required.
OT Hours	The number of overtime pay hours worked by the staff member for the time period. This field is optional.
Vehicle ID	The license number or other ID for a state vehicle used by the staff member. Required if a vehicle was used.
Starting Mileage	The beginning mileage for the vehicle used by this staff member for the day. Required if a vehicle was used. The Starting Mileage should be less than the Ending Mileage.
Ending Mileage	The ending mileage for the vehicle used by this staff member for the day. Required if a vehicle was used. The Ending Mileage should be greater than the Starting Mileage.

Table 8-6. The Daily Staff Folder Tab Fields Table

To add a staff member to a Daily Work report:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the User ID of the report's author.

6. In the **DWR** list box, scroll to and click the DWR Date of the report.

7. Click **OK**.

8. Click the **Daily Staff** folder tab.

9. Click the **Staff Member** field and click the **New** button. *An empty row is added to the list*.

10. In the **Staff Member** drop-down list, click the expand arrow and click the staff member name.

11. In the **Work Code** field, type the code that describes the work done on this date.

12. In the **Reg Hours** field, type the number of hours worked by this staff member on this date.

13. In the **OT Hours** field, type the number of overtime hours worked by this staff member on this date.

14. In the **Vehicle ID** field, type the ID of the state vehicle used by this staff member on this date.

15. In the **Starting Mileage** field, type the starting mileage of the state vehicle used by this staff member on this date.

16. In the **Ending Mileage** field, type the ending mileage of the state vehicle used by this staff member on this date.

17. Click the **Save** button.

The Social Security Number(or SIN) is not displayed on the Daily Staff folder tab.

8.2.6 Work Items Tab in Daily Work Reports

The Work Items folder tab lets you view and add daily usage data for installed work items. Before entering Work Item data, the Contractor responsible for the Work Item must be entered on the Contractors folder tab. When you first select the Work Items folder tab, the Select Work Item list appears. The *Record Work Item* and *Select Work Item* buttons let you toggle between two different versions of the Work Items folder tab. To enter usage data, first select the Work Item and then select the *Record Work Item* button (or the Record Work Item option on the Edit menu). This displays the Record Work Items folder tab on which you can view and add daily usage data.

Figure 8-10. The Record Work Item and Select Work Item Buttons

For a multi-project contract, you must generate the items for each project separately.

Associating DWR Templates with Items

Adding DWR Templates to Items

After a DWR Template has been created, it must be associated with an item on the Master List and with a contract item in order to record data to it for the Daily Work report. The DWR Template must first be associated with an item in the Master List before it can be associated to a contract item. This is done on the Item - DWR Template Association panel from the Daily Work Reports panel. This panel displays all of the items on the Master List at the top and all of the templates that have been created and are active on the bottom left in the Templates List window. Templates that are associated to items are moved to the Associated Templates window on the bottom right of the panel.
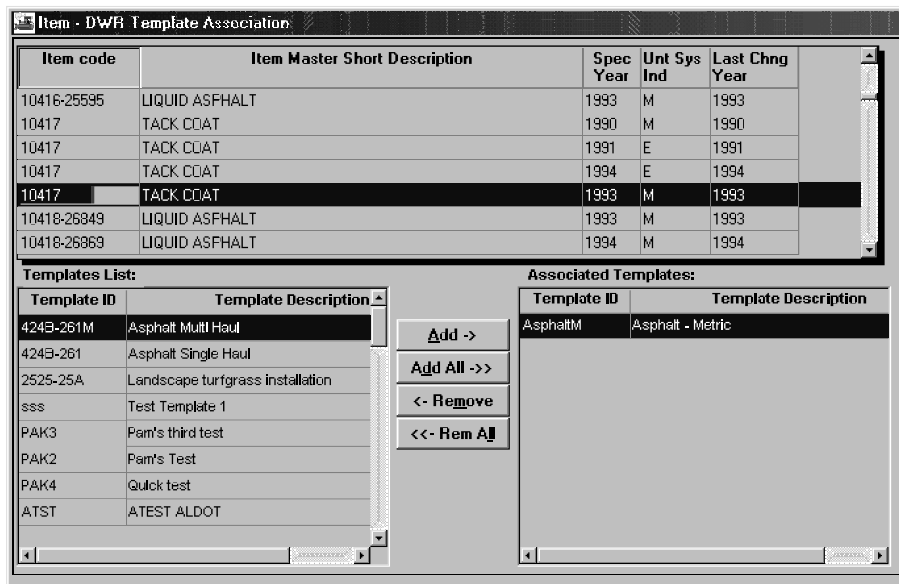
Figure 8-11. Associating a DEW Template to a Master List Item

To associate a DWR template with a Master Item:

1. On the **Daily Work Reports** panel double-click the **Item - DWR Template** icon. It will take a few minutes for the Master Item list to load.

2. Select the appropriate item to associate templates with.

3. From the **Templates List** data window select the template or templates (use the CTRL or SHIFT keys to select multiple templates) to associate with the item.

4. Click the **Add** button, or click the **Add All** button to associate all of the templates to the item. The selected templates will move to the Associated Templates window.

5. Click the **Save** button or select **Save** from the **File** menu.

Removing DWR Templates From Items

A template may become unnecessary, outdated or obsolete and need to be made unavailable for use with future contracts. Templates can be removed or disassociated from the items in the Master List by removing them from the Associated Templates window. The templates will maintain any existing contract item associations, but will not be available to associate to future contract items. If the template becomes valid again later, the template can be added back to the Associated Templates window.

If the DWR template will no longer be used with any items or contracts, it can be made inactive in the DWR Template panel accessible through the System Administration panel. See the section on *Creating DWR Templates* for more information on this option.

To remove a DWR Template from an item:

1. On the **Daily Work Reports** panel double-click the **Item - DWR Template** icon. It will take a few minutes for the Master Item list to load.

2. Select the appropriate item to associate templates to.

3. From the **Associated Templates** data window select the template or templates (use the CTRL or SHIFT keys to select multiple templates) to disassociate or remove from the item.

4. Click the **Remove** button, or click the **Rem All** button to remove all of the templates from the item. The selected templates will move back to the Templates List window.

5. Click the **Save** button or select **Save** from the **File** menu.

Associating DWR Templates with Contract Items

Adding DWR Templates to Contract Items

After templates are associated with items in the master list they can be associated with items used in a contract. There are several ways to associate templates to the contract items. The system administrator can globally associate all of the templates associated to all items in the contract, or templates can be associated for each item, either individually or in small groups. This is done on the Contract Item - DWR Template Association panel from the Daily Work Reports panel. Select a contract and Project ID from the list. All of the items available for the selected contract and project will appear in the top portion of the panel. The templates associated with the items will appear on the bottom left portion of the panel in the Templates List window. Templates that are associated with contract items are moved to the Associated Templates window on the bottom right of the panel.
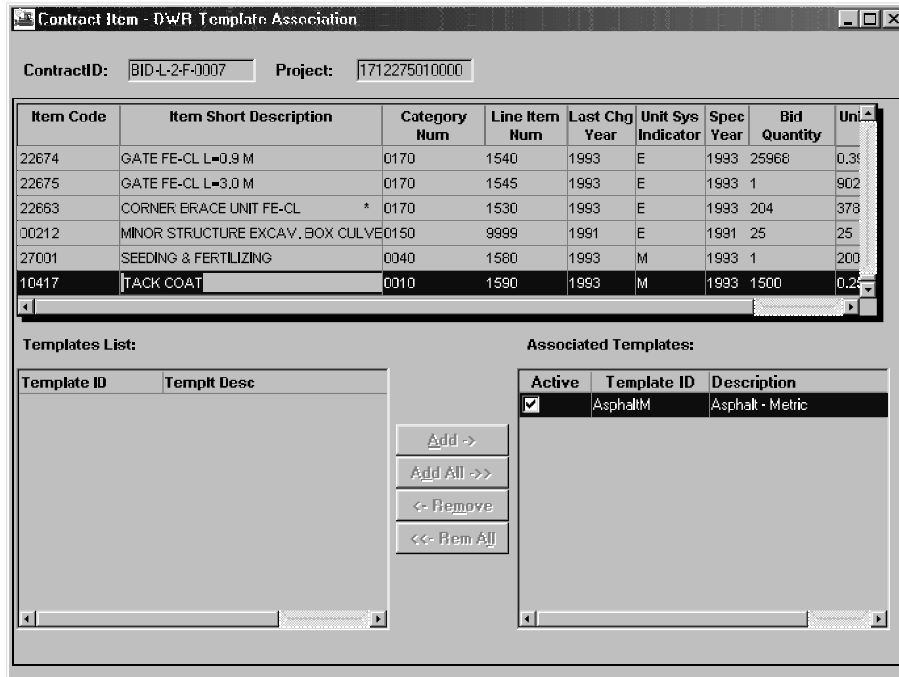
Figure 8-12. Associating a DWR Template to a Contract Item

To globally associate DWR templates to all contract items:

1. On the **Daily Work Reports** panel double-click **the Contract Item - DWR Template** icon.

2. Double-click on a **Contract** in the **Contract ID window**.

3. Select a **Project** from the **Project Nbr window** and click **OK**.

4. Choose **Generate** from the **Services menu** or click the **Generate** button on the **Toolbar**. All templates associated to all items used by the contract will be moved to the Associated Templates list and marked as Active.

5. Click the **Save** button or select **Save** from the File menu.

To associate individual DWR templates with a contract item:

1. On the **Daily Work Reports panel** double-click the **Contract Item - DWR Template icon.**

2. Double-click on a **Contract** in the **Contract ID window**.

3. Select a **Project** from the **Project Nbr window** and click **OK**.

4. Select the appropriate contract item with which to associate templates.

5. From the **Templates List data window** select the template or templates (use the CTRL or SHIFT keys to select multiple templates) to associate with the contract item.

6. Click the **Add** button, or click the **Add All** button to associate all of the templates to the contract item. The selected templates will move to the **Associated Templates window**.

7. Click the **Save** button or select **Save** from the File menu.

Removing DWR Templates From Contract Items

A template may become unnecessary, outdated or obsolete and need to be made unavailable for further use. Templates can be removed, or disassociated, from the contract items if no data has been recorded to the template by removing them from the Associated Templates window. If data has been associated with a template that has become outdated, the template can still be made inactive for the contract by deselecting (unchecking) the Active check box. This way, the template can no longer be used in the contract, but the historical data associated with the template in the contract remains intact. If the template becomes valid again later it can be added back to the Associated Templates window.

If the DWR template will no longer be used with any items or contracts, it can be made inactive in the DWR Template panel accessible through the System Administration panel. See the section on *Creating DWR Templates* for more information on this option.

To remove a DWR template from a contract item:

1. On **the Daily Work Reports panel** double-click the **Contract Item - DWR Template** icon.

2. Double-click on a **Contract** in the **Contract ID window**.

3. Select a **Project** from the **Project Nbr window** and click **OK**.

4. Select the appropriate **Contract Item** from which to remove templates.

5. To remove templates from the Contract Item, from the **Associated Templates data window** select the template or templates (use the CTRL or SHIFT keys to select multiple templates) to disassociate or remove from the item.

6. Click the **Remove** button, or click the **Rem All** button to remove all of the templates from the item. The selected templates will move back to the Templates List window.

OR

1. To make a template inactive within a contract item, deselect the **Active** box next to the appropriate Template in the **Associated Templates** data window.

2. Click the **Save** button or select **Save** from the **File** menu.

Selecting a Work Item

You can toggle between two different versions of the Work Items folder tab. When you first select the Work Items folder tab, or when the Select Work Item button is selected, the Select Work Items folder tab lists work items for the selected contract. The work items are listed in ascending order by item code. You can find, filter, and sort the list. If an item has installed quantities for the selected DWR, the Installed check box is checked (ON).

InstId	Project Number	Line Item Number	Category Number	Category Description	Item Code	Description
☐	1699812	0002	0100	I000-ROADWAY	202(A) 0183	UNCLASSIFIED EXCAVATION
☐	1699812	0003	0100	I000-ROADWAY	202(C) 0184	UNCLASSIFIED BORROW
☐	1699812	0004	0100	I000-ROADWAY	205 4229	TYPE A-SALVAGED TOPSOIL
☐	1699812	0005	0100	I000-ROADWAY	222 2801	TEMPORARY BALE BARRIER
☐	1699812	0006	0100	I000-ROADWAY	223 2801	TEMPORARY SILT FENCE
☐	1699812	0007	0100	I000-ROADWAY	224 2803	TEMPORARY SEDIMENT FILTER
☐	1699812	0008	0100	I000-ROADWAY	226 2805	TEMPORARY SEDIMENT REMOVAL
☐	1699812	0009	0100	I000-ROADWAY	227 0100	TEMPORARY SILT DIKE
☐	1699812	0010	0100	I000-ROADWAY	229 4318	DITCH LINER PROTECTION
☐	1699812	0011	0100	I000-ROADWAY	230(A) 2806	SOLID SLAB SODDING
☐	1699812	0012	0100	I000-ROADWAY	230(B) 2807	MULCH SODDING
☐	1699812	0013	0100	I000-ROADWAY	230(F) 2812	WATERING
☐	1699812	0014	0100	I000-ROADWAY	233(A) 2817	VEGETATIVE MULCHING
☐	1699812	0015	0100	I000-ROADWAY	234(A) 2824	FERTILIZING (10-20-10)
☐	1699812	0016	0100	I000-ROADWAY	234(A) 4406	FERTILIZING (0-46-0)
☐	1699812	0017	0100	I000-ROADWAY	241 2832	MOWING
☐	1699812	0018	0100	I000-ROADWAY	243 0450	(PL)TEMPORARY INLET SEDIMENT FILTER

Figure 8-13. The Select Work Items Folder Tab

To access the Select Work Items folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **DWRs** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Work Items** folder tab. The Select Work Items folder tab lists the work items for the selected contract.

The Select Work Items folder tab fields are defined in the following table:

Field Name	Description
Instld Indicator	Indicates whether or not the work item is installed.
Project Number	Project number in which the work item is included.
Line Item Number	Contract line item number of the work item.
Category Number	Category number in which the work item is included.
Category Description	Short description of category defined in the Categories window.
Item Code	Transportation agency-defined code that identifies a particular item.
Description	Short description of the work item.

Table 8-7. The Select Work Items Folder Tab Fields Table

To view daily work item usage:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Work Items** folder tab.

9. In the **Work Item** list box, scroll to and click the installed work item (note that the Installed Indicator is checked).

10. Click the **Record Work Item** button. *The daily usage records for the selected Work Item are displayed on the Record Work Item folder tab*.

11. Click the **Close** button.

To list only the installed (or uninstalled) items, you can filter the list by the Installed check box entry.

Recording a Work Item

You can toggle between two different versions of the Work Items folder tab. When the Record Work Item button is selected, the Record Work Items folder tab displays usage information on the selected item for this DWR. You can enter new usage data on this folder tab. If the item is installed in multiple locations, you can enter the quantity installed at each location.

The Material Inspection Details at the bottom of the window displays Material Component, Unit, Expected Quantity, Inspected Quantity, and Installed Quantity. In the case of standalone mode, however, the material details may not be representative of the entire sample population – if any other samples have been logged via any other means than the standalone mode on the current machine.

Figure 8-14. The Record Work Items Window

Field Name	Description
Contract ID	Transportation-defined ID for the contract.
Inspector	This field displays the name of the user who is currently logged into SiteManager and creating the Daily Work report.
Date	The date for which the work performed is being recorded.
Project Nbr	Project number in which the work item is included.
Line Itm Nbr	Contract line item number of the work item.
Item Code	Transportation agency-defined code that identifies a particular item.
Category Nbr	Category number in which the work item is included.
Item Desc	Short description of the work item.
Unit Price	Unit price of the material.

Field Name	Description
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supp Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the transportation agency.
Qty Reported to Date	The total of all reported quantities on DWRs, regardless of whether the quantities are authorized or unauthorized and regardless of whether they are included on an estimate.
Qty Authorized to Date	The total of all reported quantities on DWRs that are authorized.
Units Type	The unit of measure associated with the pay item (e.g. inches, feet, tons).
Pay To Plan Qty	Indicates if the line item is paid to plan quantity. If this indicator is "ON," an In Box message indicating that the item has exceeded the bid quantity will be issued to the user generating an estimate.
Qty Installed to Date	The total of all reported authorized reported quantities included on estimates (of all statuses).
Bid Qty	The bid quantity on the selected line item.
Qty Paid to Date	The total of all authorized reported quantities included on estimates (of all statuses). This value is always the same as Qty Installed to Date unless the quantity to pay has been adjusted on the Estimate Item Detail window. This window includes a 'Pay This Est' field which can be modified when an estimate is pending. If the quantity in this field is adjusted, the Qty Paid to Date field will reflect the modification, which will cause the value to differ from the Qty Installed to Date.
Current Contract Qty	Current contract quantity of the contract line item including any change orders. Current Quantity is calculated by the sum of Bid Quantity and the net Change Order quantity.
Placed Qty	Quantity of the work item installed on this date.
As Built Qty	This column is a field that will be used to record the As Built Quantity on the work item record. This field is informational only and does not affect estimate calculations.

Field Name	Description
Plan Page Number	Plan page number on which the work item is included.
Loc Seq Nbr	Sequence number for the installation record for the item.
Contractor	Drop-down list containing the name of the contractor responsible for the work item. • **Note:** Subcontractors responsible for a work item will not appear in this drop-down list unless an approval date for the subcontract has been entered on the Subcontracts window.
Location	Location where the work item was installed. An item can be installed at multiple locations. (This description does *not* need to be unique for each entry.)
Measured Indicator	This column identifies the type of measured indicator for the quantity on the work item record. The labels for the radio button can be customized in the System Operational Parameter window. This column is a two radio button field. Possible values: "Y" – "Yes", "N" – No. The default value for this column is a space. The default can be redefined in the DWR Work Item Measured Indicator Default system operational parameter.
From Station	Station ID that identifies where the installation of this work item starts.
From Station Offset	Offset from the Station ID that identifies where the installation of this work item starts.
From Station Distance	Distance of the offset from the Station ID that identifies where the installation of this work item starts.
To Station	Station ID that identifies where the installation of this work item ends.
To Station Offset	Offset from the Station ID that identifies where the installation of this work item ends.
To Station Distance	Distance of the offset from the Station ID that identifies where the installation of this work item ends.
Material Component	The short material description from the Material Detail window.

Field Name	Description
Contract Estimated Material Quantity	The Bid Current Quantity (Bid Quantity + change order quantity) of Contract Item times the Conversion Factor.
Satisfied Represented Material Quantity	The total material quantity reported on the Contract tab of Maintain Sample Window. For the given item from the Contract tab the Total of Represented Quantity on satisfied samples for the material. Note that in standalone mode, this data only includes those samples logged on the current local database, and therefore may not be representative of the entire contract item.
Reported Material Quantity	The total material installed is calculated based on Installed Quantity of Contract Item times the Conversion Factor.
Material Unit	The item material unit from the Contract Sampling and Testing Requirements window.

Table 8-8. The Record Work Items Folder Tab Fields Table

To access the Record Work Items folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Work Items** folder tab. *The Work Item list is displayed*.

9. Click a **Work Item** and click the **Record Work Item** button. *The folder tab fields change to allow usage data entry*.

To enter new work item usage data:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Work Items** folder tab. *The Work Item list is displayed*.

9. Click a **Work Item** and click the **Record Work Item** button. *The folder tab fields change to allow usage data entry*.

10. Click the **Location Installed** field and click the **New** button. *An empty row is inserted on the Record Work Item List*.

11. In the **Placed Qty** field, type the quantity of the item installed at this location.

12. Press the **Tab** key.

13. In the **Plan Page Nbr** field, type the page number of a reference to the installed item.

14. To enter another location where this item was installed, repeat steps 9 through 12.

15. In the **Contractor** drop-down list, click the expand arrow and click the name of the contractor responsible for the installed item.

16. Press the **Tab** key.

17. In the **Location** field, type the location where the item was installed.

18. If the installed item was measured, click the **Measured Indicator** check box (ON).

19. In the **From Station** field, type the Station ID that identifies where the installation of this work item starts.

20. Press the **Tab** key.

21. In the **From Station Offset** field, type the offset from the Station ID that identifies where the installation of this work item starts.

22. Press the **Tab** key.

23. In the **From Station Distance** field, type the offset distance from the Station ID that identifies where the installation of this work item starts.

24. Press the **Tab** key.

25. In the **To Station** field, type the Station ID that identifies where the installation of this work item ends.

26. Press the **Tab** key.

27. In the **To Station Offset** field, type the offset from the Station ID that identifies where the installation of this work item ends.

28. Press the **Tab** key.

29. In the **To Station Distance** field, type the offset distance from the Station ID that identifies where the installation of this work item ends.

30. Click on the **Remarks** button. Add a remark then click the Remarks button again to save the remarks.

31. Click on the **Remarks** button again. The remarks entered in the previous step will open.

32. Click on the **Spell Check** button. Check spelling and close the Spell Check window.

33. Click the **Save** button.

To associate an external document with a work item usage record, click the External Document option on the Services menu (referenced in the General Concepts section).

Material Inspection Detail

Figure 8-15. The Material Inspection Detail Window

The Material Inspection Detail window is accessible from the Record Work Item folder tab displaying daily usage records for a selected work item. The Material Inspection Detail window can be accessed from the Services menu option or from the Open Material Inspection Detail icon located on the toolbar. The Material Inspection Detail window is only accessible from the Record Work Item window.

The Material Inspection Detail window has the following panels:

- Contract Item Info

- Associated Materials

- Sampling & Testing Requirements

The Material Inspection Detail window will display contract item information from the DWR Record Work Item folder tab in the top panel. The middle panel will display all contract materials associated with the item code. If the material has contract sampling and testing requirements defined, the Contract S&T column will be checked. If samples were previously created for the selected material from the DWR window, the DWR Sample field will be checked. Users can select a material by clicking on a material component, displaying associated test methods in the lower (third) panel.

The third panel will display contract sampling and testing requirement information for the selected material in the middle panel. If contract sampling and testing requirements have not been defined for

the material, this panel will be blank. The data displayed in this panel is information only and no data from this panel is carried over to the sample window to create samples.

Create Sample for Selected Material

From the Material Inspection Detail window, you can click on the Services → Create Sample menu option or the tool bar icon. SiteManager will open the Maintain Sample Information window for the selected material. Fields in the Maintain Sample Information window will be populated from information available in the Material Inspection Detail window. This option will only be available if your group has been given authority in the Group Security window. If your group has inquiry rights, you will be able to open existing DWR samples, but will not be able to create new samples from the Material Inspection Detail window. A user with no rights will not be able to create or open samples from the Material Inspection Detail window.

You can view information in the Maintain Sample Information window by clicking on the Services → Open Sample window menu option or the tool bar icon. If more than one sample was created for the DWRs material, a window will be populated listing all the samples created for the material. Pick a sample and click OK to open the selected sample.

If LIMS is enabled and the sample has been progressed to LIMS for testing, the Sample Status, Sample Type, and Acceptance Method cannot be modified. Sample Status and Acceptance Method can only be modified in LIMS. The Authorize option on the Services Menu is also disabled. Samples that are being processed in LIMS cannot be authorized from SiteManager, and authorization (or approval only) may only occur as a last step in LIMS Sample processing.

When a sample is approved but not authorized in LIMS (i.e., Approve Only check box selected), sample processing will have completed in LIMS yet the sample will not be authorized. When the sample is opened in SiteManager, the system will now allow sample authorization from SiteManager if the current user has update rights to the window and has rights to authorize samples (i.e., the Authorize option under Services menu is enabled).

Samples that have been authorized in LIMS can be unauthorized in SiteManager because sample processing will have completed in LIMS.

Recording Data to DWR Templates

You can toggle between two different windows of the Work Items folder tab - the Select Work Item list window and the Record Work Items window. When you first select the Work Items folder tab, or when the Select Work Item button is selected, the Select Work Items window lists work items for the selected contract. The work items are listed in ascending order by Item Code. You can find, filter and sort the list. If an item has installed quantities for the selected DWR the Installed check box is checked (ON).

Figure 8-16. The Select Work Items Window

When the Record Work Item button is selected, the Record Work Items window displays usage information on the selected Item for this DWR. The Record Work Items window allows you to view existing data for the work item or add new usage data. Any DWR Templates associated with the selected item are also available from this window for viewing or entering data.

To record data to the Work Items tab:

1. From the Daily Work Reports panel, click the **Work Items** folder tab. The Select Work Item list window appears.

2. Select a **Work Item** and click the **Record Work Item** button or choose **Record Work Item** from the **Services** menu. The Record Work Item window appears.

3. Click the **Location Installed** field and click the **New** button. An empty row is inserted on the Record Work Item list and the cursor moves to the bottom portion of the Record Work Item window for data entry.

4. If the DWR Template Usage Ind function was set to Yes by the System Administrator and the item has an associated template with the mandatory return value flag set to Yes, then the Placed Qty field will not be available for manual data entry and will be populated by the return value in the DWR Template. If the return value is optional or the DWR Template Usage Ind function was set to No, DWR templates will return values to the Placed Qty field, but the Placed Qty field can be modified or overwritten by manual entries. If the value returned from the template is different than the value in the Placed Qty field, a text message will appear next to the Templt Used checkbox. The actual text message will be determined by a Sys Op Parm. If an associated template has no return value, or no template is associated to the item, then you must enter the quantity of the item installed at this location in the **Placed Qty** field.

5. In the **Contractor** drop-down list, click the expand arrow and click the name of the Contractor responsible for the installed item.

6. Click the **Tab** key.

7. In the **Plan Page Nbr** field, type the page number of a reference to the installed item.

8. Click the **Tab** key.

9. Click the **Tab** key.

10. In the **Location** field type the location where the item was installed.

11. If the installed item was measured, click the **Measured Indicator** check box (ON).

12. In the **From Station** field type the Station ID that identifies where the installation of this work item starts.

13. Click the **Tab** key.

14. In the **From Station Offset** field, type the offset from the Station ID that identifies where the installation of this work item starts.

15. Click the **Tab** key.

16. In the **From Station Distance** field, type the offset distance from the Station ID that identifies where the installation of this work item starts.

17. Click the **Tab** key.

18. In the **To Station** field type the Station ID that identifies where the installation of this work item ends.

19. Click the **Tab** key.

20. In the **To Station Offset** field, type the offset from the Station ID that identifies where the installation of this work item ends.

21. Click the **Tab** key.

22. In the **To Station Distance** field type the offset distance from the Station ID that identifies where the installation of this work item ends.

23. Click the **Save** button. A message will display indicating that the Quantity field cannot be 0 and that data must be entered in the template. Click **OK** to continue.

The DWR Templates panel opens and displays a list of the DWR templates available for use with this work item. Choose which DWR template associated with the selected item to view or on which to record data.
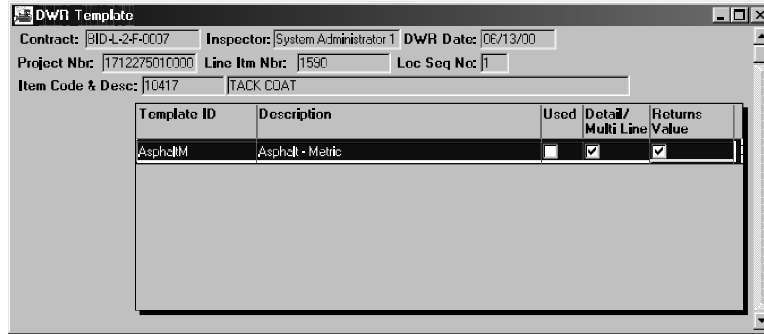
Figure 8-17. The DWR Templates Panel, Template ID Window

The list of associated DWR templates available for use with this work item contains the information shown in the following table. Once the DWR template has been chosen, you can enter data into the template.

Field	Description
Template ID	The unique, user-defined identifier defined for the template at its creation.
Description	The template name or title.
Used	Check box indicating whether the template has been used with the selected work item and DWR. If the box is checked (On), the template has been used. If the box is unchecked (Off), the template has not been used.
Detail/Multi Line	This check box specifies whether the template is a detail/multi line template or a header (single line) template. The default is a header template with the box unchecked. If this box is checked, the Detail/Multi Line portion of the template must have at least one row containing alphanumeric or numeric data. A header template is also required to contain alphanumeric or numeric data.
Returns Value	Check box indicating whether the template returns a value to the Placed Qty field of the DWR. If the box is checked (On), the template does return a value. If the box is unchecked (Off), the template does not return a value.

Table 8-9. The DWR Template ID Window Fields Table
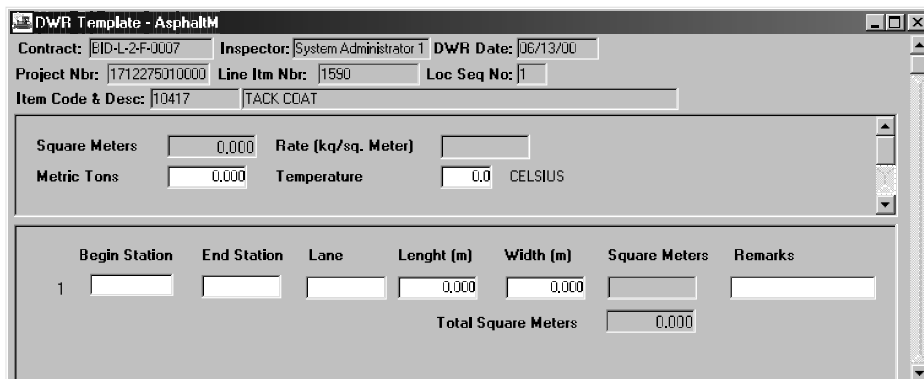
Figure 8-18. The DWR Template

To record work item data to DWR templates:

1. To invoke the DWR Template window, click on the **DWR Template** button or select **Edit/View Work Item Template Data** from the **Services** menu.

2. The DWR Template ID window displays the Templates available for use with the selected work item. Choose a DWR template to record data to and click the **Record Template Data** button or choose **Record Template Data** from the **Services** menu. The DWR template appears.

3. Enter the appropriate data into the fields of the DWR template.

4. Click the **Save** button or select **Save** from the **File** menu when the data is fully entered into the template.

5. Click the **Close** button or select **Close** from the **File** menu to return to the Record Work Item window. The **Placed Qty** field is now populated with the value from the DWR template and the **Templt Used** box is checked.

8.2.7 Daily Force Accounts Tab in Daily Work Reports

The Force Accounts folder tab in DWRs lets you view or add daily information on a force account. The force accounts are created and maintained in Contract Administration, and downloaded to the project manager and inspector. However, the daily force account data is collected by the inspector in DWRs. The daily force account data can be viewed in Contract Administration after the project manager authorizes the DWRs.

When you first select the Force Accounts folder tab in DWRs, the folder tab lists the force accounts for the selected contract. Selects a force account on this list, select the Record button on the toolbar, and then toggle to one of the following three folder tabs:

- Daily Force Account Equipment

- Daily Force Account Labor

- Daily Force Account Materials

You can add daily force account data on these folder tabs. For example, to add equipment data related to a force account, first select the force account. Then select the Record button and the Equipment button. This opens the Daily Force Account Equipment folder tab.

Figure 8-19. The Daily Force Account Toolbar Buttons

Selecting a Daily Force Account

The Force Account Select folder tab lets you select a force account. The folder tab lists all force accounts created for the selected contract. If no force accounts have been created, the selection list is empty.
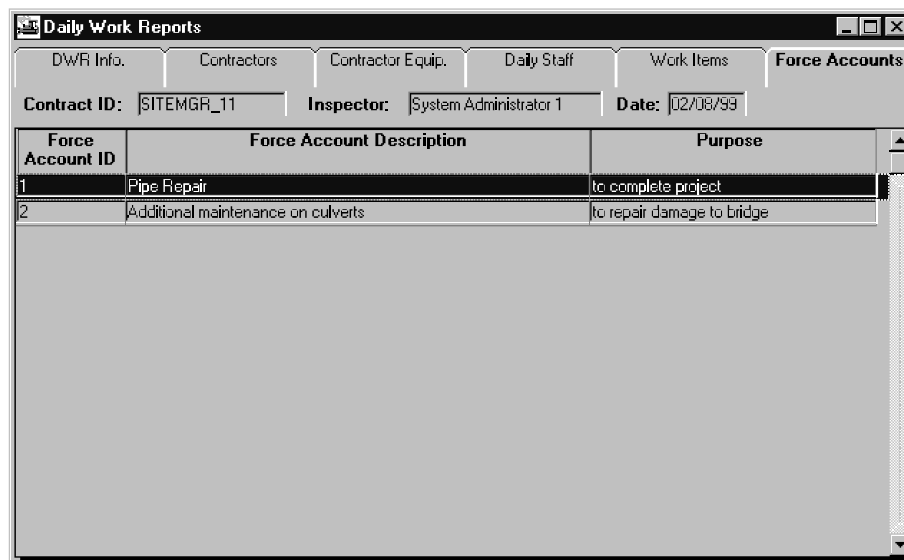
Figure 8-20. The Force Accounts Select Folder Tab

To access the Force Accounts Select folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens.*

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. *The Force Accounts Select folder tab is displayed*.

The Force Accounts Select list has three columns as defined in the following table:

Field Name	Description
Force Account ID	Force Account ID number.
Description	Description of the work the force account is intended to cover.
Purpose	Description of the reason for the force account.

Table 8-10. The Force Accounts Select Panel Fields Table

To view a daily force account:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **DWR** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. *The Force Accounts Select list is displayed*.

9. In the **Force Account** list box, scroll to and click the force account.

10. Click the **Record** button and click either the **Equipment**, **Labor**, or **Materials** button, to view the corresponding daily Force Account data.

Changes to the force account, such as available equipment, must be entered on the server and downloaded to the project manager and inspector through pipeline.

Force Account Tab, Equipment Window

The Force Account tab, Equipment window lists all of the equipment authorized for the selected force account. It also includes the ownership information, the used rate, and the idle rate for each piece of equipment. You can add the number of hours each piece of equipment was used and the number of hours it was idle.
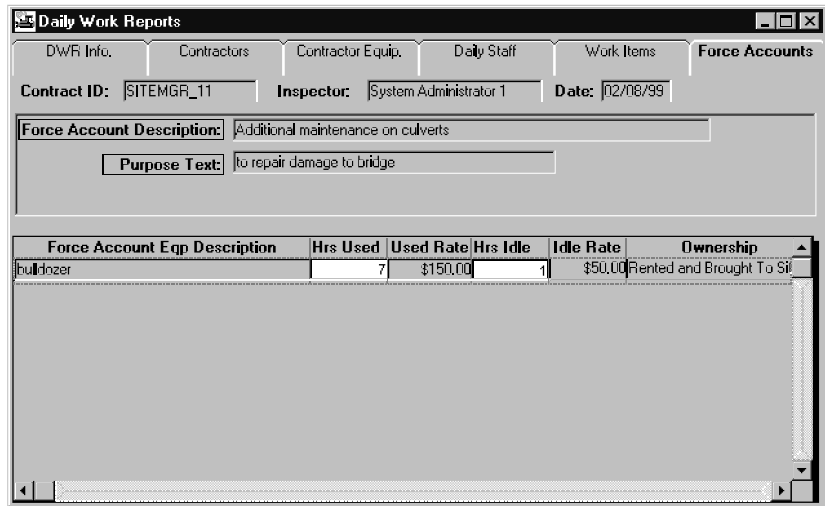
Figure 8-21. The DWR Force Account Folder Tab - Equipment Window

To access the daily Force Account Equipment folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **DWRs** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **Daily Work Report** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. *The Force Accounts Select list is displayed*.

9. In the **Force Account** list box, scroll to and click the Force Account.

10. Click the **Record** button and click the **Equipment** button.

The fields on the daily Force Account Equipment folder tab are defined in the following table:

Field Name	Description
Force Account Header	
Description	Description of the work the force account is intended to cover.
Purpose	Description of the reason for the force account.
Force Account Equipment	
Description	Description of the piece of equipment or a type of equipment.
Hrs Used	Number of hours the equipment was used on the force account on this date. The field should be numeric and must not exceed 24 hours. The total of this field and Hrs Idle must not exceed 24 hours.
Used Rate	Used rate for the piece of equipment.
Hrs Idle	Number of hours the equipment was idle on this date. The field should be numeric and must not exceed 24 hours. The total of this field and Hrs Used must not exceed 24 hours.
Idle Rate	Idle rate for the piece of equipment.
Ownership	Description to indicate whether the piece of equipment is owned by the Contractor and was already on the project site, whether it is owned by the Contractor and brought to the site for the Force Account work, or whether it is rented.

Table 8-11. The DWR Force Account Folder Tab - Equipment Fields Table

To record daily force account equipment data:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **Daily Work Report** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. *The Force Accounts Select list is displayed.*

9. In the **Force Account** list box, scroll to and click the force account that was worked on.

10. Click the **Record** button and click the **Equipment** button.

11. In the **Equipment** list box, scroll to the equipment record that needs data added.

12. In the **Hrs Used** field, type the number of hours the equipment was used on the force account on this date.

13. Press the **Tab** key.

14. In the **Hrs Idle** field, type the number of hours the equipment was idle on this date.

15. To record data for other equipment, repeat steps 10 through 13.

16. Click the **Save** button.

Force Account Tab, Labor Window

The Force Account tab, Labor window lists all the workers authorized for the selected force account. It also includes the regular, overtime, and fringe rates for each worker. You can add the number of regular and overtime hours worked by each worker.
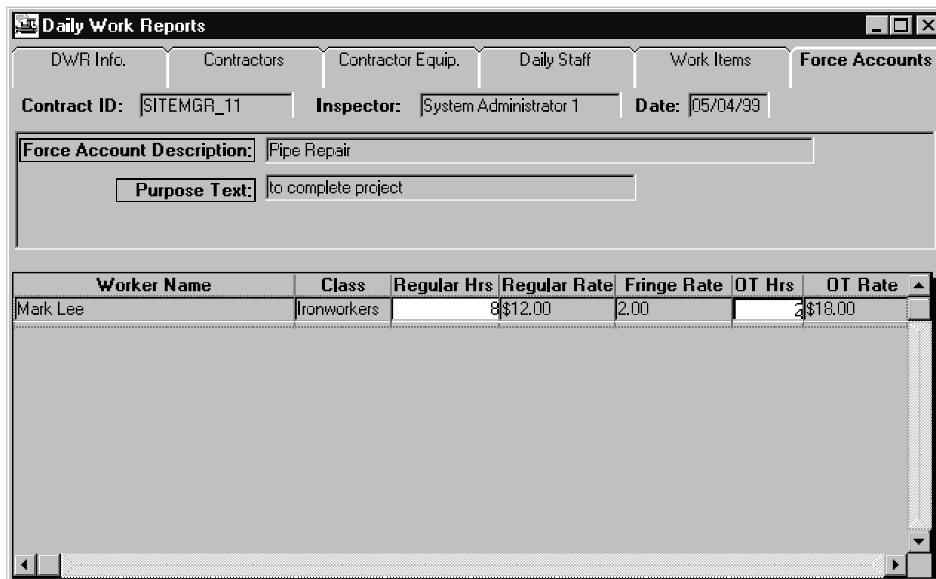
Figure 8-22. The DWR Force Account Tab - Labor Window

To access the daily Force Account Labor folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **Daily Work Report** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. *The Force Accounts Select list is displayed*.

9. In the **Force Account** list box, scroll to and click the force account.

10. Click the **Record** button and click the **Labor** button.

The fields on the daily Force Account Labor folder tab are defined in the following table:

Field Name	Description
Force Account Header	
Description	Description of the work the force account is intended to cover.
Purpose	Description of the reason for the force account.
Force Account Labor	
Worker Name	Name of a worker authorized to work on the force account.
Class	Job classification of the worker.
Regular Hours	Regular hours worked on the force account on this date. The field should be numeric and must not exceed 24 hours. The total of this field and Overtime Hours must not exceed 24 hours.
Regular Wage	Regular hourly rate for the worker.
Regular Fringe	The fringe rate that should be applied to the regular hours worked when determining total cost.
Overtime Hours	Overtime hours worked on the force account on this date. The field should be numeric and must not exceed 24 hours. The total of this field and Regular Hours must not exceed 24 hours.
Overtime Wage	The overtime hourly rate for the worker.

Table 8-12. The DWR Force Accounts Folder Tab - Labor Fields Table

To add daily force account labor data:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. The DWR Info folder tab opens.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **Daily Work Report** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. The Force Accounts Select list is displayed.

9. In the **Force Account** list box, scroll to and click the force account.

10. Click the **Record** button and click the **Labor** button.

11. In the **Worker Name** list box, scroll to the name of the worker who worked on the force account on this date.

12. In the **Regular Hrs** field, type the number of regular hours worked on the force account on this date.

13. Press the **Tab** key.

14. In the **OT Hrs** field, type the number of overtime hours worked on the force account on this date.

15. To record hours for other workers, repeat steps 10 through 13.

16. Click the **Save** button.

Force Account Tab, Materials Window

The DWR Force Account folder tab, Materials window lists all of the materials authorized for the selected force account. It also includes the Invoice ID, the unit price, and the unit of measurement for each material. You can add the quantity of each material that was used.
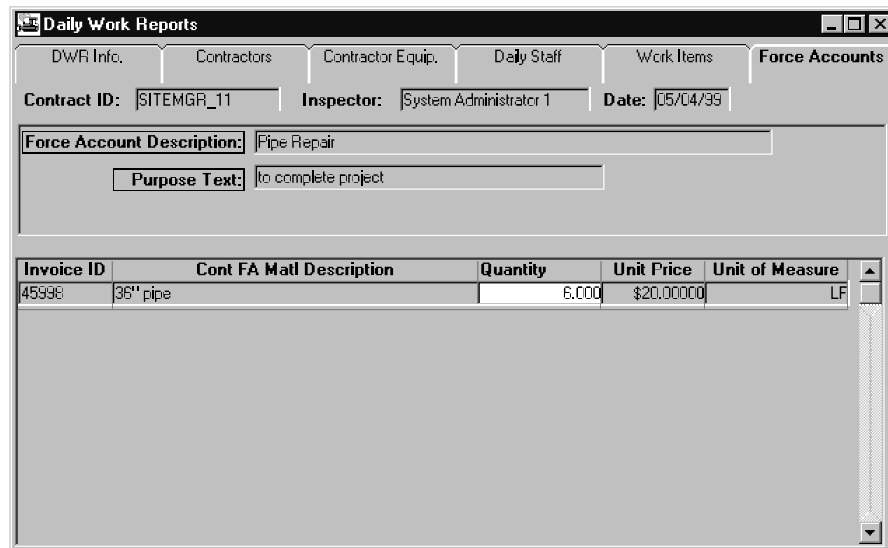
Figure 8-23. The DWR Force Account Tab - Materials Window

To access the daily Force Account Materials folder tab:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens.*

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **Daily Work Report** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. *The Force Accounts Select list is displayed.*

9. In the **Force Account** list box, scroll to and click the force account.

10. Click the **Record** button and click the **Materials** button.

The fields on the daily Force Account Materials folder tab are defined in the following table:

Field Name	Description
Force Account Header	
Description	Description of the work the force account is intended to cover.
Purpose	Description of the reason for the force account.
Force Account Labor	
Invoice ID	ID of the invoice for the material.
Cont FA Mtl Description	Contract force account material description. Describes the material specified for use on the force account.
Quantity	Quantity of the material used on the force account on this date.
Unit Price	Unit price of the material.
Unit of Measure	Unit in which the material is measured.

Table 8-13. The DWR Force Account Folder Tab - Materials Table

To add daily force account materials data:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Daily Work Reports** icon. *The DWR Info folder tab opens*.

3. Click the **Open** button.

4. In the **Contract** list box, scroll to and double-click the desired contract.

5. In the **User** list box, scroll to and double-click the **User ID** of the report's author.

6. In the **Daily Work Report** list box, scroll to and click the **DWR Date** of the report.

7. Click **OK**.

8. Click the **Force Accounts** folder tab. The Force Accounts Select list is displayed.

9. In the **Force Account** list box, scroll to and click the force account.

10. Click the **Record** button and click the **Materials** button.

11. In the **Materials** list box, scroll to the material used on the force account on this date.

12. In the **Quantity** field, type the amount of the material used on the force account on this date.

13. To add quantities for other materials, repeat steps 10 through 11.

14. Click the **Save** button.

8.3 DWR Template Reports

There are two reports that provide information regarding DWR templates. The DWR Template Usage Report lists information about the data recorded to a template for a DWR. The DWR Template Item Master Report provides a list of the items that have associated DWR templates and the associated templates titles.

8.3.1 DWR Template Usage Report

The DWR Template Usage Report lists detailed information about the data recorded to a template for a selected DWR. This report is available either from the Daily Work Reports panel or from the DWR Template panel. Selects from various criteria to specify how the report is to be generated. The report can be created on and printed from your computer or offline. If the report is generated off-line it can be accessed from the Accessories folder tab, Process Status Monitor icon.

The DWR Template Usage Report contains information for the selected Contract, DWR Date, Project Number, Line Item Number, Location Sequence Number and Template ID. The contents of the DWR Template Header are listed, showing the value entered in each field. Then, if it is a Detail/Multi Line template, each line of the Detail/Multi Line portion of the template is listed along with the values entered in each field.
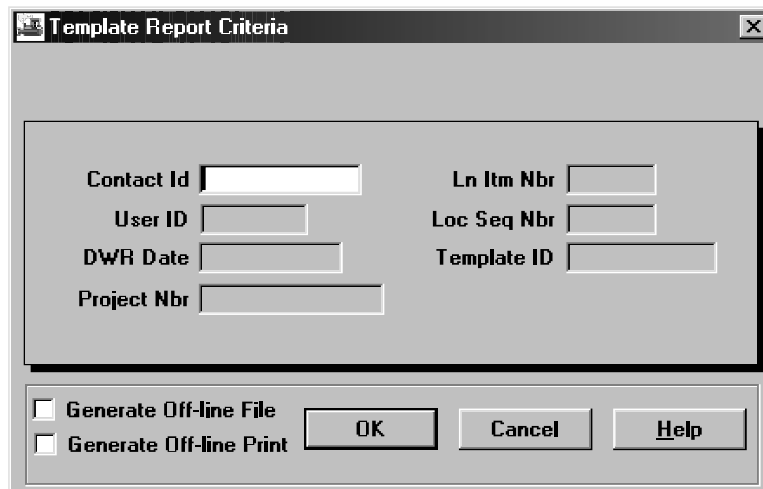
Figure 8-24. The DWR Template Usage Report Criteria Window

To generate a DWR Template Usage report from the Daily Work Reports panel:

1. On the **SiteManager** main panel double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel double-click the **DWR Template Usage Report** icon. The **Template Report Criteria** window will display.

3. Position the cursor over the **Contract ID** field, click the right mouse button and click on **Search**. The Contract ID search window displays all of the contracts.

4. Scroll to and select the appropriate **Contract ID** and click **OK**.

5. From the **User ID** drop-down list select the appropriate **User ID** for the Daily Work report's author.

6. From the **DWR Date** drop-down list select the date of the desired Daily Work report.

7. From the **Project Nbr** drop-down list select the Project Number for which the DWR was created.

8. Select the appropriate Line Item number from the **Ln Itm Nbr** drop-down list.

9. From the **Loc Seq Nbr** drop-down list select the location of the installed work item on which to report.

10. Select the **Template ID** from the drop-down list that was used in the selected DWR at the selected location.

11. To generate the report on-line click **OK**.

12. To print the report click the **Print** button on the toolbar.

Or

13. To generate the report off-line to a file click the Generate Off-line File check box (ON).

14. Click **OK**.

Or

15. To generate and print the report offline, click the **Generate Off-line Print** check box (ON).

16. Click **OK**.

To generate a DWR Template Usage report from the DWR Template panel:

1. From the Daily Work Reports panel, follow the steps listed under the section *Recording Data to DWR Templates* to navigate to the DWR Template panel.

2. From the **Template ID** list highlight the desired DWR template.

3. Click on the **DWR Template Report** button or select **DWR Template Report** from the **Services** menu. The **Template Report Criteria** window will display.

4. Position the cursor over the **Contract ID** field, click the right mouse button and click **Search**. The Contract ID search window displays all of the contracts.

5. Scroll to and select the appropriate **Contract ID** and click **OK**.

6. From the **User ID** drop-down list select the appropriate **User ID** for the Daily Work report's author.

7. From the **DWR Date** drop-down list select the date of the desired Daily Work report.

8. From the **Project Nbr** drop-down list select the Project Number for which the DWR was created.

9. Select the appropriate Line Item number from the **Ln Itm Nbr** drop-down list.

10. From the **Loc Seq Nbr** drop-down list select the location of the installed work item on which to report.

11. Select the **Template ID** from the drop-down list that was used in the selected DWR at the selected location.

12. To generate the report online, click **OK**.

13. To print the report, click the **Print** button on the toolbar.

Or

14. To generate the report offline to a file, click the **Generate Off-line File** check box (ON).

15. Click **OK**.

Or

16. To generate and print the report offline, click the **Generate Off-line Print** check box (ON).

17. Click **OK**.
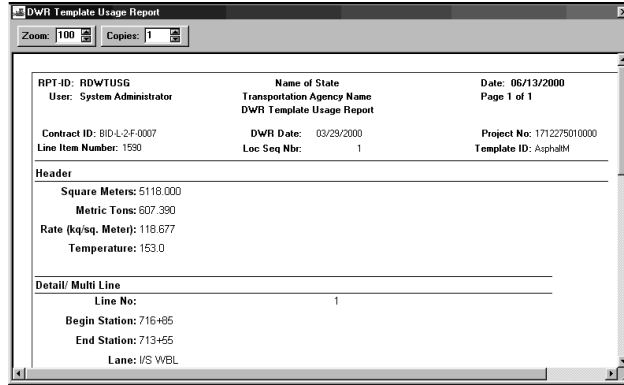
Figure 8-25. The DWR Template Usage Report Panel

8.3.2 DWR Template Item Master Report

The DWR Template Item Master report provides a list of the selected items that have associated DWR templates along with a list of their associated templates. This report is available from the Item - DWR Template Association panel. Select from various criteria to specify how the report is to be generated. The report is created on and printed from your computer.

The DWR Template Item Master report is simply a listing of all of the Master Items within the selected items and specifications that have DWR Templates associated to them. The report also lists some template identification data for all of the templates associated to the selected Items, such as Template ID and description and whether the template is active or not.
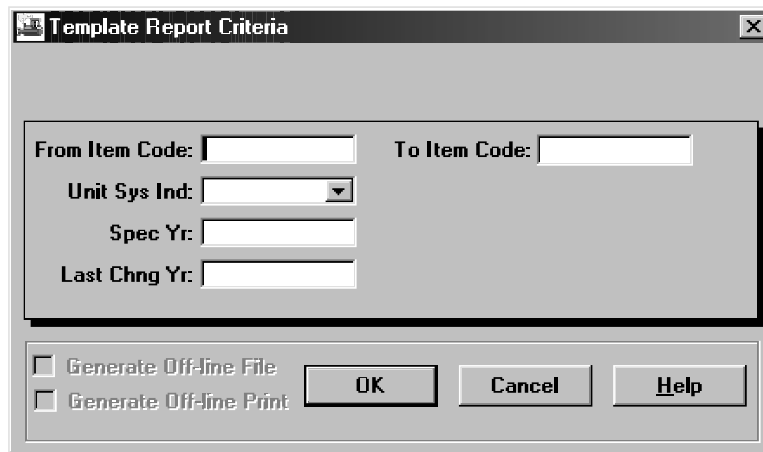
Figure 8-26. The DWR Template Item Master Report Criteria Window

To generate a DWR Template Item Master report:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Item - DWR Template** icon.

3. On the **Item - DWR Template Association** panel click on the **DWR Template Item Report** button or select **DWR Template Item Report** from the **Services** menu.

4. The **Template Report Criteria** window will display.

5. Position the cursor over the **From Item Code** field, click the right mouse button, and click **Search**. The From Item Code search window displays all items that have associated templates.

6. Scroll to and select the appropriate **From Item Code** and click **OK**.

7. Position the cursor over the **To Item Code** field, click the right mouse button, and click **Search**. The To Item Code search window displays all items that have associated templates.

8. Scroll to and select the appropriate **To Item Code** and click **OK**.

9. From the **Unit Sys Ind** drop-down list select the appropriate unit system indicator/spec year/last change year selection. The **Spec Yr** and **Last Chng Yr** fields will automatically be populated.

10. To generate the report online, click **OK**.

11. To print the report, click the **Print** button on the toolbar.
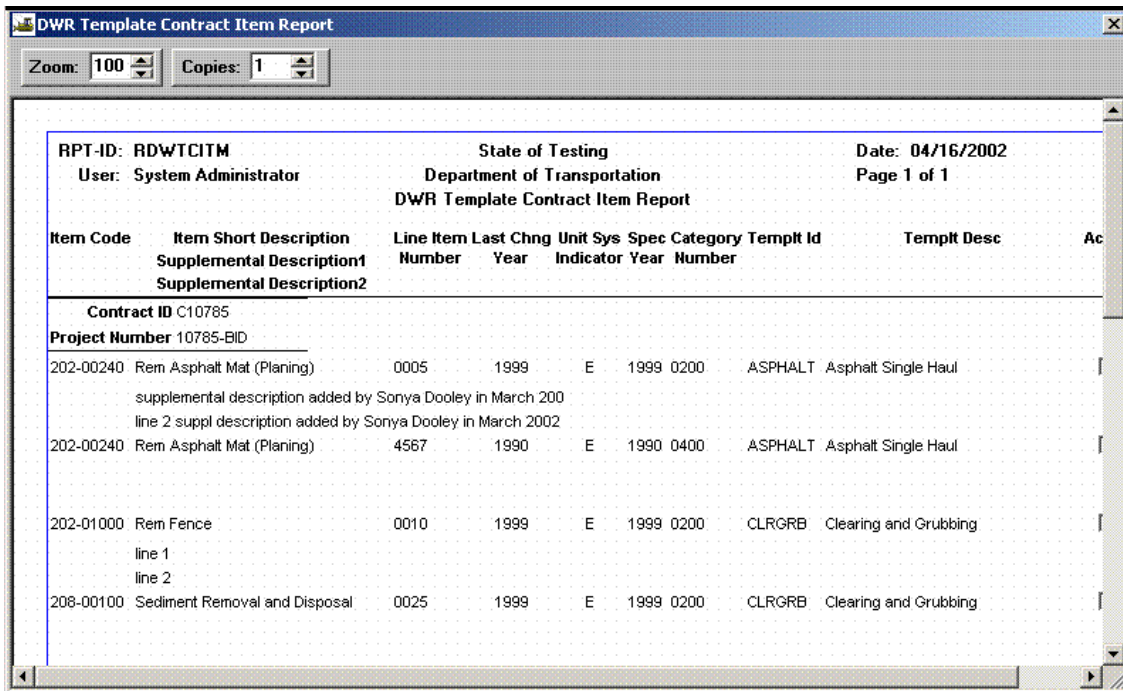
Figure 8-27. The DWR Template Contract Item Report Panel

8.4 Daily Diary

The project manager creates Daily Diaries. Each Diary is a daily collection of the authorized Daily Work reports submitted by all inspectors working on the contract. The project manager usually submits one Diary per day per contract. Diaries can also be created for days when no Daily Work reports are collected. The Diary panel has two folder tabs:

8.4.1 Diary Authorize

The Diary Authorize folder tab lets the project manager create a Diary, authorize or unauthorize Daily Work reports, and add remarks to the Diary. The project manager can also view and print Daily Work report previews.

8.4.2 Diary Charge

On the Diary Charge folder tab, the project manager reports the charge for the contract work for the day—Full Day, Half Day, or No Charge.
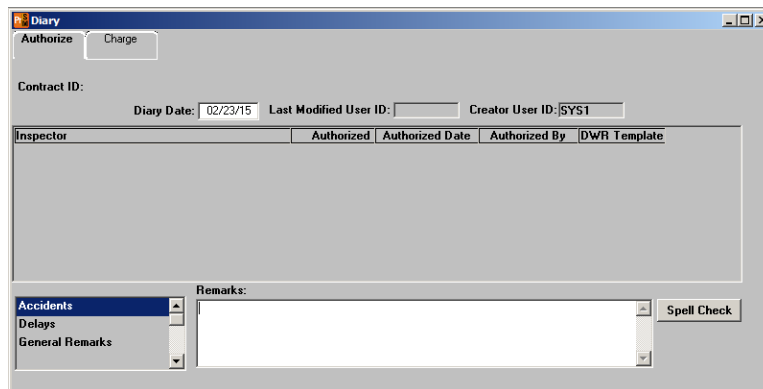
Figure 8-28. The Diary Authorize Folder Tab

8.4.3 Selecting a Diary

The Diary Select window lets an authorized user open a Diary.

Figure 8-29. The Diary Select Panel

To access the Diary Select panel:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. The Diary Authorize folder tab opens.

2. Click the **Open** button.

The fields on the Diary Select panel are defined in the following table:

Field Name	Description
DWR Date	The date of the Diary. This date represents both the Diary and the Daily Work reports that comprise the Diary.
Diary Locked Indicator	Indicates whether or not the Diary has been uploaded to the SiteManager Server (checked in).

Table 8-14. The Diary Select Panel Fields Table

To select a Diary:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. *The Diary Authorize folder tab opens*.

2. Click the **Open** button.

3. In the **Contract** list box, scroll to and double-click the desired contract.

4. In the **Diary** list box, scroll to and click the DWR Date of the Diary. (The DWR Date represents both the Diary and the Daily Work reports that comprise the Diary.)

5. Click **OK**.

8.4.4 Creating a New Diary

The Diary Authorize folder tab lets you create a Diary. You can create a Diary with or without Daily Work reports. Typically, the project manager creates a Diary from the Daily Work reports that have been submitted by the inspectors. To create a Diary, select a contract first, and then enter the Diary's date on the Diary Authorize panel. By entering the date, you are selecting the Daily Work Reports with this date and creating a Diary with this date. You can enter a date by selecting it from a calendar. If you double-click the Diary Date field, a calendar is displayed on which you can select the date.
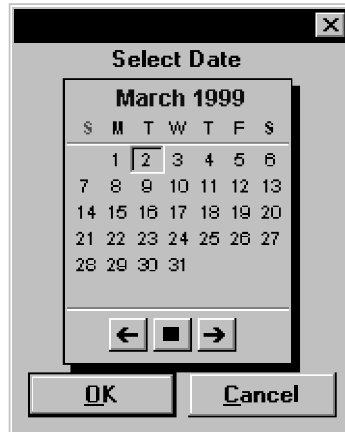
Figure 8-30. The Calendar

You cannot enter a date that is after the current system date.

After you select a date, the Diary Authorize folder tab lists the Daily Work reports submitted for the selected date. The reports are listed alphabetically by the name of the inspector who submitted the report. If a Diary has not already been saved for the selected date, a new Diary is created.
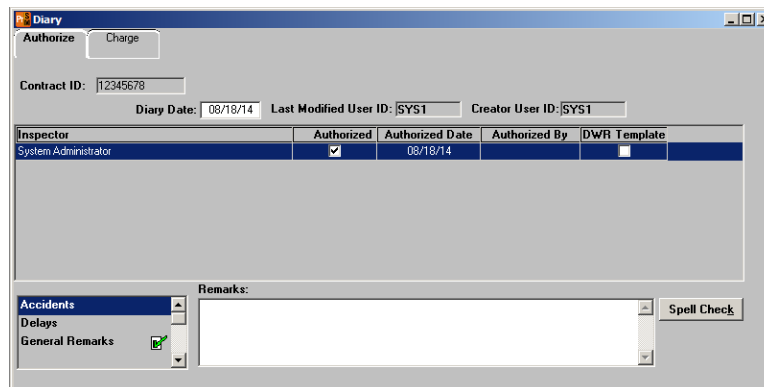
Figure 8-31. The Diary Authorize Folder Tab

The fields on the Diary Authorize folder tab are defined in the following table:

Field Name	Description
Inspector	The name of the inspector who created the Daily Work report. The author of a Daily Work report is the only person who can modify the Daily Work report.
Authorized	Indicates whether or not the Daily Work report has been authorized by the project manager. A check indicates that the Daily Work report is authorized. Authorization can be removed.
Authorized Date	The date the Daily Work report was authorized. When the project manager marks the Daily Work report as authorized, the system enters the current date. If the project manager removes authorization, the date is removed.
Preview	The Preview button on the toolbar displays a summary report of the selected Daily Work report.
Authorized By	The User ID who authorized the DWR.

Table 8-15. The Diary Authorize Folder Tab Fields Table

A Spell Check button is available in the Remarks area. The Spell Check option will be visible if the following are true:

- "Enable Spell Check Remarks" system operational parameter is set to yes.

- Microsoft Office is installed.

The Spell Check button will be enabled if the current window rights are set to 'Update' and the Diary is not locked or protected.

Microsoft Office must be installed for the spell check feature to be functional.

Once the Spell Check button has been clicked, the Microsoft Spell Checker will be called using the text entered in the Remarks field. The spell check will use the dictionary that is utilized by Microsoft Office applications, in addition to the custom dictionary, 'custom.dic'. The Spell Check function will allow for the addition of new words not in the current dictionary.
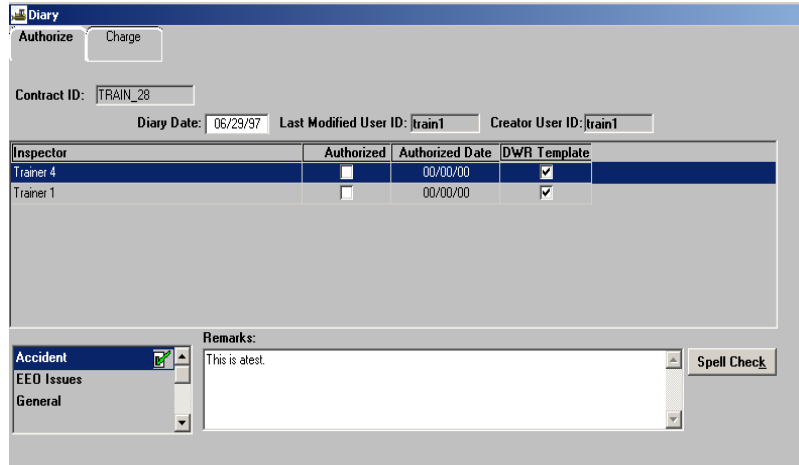
Figure 8-32. The Diary Authorize Folder Tab- Remarks Spell Check
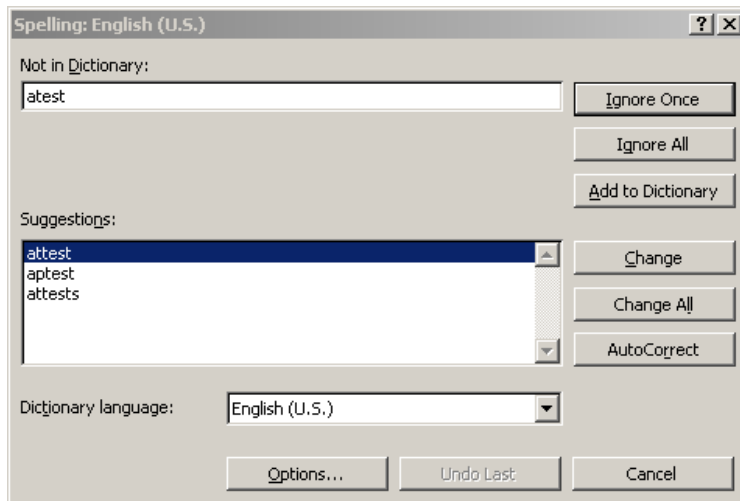
Figure 8-33. The Diary Authorize Folder Tab- Remarks Spell Checker

To create a new Diary:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. *The Diary Authorize folder tab opens*.

2. Click the **Services** menu and click the **Choose Keys** choice.

3. In the **Contract** list box, scroll to and click the desired contract.

4. Click **OK**. *The Diary Authorize folder tab lists the Daily Work Reports submitted for the current date*.

5. To change the date, double-click the **Diary Date** field. *This opens a calendar on which a date prior to the current date can be selected*. To select a prior month, click the left arrow. To enter the selected date, click **OK**.

6. To enter a remark, in the **Remark Type** list box, scroll to and click the remark type. Then, type the remark in the **Remarks** field.

7. Click on the **Remarks** button again. The remarks enter in previous step will open.

8. Click on the **Spell Check** button. Check spelling and close the Spell Check window.

9. Click the **Save** button.

10. Click **OK**.

8.4.5 Authorizing Daily Work Reports

The Diary Authorize folder tab lets the project manager authorize or unauthorize Daily Work reports. A Daily Work report with a check in the Authorized check box is considered authorized. When a Daily Work Report is marked as authorized, the system enters the current date in the Authorized Date field. You can remove authorization (and the authorized date) by removing the check from the Authorized check box. However, if the DWR has been sent to the server previously, the DWR cannot be unauthorized.

If the project manager chooses not to authorize a Daily Work report, you can transfer the report back to the inspector for modification using pipeline. Only the author of the Daily Work report (the inspector) can modify the Daily Work report. The Daily Work reports must be authorized before they can be uploaded (checked in) to the SiteManager Server database.

To authorize a Daily Work report:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. *The Diary Authorize folder tab opens*.

2. Click the **Open** button.

3. In the **Contract** list box, scroll to and double-click the desired contract.

4. In the **Diary** list box, scroll to and click the DWR Date of the Diary. (The DWR Date represents both the Daily Work Report Date and the Diary Date.)

5. Click **OK**. *The Diary Authorize folder tab displays the Daily Work Reports submitted for this date*.

6. In the **Inspector** list box, scroll to the inspector who submitted the Daily Work report to be authorized.

7. Click the **Authorized** check box (ON). *The system date is inserted into the Authorized Date field*.

8. Click the **Save** button.

You can unauthorize a Daily Work report by clicking the Authorized check box (OFF). When a Daily Work report becomes unauthorized, the system removes the authorized date.

8.4.6 Previewing Daily Work Reports and Diaries

The Preview option on the Diary panel lets you view and print a summary of a Daily Work report without leaving the Diary panel. Diaries may be printed with either all or with selected Daily Work reports. The Preview Diary, Preview Diary and All DWR, and Preview Diary and Selected DWR selections appear on the Services menu.

Previewing Daily Work Reports

To preview a Daily Work report:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. *The Diary Authorize folder tab opens*.

2. Click the **Open** button.

3. In the **Contract** list box, scroll to and double-click the desired contract.

4. In the **Diary** list box, scroll to and click the DWR Date of the Diary. (The DWR Date represents both the Daily Work Report Date and the Diary Date.)

5. Click **OK**. *The Diary Authorize folder tab displays the Daily Work reports submitted for this date*.

6. In the **Inspector** list box, scroll to and click the inspector who submitted the Daily Work report to be previewed.

7. Click the **Preview** button. *A summary report of the selected Daily Work report is displayed in a print preview window. You can either review the information on-line or print it*.

8. To close the print preview window, click the **Close** button.
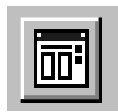
Figure 8-34. The Daily Work Report Preview Button

The Daily Work Report Preview capability is also available under the Services menu by choosing the Preview DWR choice or the key strokes, Cntrl+Shift+P.

Figure 8-35. The Daily Work Report Preview

The fields on the Daily Work Report Preview are defined in the following table:

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract.
Authorized	Indicates if the Daily Work report has been authorized by the project manager. Displays Yes if the Daily Work report has been authorized, No if it has not been authorized, or remains blank if no response has been entered.
Locked	Indicates if the Daily Work report is currently uploaded (checked in) to the project manager. Displays **Yes** if the Daily Work report has been checked in, **No** if the Daily Work report has been sent back to the inspector for correction, or remains blank if neither has occurred.
Paid	Indicates if the work reported on the Daily Work report has been paid for (Yes or No).
Inspector ID	ID of the user who created the Daily Work report.
High Temp.	The high temperature recorded for the work day.

Field Name	Description
Low Temp.	The low temperature recorded for the work day.
A.M. Condition	The significant weather condition for the morning.
P.M. Condition	The significant weather condition for the afternoon.
Work Items Installed	Tells if no work was completed (no work items installed) for this Daily Work report (Yes or No).
Contractors On Site	Tells if contractors were reported present on this Daily Work report (Yes or No).
Daily Staff On Site	Tells if daily staff were reported present on this Daily Work report (Yes or No).
Work Suspended Time	The Daily Work report date is captured when the project manager indicates that work is suspended on that day. Payrolls are not required for any payroll period when work is suspended; no work days are charged to the contract. The Work Suspended Date is added to the Contract Key Dates.
Work Resumed Time	The Daily Work report date is captured when the project manager indicates that work has been resumed on that day. Work cannot be resumed unless it has previously been suspended. The Work Resumed Date is added to the Contract Key Dates.
Remark Type	Denotes the type of remark and also doubles as a search field.
Remarks	Remarks entered on the Daily Work report. Each remark must have a remark type. A remark type can exist only once per Daily Work report, but multiple remark types can be recorded on each Daily Work report.
Contractor ID	Transportation agency-defined Vendor ID for the contractor.
Nbr. Of Supervisors	Number of supervisors reported present on the Daily Work report.
Nbr. Of Workers	Number of non-supervisory personnel reported present on the Daily Work report.
Hours Worked	Hours worked by the contractor reported on the Daily Work report.

Field Name	Description
Supervisors Name	Names of the contractor's supervisors reported on the Daily Work report.
Supervisor Hrs Worked	Number of hours worked by the supervisor reported on the Daily Work report.
Personnel Title	Title of workers reported as variable labor on the Daily Work report.
Variable Labor Qty	The number of workers of each title reported as variable labor on the Daily Work report.
Variable Labor Hrs Worked	Number of hours worked by each title reported as variable labor on the Daily Work report.
Equipment Description	Text description of the piece of equipment or a type of equipment reported on the Daily Work report.
Equipment Qty	Quantity of the equipment reported present on the Daily Work report.
Equipment Qty Used	Quantity of the equipment reported used on the Daily Work report.
Equipment Hrs Used	Number of hours the equipment was reported used on the Daily Work report.
Remarks	Remarks entered about the contractor.
Staff Member	The name of the staff member reported present on the Daily Work report.
Work Code	Transportation agency-defined code that identifies work activities, including sick time and vacation.
S/C	Indicates if the staff member is a consultant or an employee (C=Consultant or S=State Employee).
Reg Hrs	The number of regular pay hours worked for the time period.
OT Hrs	The number of overtime pay hours worked for the time period.
Vehicle ID	The license number or other identifying number for a state vehicle used by a staff member.
Start M/km	The beginning mileage for the vehicle for the day.

Field Name	Description
End M/km	The ending mileage for the vehicle for the day.
Line Item Nbr	The Contract Line Item number that identifies each item as it appears on the contract.
Description	A short description of the selected work item.
Supplemental Description	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Item Code	An agency-defined code used to identify a particular item.
Project Nbr	The unique identifier for the project.
Category	A grouping of items assigned during pre-construction.
Location	The location on the job where the item was installed.
Placed Qty	The quantity installed on the Daily Work report date. This quantity should represent what the inspector estimates as being eligible for payment.
Plan Pg Nbr	A reference to a specific plan page.
Measured	Indicates if a work item has been measured or not (Yes or No).

Table 8-16. The Daily Work Report Preview Fields Table

The Diary Preview DWR report optionally includes the remarks recorded for DWR contractor equipment, personnel, supervisors, and the daily staff.

Previewing Diaries

To preview a Diary:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. *The Diary Authorize folder tab opens*.

2. Click the **Open** button.

3. In the **Contract** list box, scroll to and double-click the desired contract.

4. In the **Diary** list box, scroll to and click the DWR Date of the Diary. (The DWR Date represents both the Daily Work Report Date and the Diary Date.)

5. Click **OK**. The Diary Authorize folder tab displays the Daily Work reports submitted for this date.

6. On the **Services** menu, choose Preview Diary. The Preview Diary print preview panel opens. The Diary report appears in a Print Preview window. You can either review the information online or print it.

7. To close the print preview window, click the **Close** button.

The Diary capability is also available with all DWRs or selected DWRs included under the Services menu by choosing the Preview Diary and DWR choice or the Preview Diary and Selected DWR choice.
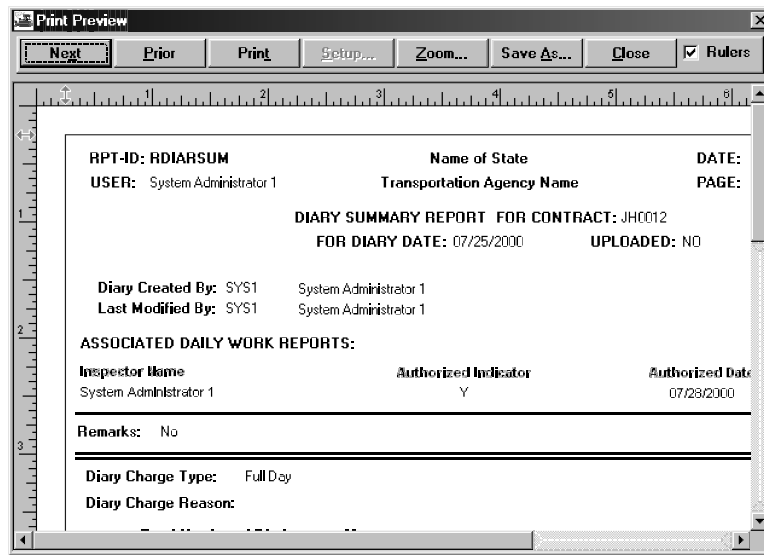
Figure 8-36. The Diary Report Window

8.4.7 Charge Days and No Charge Days

The Diary Charge folder tab lets you record charge or credit information for the day and enter remarks. Review the Daily Work reports in the Diary to determine if work was performed on the contract. If work was performed, a Full Day or Half Day charge can be applied to the contract end date. A No Charge (credit) day is a day on which no work was performed on the contract. For No Charge days, no time is applied towards the contract end date. For Half Days and No Charge days, you must enter a credit reason to explain why work was not done. You can also apply charge or credit information to milestones for the contract. For Half Days and No Charge days applied to a milestone, you must also enter a credit reason
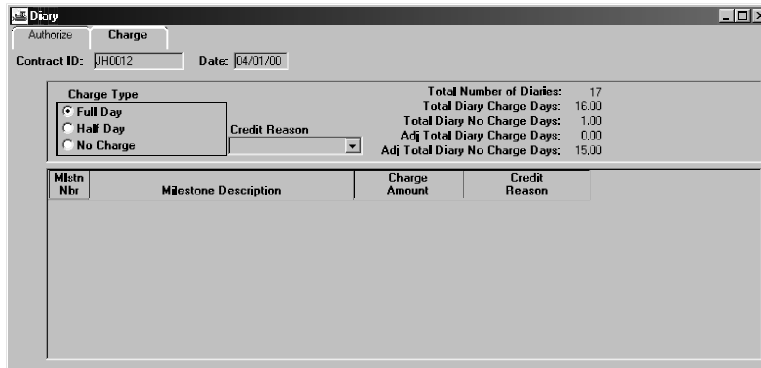
Figure 8-37. The Diary Charge Folder Tab

To access the Diary Charge folder tab:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. The Diary Authorize folder tab opens.

2. Click the **Open** button.

3. In the **Contract** list box, scroll to and double-click the desired contract.

4. In the **Diary** list box, scroll to and click the DWR Date of the Diary. (The DWR Date represents both the Diary and the Daily Work Reports that comprise the Diary.)

5. Click **OK**. The Diary Authorize folder tab lists the Daily Work reports submitted for the selected date.

6. Click the **Dairy Charge** folder tab.

The fields are defined in the following table:

Field Name	Description
Charge Type Full Day	Full day charge indicator for the Diary. When checked, a Full Day charge will be applied to the Diary.
Charge Type Half Day	Half day charge indicator for the Diary. When checked, a Half Day charge will be applied to the Diary. If this charge type is selected, a credit reason must be given.
Charge Type No Charge	No Charge day indicator for the Diary. When checked, a No Charge day will be applied to the Diary. If this charge type is selected, a credit reason must be given.
Diary Credit Reason	Transportation agency-defined reason for granting a credit day. A credit reason is only required if a charge type other than Full Day is used.

Field Name	Description
Total Number of Diaries	Total number of Diaries that exist for the contract.
Total Diary Charge Days	The Total Diary Charge Days field is the sum of all records that have Charge Type as Full Day or Half Day for the Diary.
Total Diary No Charge Days	The Total Diary No Charge Days field is the sum of all records that have Charge Type as No Charge or Half Day for the Diary.
Adj Total Diary Charge Days	The Adj Total Diary Charge Days field is the sum of previous total charge days and current total charge days for the contract.
Adj Total Diary No Charge Days	The Adj Total Diary No Charge Days field is the sum of previous total suspended days and current total suspended days for the contract.
Mlstn Nbr	Identifies the number of a milestone for the selected Contract.
Milestone Description	Description of a milestone for the selected Contract.
Milestone Charge Amount	Type of day credited (Full Day, Half Day, No Charge).
Milestone Credit Reason	Transportation agency-defined reason for granting a credit day for the milestone. It is only required if a charge type other than Full Day is used.

Table 8-17. The Diary Charge Folder Tab Fields Table

To enter charge data in a Diary:

1. On the **Daily Work Reports** panel, double-click the **Diaries** icon. *The Diary Authorize folder tab opens*.

2. Click the **Open** button.

3. In the **Contract** list box, scroll to and double-click the desired contract.

4. In the **Diary** list box, scroll to and click the DWR Date of the Diary. (The DWR Date represents both the Diary and the Daily Work reports that comprise the Diary.)

5. Click **OK**. *The Diary Authorize folder tab lists the Daily Work reports submitted for the selected date*.

6. To review a Daily Work Report, in the **Inspector** list box, scroll to and click a Daily Work report, then click the **Preview** button.

7. To enter charge data, click the **Dairy Charge** folder tab.

8. In the **Charge Type** field, click the radio button of the charge type to apply to the day for the contract.

9. If the charge type is Half Day or No Charge, in the **Credit Reason** drop-down list, click the expand arrow and click the reason for not charging all or part of the day.

10. To apply all or part of the charge or credit to a milestone, click the **Milestone** field and click the **New** button. An empty row is inserted.

11. In the **Milestone** drop-down list, click the expand arrow and click the milestone to apply the charge or credit to.

12. In the **Charge Amount** drop-down list, click the expand arrow and click Full Day, Half Day, or No Charge.

13. If Half Day or No Charge is entered as the Charge Amount for the milestone, in the **Credit Reason** drop-down list, click the expand arrow and click the reason for a credit.

14. Click the **Save** button.

8.5 Diary Adjustment Window

The Diary Adjustment window allows charge day adjustments to be applied for a day that has incorrect charge information recorded and applied by an approved estimate. The window is only available on the server. The window is comprised of two tabs. The first tab allows you to adjust the charge information for a Diary's day charge. The second tab allows you to adjust the charge information for Diary Milestones.

A Diary must be selected that has been recorded and included on a paid estimate. An existing adjustment cannot be deleted or updated. A new adjustment must be created. Since multiple adjustments can be made for a Diary and a Diary Milestone, a sequence number will automatically be assigned to each new adjustment. The Diary Adjustment window tracks sequence number, User ID, Charge Type, Credit Reason, Remarks, Update Date, and Estimate number.

Once an adjustment has been saved, it is ready to be processed by the next estimate which gets generated. If multiple adjustments are made that have not been included on a previous estimate, the last adjustment will be applied to the Diary or milestone only on the next estimate. The estimate process will update the Total Charge and the Total No Charge days on the contract, then update the adjustment records with the associated estimate number. Milestone Adjustments will be similarly posted against the Diary Milestone Information that has been recorded for that Diary.

8.5.1 Diary Adjustment Window Diary and Milestone Tab

Creating a Diary Adjustment

The Diary Adjustment Window Diary tab allows adjustments to charge days on a Diary associated with a paid estimate. The top of the window displays the current Diary charge information. The lower window displays the adjustments that have been made.
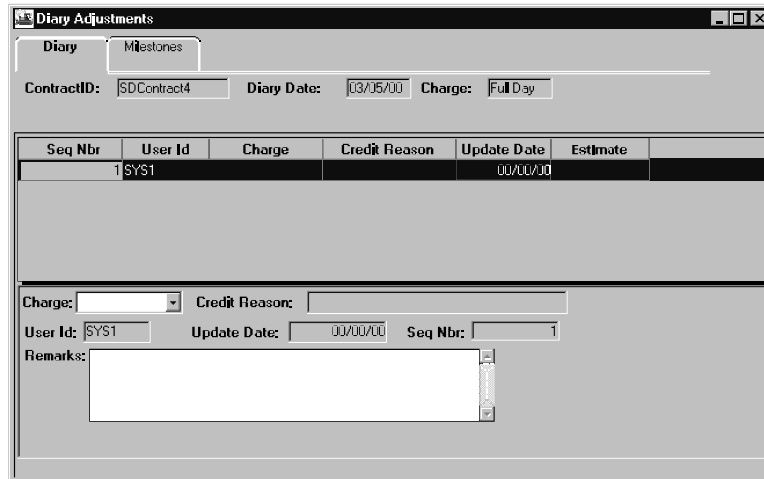
Figure 8-38. The Diary Adjustment Window

The fields are defined in the following table:

Field Name	Description
Contract ID	Transportation agency-defined ID for the contract associated with the Diary Adjustment.
Diary Date	Date of the Diary being adjusted.
Charge	Type of charge associated with the Diary. If work was performed, a Full day or Half day charge can be applied to the contract end date. If No Charge (credit) days is selected, no time is applied to the contract end date.
Seq Nbr	The system-entered sequence number that identifies the Diary Adjustment.
User Id	System-entered User ID of the user who entered the Diary adjustment.
Credit Reason	Transportation agency-defined reason for granting a Credit day. A credit reason is only required if a charge type other than Full Day is used.
Update Date	The system-entered date the Diary Adjustment was last updated.
Estimate	The system-entered estimate number on which the Diary Adjustment appears.
Remarks	User-entered information about the Diary Adjustment. Text can copied to this field using standard Windows copy and paste functionality. The copy and paste function is also available from the Edit option located on the SiteManager toolbar.

Table 8-18. The Diary Adjustment Window Fields Table

To create a new Diary adjustment:

1. On the Main Panel, double click the **Daily Work Reports** icon.

2. Double-click the **Diary Adjustment** icon.

3. In the **Contract list** box, scroll to and click the desired contract.

4. In the **Diary list** box, scroll and click the desired Diary.

5. Click the **New** button. A sequence number and User ID will display in the new row.

6. In the **Charge** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. If you select Half Day or No Charge from the drop-down list, the **Reason Code** must be entered. Click the expand arrow to the right of the current selection and click the desired choice.

8. Fill in the **Remark** field as appropriate and click **Save**.

- **Note:** The Charge drop down list will not display the current Diary charge value as a selection.

When the new adjustment is saved, the Charge, Credit Reason and Update Date will be updated. The Estimate field will remain blank until the next estimate gets generated. The estimate process will populate the adjustment records with the associated estimate number.
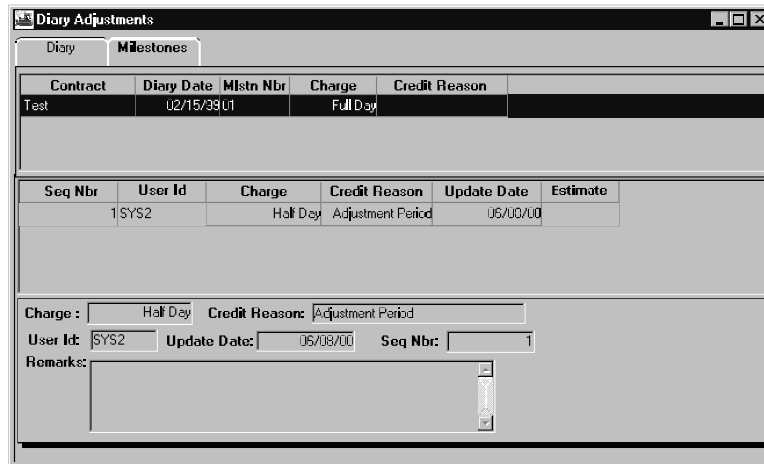
Figure 8-39. The Diary Adjustment Milestone Tab

Field Name	Description
Contract	The transportation agency defined ID of the contract.
Diary Date	Date of the Diary.
Charge	Type of charge associated with the Diary. If work was performed, a Full day or Half day charge can be applied to the contract end date. If No Charge (credit) days is selected, no time is applied towards the contract end date.
User ID	Identifies the person who created the adjustment.
Credit Reason	Transportation agency-defined reason for granting a credit day. A credit reason is only required if charge type is half day or no charge.

| Update Date | The date upon which the adjustment has been made. |
| Estimate | This field shows the associated estimate that updated the total charge and total no charge days on the contract. |

<p align="center">Table 8-19. The Diary Adjustment Milestone Tab Fields Table</p>

To create a new adjustment for Milestone on a Diary:

1. On the **Main-Panel**, double click on the **Daily Work Reports** icon.

2. Double-click the **Diary Adjustment** icon.

3. In the Contract list box, scroll to and click the desired contact.

4. In the Diary list box, scroll to and click the desired Diary.

5. Click on the **Milestone** tab.

6. Click the **New** button. A sequence number and User ID appears in the new row.

7. In the **Charge Days** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. If you select Half Day or No Charge from the drop-down list, the **Reason Code** must be entered. Click the expand arrow to the right of the current selection and click the desired choice.

9. Fill in the **Remark** field as appropriate and click **Save.**

*   **Note:** The Charge Days down list will not display the current Charge Reason value as a selection.

After the new Milestone Adjustment is saved, the Charge Days, Charge Reason, and the Update Date will be populated. The Estimate field will remain blank until the next estimate gets generated. The estimate process will populate the adjustment records with the associated estimate number.

8.6 DWR Reference Tables

8.6.1 DWR Master List

During the creation of Daily Work reports, contractor supervisors, and personnel types are selected from standard drop-down lists on the Contractor folder tab. Contractor equipment is similarly selected from a standard drop-down list on the Contractor Equipment folder tab. Transportation agency staff members are selected from a standard drop-down list on the Daily Staff folder tab.

The entries in these drop-down lists are first created on in the Vendor Master List. The entries in the Vendors Master List then have to be associated to specific contracts.

Staff members are unusual since they are State Transportation agency employee or consultants. They are added, modified and deleted to the *Vendor* Master List in the same way the other Master List entries are performed.

The DWR Master List is composed of two windows, the Vendor Master List and the Contract Master List. The Vendor Master List allows a user to maintain a centralized list of equipment, personnel types, supervisors and agency staff associated to a vendor. The Contract Master List is used to associate the Vendor Master List to specific contracts. A record on the Vendor Master List can be associated to multiple contracts.

The Vendor Master List and the Contract Master List are created and maintained on the server. The Contract Master List is piped down when Basic Contract Data is selected on the Server to PM pipeline screen. The Contract Master List is read-only in stand-alone mode. If changes need to be made, the Contract Master List must be corrected on the server and the Basic Contract Data piped down again to update the list on the stand-alone.

Vendor Master List

The Vendor Master List allows equipment, personnel types, supervisors, and agency staff members to be associated to a vendor. The top portion of the window displays the Vendor ID and allows selection of the lists to modify. The bottom portion of the screen displays the respective data for each list.
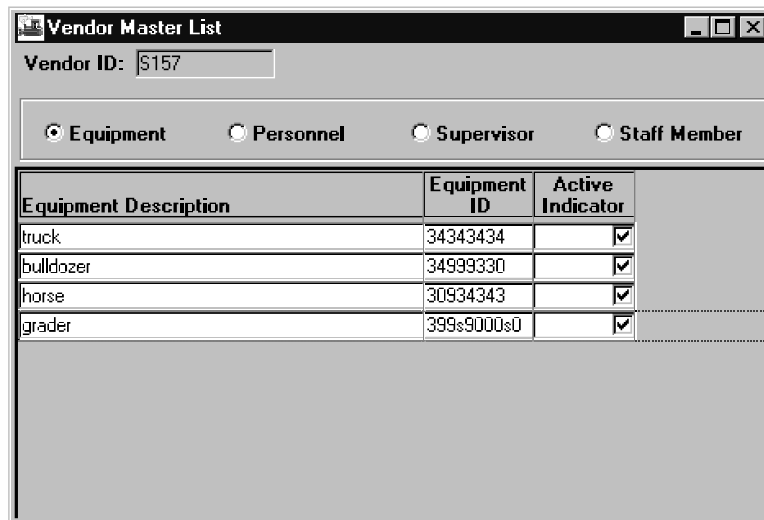
Figure 8-40. The Vendor Master List

The fields on the Vendor Master List panel are defined in the following table:

Field Name	Description

Field Name	Description
Equipment	Description of a piece of equipment or type of equipment.
Equipment ID	Identification of the equipment.
Active Indictor	Indicates if the record is active or inactive.
Personnel Type	Personnel type of non-supervisory workers.
Supervisor Name	Name of the supervisor.
Staff Member Name	Name of the state employee or consultant.
SSN/SIN	Social security number of the state employee or consultant.
S/C	S indicates a state employee. C indicates a consultant.

Figure 8-41. The Vendor Master List Fields Table

If a user deactivates an active record on the Vendor Master List, a warning message will appear. The message warns you that by deactivating a record on the Vendor Master List, the record will be deactivated for ALL contracts with which the record is associated.

If a user activates a record that had been deactivated on the Vendor Master List, you will have to go to each contract individually on the Contract Master List to mark the record as active.

The Equipment Radio button is the active radio button when you first enter the Vendor Master List. You can add, modify, delete, activate, or deactivate the vendor equipment on the Master Lists.

To add equipment to the Equipment Master List:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Reference Tables** icon.

3. On the Reference Tables panel, double-click the **Vendor Master List** icon.

4. On the **Vendor** list box, scroll to and double-click the desired vendor.

5. Click the **Equipment** radio button.

6. Click the **New** button. An empty row is added to the Equipment list.

7. Type the Equipment Description.

8. Press the **Tab** key.

9. Type the Equipment ID.

10. Click the **Active Indicator** check box (ON).

11. Click the **Save** button.

You can add, modify, delete, activate, or deactivate the Vendor Personnel Types on the Master Lists.

To add a personnel type to the Personnel Type Master List:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Reference Tables** icon.

3. On the Reference Tables panel, double-click the **Vendor Master List** icon.

4. On the **Vendor** list box, scroll to and double-click the desired vendor.

5. Click the **Personnel** radio button.

6. Click the **New** button. An empty row is added to the supervisor list.

7. Type the personnel type.

8. Press the **Tab** key.

9. Click the **Active Indicator** check box (ON).

10. Click the **Save** button.

11. Click the **Close** button.

You can add, modify, delete, activate, or deactivate the vendor supervisors on the Master Lists.

To add a contractor supervisor to the Master List:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Reference Tables** icon.

3. On the Reference Tables panel, double-click the **Vendor Master List** icon.

4. On the **Vendor** list box, scroll to and double-click the desired vendor.

5. Click the **Supervisor** radio button.

6. Click the **New** button. An empty row is added to the supervisor list.

7. Type the Supervisor Name.

8. Press the **Tab** key.

9. Click the **Active Indicator** check box (ON).

10. Click the **Save** button.

You can add, modify, delete, activate, or deactivate the transportation agency staff members on the *Vendor* Master List.

Once a Staff Member has been added to a specific Vendor's Master List that Staff Member becomes available for use in the Master List for ALL Vendors

To add a staff member to the Master List:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Reference Tables** icon.

3. On the Reference Tables panel, double-click the **Vendor Master List** icon.

4. On the **Vendor** list box, scroll to and double-click the desired vendor.

5. Click the **Staff Member** radio button.

6. Click the **New** button. An empty row is added to the supervisor list.

7. Type the staff member's name.

8. Press the **Tab** key.

9. Type the staff member's identification number.

10. Press the **Tab** key.

11. In the **S/C** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

12. Click the **Active Indicator** check box (ON).

13. Click the **Save** button.

14. Click the **Close** button.

Contract Master List

The Contract Master List allows the active equipment, personnel types, and supervisors on the Vendor's Master List to be associated to specific contract. Each contract can have one or more "approved" vendors. The Vendor Master List data of the prime contractor and any approved subcontractors will be available to associate with the contract.

Only the active equipment, personnel types, and supervisor associated with the vendor will be available to add to the contract. Staff members associated to any vendor will be available on ALL contracts.

Contract Master Lists are created on the SiteManager server. For the content to be available in standalone, the contract must be pipelined before the data will be available in the drop lists for equipment, personnel types, and supervisors on the DWR. The Contract Master List is piped down with basic contract data. No change to Contract Master List content is permitted in standalone.

The top portion of the Contract Master List displays the Contract ID and Vendor ID. Radio buttons allows a user to select the list to modify. The Vendor Master List displays only active records. The Contract Vendor List displays the records associated with the contract.
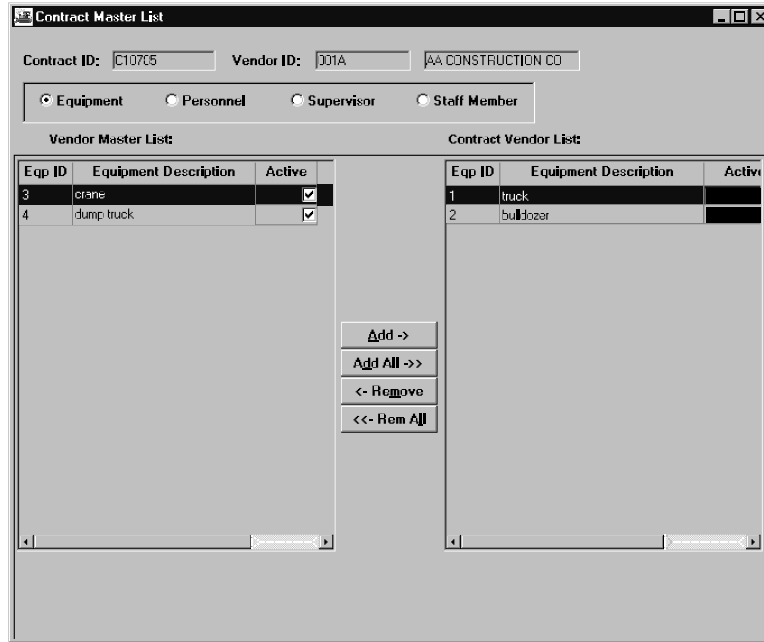
Figure 8-42. The Contract Master List

The fields on the Contract Master List panel are defined in the following table:

Field Name	Description
Contract ID	Transportation agency defined ID for the contract.
Vendor ID	Transportation agency defined ID for the vendor.
Equipment ID	Identifier for the piece of equipment.
Active Indicator	Indicates if the record is active or inactive.
Supervisor Name	Name of the supervisor.
Personnel Type	Personnel type of non-supervisory workers.
Staff Member Name	Name of the state employee or consultant.
SSN/SIN	Social security number of the state employee or consultant.
S/C	S indicates a state employee. C indicates a consultant.

Table 8-20. The Contract Master List Fields Table

If a user deactivates an active record on the Contract Master List, the record will be inactivated for the specific contract. The deactivated record will not be available to select from a drop-down list on a DWR until marked as active and the basic contract data is pipelined stand alone.

To associate equipment, personnel types, or supervisors on a Vendor Master List to a contract:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Reference Tables** icon.

3. On the Reference Tables panel, double-click the **Contract Master List** icon.

4. On the **Contract** list box, scroll to and double-click the desired contract.

5. On the **Vendor** list box, scroll to and double-click the desired vendor.

6. Click the **Equipment**, **Supervisor, Personnel, or Staff Member** radio button.

7. Click the **Add All** button to add all of the vendor master list data.

Or

8. Click the desired choice.

9. Click the **Add** button to a single choice.

10. Click the **Save** button.

11. Click the **Close** button.

ALL staff members associated with ANY vendor will be available for addition to the contract.

To associate Vendor Master List staff members to a contract:

1. On the **SiteManager** main panel, double-click the **Daily Work Reports** icon.

2. On the **Daily Work Reports** panel, double-click the **Reference Tables** icon.

3. On the Reference Tables panel, double-click the **Contract Master List** icon.

4. On the **Contract** list box, scroll to and double-click the desired contract.

5. On the **Vendor** list box, scroll to and double-click the desired vendor.

6. Click the **Staff Member** radio button.

7. Click the **Add All** button to add all of the Vendor Master List data.

Or

1. Click the desired choice.

2. Click the **Add** button to a single choice.

3. Click the **Save** button.

4. Click the **Close** button.

8.7 Daily Work Reports History

The Daily Work Reports History panel lets you run reports of Daily Work report records for the selected contract. To run history reports, you must select a contract when the History panel first opens and displays a selection list of contracts. The history reports display all report records for the selected contract by default. You can view the reports online or print the reports. The History panel has the following folder tabs:

- DWR History

- Work Item History

- Contractor History

To access the Daily Work Reports panel:

1. On the **Daily Work Reports** panel, double-click the **History** icon. *The Select Contract panel opens*.

2. In the **Contract** list box, scroll to and click the Contract ID.

3. Click **OK**. *The DWR History folder tab is displayed*.

8.7.1 DWR History

The DWR History folder tab displays a history of all of the Daily Work reports available to the current user. This report groups all the Daily Work reports by date and inspector, in descending order, from newest to oldest. Weather conditions, temperatures, and work suspended times are examples of the information shown on this report. You can view the report on-line or print the report.
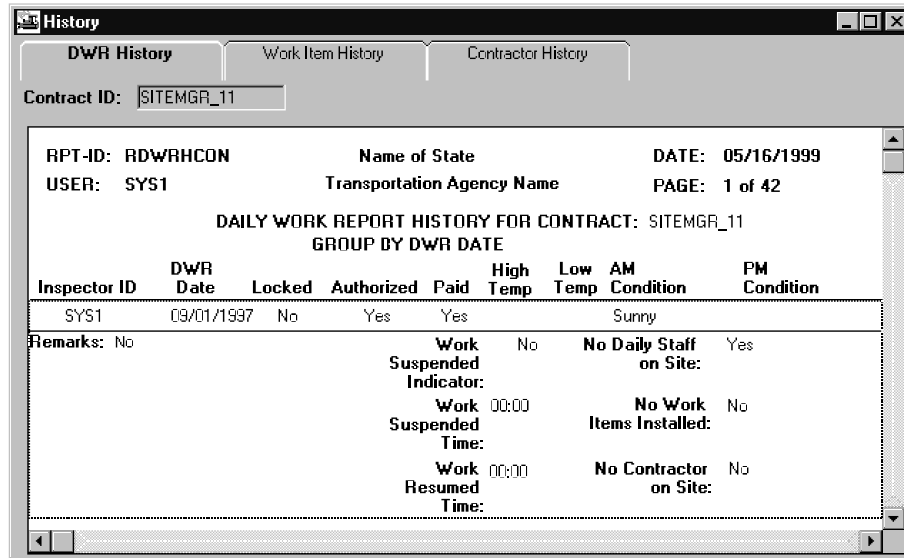
Figure 8-43. The Daily Work Report History

To run a DWR History report:

1. On the **Daily Work Reports** panel, double-click the **History** icon. *The Select Contract panel opens*.

2. In the **Contract** list box, scroll to and click the Contract ID.

3. Click **OK**. *The DWR History folder tab displays a history of all Daily Work Reports for the selected Contract*.

8.7.2 Work Item History

The Work Item History report displays a history of all work items recorded in the Daily Work reports for the selected contract. The work items are sorted in descending order, from newest to oldest. The contract must be selected from the contract selection list that appears when the History icon is clicked. You can view the report online or print it.
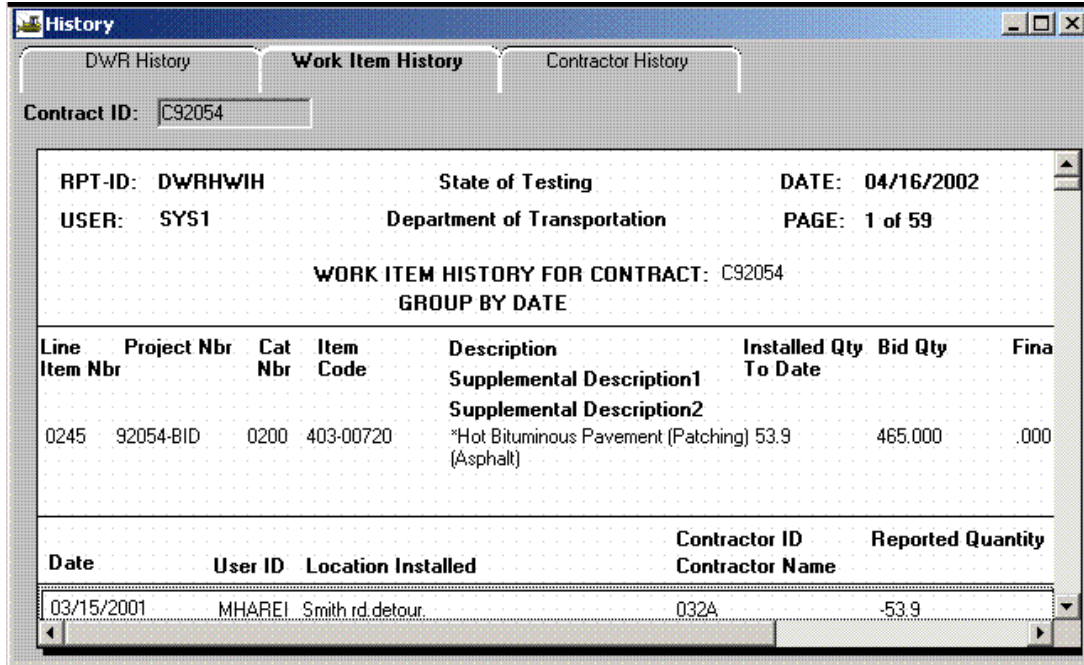
Figure 8-44. The Work Item History Tab

To run a Work Item History report:

1. On the **Daily Work Reports** panel, double-click the **History** icon. *The Select Contract panel opens*.

2. In the **Contract** list box, scroll to and click the Contract ID.

3. Click **OK**. *The DWR History folder tab displays a history of all Daily Work Reports for the selected Contract*.

4. Click the **Work Item History** folder tab. *The folder tab displays a history of all daily work item usage recorded for the selected Contract*.

5. To close the report, click the **Close** button.

8.7.3 Contractor History

The Contractor History folder tab displays three separate reports:

- Equipment History

- Supervisor History

- Variable Labor History

Each type of report can be selected using the appropriate icon or choice(s) under the Services menu.

The reports display the contractor history from the Daily Work Reports for the selected contract only. The contract must be selected from the contract selection list that appears when the History icon is clicked. The reports display records for all of the contractors by default. Data is grouped by contractor and sorted by DWR date in descending order from newest to oldest. You can view the reports online or print the reports.

The **Contractor Equipment History** report displays the daily equipment usage history for the current contractor(s), including the equipment description, the quantity present, the quantity used, and the number of hours used.

The **Supervisor History** report displays the supervisor names and the number of hours worked.

The **Variable Labor History** report displays the personnel types of the variable labor workers, the number of workers of each personnel type, and the number of hours worked.

Figure 8-45. The Contractor Equipment History

To run a Contractor History report:

1. On the **Daily Work Reports** panel, double-click the **History** icon. *The Select Contract panel opens*.

2. In the **Contract** list box, scroll to and click the Contract ID.

3. Click **OK**. The DWR History folder tab displays a history of all Daily Work reports for the selected contract.

4. Click the **Contractor History** folder tab. *The Contractor Equipment folder tab displays a history of equipment usage recorded for all Contractors for the selected Contract*.

5. To close the report, click the **Close** button.
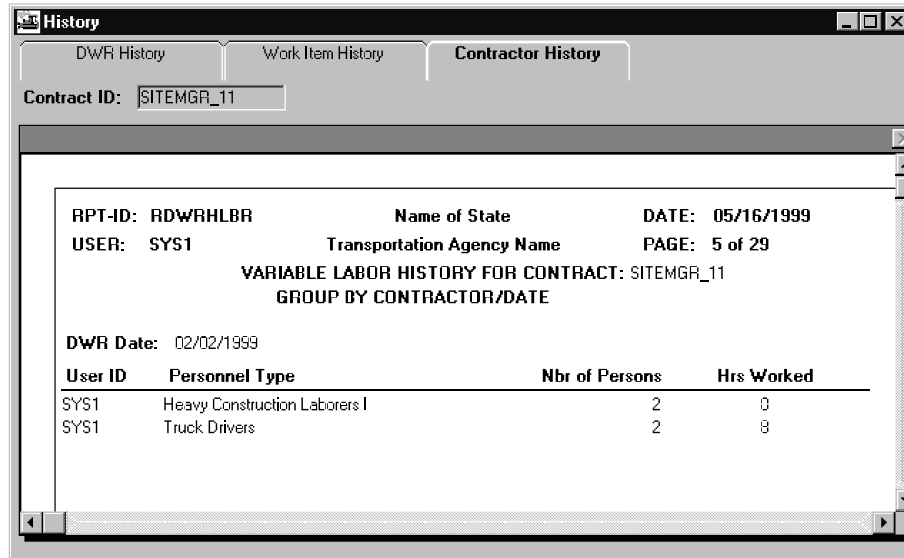
Figure 8-46. The Contractor History Toolbar Buttons

You can toggle between Contractor History reports by clicking the corresponding button on the toolbar. To view the Equipment History report, click the Equipment button. To view the Supervisor History report, click the Supervisor button. To view the Variable Labor History report, click the Variable Labor button. Only one report can be displayed at a time.

Figure 8-47. The Contractor Supervisor History

Figure 8-48. The Contractor Variable Labor History

9. Pipeline

The pipeline process transfers data files from one database to another. In SiteManager, the Project Manager uses the pipeline process to download data directly from the server's database to the standalone workstation's database, and to upload data directly from the standalone workstation's database to the server's database. Pipeline automates the data flow from the:

- Server to the Project Manager

- Project Manager back to the server

- SiteManager standalone version to SitePad

- SitePad to SiteManager standalone version

SiteManager provides the pipeline process because contract data must be downloaded and uploaded often during the life of a contract. In general, the data downloaded from the server is the contract plan data which is primarily the contract specifications. The data uploaded to the server is the contract activity data, which is the work done on the contract.

> 🗎 **Note:** If an agency has enabled SiteManager Laboratory Information Management System (LIMS) and would like to use the LIMS system in standalone mode, the basic contract data or materials reference data must first be downloaded to the user's local SiteManager database using the Server to PM window.

9.1 Pipeline Example

To begin working on a contract, the Project Manager or Inspector selects and downloads (checks out) the contract plan data from the server's database to the standalone workstation's database. If the Project Manager or Inspector will be collecting sample and test information in the field, they should also download the Materials reference data.

The Project Manager or Inspector records activity data (Daily Work reports or Sample and Test data) in standalone and then pipelines data to the Server (checks in).

The contract plan data cannot be modified in the field. However, the Project Manager and Inspector must have this data loaded in their standalone databases to generate Daily Work reports and other contract activity data. Most contract activity data is added to the contract on the server through the Daily Work report function. Some activity data requires the creation of force accounts and change orders, which are also added to the contract on the server. The transportation agency offices may also generate data. For example, new users could be added to the system.

As the contract data changes, the system notifies the Project Manager who can download the new data to update the standalone databases. The Project Manager can monitor the contract's pipeline activity on the Pipeline Information panel. The contract remains checked out until the Project Manager releases it back to the server.

9.2 Pipeline Panels

When logging on to SiteManager, the user connects to either the standalone database or the server database, depending on which pipeline function will be used.
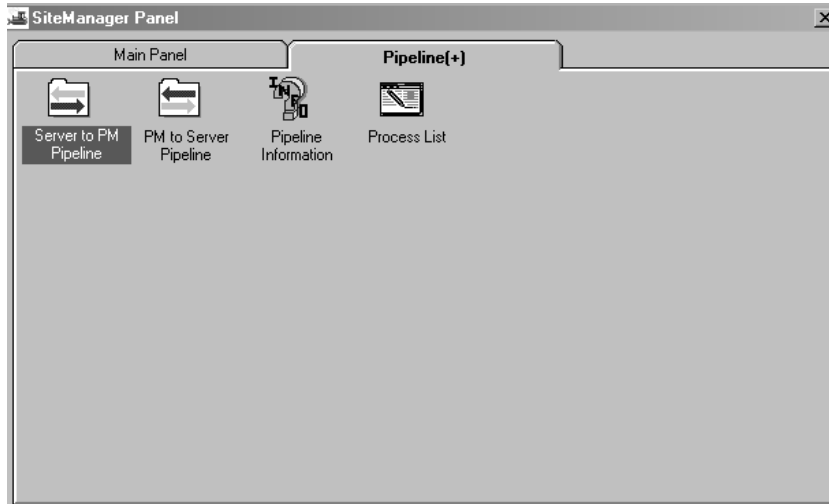
Figure 9-1. Pipeline Panel (PMs Server Connection)
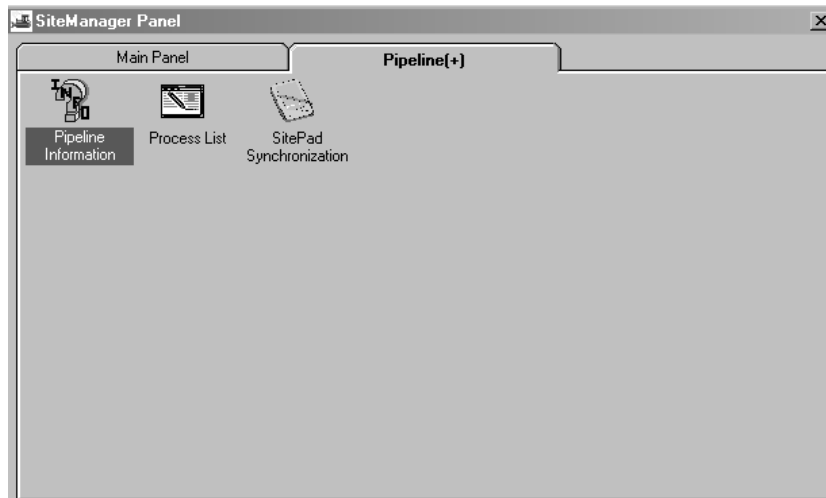
Figure 9-2. The Pipeline Panel (PM's Standalone Connection)

The following table shows how the Project Manager and Inspector use the pipeline panels to transfer contract data.

Step	Process	Pipeline Panel	Third-party component
1	The Project Manager selects and downloads plan data and user data from the server's database to the standalone workstation's database.	Server to PM Pipeline window	--
2	The Project Manager selects and uploads activity data from the standalone workstation to the server.	PM to Server Pipeline window	--
3	The Project Manager can view a history of pipeline activity.	Pipeline Information window	--

Table 9-1. The Pipeline Process Table

9.3 Server to PM Pipeline

The Server to PM Pipeline window lets the Project Manager or Inspector download (check out) data from the server's database to the standalone workstation's database. Materials data can be downloaded without selecting a contract. To download contract data from the server, the Project Manager or Inspector must first select a contract and then select the data to download, including diaries, Daily Work reports, change orders, or force accounts, by clicking a folder tab in the Server to PM Pipeline window. The folder tabs in the Server to PM Pipeline window are as follows:

- Pipeline Summary

- Diary Select

- DWR Select

- Change Order Select

- Force Account Select

- Users Select

When the Project Manager opens the Server to PM Pipeline window, a list of material categories defined by the agency for pipeline are displayed. The Project Manager will be able to select one or more material categories, and all the associated material data will be selected for the pipeline process to download.

To download basic contract data or materials data, the Project Manager or Inspector must select the Basic Contract Data checkbox or the Materials checkbox on the Server to PM Pipeline window. After the Project Manager has selected the data to download, the pipeline process is triggered by selecting the Pipeline Data menu option on the Services menu.

9.3.1 Server to PM Pipeline Summary

The Server to PM Pipeline Summary folder tab shows the number of Daily Work reports, diaries, change orders, and force accounts selected. To see which ones are selected, the Project Manager clicks the appropriate folder tab.

> 🗎 **Note:** If an agency has enabled the SiteManager Laboratory Information Management System (LIMS), an option to download LIMS reference data will be available on the Pipeline Summary tab. The materials reference data should be downloaded before the LIMS reference data due to dependencies. If an agency has not chosen to enable LIMS, the LIMS Reference Data will not be shown on this tab.
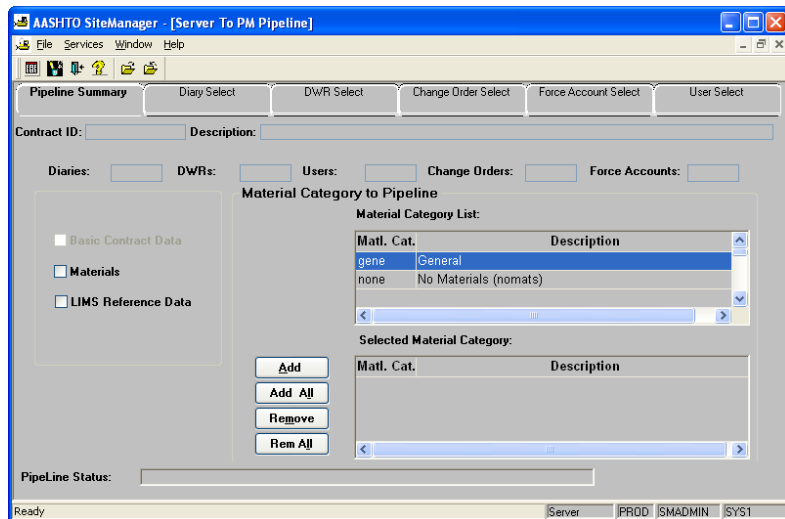
Figure 9-3 The Server to PM Pipeline Summary Folder Tab

Field Name	Description
Contract ID	This is the contract ID for which the data is downloaded.
Contract Description	This is the description of the contract for which the data is downloaded.
Basic Contract Data	This field indicates that the basic contract data is to be downloaded. If the Project Manager selects the Basic Contract Data check box, all of the contract data required to process the Daily Work reports, including change orders and force accounts, is downloaded to the Project Manager's workstation. The contract is updated on the server with a flag to indicate that the contract has gone to the field. The

Field Name	Description
	Check-In/Check-Out Log table on the server is updated with the Project Manager's user ID and the check-out date.
Diaries	This field indicates the number of diaries to be downloaded.
DWRs	This field indicates the number of Daily Work reports to be downloaded.
Materials	This field indicates whether materials data is to be downloaded. When the Project Manager selects the Materials check box, all of the reference data required to enter new material sampling and testing data is downloaded to the Project Manager's workstation. Materials data can be downloaded without selecting a contract.
Change Orders	This field indicates the number of change orders to be downloaded.
Force Accounts	This field indicates the number of force accounts to be downloaded.
Users	This field indicates the number of users for whom security and in-box data is downloaded.
Pipeline Status	Displays messages on the status of a pipeline process in progress.
LIMS Reference Data	If an agency has enabled LIMS functionality as part of SiteManager Materials, this option is available. This check box indicates whether LIMS Reference Data should be downloaded for use in Standalone mode. During the download, the relationships to Materials Reference data are checked and the user will be notified if the LIMS data download was partially successful.
Add	Adds the selected category from the Material Category List to the bottom Selected Material Category List.
Add All	Adds all of the categories from the top Material Category List to the bottom Selected Material Category List.
Remove	Removes the selected categories from the bottom Selected Material Category List.
Remove All	Removes all of the categories from the bottom Select Material Category List.

Table 9-2. The PM to Server Pipeline Summary Fields Table

9.3.2 Diary Select

The Diary Select folder tab lets the Project Manager or Inspector select diaries to download or upload. This folder tab is available on the following windows:

- Server to PM Pipeline

- PM to Server Pipeline

When the Project Manager clicks the Diary Select folder tab on the Server to PM Pipeline window, a list of diaries for the selected contract is displayed. The Project Manager selects one or more diaries to download. If the Project Manager selects a diary that is already downloaded, a warning is displayed. If the Project Manager selects a diary that has been downloaded by another Project Manager, an error message is displayed.

Checking out a diary that is included on an estimate whose status is INAP causes the estimate to become invalid.
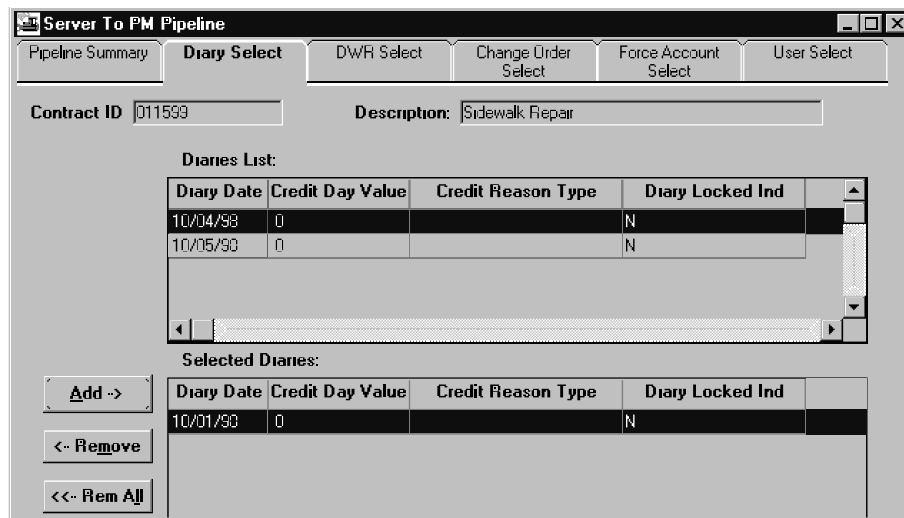
Figure 9-4. The Server to PM Diary Select Folder Tab

Field Name	Description
Contract ID	Transportation agency-defined ID of the contract
Contract Description	Description of the contract
DWR Date	Date of the Daily Work report
Credit Day Value	Number of credit days for the diary
Credit Reason Type	Reason for the credit
Locked	On the Server to PM Pipeline window, this field indicates that the diary is downloaded from the server (checked out). On the PM to Server Pipeline window, this field indicates that the diary is uploaded to the server (checked in).
Add button	Adds the selected diaries from the top datawindow to the bottom datawindow.

Field Name	Description
Remove button	Removes the selected diaries from the bottom datawindow.
Rem All button	Removes all of the diaries from the bottom datawindow.

Table 9-3. The Diary Select Folder Tab Fields and Buttons Table

9.3.3 DWR Select

The DWR Select folder tab lets the users select Daily Work reports to download or upload. This folder tab is available on the following windows:

- Server to PM Pipeline

- PM to Server Pipeline

When the Project Manager clicks the DWR Select folder tab on the Server to PM Pipeline window, the window displays a list of Daily Work reports for the selected contract. The Project Manager selects one or more Daily Work reports to download.

- If the selected Daily Work report is authorized, it can be downloaded as read-only. You will get a message stating DWR <date-user> has been authorized and only a read-only copy is available for check out. Do you want to check out? Yes or No. If you select a Daily Work report that you have downloaded before, you will receive the same message.

- If the selected Daily Work report is authorized and downloaded as read-only, the Daily Work report will not display on the pick list for PM to Server.

- If you select an unauthorized Daily Work report that is already downloaded by someone else, a message is displayed (Cannot be checked out, the DWR <date-user> is checked out by <user>. OK). You can check-out an authorized, read-only DWR that someone else has downloaded.

- 🖹 **Note:** Authorized DWRs checked out from the server cannot be checked back in. Therefore, authorized DWRs should not be unauthorized and modified in the local database.

When the selected Daily Work reports are downloaded, the Pipeline Information window on the server is updated with the Project Manager's user ID and the check-out date. The downloaded Daily Work reports are locked on the server, preventing update on the server.
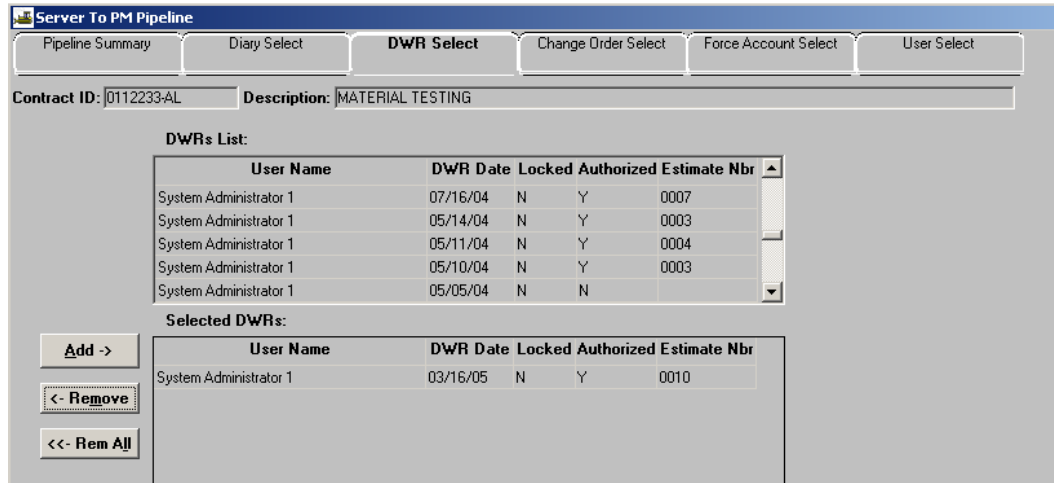
Figure 9-5. The Server to PM DWR Select Folder Tab

Field Name	Description
Contract ID	Contract ID of the contract
Contract Description	Description of the contract
User Name	Name of the Inspector who created the Daily Work report
DWR Date	Date of the Daily Work report
DWR Locked Ind	Indicates whether the Daily Work report can be modified on this workstation
Estimate Number	Estimate that includes the DWR
Add button	Adds the selected Daily Work reports from the top datawindow to the bottom datawindow.
Remove button	Removes the selected Daily Work reports from the bottom datawindow.
Rem All button	Removes all of the Daily Work reports from the bottom datawindow.

Table 9-4. The DWR Select Folder Tab Fields and Buttons Table

9.3.4 Change Order Select

The Change Order Select folder tab lets you select change orders to download. This folder tab is available on the Server to PM Pipeline window.

When the Project Manager clicks the Change Order Select folder tab on the Server to PM Pipeline window, a list of change orders is displayed. The Project Manager selects one or more change orders to download.
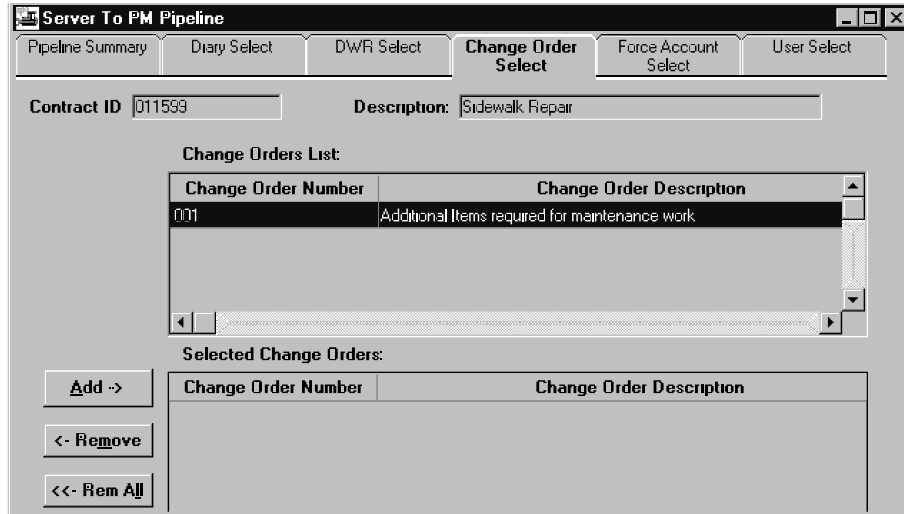
Figure 9-6. The Server to PM Change Order Select Folder Tab

Field Name	Description
Contract ID	This is the contract ID of the contract.
Contract Description	This is the description of the contract.
Change Order ID	This is the Change Order Identification code.
Change Order Description	This is the full description of the change order.
Add button	Adds selected change orders to the bottom datawindow.
Remove button	Removes selected change orders from the bottom datawindow.
Rem All button	Removes all change orders from the bottom datawindow.

Table 9-5. The Change Order Select Folder Tab Fields and Buttons Table

9.3.5 Force Account Select

The Force Account Select folder tab lets the Project Manager select force accounts to download. This folder tab is available on Server to PM Pipeline window.

When the Project Manager clicks the Force Accounts Select folder tab on the Server to PM Pipeline window, a list of force accounts is displayed.

The Project Manager selects the force accounts to download.
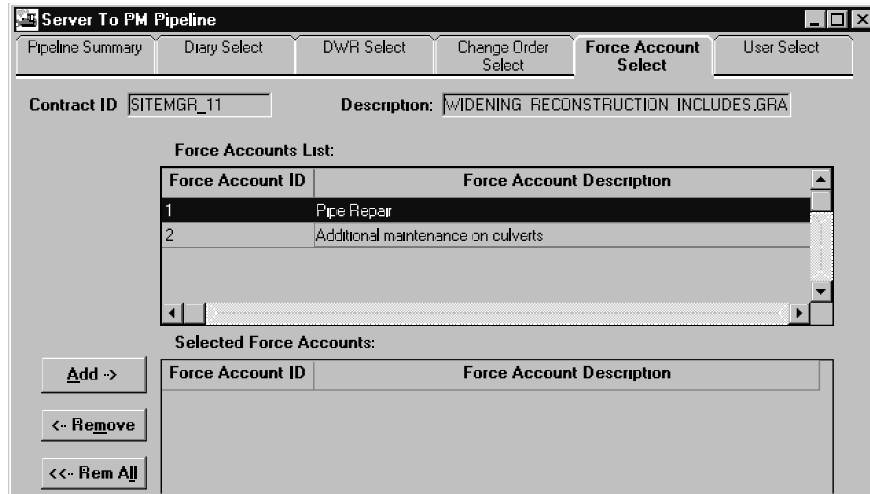
Figure 9-7. The Server to PM Force Account Select Folder Tab

Field Name	Description
Force Account ID	Force Account identification code.
Force Account Description	Description of the force account.
Add button	Adds the selected force accounts from the top datawindow to the bottom datawindow.
Remove button	Removes selected force accounts from the bottom datawindow.
Rem All button	Removes all force accounts from the bottom datawindow.

Table 9-6. The Force Account Select Folder Tab Fields and Buttons Table

9.3.6 Downloading Data from the Server

To download data from the server, the Project Manager uses the Server to PM Pipeline window.

When logging on to SiteManager, connect to the server database.

On the **SiteManager** main panel, double-click the **Pipeline** icon.

1. On the **Pipeline** panel, double-click the **Server to PM Pipeline** icon. The **Pipeline Summary** folder tab is displayed.

2. To select a contract, click the **Open** button.

3. In the **Contract ID** list box, scroll to and double-click the contract.

4. To download basic contract data, select the Basic Contract Data check box (ON).

5. To download materials data, select the Materials check box (ON).

6. To select diaries, click the **Diary Select** folder tab.

7. In the **Diaries** list box, select each diary to be downloaded.

8. Click the **Add** button. The selected diaries are added to the **Selected Diaries** list.

9. To select Daily Work reports, click the **DWR Select** folder tab.

10. In the **DWR** list box, select each Daily Work report to be downloaded.

11. Click the **Add** button. The selected Daily Work reports are added to the **Selected DWRs** list.

12. To select change orders, click the **Change Order Select** folder tab.

13. In the **Change Orders** list box, select each change order to be downloaded.

14. Click the **Add** button. The selected change orders are added to the **Selected Change Orders** list.

15. To select force accounts, click the **Force Account Select** folder tab.

16. In the **Force Accounts** list box, select each force account to be downloaded.

17. Click the **Add** button. The selected force accounts are added to the **Selected Force Accounts** list.

18. To select users, click the **User Select** folder tab.

19. In the **Users** list box, select each user ID to be downloaded.

20. Click the **Add** button. The selected user IDs are added to the **Selected Users** list.

21. Click the **Pipeline Summary** folder tab. The window displays the total number of change orders, force accounts, diaries, Daily Work reports, and users selected.

22. To download the selected data from the server, click the **Services** menu and click the **Pipeline Data** choice. The progress of the download is shown in the Pipeline Status field.

23. While Pipeline processes data, the system displays messages such as checking out data.

9.4 PM to Server Pipeline

The PM to Server Pipeline panel lets the Project Manager upload (check in) data from the standalone database to the server. When logging on to SiteManager, the Project Manager must connect to the server database. The pipeline process transfers the selected data directly from the Project Manager's standalone database to the server database.

To upload contract data to the server, the Project Manager must first select a contract and then select the data to upload, such as diaries, Daily Work reports, or Sample and Test data. Sample and Test data can also be uploaded without selecting a contract. The folder tabs in the PM to Server Pipeline panel are as follows:

- ▪ Pipeline Summary

- ▪ Diary Select

- ▪ DWR Select

- ▪ Sample and Test Select

To select basic contract data, the Project Manager selects the Basic Contract Data box on the PM to Server Pipeline panel. The contract must have been previously downloaded (checked out). The Project Manager selects Sample and Test data on the Sample and Test Select folder tab. The Project Manager selects diaries on the Diary Select folder tab. The selected diaries must be new or previously downloaded to the Project Manager's database. The Project Manager selects Daily Work reports on the DWR Select folder tab. After the Project Manager selects the data to upload, the pipeline process is triggered by selecting the Services menu Pipeline Data option.

> 📄 **Note:** If an agency has enabled the SiteManager Laboratory Information Management
> System (LIMS), Test results updated in the LIMS module in standalone mode will be
> uploaded with the Sample during the PM to Server upload process.

9.4.1 Pipeline Summary

The PM to Server Pipeline Summary folder tab shows the number of Daily Work reports, diaries, and samples selected. To see which ones are selected, the Project Manager can view the appropriate folder tabs. When the Project Manager selects the Services menu Pipeline Data option, the selected data is extracted from the standalone workstation.
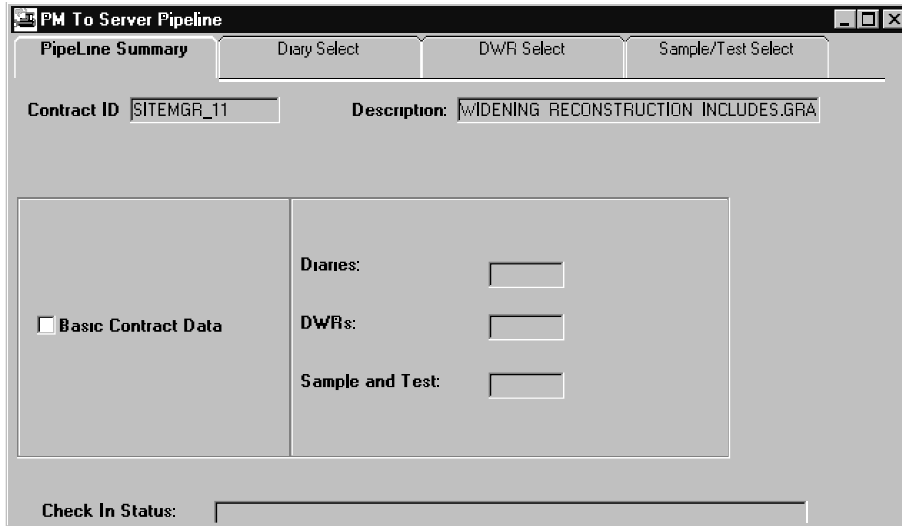
Figure 9-8. The PM to Server Pipeline Summary Folder Tab

Field Name	Description
Contract ID	Contract ID for which the data is uploaded.
Contract Description	Description of the contract for which the data is uploaded.
Basic Contract Data	Indicates that the Project Manager has released the contract. The basic contract data is not uploaded to the server, but a flag is uploaded indicating that the Project Manager has released the contract.
Diaries	Displays the number of diaries selected for upload.
DWRs	Displays the number of Daily Work reports selected for upload.
Sample and Test	Displays the number of samples selected for upload.
Check-Out Status	Displays status messages.

Table 9-7. The PM to Server Pipeline Summary Folder Tab Fields Table

9.4.2 Diary Select

The Diary Select folder tab lets the Project Manager select diaries to download or upload. This folder tab is available on the following panels:

- Server to PM Pipeline

- PM to Server Pipeline

When the Project Manager clicks the Diary Select folder tab in the PM to Server Pipeline panel, a list of diaries that have not been uploaded to the server is displayed. The Project Manager selects one or more diaries to upload.

9.4.3 DWR Select

The DWR Select folder tab lets you select Daily Work reports to download or upload. This folder tab is available on the following panels:

- Server to PM Pipeline

- PM to Server Pipeline

When the Project Manager clicks the DWR Select folder tab on the PM to Server Pipeline panel, the panel displays a list of Daily Work reports that have not been uploaded to the server. The Project Manager selects the Daily Work reports to upload. When the selected Daily Work reports are uploaded, the Check-In/Check-Out Log table on the Project Manager's workstation is updated with the Project Manager's User ID and the Check-In date. The uploaded Daily Work reports are locked in the Project Manager's database, preventing update on the Project Manager's workstation. If there is an OLE document associated with an uploaded Daily Work report, it is uploaded with the extracted data.

> 📄 **Note:** If you created a sample by navigating from the DWR Record Work Item tab while in standalone mode, thus linking the DWR and sample in the local database, then the sample should be uploaded along with the DWR. However, the DWR may be checked in prior to the sample and the link to the sample will not be available on the Server until the sample is checked in.

9.4.4 Sample and Test Select

The Sample and Test Select folder tab lets the Project Manager or Inspector select Sample and Test data. This folder tab is available on the PM to Server Pipeline panel.

When you click the Sample and Test Select folder tab, the panel displays a list of samples that have not been uploaded. Select the Samples to be uploaded. The samples that have already been uploaded are not displayed because they are locked (i.e., the sample's Lock Indicator is selected).

The Show all Samples menu option shows all of the samples in the workstation including the previously uploaded samples. This menu option can be used when the Inspector (or the Project Manager) has uploaded the samples, but the file was lost before reaching the Project Manager (or the server).

> 📄 **Note:** If you created a sample by navigating from the DWR Record Work Item tab while in standalone mode, thus linking the DWR and sample in the local database, then the DWR must be uploaded prior to or with the sample. The sample cannot be uploaded without the linked DWR checked in to the Server.

9.4.5 Uploading Data to the Server

To upload data to the server, the Project Manager uses the PM to Server Pipeline panel.

1. When logging on to SiteManager, connect to the server database.

2. On the **SiteManager** main panel, double-click the **Pipeline** icon.

3. On the **Pipeline** panel, double-click the **PM to Server Pipeline** icon. The Pipeline Summary folder tab is displayed.

4. To select a contract, click the **Open** button.

5. In the **Contract ID** list box, scroll to and double-click the contract.

6. To release the contract, select the Basic Contract Data check box (ON).

7. To select diaries, click the **Diary Select** folder tab.

8. In the **Diaries** list box, select each diary to be uploaded.

9. Click the **Add** button. The selected diaries are added to the **Selected Diaries** list.

10. To select Daily Work reports, click the **DWR Select** folder tab.

11. In the **DWR** list box, select each Daily Work report to be uploaded.

12. Click the **Add** button. The selected Daily Work reports are added to the **Selected DWRs** list.

13. To select Samples, click the **Sample/Test Select** folder tab.

14. In the **Samples** list box, select each Sample to be uploaded.

15. Click the **Add** button. The selected samples are added to the **Selected Samples** list.

16. Click the **Pipeline Summary** folder tab. The panel displays the total number of diaries, Daily Work reports, and samples selected.

17. To upload the selected data to the server, click the **Services** menu and click the **Pipeline Data** choice.

9.5 Pipeline Information

The Pipeline Information panel lets you view Pipeline information about Daily Work reports (DWRs), diaries, contracts, change orders, force accounts, and sample data. The Pipeline Information panel shows a history of Pipeline activity, such as when the data was downloaded and uploaded and by whom. The folder tabs on the panel are as follows:

- Samples

- Contract

- DWRs

- Diaries

- Change Orders

- Force Accounts

The Pipeline Information panel displays information that applies to the selected contract, except for the Samples folder tab, which lists all samples. When the user is connected to the server, the panel shows information on data uploaded and downloaded to and from the server. When the user is connected to the standalone database, the panel shows information on data uploaded and downloaded to and from the workstation.
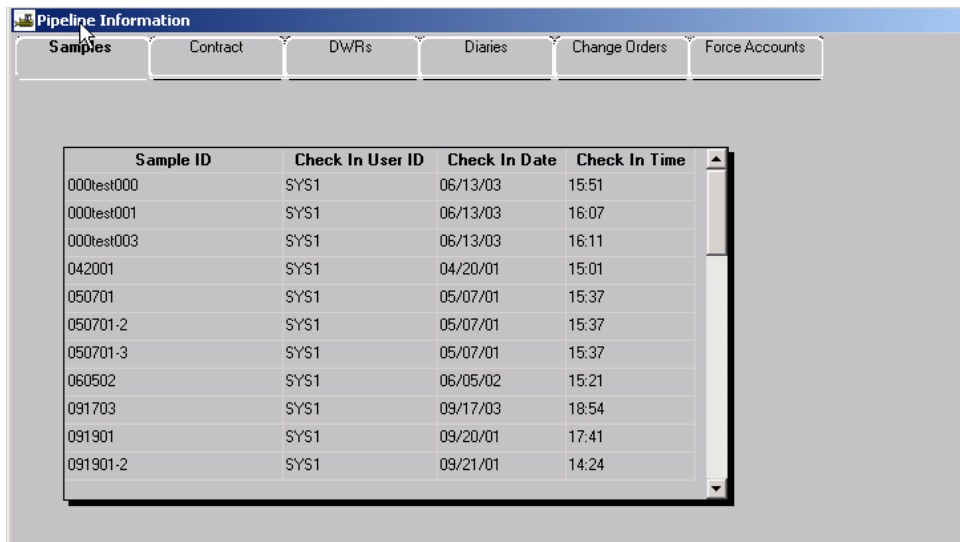
Figure 9-9. The Pipeline Information Panel

Field Name	Description
Contract ID	Contract ID for which Daily Work reports, diaries, change orders, and force accounts are displayed.
Check-Out Date	Date the data was downloaded.
Check-Out Time	Time the data was downloaded.
Check-Out User	User who downloaded the data.
Check-In Date	Date the data was uploaded.

Field Name	Description
Check-In Time	Time the data was uploaded.
Check-In User	User who uploaded the data.
Sample ID	ID of the sample that was uploaded.
DWR key	Date and user ID of the Daily Work report that was downloaded/uploaded.
Diary Date	Date of the diary that was downloaded or uploaded.
Change Order No.	Change order number of the change order that was downloaded or uploaded.
Force Account No.	Force account number of the force account that was downloaded or uploaded.

Table 9-8. The Pipeline Information Panel Fields Table

To view a history of Pipeline activity:

1. When logging on to SiteManager, to view information on data transferred to and from the server, connect to the server database. To view information on data transferred to and from the workstation, connect to the standalone database.

2. On the **SiteManager** main panel, double-click the **Pipeline** icon.

3. On the **Pipeline** panel, double-click the **Pipeline Information** icon. The Samples folder tab is displayed.

4. To select a contract, click the **Open** button.

5. In the **Contract ID** list box, scroll to and double-click the contract.

6. To view pipeline information for the selected contract, click the **Contract** folder tab.

7. To view pipeline information on Daily Work reports for the selected contract, click the **DWRs** folder tab.

8. To view pipeline information on diaries for the selected contract, click the **Diaries** folder tab.

9. To view pipeline information on force accounts for the selected contract, click the **Force Accounts** folder tab.

10. To view pipeline information on change orders for the selected contract, click the **Change Orders** folder tab.

9.6 Daily Work Report Applicability

Daily Work report data is transferred using Pipeline. To begin working on a contract, the Project Manager or Inspector must first download basic contract data from the server. Basic contract data includes all of the contract data required to process the Daily Work reports, including change orders and force accounts. After contract work is underway, the Daily Work reports are uploaded to the server. The Project Manager can download any Daily Work reports or diaries that are generated for the contract

The Project Manager or Inspector uses Pipeline to:

- Download contract plan data from the server

- Upload Daily Work reports to the server

The transfer of Daily Work reports typically proceeds as shown in the following table:

Step	Activity	Process
1	Download Basic Contract Data from the server	Before Daily Work reports can be generated, the Project Manager or Inspector must download basic contract data from the server using the Server to PM Pipeline panel. The Pipeline process loads the data directly into the user's standalone database.
2	Project Manager Inspector creates Daily Work reports	The user creates Daily Work reports to report the usage of labor, equipment, and materials on the contract.
3	Upload authorized Daily Work reports to the server.	The user uploads the Daily Work reports to the server using the PM to Server Pipeline.
4	Download change orders, force accounts, Daily Work reports, diaries, and new user data as needed	New data is added to the contract on the server only. The Project Manager or Inspector downloads new contract data as it becomes available. The new data updates the standalone database in the field. The Project Manager can also download Daily Work reports and diaries to make changes to them.
5	Release the Contract	When the contract work is done or when the work is reassigned, the Project Manager or Inspector uses Pipeline to release the contract back to the server.

Table 9-9. The Daily Work report Applicability Table

9.7 Materials Management Applicability

Materials data and Sample and Test data is transferred using Pipeline. This data may or may not be associated with a specific contract. Materials data is transferred in only from the server to the field. Materials data can be transferred from the server to the Project Manager or Inspector. It cannot be uploaded to the server. Sample and Test data is transferred in only from the field to the server. It cannot be downloaded from the server. To add Sample and Test data to SiteManager, the corresponding materials data must be downloaded first.

The flow of materials data and Samples and Test data typically proceeds as shown in the following table:

Step	Activity	Process
1	Download Materials data from the server	The Project Manager or Inspector downloads all materials data from the server by selecting Materials on the Server to PM Pipeline window. The materials data can be downloaded without selecting a contract. The pipeline process loads all materials data on the user's standalone database.
2	Test Inspector enters test results in SiteManager	The Test Inspector performs materials testing and enters the test results on SiteManager's Sample Information window. The Test Inspector enters both sample data and test data on the appropriate Materials Management panels for all samples. If a sample is for a contract, the Test Inspector also enters contract ID and line item information.
3	Upload Sample and Test to the server	The user uploads the Sample and Test data to the server using the PM to Server Pipeline.

Table 9-10. The Materials Management Applicability Table

9.8 SitePad Synchronization

The SitePad Synchronization window located in the Pipeline functionality of SiteManager's standalone mode allows synchronization between SitePad and SiteManager.

For information on collecting DWR information in SitePad, please refer to the SitePad Reference Guide.

When data is to be transferred to the handheld device, the synchronization process must first be used to create data records in a specific format used by SitePad. The process is completed when the user places the handheld device in the cradle and initializes the SitePad synchronization process. The

synchronization process will only download active equipment, supervisors, personnel and items for a contract. DWRs for the selected contract may also be downloaded.

The following table shows how the Project Manager and Inspector use the Pipeline panels to transfer data.

Steps	Process	Component	Pipeline Panel
Step 1	The Project Manager/Inspector selects and downloads: ▪ Contracts ▪ DWRs ▪ User IDs	SiteManager - Server Mode	Server to PM Pipeline window
Step 2	The Project Manager/Inspector selects and synchronizes: ▪ Contracts ▪ DWRs ▪ User ID	SiteManager - Standalone Mode	SitePad Synchronization window
Step 3	The Project Manager/Inspector uses the data on the handheld to record data, and checks the DWR for upload.	SitePad	--
Step 4	The Project Manager/Inspector synchronizes the data to the SitManager standalone database.	SiteManager - Standalone Mode	SitePad Synchronization window
Step 5	The Project Manager/Inspector selects and uploads activity data from the standalone workstation to the server	SiteManager - Server Mode	PM to Server Pipeline window

Table 9-11. The SiteManager to SitePad Synchronization Overview Table

9.8.1 SiteManager to SitePad Synchronization

The process of downloading and uploading data between SiteManager and SitePad has been simplified by the addition of a SitePad Synchronization window, located in the Pipeline panel in standalone mode of SiteManager.

The process has been designed to be as similar to the Pipeline process as possible for ease of use.
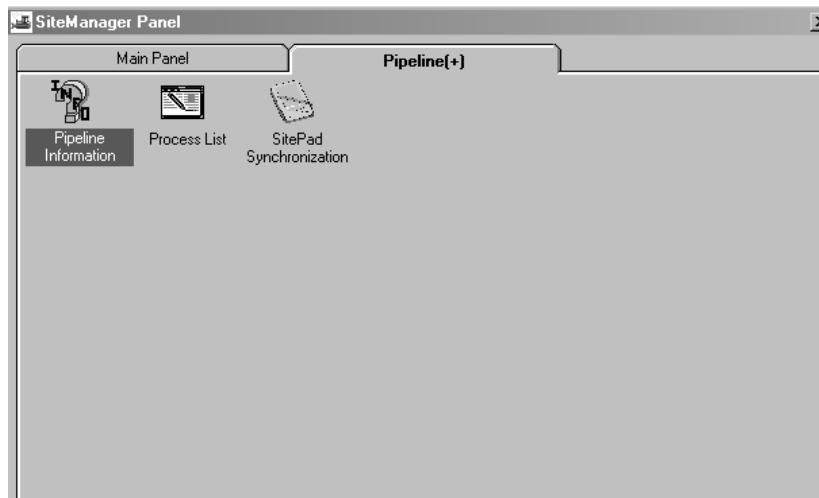
Figure 9-10. The Pipeline Panel (Standalone Mode)

To navigate to the SitePad Synchronization window:

1. From the SiteManager Main Panel, click the **Pipeline** icon, and click the **SitePad Synchronization** icon.

Using the SitePad Synchronization Process in SiteManager

The SitePad Synchronization process converts data from the SiteManager database to a format that may be used by the handheld device. In order for SiteManager data files to be downloaded into SitePad, the data must first be chosen by the user and converted to the appropriate SitePad file structure.

Once the files have been converted, the synch status line notifies the user that the database files have been created.
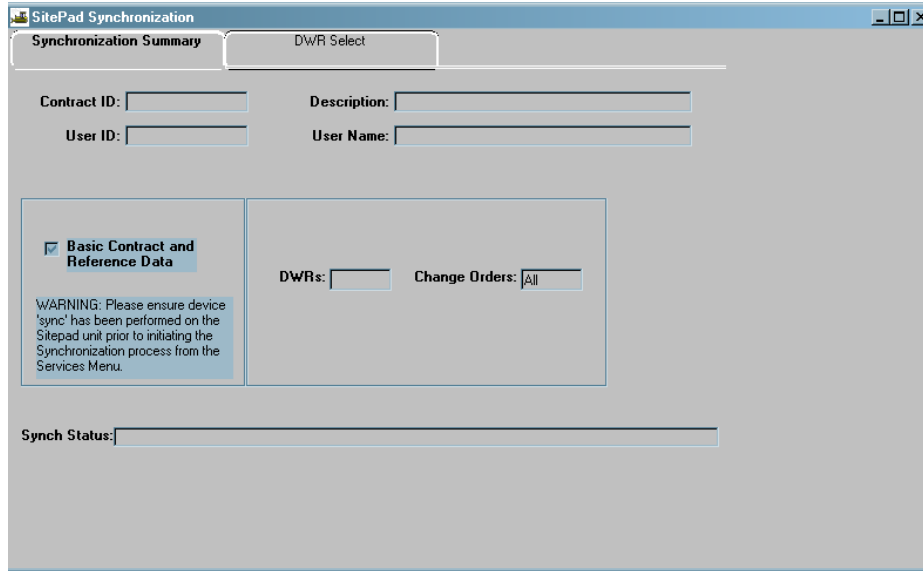
Figure 9-11. The SitePad Synchronization Window Synchronization Summary Tab

The fields for the SitePad Synchronization Window Synchronization Summary tab are described in the following table:

Field Name	Field Description
Contract ID	Protected. The contract identification number to be synchronized
Description	Protected. The contract description corresponding to the contract ID.
User ID	Protected. The user identification string to be synchronized.
User Name	Protected. The user name corresponding to the user ID.
Basic Contract and Reference Data	If this indicator is selected (ON), then existing contract, Reference, Security and DWR files from the user's folder will be refreshed with the latest data.
DWRs	Protected. This field indicates the number of DWRs being synchronized.
Change Orders	Protected. This field is set to All if Regenerate Basic Contract Data is selected (ON).
Synch Status	Protected. This field gives the user real-time status information during the actual synch process.

Table 9-12. The SitePad Synchronization Window Synchronization Summary Tab Fields Table
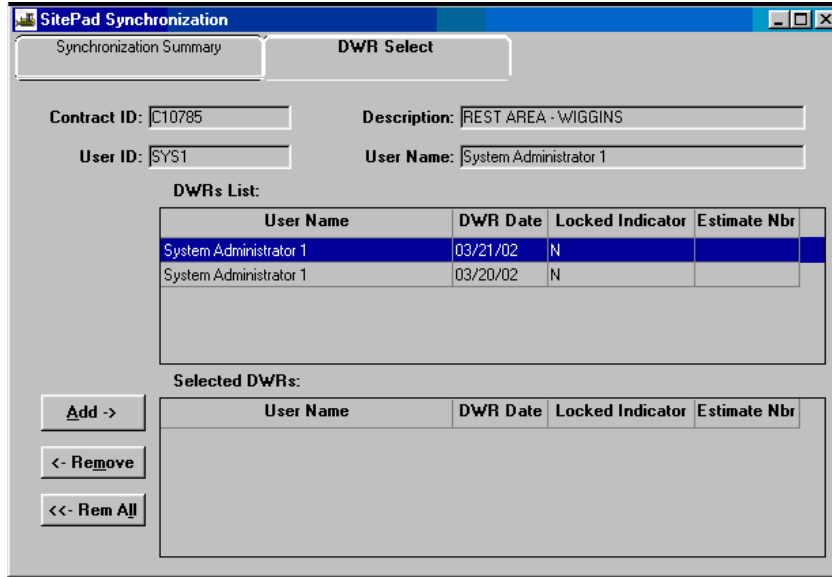
Figure 9-12. The SitePad Synchronization Window DWR Select Tab

The fields for the SitePad Synchronization Window Synchronization DWR Select tab are described in the following table:

Field Name	Field Description
Contract ID	Protected. The contract identification number to be synchronized
Description	Protected. The contract description corresponding to the contract ID.
User ID	Protected. The user identification string to be synchronized.
User Name	Protected. The user name corresponding to the user ID.
DWR User Name	Protected. The user name for the DWR user ID.
DWR Date	Protected. The DWR date for the listed DWR.
DWR Locked Indicator	Protected. The indicator is ON if the DWR has already been checked out.
Estimate Nbr	Protected. The estimate number (if any) for the listed DWR.
Add (button)	Adds the selected DWRs to the Selected DWRs list. The selected DWRs will be synchronized with the SitePad database.
Remove (button)	Removes the selected DWRs from the Selected DWRs list. The removed DWRs are transferred to the DWRs List. The removed DWRs are not synchronized with the SitePad database

Field Name	Field Description
Remove All (button)	Removes all DWRs from the Selected DWRs list. The removed DWRs are transferred to the DWRs List. The removed DWRs are not synchronized with the SitePad database.

Table 9-13. SitePad Synchronization Window Synchronization DWR Select Tab Fields

To convert SiteManager data to SitePad data:

1. From the **SiteManager** Main Panel, click the **Pipeline** icon, and click the **SitePad Synchronization** icon.

2. Click the **Open** button and double-click the desired contract from the pick list, then click the desired user.

3. If desired, click the **DWR Select** folder tab and choose the desired DWRs for use in SitePad, then click the **Add** button.

4. Click the **Synchronization Summary** tab.

5. Click the **Services** menu and click the **SitePad Synchronization** choice.

10. Contractor Payments

The Contractor Payments component of SiteManager is one of the most calculation intensive and complex segments of the SiteManager application. The Estimate Generation process performs extensive, complex calculations (more completely documented in Appendix C and D).
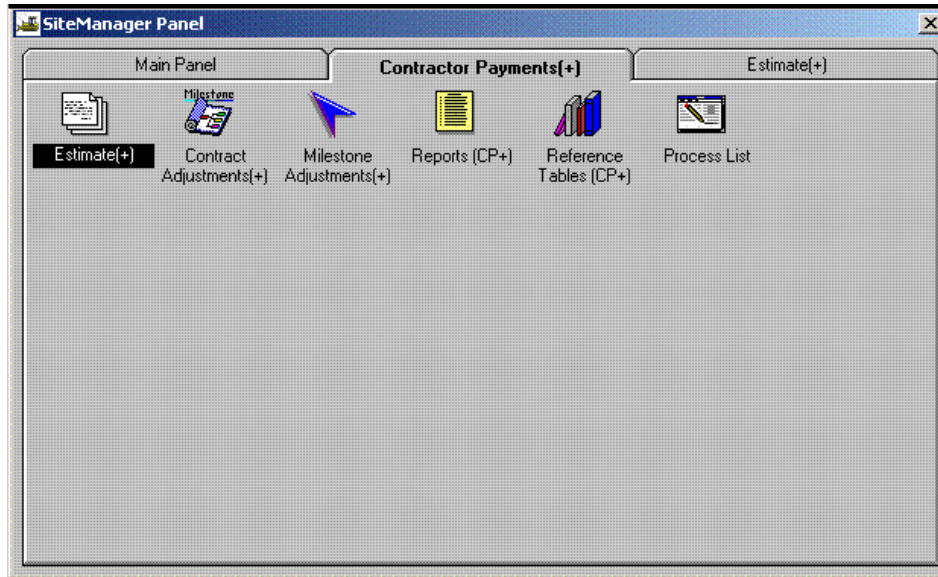
Figure 10-1. The Contractor Payments Panel

To perform Contractor Payment activities:

1. On the **Main Panel**, double-click the **Contractor Payments** icon.

2. Double-click the icon of the desired Contractor Payments component.
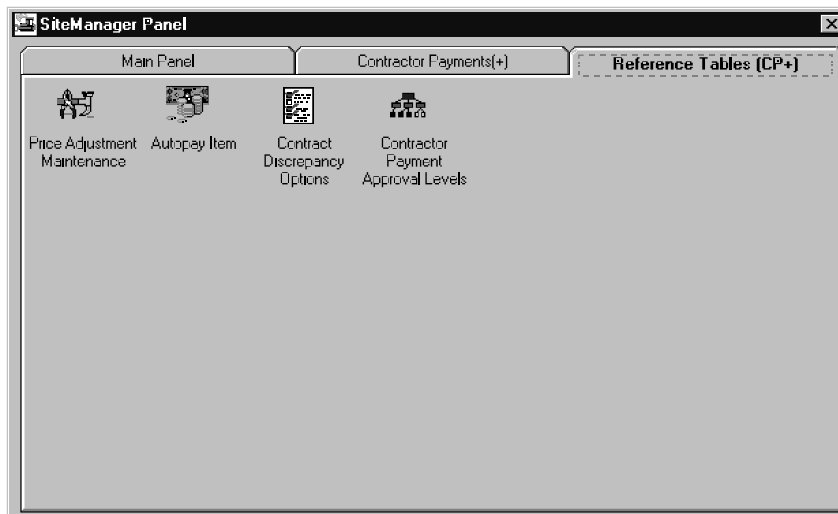
Figure 10-2. The Contractor Payments Reference Table (CP) Panel

10.1 Reference Tables (Contractor Payments)

The Reference Tables for Contractor Payments that must be maintained are:

- Price Index Maintenance,

- Autopay Item,

- Contract Discrepancy Options, and

- Contractor Payment Approval Levels.

To maintain Contractor Payments Reference Tables:

1. On the **Contractor Payments** panel, double-click the Reference Table (CP) icon.

2. Double-click the icon of the desired Contractor Payments reference table.

10.1.1 Price Index Maintenance

Price Index tables are used in the calculation of line item adjustments (e.g., fuel adjustments) during the Estimate generation process. The methods of calculation used by the system for Price Indexes are detailed in Appendix E. The Price Index components that must be maintained are:

- Description,

- History, and

- Adjustment.

To maintain Price Index:

1. On the **Reference Table (CP)** panel, double-click the Price Index Maintenance icon.

2. Click the desired folder tab.

Field Name	Description
Price Index	Identifies the specific price index used by an item.
Price Index Description	Text description of the price index.
Unit	Unit of measure used for the index.

Field Name	Description
Threshold Percent	If the percentage change between the adjustment for the item and the original price of the item is less than or equal to this value, no adjustment is made in the payment process. The percentage difference between the original item cost and the adjusted cost must be greater than this threshold percent to take the index into account. This is a required field. For example, if the Threshold Percent is set to 5.0%, Base Price = $1.059/gal, Current Price = $1.179/gal, and the Price Index Record in Item Price Table = 17.0m Index Factor = .17 the Quantity to be paid this estimate period = 4,500.00. The percent of price change = 10.18%
Remarks	Optional Remarks for the record.
Price Index Date	Date the Price Index is valid. (History)
Value This Date	Valid Value for the Price Index. (History)
Spec Year	The year of the specification book in which the item appears. (Adjustment)
Item Code	An agency defined code used to identify a particular item. (Adjustment)
Adjustment Type	Code that is used to identify the type of adjustment being made. (Adjustment)
Item Quantity Percent	The percentage of the quantity of this index in relation to the item. (Adjustment)
Unit Value Quantity	The quantity of this index per unit value, where unit value is set to $1000. (Adjustment)
Threshold Pct	If the percentage change between the adjustment for the item and the original price of the item is less than or equal to this value, no adjustment is made in the payment process. The percentage difference between the original item cost and the adjusted cost must be greater than this threshold percent to take the index into account. (Adjustment)

Table 10-1. The Price Index Reference Table Fields Table

Price Index Maintenance Description Tab

The Description folder tab, the default folder tab for Price Index Maintenance, allows the price index description to be created, accessed, updated, or deleted. Accessing the Price Index Description tab is a necessary step before selecting either of the other two folder tabs of the Price Index Maintenance

window. Before a Price Index can be deleted, all of the history and adjustment records for the index must be deleted first.

Figure 10-3. The Description Folder Tab

Field Name	Description
Price Index	Identifies the specific index used by an item
Description	Description of index.
Unit	Unit of measure used for the index.
Default Threshold Pct	If the percentage change between the adjustment for the item and the original price of the item is less than or equal to this value, no adjustment is made in the payment process. The percentage difference between the original item cost and the adjusted cost must be greater than this threshold percent to take the index into account.

To add a new price index:

1. Type the price index entry.

2. Press the **Tab** key.

3. Type a description of the item to be assigned a price index.

4. Press the **Tab** key.

5. Type the unit of measure for the index (up to four characters).

6. Press the **Tab** key.

7. Type the threshold percent.

8. If Remarks are desired, click the **Remarks** button.

9. Type the remarks for the price index item.

10. Click **OK**.

11. Click the **Save** button.

To modify an existing price index:

1. On the **Description** folder tab, click the **Open** button.

2. In the **Price Index** list box, scroll to and click the desired choice.

3. Click **OK**.

4. In the desired field, select the current entry and type the new entry.

5. When completed, click the **Save** button.

To delete an existing price index:

1. Delete all price index history and price index adjustment records.

2. On the **Description** folder tab, click the **Open** button.

3. In the **Price Index** list box, scroll to and click the desired index.

4. Click **OK**.

5. Click the **Delete** button.

6. Click the **Yes** button (to confirm the deletion).

Price Index History

The Price Index History is used to access, add, modify, or delete the history of price indices. Before the History can be accessed, the correct price index record must be selected on the Description folder tab.
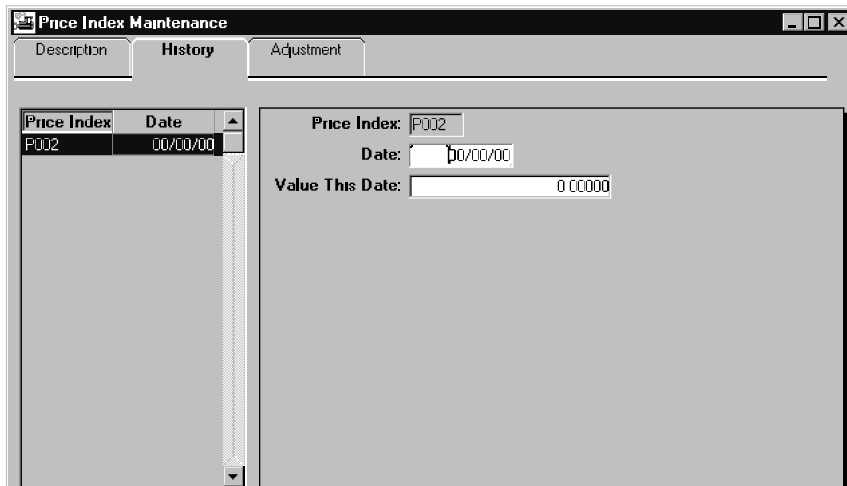
Figure 10-4. The Price Index History Window

Field Name	Description
Price Index	Identifies the specific index used by an item. This is a protected field.
Date	Date the Price Index is valid. This is a required field.
Value This Date	Valid Value for the Price Index. This is a required field.

To add a new price index history:

1. On the **History** folder tab, click the **New** button.

2. Type the date.

3. Press the **Tab** key.

4. Type value as of the date.

5. Click the **Save** button.

To modify an existing price index history:

1. On the **History** folder tab in the list box, scroll to and click the desired record.

2. In the desired field, select the current entry and type the new entry.

3. Click the **Save** button.

To delete an existing price index history:

1. On the **History** folder tab in the list box, scroll to and click the desired record.

2. Click the **Delete** button.

3. Click the **Yes** button (to confirm the deletion).

Price Index Adjustment Tab

The Price Index Adjustment tab is used to access, add, or modify price adjustments. Before a price adjustment can be accessed, the correct price index record must be selected on the Description folder tab.

To add a new price adjustment, the first four fields are inactive until the correct key is chosen. Once the key is chosen, the additional fields for the price adjustment can be added.
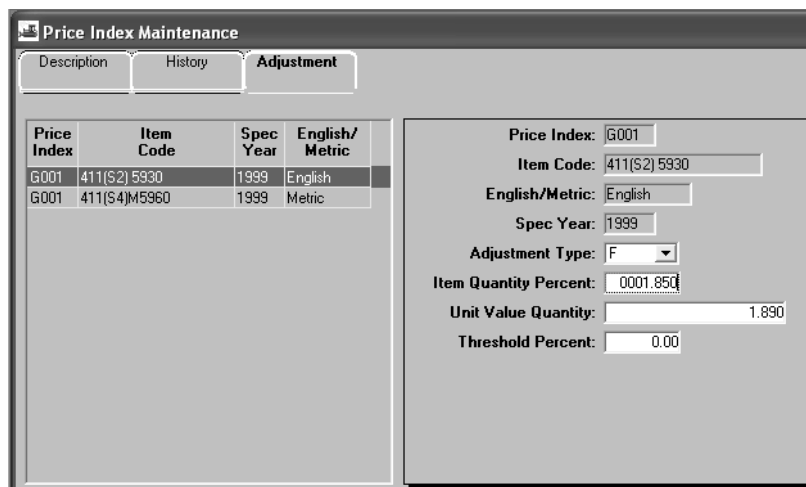
Figure 10-5. The Price Index Adjustment Tab

Field Name	Description
Price Index	Identifies the specific index used by an item.
Item Code	An agency-defined code used to identify a particular item.
English/Metric	Indicates whether the item is measured in English or metric units.
Spec Year	The year of the specification book in which the item appears.
Adjustment Type	Code that is used to identify the type of the adjustment being made.
Item Quantity Percent	The percentage of the quantity of this index in relation to the item.

Field Name	Description
Unit Value Quantity	The quantity of this index per unit value, where unit value is set to $1000.
Threshold Percent	If the percentage change between the adjustment for the item and the original price of the item is less than or equal to this value, no adjustment is made in the payment process. The percentage difference between the original item cost and the adjusted cost must be greater than this threshold percent to take the index into account

To add a new price adjustment:

1. Using the right mouse button, click the **Item Code** field.

2. From the object menu, click the **Search** choice.

3. In the list box, scroll to and click the desired **Item Code**.

4. Press the **Tab** key twice.

5. Using the right mouse button, click the **Spec Year** field.

6. From the object menu, click the **Search** choice.

7. In the list box, scroll to and click the desired **Spec Year**.

8. Click **OK**.

9. In the **Adjustment Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. In the **Item Quantity Percent** field, type the correct percentage.

12. Press the **Tab** key.

13. In the **Unit Value Quantity** field, type desired unit value.

14. Press the **Tab** key.

15. In the **Threshold Percentage** field, type the correct percentage.

16. Click the **Save** button.

To modify an existing price adjustment:

1. On the **Adjustment** folder tab in the list box, scroll to and click the desired record.

2. In the **Adjustment Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

3. Press the **Tab** key.

4. In the **Item Quantity Percent** field, type the correct percentage.

5. Press the **Tab** key.

6. In the **Unit Value Quantity** field, type desired unit value.

7. Press the **Tab** key.

8. In the **Threshold Percentage** field, type the correct percentage.

9. Click the **Save** button.

To delete an existing price adjustment:

1. On the **Adjustment** folder tab in the list box, scroll to and click the desired record.

2. Click the **Delete** button.

3. Click the **Yes** button (to confirm the deletion).

4. Click the **Save** button.
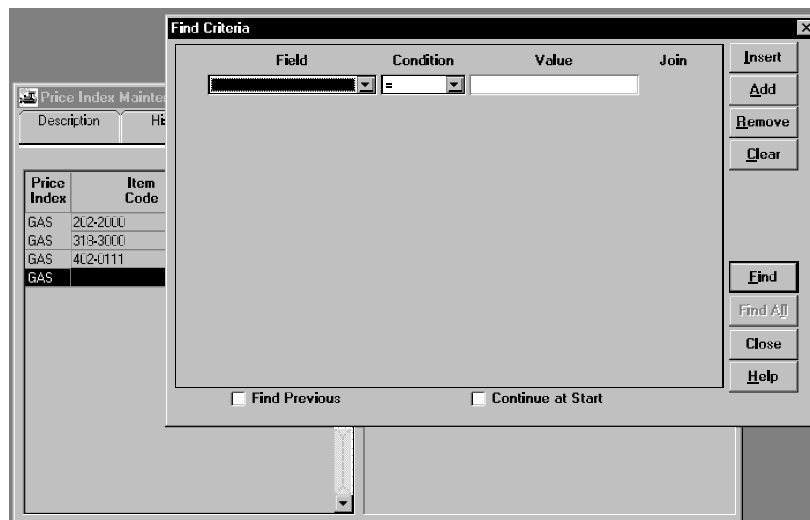
Figure 10-6. The Price Index Adjustment Tab with the Find Dialog

10.1.2 Autopay Maintenance

The Autopay Maintenance window is used to access, add, or modify automatically paid items. The data in the Autopay reference table is used in calculating line item payments during Estimate Generation. When adding a new Autopay item, the keys must be chosen before data may be entered

into the first four fields on the left datawindow. The user must have administrator rights to be able to access, add, or modify Autopay items. A series of Autopay parameters may be set up for the same item.

Autopay is calculated by the percentage of all work installed. It covers items that are not normally reported over the life of the contract. In general, Autopay items are generally items such as mobilization and traffic control. Autopay items are usually not reported on Daily Work Reports as installed quantities, but are paid automatically by SiteManager once a pre-determined percentage of installed work has been reached. If part of an Autopay item's quantity is reported as installed, SiteManager will make up the difference in the total amount paid on the Autopay item once a trigger point has been reached.

Autopay items are listed on the Summary By Project report in the Other Adjustments category. The Autopay item appears on the report, but without a dollar value, unless an installed quantity is reported.

Figure 10-7. The Autopay Item Window

Field Name	Description
Item Code	The code used to identify a particular item.
Item Description	The text description of the item.
Spec Year	The year of the specification book in which the item appears.
Percent Complete Threshold	The percent of work completed on an item before the autopay comes into effect. Percent Complete takes into account all installed work - DWRs approved and unapproved, authorized or unauthorized. When this percent is reached, it triggers payment of the amount designated in either the Maximum Percent Paid field or

Field Name	Description
	Percent of Quantity Paid field - whichever is less. Percent Complete Threshold, Maximum Percent Paid, and Percent of Quantity Paid are all cumulative amounts.
Percent Complete Basis	One of two basis percentages on which to determine the Contract percent complete. COXA: Original contract items amount. CCXA: Current Contract amount = original contract items plus change order items. Note that neither of these amounts include Autopay items. The code table from which this field is populated may have additional user-added entries. User-added entries have the default basis of CCXA and cannot be changed.
Percent Of Quantity Paid	The percent of quantity to be paid when the work completed on an item is equal or greater than the Percent Complete Threshold. This amount is calculated as percent * current total paid thus far into the contract.
Maximum Contract Amount Paid	The maximum dollar value which was paid for a Contract. This amount is calculated as percent * contract amount.

Table 10-2. The Autopay Reference Table Fields Table

To have SiteManager always pay the specified amount in the Percentage of Quantity Paid field, enter 100 percent in the Maximum Percent Paid field.

To modify an existing autopay item:

1. On the **Reference Table (CP)** panel, double-click the **Autopay Item** icon.

2. Scroll to and click the desired record.

3. In the **Percent Complete Threshold** field, type the correct percentage.

4. Press the **Tab** key.

5. In the **Percent Complete Basis** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

6. Press the **Tab** key.

7. In the **Maximum Percent Paid** field, type the correct percentage.

8. Press the **Tab** key.

9. In the **Percent of Quantity** field, type correct percentage.

10. Click the **Save** button.

To add an autopay item:

1. On the **Reference Table (CP)** panel, double-click the **Autopay Item** icon.

2. Click the **New** button.

3. Click the **Services** menu and click the **Choose Keys** choice.

4. In the **Item** list box, scroll to and double-click the desired Item Code.

5. In the **Spec Year** list box, scroll to and click the desired spec year.

6. Click **OK**.

7. In the **Percent Complete Threshold** field, type the correct percentage.

8. Press the **Tab** key.

9. In the **Percent Complete Basis** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. In the **Maximum Percent Paid** field, type the correct percentage.

12. Press the **Tab** key.

13. In the **Percent of Quantity** field, type correct percentage.

14. Click the **Save** button.

To delete an existing autopay item:

1. On the **Reference Table (CP)** panel, double-click the **Autopay Item** icon.

2. Scroll to and click the desired record.

    Or

3. Perform a **Find** using the object menu (referenced in the Getting Started section).

4. Click the **Delete** button.

5. Click the **Yes** button (to confirm the deletion).

6. Click the **Save** button.

10.1.3 Contract Discrepancy Options

The Contract Discrepancy Options allows default discrepancy options to be modified for individual contracts. These are the options that produce discrepancies when their criteria are not met at the time the estimate is generated.

For a new contract, the system defaults are used. If a contract uses system defaults initially, but the system defaults change, the contract's discrepancy options will not change. However, all new contracts will use the new system defaults. If a contract's discrepancy options are changed to deviate from the system defaults, they can be reset to current system defaults by selecting the Use System Defaults check box.
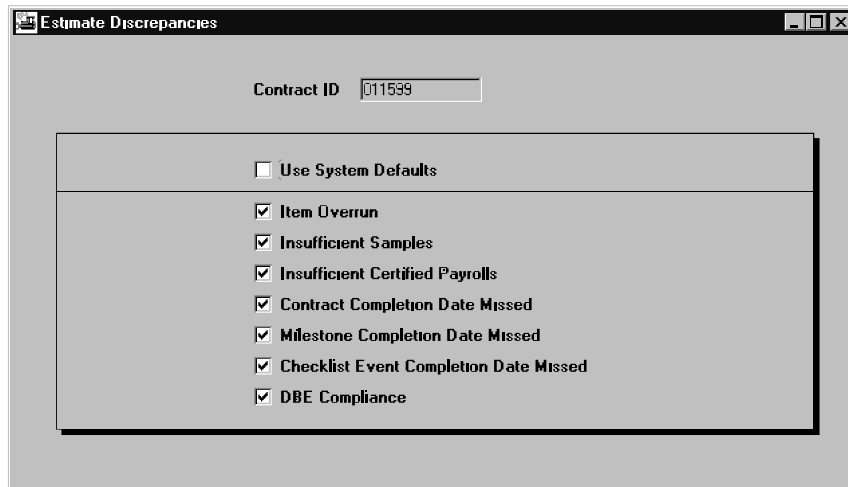
Figure 10-8. The Contract Discrepancies Window

Field Name	Description
Item Overrun	Indicates if Item Overrun will produce an Estimate discrepancy.
Insufficient Samples	Indicates if Insufficient Sample will produce an estimate discrepancy.
Insufficient Certified Payrolls	Indicates if Insufficient Certified Payroll will produce an estimate discrepancy.
Contract Completion Date Missed	Indicates if Contract Completion Date Missed will produce an estimate discrepancy.
Milestone Completion	Indicates if Milestone Completion Date Missed will

Field Name	Description
Date Missed	produce an estimate discrepancy.
Checklist Event Completion Date Missed	Indicates if Checklist Event Completion Date will produce an estimate discrepancy.
DBE Compliance	Indicates if DBE Compliance will produce an estimate discrepancy.

Table 10-3. The Contract Discrepancy Reference Table Fields Table

To modify a contract's discrepancy options:

1. On the **Reference Table (CP)** panel, double-click the Contract Discrepancy Options icon.

2. Scroll to and click the desired contract.

3. Click **OK**.

4. Select the Use System Defaults check box (ON).

   Or

5. Click the discrepancy option check boxes on or off as desired.

6. Click the **Save** button.

10.1.4 Contractor Payment Approval Levels

The Contractor Payment Approval Levels reference table allows approval authority to be modified for individual contracts. The actual setting up of the user groups (up to five) and the definition of what users are in each group is addressed by the System Administration function. The Contractor Payment Approval Levels merely allows the assignment of approval levels within the predefined groups for a specific contract.

For a new contract, the system defaults approval levels are used. If a contract uses system defaults initially, but the system defaults change, the contract's approval levels will not change. However, all new contracts will use the new system defaults. If a contract's approval levels are changed to deviate from the system defaults, they can be reset to current system defaults by clicking the Use System Defaults check box.
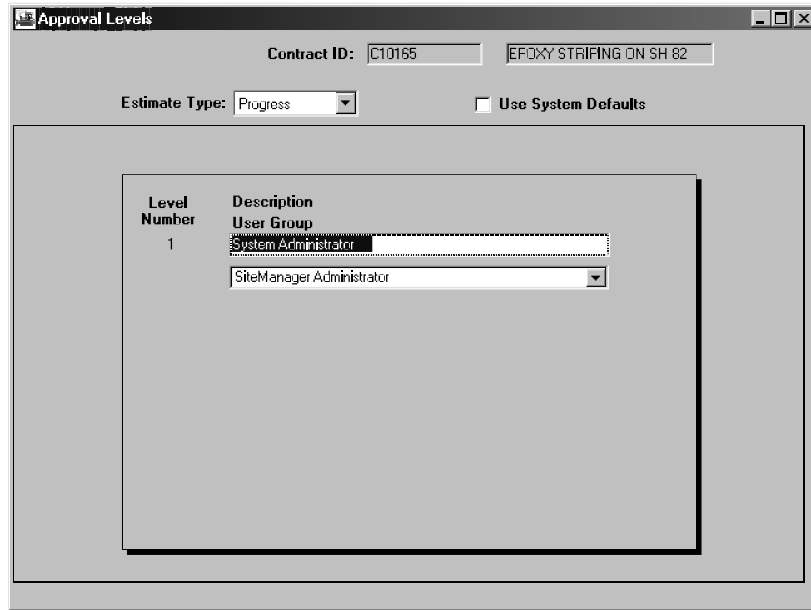
Figure 10-9. The Contractor Payment Approval Levels Window

Field Name	Description
Estimate Type	A drop-down list which allows the user to select from Progress, Final, or Supplemental estimate types.
Level Number	The hierarchical number of the approval level - the higher the number the higher the approval authority.
Description	Description of the approval level.
User Group	Group ID identified for the approval level.

Table 10-4. The Contractor Payment Approval Levels Fields Table

To modify a contract's approval levels:

1. On the **Reference Table (CP)** panel, double-click the Contractor Payment Approval Levels icon.

2. Scroll to and click the desired contract.

3. Click **OK**.

4. Select the Use System Defaults check box (ON).

   Or

5. In the **Description** field for a level, select the current entry and type the desired text description.

6. In the **User Group** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. Repeat steps 4-5 for each level that needs to be defined.

8. Click the **Save** button.

To delete the current highest approval level:

1. On the **Reference Table (CP)** panel, double-click the Contractor Payment Approval Levels icon.

2. Scroll to and click the desired contract.

3. Click **OK**.

4. In the **Description** field for a level, select the current entry.

5. Press the **Delete** key.

6. Click the **Save** button.

10.2 Estimate Generation

The Estimate Generation process manages the estimate functionality from the generation of an estimate through the creation of the extract file for the transportation agency's financial system. The functionality is divided into the following processing areas:

- Generation of the Estimate,

- Resolution of Estimate discrepancies,

- Review of Estimate information,

- Review of Estimate item details,

- Approve or reject Estimate,

- Tracking of Estimate status,

- Log Payment Of Estimate
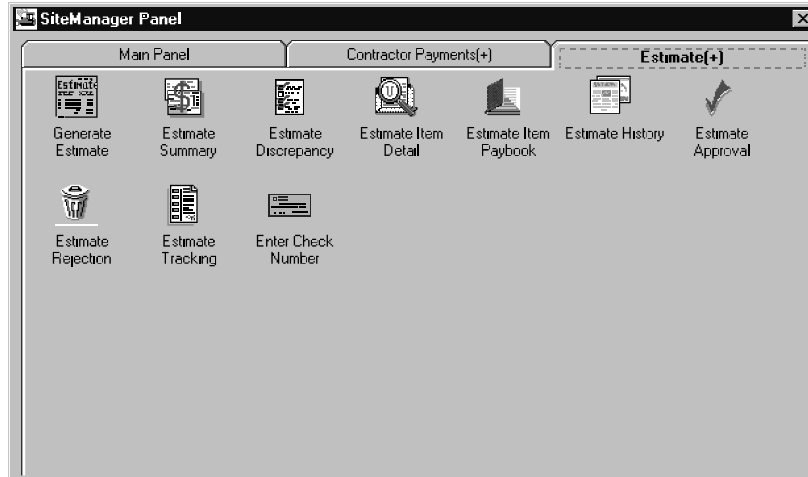
Figure 10-10. The Estimate Panel

To perform estimate activities:

1. On the **Contractor Payments** panel, double-click the **Estimate** icon.

2. Double-click the icon of the desired estimate function.

The estimate generation process allows you to generate an estimate that is coming due for the contract. Select to generate a progress or a final estimate from the Contractor Payments component. The system then performs a background process which performs the following activities:

Delete pending estimate	This activity deletes any previous pending estimate which has been calculated but not approved. The deletion removes only details tied to the previous pending estimate.
Determine quantities for payment	This activity determines the quantity to be paid for each line item on the contract which has items installed for the estimate period.
Calculate stockpiled materials	This activity determines if an installed item has stockpiled materials. If it does, the process uses a stockpiled materials conversion factor to add a new line item adjustment to adjust the amount of payment which is to be made for the line item.
Determine training items	This activity determines if training has taken place and, if so, how the training units are applied to the payment. If training time has been made as a line item, then no special action is required. Otherwise, the system calculates the training amount based on work units and the contract training price. A contract adjustment is then created for the calculated training amount.

Identify discrepancies	This activity checks for and reports discrepancies for the work being performed by defined rules and conditions, e.g., physical completion dates for milestones with projected end dates during the estimate period. This activity provides a window with discrepancy details for the Project Manager so proactive steps can be taken for various project issues. The edits performed during the progress estimate are a subset of the edits performed during the final estimate.
Calculate required price adjustments	This activity automatically determines price adjustments, i.e., Fuel and bituminous adjustments, for line items which have installed units for the estimate period. The system monitors the thresholds and price indices for the installed item and automatically calculates and creates a line item adjustment when the threshold is exceeded (positively or negatively).
Determine incentive/disincentive and liquidated damages	This activity automatically determines incentive/disincentive payments for milestones and liquidated damages for contract end date. When an incentive/disincentive or liquidated damage is appropriate, the system calculates and creates a contract adjustment for the Estimate period.
Calculate retainage	This activity automatically calculates the amount of retainage for the estimate period based upon the method identified for the contract. The calculated or gross retainage amount is dispensed among the various retainage accounts. If securities exist, a portion may be encumbered. When escrow accounts exist a portion may be distributed to the account. Any remaining will be distributed to a cash retainage contract account. Escrow balances are maintained separately.
Determine Funding Amounts	This activity calculates the funding amount for the different funding sources based upon the funding given for the contract, project, category or item.

10.2.1 Types of Estimates

SiteManager produces three types of estimates:

- Progress (both First and Intermediate)

- Final

- Supplemental - Review

The Generate Estimate window can be accessed within the Contractor Payments component or by direct access from the In-Box. The standard estimate type choice is the Progress radio button. Estimate types will be generated in the background unless the Delay Generation check box is selected.

When the Generate Estimate is initiated by clicking the OK button, SiteManager verifies that a prior estimate does not exist for an overlapping period of time (only one estimate is valid for a period of time). If one does exist, you will be prompted with a window to confirm the deletion of the prior estimate. If the deletion is confirmed, the generation process deletes the prior estimate and initiates the generation of the new estimate as a background process. Otherwise, the generation is halted leaving the prior estimate intact.

Once the estimate has been submitted, an In-Box message confirms whether the estimate generated successfully. Regardless of whether estimate generation is performed in the background or through delayed generation, the status of the estimate generation is checked through the In-Box message.

After opening the In-Box message,

- If the estimate generation was successful and the request was for a progress or final estimate, the Estimate Summary window displays.

- If the estimate generation was successful and the request was for a supplemental estimate, the Contract Adjustments window displays.

- If the estimate generation was unsuccessful, then the Estimate Activity Log report displays.

Field Name	Description
Begin	The Estimate Period Begin Date field defines the beginning date for the Estimate generation period.
End	The Estimate Period End Date field defines the ending date for the Estimate generation period. The End Date cannot contain a date greater than the current date or less than the Estimate Generation Period Begin Date.
Type(Generation)	The Estimate Generation Type field defines whether Site a Progress, Final, or Supplemental Estimate is generated.
Amt	The Supplemental Payment Amount field records the amount of payment being made for a supplemental estimate. This value is used to generate a contract adjustment for the given estimate.
Delay Generation	The Delay Generation check box is used to indicate whether the estimate should be generated in a later scheduled cycle.

Table 10-5. The Estimate Generation Fields Table

Delay Generation Check Box

With any of the three Estimate Generation types, the estimate is generated in the background unless the Delay Generation check box is selected (resulting in an overnight batch generation of the estimate).

To delay generation:

1. In the **Generate Estimate** window, click the **Delay Generation** check box (ON).
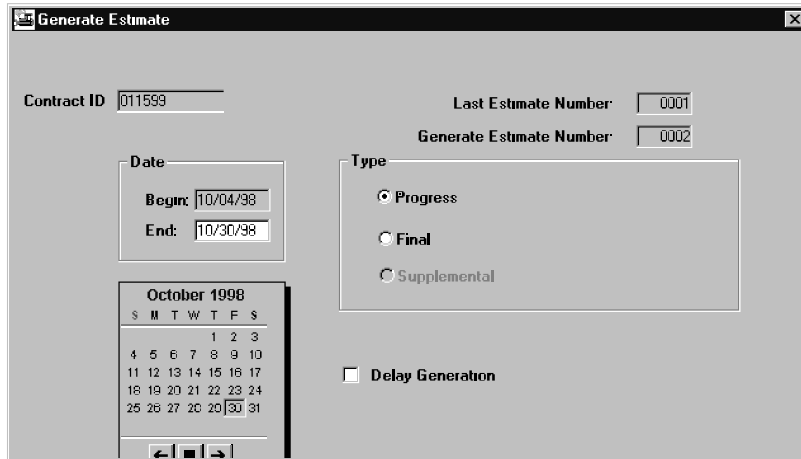
Figure 10-11. The Generate Estimate Window

Progress Estimates

The first and all subsequent estimates leading up to the Final Estimate are Progress Estimates. The progress estimate is the system default (standard choice). Either the Service menu's Generate Estimate choice or the Toolbar's Generate Estimate button can be used to generate an estimate.

To generate a progress Estimate:

1. On the **Estimate** panel, double-click the **Generate Estimate** icon.

2. Scroll to and click the desired contract.

3. Click **OK**.

4. On the calendar, click the end date if desired.

5. Click the **Generate Estimate** button.

6. Click **OK**.

Final Estimates

The Final Estimate option is selected when it is time to generate the Final Estimate. After selecting the contract, the estimate period start date defaults to the day after the end date of the previous progress estimate and the estimate period end date defaults to the current date.

Based on this information, SiteManager automatically generates a draft Final Estimate in the background or overnight batch. Once completed, SiteManager displays the Estimate Summary for the newly generated estimate for review. During the process of generating a draft Final Estimate, SiteManager performs the same edits, validations, calculations and activities as the progress estimate generation.

For the Final Estimate, an additional edit is included in the Identify Discrepancies function. This edit creates a discrepancy when the prime contractor has not matched its overall contract DBE commitment. SiteManager identifies the specific DBE subcontractors which did not match their commitments. SiteManager also flags which DBE subcontractor's total verified payment amounts do not at least match the prime contractor commitment to them.

Once a Final Estimate has been approved, no additional Progress Estimates may be generated.

To generate a final Estimate:

1. On the **Estimate** panel, double-click the **Generate Estimate** icon.

2. Scroll to and click the desired contract.

3. Click **OK**.

4. Click the **Final** radio button.

5. On the calendar, click the end date if desired.

6. Click the **Generate Estimate** button.

7. Click **OK**.

Supplemental Estimates

A Supplemental Estimate requires the entry of a Supplemental Payment Amount. When the Supplemental button is selected the Amount field is activated. This field collects the amount of payment being made for a supplemental estimate. This value is used to generate a contract adjustment for the given estimate.

To generate a supplemental estimate:

1. On the **Estimate** panel, double-click the **Generate Estimate** icon.

2. Scroll to and click the desired contract.

3. Click **OK**.

4. Click the **Supplementary** radio button.

5. Type the supplementary amount.

6. On the calendar, click the end date if desired.

7. Click the **Generate Estimate** button.

8. Click **OK**.

10.2.2 Estimate Generation Parameters

The parameters used for Contractor Payments are determined by the System Operational Parameters that were set up in the installation of SiteManager and are maintained in the System Operational Tables. Many of these system parameters can be overridden for a specific contract using the Contractor Payment Reference tables such as Contract Discrepancy Options and Contractor Payment Approval Levels.

The following are the defaults settings related to Contractor Payments. For more information on how your installation of SiteManager varies from these defaults, contact your SiteManager System Administrator.

Default	Description
Auto Deduct Overrun Item Discrepancy Indicator	This parameter's setting designates whether to automatically deduct payment for contract items that have exceeded current contract item quantity while generating an estimate. If this parameter is set to Y, the Progress Estimate Generation process creates a line item adjustment for each item with an overrun discrepancy. During the estimate generation process, the Material's Sample discrepancy and line item adjustment are calculated first and then the Overrun discrepancy and overrun adjustment is calculated. The System Operational Parameters Major Item Overrun % and Minor Item Overrun % values are included in the calculations for the overrun deduction or readjustment. The default setting is set to N.
Calculate Price Adjustments Using DWR Date Indicator	Designates whether to calculate price adjustments using the DWR Date instead of the Estimate Date when generating an estimate. The default value is set to N.
Checklist Event	This indicator is used by the Estimate Generation process to

Default	Description
Completion Date Missed Indicator	determine whether a discrepancy should be checked and flagged for a missed Checklist Event Completion Date. Valid values are Y or N. A value of Y means that the discrepancy should be determined and flagged and value of N means that this discrepancy will not be checked or flagged. This value can be overridden by a contract specific indicator. Default is Y.
Contract Completion Date Missed Indicator	This indicator is used by the Estimate Generation process to determine whether a discrepancy should be checked and flagged for a missed Contract Completion Date. Valid values are Y or N. A value of Y means that the discrepancy should be determined/flagged and a value of N means that this discrepancy will not be checked or flagged. This value can be overridden by an individual contract indicator. Default is Y.
Contract Maximum Retainage Percentage	This default value is used by the Estimate Generation process to ensure that the total amount retainage does not exceed this percentage of the contract value. Default is 0.
Contract Milestone Completion Date Missed Indicator	This indicator is used by the Estimate Generation process to determine whether a discrepancy should be checked and flagged for a missed Contract Milestone Completion Date. Valid values are Y or N. A value of Y means that the discrepancy should be determined and flagged and a value of N means that this discrepancy will not be checked or flagged. This value can be overridden by a contract specific indicator. Default is Y.
DBE Non-Compliance Indicator	This indicator is used by the Estimate Generation process to determine whether a discrepancy should be checked and flagged in regards to the transportation agency compliance with the DBE Goals. Valid values are Y or N. A value of Y means that the discrepancy should be determined and flagged and a value of N means that this discrepancy will not be checked or flagged. This value can be overridden by a contract specific indicator. Default is Y.
Default Contract Retainage Base Amount Type	This field is used by the Estimate Generation process in calculating Retainage. This field indicates whether to use the Current Contract Amount (C) or the Bid Contract Amount (B) as the base amount in calculating the retainage. The default value in this field is B.
Default Work	This field is used by the Estimate Generation process in

Default	Description
Complete Base Type	calculating retainage. This field indicates the type of retainage calculation to perform. This field has three possible values: WINP (Work In Place), WREM (Work Remaining) or WPER (Work Per Period). The default value for this field is WINP.
Initial Contract Retainage Percentage	This default value is used by the Estimate Generation process in the determination of a retainage adjustment. This is the percentage of the payment that is withheld for retainage. This value can be overridden by a contract specific retainage percentage. Default is 0.
Insufficient Certified Payroll Indicator	This indicator is used by the Estimate Generation process to determine whether a discrepancy should be checked and flagged in regards to insufficient certified payrolls. Valid values are Y or N. A value of Y means that the discrepancy should be determined and flagged and a value of N means that this discrepancy will not be checked or flagged. This value can be overridden by a contract specific indicator. Default is Y.
Insufficient Samples Indicator	This indicator is used by the Estimate Generation process to determine whether a discrepancy should be checked and flagged in regards to insufficient samples being taken. Valid values are Y or N. A value of Y means that the discrepancy should be determined and flagged and a value of N means that this discrepancy will not be checked or flagged. This value can be overridden on a contract-by-contract basis using indicator located on the Contract Discrepancy Options window. Default is Y.
Item Overrun Indicator	This indicator is used by the Estimate Generation process to determine whether a discrepancy should be checked and flagged in regards to a contract item overrun. Valid values are Y or N. A value of Y means that the discrepancy should be determined/ flagged and value of N means that this discrepancy will not be checked or flagged. This value can be overridden by a contract specific indicator located on the Contract Discrepancy Options window. Default is Y.
Liquidated Damage Calculation Determination Date type	This field is used by the Estimate Generation process in calculating the liquidated damages for a contract. Valid values are SWCM or WKCM. A value of SWCM means that the Substantial Completion Date is used to determine the amount of a liquidated damage adjustment. A Value of WKCM means that the Physical Completion Date is used to determine the

Default	Description
	amount of a liquidated damage adjustment.
Material Discrepancy Payment Calculation	This flag indicates whether to calculate the materials discrepancy line item adjustments during estimate processing.
Material Discrepancy Payment Calculation Item Default	This flag tells the system how to default contract items' flags when the item is created. When this flag is set to Y, SiteManager defaults each new contract item to have discrepancy adjustments turned on. Authorized users may still toggle an individual item's adjustments on or off during the course of a contract.
Payroll Discrepancy Lag Days	This field is used by the Estimate Generation process in determination of the insufficient certified payroll's discrepancy. This field indicates the number of lag days before which the payroll must have been verified for no payroll discrepancy to be generated. Default is 14 days.
Retainage Trigger Amount Base	This field is used by the Estimate Generation process in calculating Retainage. This field indicates whether to use the Current Contract Amount(C) or the Bid Contract Amount (B) as the base amount for the retainage trigger percent in calculating the retainage. The default value in this field is B.
Retainage Trigger Percentage	The percentage of work completed on the contract in which time a retainage will be applied. The work completed depends on the value entered in Trigger Amount Base. The trigger amount base is either C (current) or B (Bid).
Subcontract Work Exempt from Retainage	Designates whether to automatically calculate retainage for work performed by a Vendor ID other than the prime contractor, as reported on the DWR Work Item. This applies to contract items that include Federal Funding. The default value for this field is set to N.

Table 10-6. The Contractor Payments System Operational Defaults Table

10.2.3 Stockpiled Materials

This component's purpose is to determine those stockpiled materials that have not had their full invoice payments made. This process adds a contract line item adjustment to adjust the item cost for those that need payment.

Determine Initial Stockpile Payment

This process creates a positive adjustment to the associated contract line item for any initial payment, designated by the contractor, for an invoiced stockpiled material. (The initial payment amount is recorded on the Maintain Stockpiled Materials window.) The initial payment to the contractor is added to the total earnings for the estimate. This process is performed prior to the Calculate Stockpiled Materials process to ensure proper payment for stockpiled materials.

If the conversion factor for a stockpile material record is greater than zero, this process also adds a new Line Item Adjustment record in the Contract Line Item Adjustment table if the initial invoice payment amount has not been paid in full. The adjustment amount is equal to the value entered in Initial Invoice Payment field on the Maintain Stockpiled Materials window. The contract line item number used in this process is taken from the Stockpile Record created for the associated invoice.

> 🗎 **Note:** When you close out a stockpile and generate an estimate, this process adds a new Line Item Adjustment record. This adjustment retains any remaining part of the initial payment amount that has not been recouped during the use of the stockpile.

Calculate Stockpiled Materials

Calculation of stockpiled materials determines the quantity of materials used for installed quantities of a line item in a contract from the stockpile during estimate generation. This process is invoked only if a line item has a stockpiled material record in the Contract Stockpile Material table with an open or active status. The system creates a Line Item Adjustment to reflect stockpiled materials which apply to contract items with installed quantities for the current contract and estimate period. When this process is executed, the quantity of the stockpile is adjusted and an adjustment for the line item earnings is generated. The estimate generation process calculates stockpiled materials and their associated Replenishment stockpiles, in sequence, to fulfill the installed amounts for each associated item.

> 🗎 **Note**: Changing the Conversion Factor for a stockpile material record gives you the ability to change payment item adjustments based on how stockpile materials are used during a given estimate period. When the Conversion Factor is set to zero, line item adjustments are not calculated during the estimate process. If the conversion factor changes, the stockpile line item adjustments on past estimates are not modified.

> 🗎 **Note**: When you delete an estimate, all calculations applied to Stockpiled Materials and Replenishment Stockpiles are reversed accordingly.

The information used in this process is recorded on the Maintain Stockpiled Materials window. For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

10.2.4 Other Processes

Estimate Generation also includes other calculations and processes:

- Calculate Contract Adjustments

- Calculate Price Adjustments

- Calculate Retainage

- Delete Pending Estimates

- Determine Quantity to be Paid

- Determine Training Items

- Determine Funding Amounts

- Calculate Autopay Item

These calculations and processes are described below and documented in more detail in Appendix C - Estimate Generation Calculations and Appendix D - Retainage Calculation.

Calculate Contract Adjustments

This process calculates liquidated damages applied to a contract and incentives or disincentives applied to a milestone. In SiteManager, these types of contract adjustments are referred to as system-defined adjustments. The contract adjustment amounts calculated by this process (i.e. liquidated damages, incentives/disincentives) are applied to the prime project in a contract. The prime project is defined as the project within the contract that comprises the highest amount in the bid amount of the contract. For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

Calculate Price Adjustments

This process determines if a price adjustment (e.g. fuel adjustment, asphalt adjustment) is required for a line item in a contract. The calculation of price adjustment is performed after the calculation of installed quantity. An item is a candidate for price adjustment if a record exist in the Project Adjustment table for the project and the item with which it is associated. A price adjustment to an item is a modification (positive or negative) to the To Be Paid Amount for the item in the estimate. For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

If the System Operational Parameter Calculate Price Adjustments Using DWR Date Indicator is set to Y, calculations of price adjustments use the DWR Date instead of the Estimate Date. The system determines the current price of an index by comparing the date of a DWR with an associated price index to the dates and prices stored in the Price Index History Table for the items on the DWR. Line item adjustments for the price adjustments are created for each unique price index value found for the DWRs represented in the estimate.   For example, an item with a price index is included on DWRs for 5/2/07, 5/16/07 and 5/29/07. A different price does not exist for those dates, so only one line item adjustment appears for the item quantities included on those DWRs. However, if the estimate also has a DWR for 6/1/07 and the price for June has changed, two line item adjustments for the item appear. The default setting for the Calculate Price Adjustments Using DWR Date

Indicator is set to N. Therefore, the default behavior uses the estimate date to calculate price adjustments.

Calculating Retainage

This process calculates retainage as well as release retainage for the project(s) in a contract as appropriate. In SiteManager, retainage is calculated separately for participating and non-participating at the item level earnings, but is rolled up to the project level for display and reporting. Three types of retainage calculation methods are used within the system:

Calculation Method	Description
Work In Place(WINP)	Based on the total amount of work that is in place.
Work Per Period(WPER)	Based on the amount of work that is reported for the current estimate period.
Work Remaining(WREM)	Based on the total amount of work remaining.

Table 10-7. The Retainage Calculation Methods Table

From the three methods of calculation above, Work In Place and Work Remaining are cumulative (based on total amounts), which offers the capability of mixing these methods in the lifetime of the same contract. But Work Per Period is incremental, which is mutually exclusive to the other two methods. When Work Per Period is used, it must be used through the life of the contract. This process uses the retainage record from the contract Retainage table that is effective during the estimate generation.

In this process, the first step is to calculate the retainage amount against the item earnings (not including items which are exempt from retainage) for the estimate. If the System Operation Parameter Subcontract Work Exempt from Retainage is set to Y, then all flagged records in the array where the Vendor ID is not equal to the prime contractor Vendor ID and where the Contract ID and Project Number combination includes Federal Funding are exempt from the retainage amount calculations. Once the retainage amount has been calculated against the item earnings, the actual amount retained by the transportation agency depends on the amount of calculated retainage that is applied to the security in lieu of retainage and escrow account

A release of retainage is calculated automatically in this process, whenever the criteria for release retainage are met (see examples in Appendix D - Retainage Calculation). This process supports the releasing of retainage at a project level whenever the release retainage indicator is set to Y in Contract Project window. When the estimate process releases retainage for a project, this amount is passed to the accounting system and the accounting system has the option to pay or not pay the released retainage to the final estimate amount. This process releases cash and encumbered securities for amount encumbered.

Once the retainage has been calculated for the project(s) in a contract, securities can be applied in lieu of retainage if the contract has an associated securities account(s). If the contract has multiple

security accounts, SiteManager applies security in lieu of retainage against one of the accounts until the account's funds is exhausted. Once the account is exhausted, SiteManager uses another account that has available funds until all of the accounts have no funds available.

If a contract is associated with an escrow agent and a retainage amount still exists even after applying the securities in lieu of retainage, then the remaining retainage amount is applied to the escrow account up to the maximum escrow amount and any remaining retainage above the maximum amount is retained as Cash Retainage. (See examples in Appendix D - Retainage Calculation).

Delete Pending Estimate

This process is initiated by one of the following two reasons:

- User requests a delete of a pending estimate from the Estimate History window, or

- The Initiate Estimate process detects that a pending estimate already exists that needs to be deleted before a new estimate can be generated and the user confirms the desire to delete the current estimate.

The process performs the sequential tasks in the following order. At the end of all the tasks, it returns control to the Estimate History window.

- Selects the payroll rows which were included in the estimate and initializes the estimate number to zero for all the selected payrolls.

- Selects all the rows from the DWR table for the estimate. Initializes the estimate number to zero so that the DWRs will be included in the next generation.

- Deletes all the rows from the Contract Liquidated Damages for the estimate.

- All Securities encumbered are maintained on the Security table and Retainage information for the estimate is stored in the Estimate and Estimate Project tables. Thus, the encumbered amount has to be backed out from the Security table, but the retainage information does not.

- Deletes all the Contract Estimate Adjustments for the estimate.

- Deletes all the rows from the Contract Line Item Adjustments for the estimate.

- Deletes all the rows from the Contract Estimate approval for the estimate.

- Deletes all the rows from the Contract Estimate Discrepancy for the estimate.

- Deletes all the rows from the Contract Estimate Item Discrepancy table for the estimate.

- Deletes all the rows from the Contract Estimate Project table for the estimate.

- Deletes all the rows from the Contract Estimate Item Funding table for the estimate.

- Backs out Funding Totals stored on Contract Funding tables.

- Deletes all the rows from the Contract Estimate Item table.

- Deletes the Contract Estimate row for the estimate number.

The above deletions and initializations are prerequisites for the regeneration of the estimate. At this point, the contract reverts to the status before the estimate was generated.

To delete a pending estimate:

1. On the **Estimate** panel, double-click the **Estimate History** icon.

2. Click the desired contract.

3. Click **OK**.

4. Click the desired estimate.

5. Click the **Delete** button.

6. Click the **Yes** button.

Determine Quantity To Be Paid

This process calculates quantities to be paid using three quantities for the line item:

- Installed Quantity,

- Payable Quantity (to date), and

- Paid Quantity (up to previous estimate)

(up to and including the previous estimate where this line item was included). These quantities are defined as follows:

The Installed Quantity is the sum total of all the daily work reports' Item Reported Quantity since the last estimate.

For example suppose we have Contract 1 with only one estimate paid on 01/05/97. The estimate was generated on 01/01/97 with the following DWRs (assume that there is only one Inspector and one item associated with the contract):

- DWR for 12/25/96

- DWR for 12/26/96

Both these DWRs are paid in Estimate 1.

You now want to calculate quantities to be paid using this module on 01/06/97. There are four more DWRs that are authorized and waiting to be included in the next estimate:

- DWR for 12/27/96

- DWR for 12/28/96

- DWR for 01/04/97

- DWR for 01/05/97

The calculation process includes the quantities in these four DWRs to calculate the Installed Quantity. Suppose there is one more DWR for 12/29/96 that is not yet authorized. This will not be included in the quantity calculation until it is authorized.

Paid Quantity is the total quantity paid in all the previous estimates up to and including the latest paid estimate where this line item was included. This information is stored in the Quantity Paid To Date field of the Contract Item table.

The Payable Quantity is the minimum of:

- (Contract Item Bid Quantity + Contract Item.Net Change Order Quantity + Contract Item Overrun Quantity, if any, - Paid Quantity), and

- Installed Quantity (calculated in the first step).

The process reads all authorized DWRs that are not checked-out from the Server and not paid in any of the previous estimates. For these DWRs, the associated work items are accessed and quantities are accumulated for each estimate line item. When quantities for all the unprocessed DWRs are accumulated, the line number, project number, and accumulated quantities are returned to the initiating process. Once included in the estimate, all of the DWRs that were successfully accumulated are updated with the estimate number and the quantities are updated to the database.

For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

Determine Training Items

This process determines whether a training payment needs to be included in the current estimate for the contract and whether a Contract Adjustment or an Estimate Line Item needs to be created for paying the eligible training hours. The Determine Training Items process is called by the Estimate Generation window. Depending on the System options, the process adds either a new Contract Adjustment or an Estimate Line Item if there are eligible training hours for the estimate period. The process calls a function Determine Training Line Item detailed in Accrue Training Experience function. This process gives the unit price and Contract Line Item Number associated with the training activity. If the function Determine Training Line Item does not return the Line Item Number, this process adds a new Contract Adjustment for the eligible training hours to be paid. There are four steps involved in this process.

From the Contract table, the training hours accrued during the estimate period are retrieved. The field is incremented by the Accrue Training Experience function and will be initialized when the estimate is approved and paid.

It also determines whether the training hours should be an Estimate Line Item or a Contract Adjustment. This depends on the return values from the Determine Training Line Item function.

It determines if the eligible training hours are to be paid as an Estimate Line Item Adjustment. This is controlled by contract setup when the user directs the system to calculate the training hours as a line item by setting up a line item or as an adjustment by not setting up the line item. The Estimate Line Item is created using the training hours' field from the Contract table and Unit Price and Line Number fields from the returned values of the Determine Training Item function.

It also determines if the eligible training hours are to be paid as a Contract Adjustment. This is controlled by contract setup when the user directs the system to calculate the training hours as a line item by setting up a line item or as an adjustment by not setting up the line item. A Contract Adjustment row is created using the Training Unit Price and Eligible Training Hours from the Contract table.

For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

Determine Funding Amounts

The Determine Fund Accounts process calculates the funding amounts for an estimate and updates the Estimate Project table with Total Participating and Non Participating Line Item Amounts. Funding can be at different levels: Contract, Project, Category or Item level. At each of these levels there can be two types of funding: participating and non-participating. Each type of funding can have one or more sources of funding. Each source can have one or more funding rows.

The Determine Fund Accounts process first retrieves the rows for the contract from the Contract Funding Table for the Contract ID. The first row (if exists in the database and satisfies all the selection conditions) represents the contract (with no Project Number, Category, and no Line Item Number). The Contract Limit Amount (limit amounts are the high caps of amount that can be used from a funding source) and the Contract Participating Percentage are saved as temporary variables. The subsequent rows represent project level limits and Participating Percentages, or category level limits and Participating Percentage, or Line Item level limits and Participating Percentages. These values are saved in sets of temporary variables called *arrays*. Consequently, there are four sets of temporary variables. For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

Calculate Autopay Items

The Calculate Autopay Items process calculates payments to be made for an Autopay item. Autopay items are paid depending on the total approved work done at the contract level in lieu of the work done at the item level. The parameters to calculate the payments are defined on the Autopay Table.

If the estimate generation was successful and the request was for a progress or final estimate, the Estimate Summary window displays.

▪ If the estimate generation was successful and the request was for a supplemental estimate, the Contract Adjustments window displays.

▪ If the estimate generation was unsuccessful, then the Estimate Activity Log report displays.

Using these parameters and the Paid Quantities for all the items in the contract (calculated by Determine Quantities To Be Paid), the Autopay Item Payable Quantities are calculated.

There are two methods of autopay calculation:
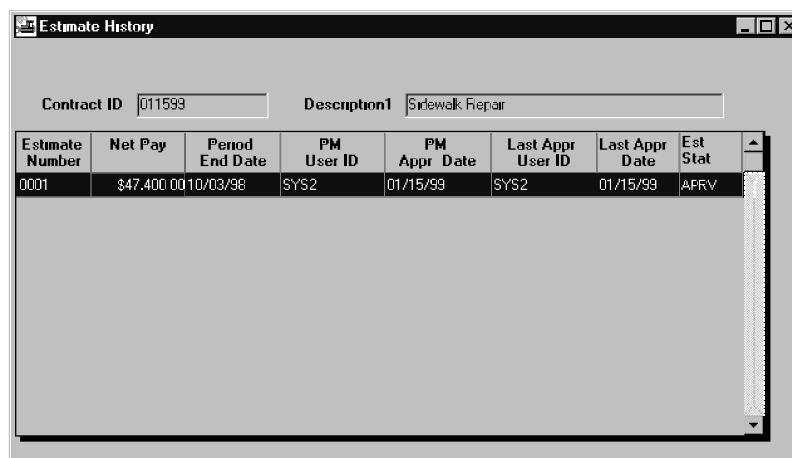
▪ **COXA**: The total amounts and earnings are based on contract bid items (original items) excluding the autopay items.

▪ **CCXA**: The total amounts and earnings are based on all current items (original items + change order items) excluding the autopay items.

For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

10.2.5 Estimate History and Summary

SiteManager allows estimates to be tracked using:

▪ Estimate History, and

▪ Estimate Summary.

Figure 10-12. The Estimate History Window

Estimate History

The Estimate History window allows the selection and display of all estimates for a contract. Pending estimates can be deleted. Selecting the Open button displays the estimate number or the period end date of the estimate entered to define the starting row. The estimates display from most recent to the oldest estimate.

Field Name	Description
Contract ID	A valid contract ID for which estimates need to be displayed.
Estimate Number	The starting estimate number on the first row.
Period End Date	End date of the estimate period.
Estimate Date	If entered, the rowsare filtered to display the estimates with dates equal or greater than the entered date.
Net Pay	Net payment for this estimate
PM Appr. Date	Date on which the Project Manager approved the estimate
PM User ID	PM's User ID
Last Appr. Date	Last Approval Date
Last Appr. User ID	Last Approval User ID
Est Stat	The current status of the estimate (either Pend or Apprv).

Table 10-8. The Estimate History Field Table

To open an estimate history:

1. On the **Estimate** panel, double-click the **Estimate History** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. When through, click the **Close** button.

To delete a pending estimate:

1. On the **Estimate** panel, double-click the **Estimate History** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. Click the desired estimate.

5. Click the **Delete** button.

6. Click the **Yes** button.

The Estimate History window can also be used to navigate to the Estimate Summary and Estimate Discrepancy windows for an estimate using the Services menu.

To navigate to the Estimate Summary or Discrepancy from Estimate History:

1. On the **Estimate** panel, double-click the **Estimate History** icon.

2. In the list box, scroll to and double-click the desired contract.

3. Click **OK**.

4. Click the desired estimate.

5. Click the **Services** menu and click the **Summary** or **Discrepancy** choice.

6. When through, click the **Close** button.

Estimate Summary

The Estimate Summary window allows you to view calculated Estimates Summary information for the contract and project level. The window shows three sets of totals:

-   Current estimate,

-   Combined totals for previous estimate (s), and

-   Totals to date.

The totals displayed include the following for each set:

-   Item total

-   Participating

-   Non-Participating

-   Retainage

-   Liquidated damages

-   Incentives

-   Disincentives

- Stockpiled materials

- Other adjustments.

- Overrun Adjustments

- Paid to Contractor

If the contract is broken into several projects, you can select the option to view the estimate totals for each of the projects associated to the contract. You may select a project through the Project List window, which is activated via the Services menu. The totals are then given for a project.

At the Contract Estimate level, you are notified via several flags displayed on the screen that there are discrepancies associated with the current estimate. The flags include Deficient Payrolls, Civil Rights Reporting Deficiency, Item, and Other discrepancies. You may view the Estimate Discrepancies by selecting the option from the Services menu.
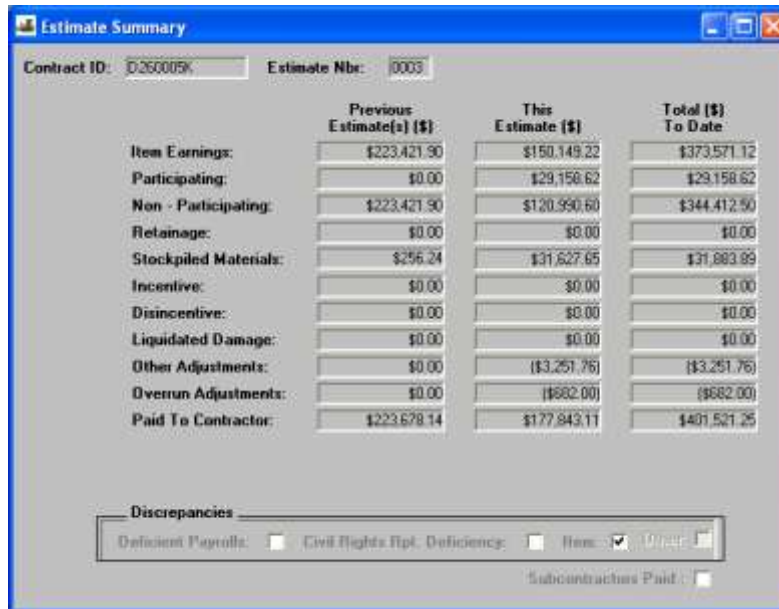
Figure 10-13. The Estimate Summary Window

Additional functionality available on the Estimate Summary window includes:

- Entry of a remark using the standard remark function, for the contract estimate.

- Access to the Stockpiled Materials maintenance screen to view further details concerning the stockpiled materials for the contract.

Field Name	Description
Item Total	The total dollar amount of the work items which have been installed and included in an estimate.

Field Name	Description
Participating	The dollar amount that is federally funded for all the items which are included in an estimate.
Non-Participating	The dollar amount not federally funded for all the items included in an estimate.
Retainage	The dollar amount that has been retained for the contract.
Liqd. Damages	The dollar amount of the liquidated damages which have been assessed on the contract.
Incentives	The dollar amount of the incentives which have been assessed.
Disincentives	The dollar amount of the disincentives which have been assessed.
Stockpiled Materials	The dollar amount of installed stockpile materials.
Other Adjustments	The dollar amount of adjustments other than liquidated damage and retainage which have been assessed including contract adjustments and any line item adjustments (e.g., line item price adjustments).
Overrun Adjustments	Dollar amount of the line item adjustments resulting from overruns.
Paid To Contractor	The dollar amount which has been paid out to the contractor which is a computation of item total, retainage, liquidated damages, stockpiled materials, and other adjustment totals.
Deficient Payrolls	Indicates that a deficient payroll exists for the current estimate.
Civil Rights Rpt. Deficiency	Indicates that a Civil Rights Report Deficiency exists for the current estimate.
Item Discrepancies	Indicate that an item/material discrepancy exists for the current estimate.

Table 10-9. The Estimate Summary Fields Table

To open an estimate summary:

1. On the **Estimate** panel, double-click the **Estimate Summary** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

5. When through, click the **Close** button.

To view the estimate by contract and Project:

1. On the **Estimate** panel, double-click the **Estimate Summary** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

5. Click the **Services** menu and click the **Select Project** choice.

6. In the list box, scroll to and click the desired Project.

7. Click **OK**.

8. To return to the estimate, click the **Services** menu and click the **Select Estimate** choice.

To view the Stockpiled Materials:

1. On the **Estimate** panel, double-click the **Estimate Summary** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

5. Click the **Services** menu and click the **Stockpiled Materials** choice.

6. To return to the estimate, click the **Close** button.

To view the estimate Discrepancies:

1. On the **Estimate** panel, double-click the **Summary** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and double-click the desired estimate.

4. Click **OK**.

5. Click the **Services** menu and click the **Discrepancy** choice.

6. To return to the estimate, click the **Close** button.

10.2.6 Estimate Discrepancies

SiteManager identifies the discrepancies associated with an estimate. The discrepancies are of two levels: discrepancies at estimate level and discrepancies at item level. For instance, if DBE requirements are not met or payrolls are not certified, the discrepancies are associated to the estimate. If there is a deficiency in testing requirements or overrun situations, the discrepancies are associated with the line item.

There are six types of estimate discrepancies and each is identified using different criteria. These six discrepancies are as follows:

- Overrun Discrepancy,

- Material Test Discrepancy,

- Payroll Certification Discrepancy,

- Milestone and Contract Completion Discrepancy,

- Checklist Event Discrepancy, and

- DBE Compliance Discrepancy.

For additional documentation on these calculations, see Appendix C - Estimate Generation Calculations.

After the generation of an estimate, the Estimate History or Estimate Summary windows can be used to navigate to the Estimate Discrepancy window as well as direct navigation to the window.

The Estimate Discrepancy window displays all the discrepancies associated with an estimate. Discrepancies can be associated to an estimate or to an estimate item (contract item with installed quantities for the estimate period). The estimate discrepancies are listed at the top of the window and item discrepancies are listed after them. The Status field values are either Unresolved or Override. When Identify Discrepancy function is requested by Refresh choice (or by Generate Estimate process), the discrepancy is re-determined.

You have the following three options to resolve the discrepancy(s):

- Override the discrepancies and use the update function to update the override information,

- Correct the individual discrepancy input information using the correct SiteManager component and request for a refresh, or

- A combination of overriding and correcting.

Any override must be supplemented with a remark. An override updates the User ID and Date and Time on the associated database record. The Refresh function is available on this window and reevaluates the discrepancies for the estimate and display them on the window.

Discrepancies for progress and supplemental estimates can be overridden. You cannot override final estimates.
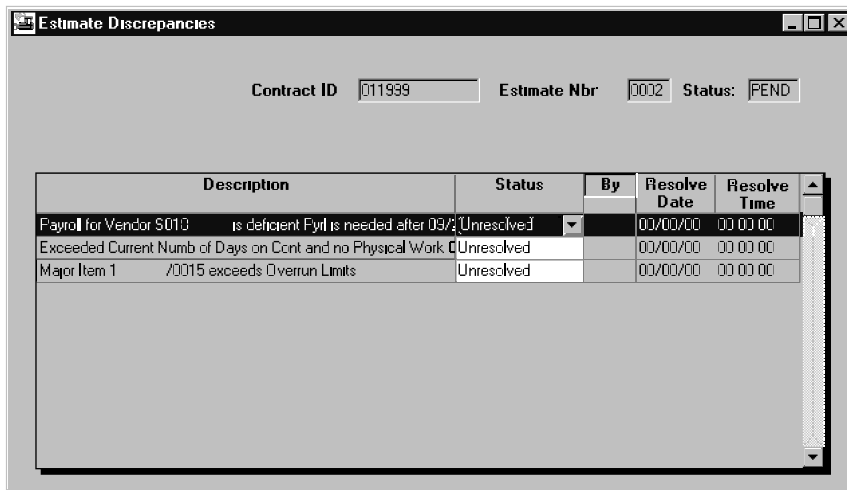
Figure 10-14. The Estimate Discrepancy Window

Field Name	Description
Description	Discrepancy description
Status	Status of the discrepancy Valid values - Override, Unresolved
By	User ID of the person overriding the discrepancy
Date	Date the discrepancy was overridden
Time	Time the discrepancy was overridden

Table 10-10. The Estimate Discrepancies Fields Table

To open an estimate discrepancy:

1. On the **Estimate** panel, double-click the **Estimate Discrepancy** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

To override an estimate discrepancy:

1. On the **Estimate** panel, double-click the **Estimate Discrepancy** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

5. Click the discrepancy to be overridden.

6. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the **Override** choice.

7. Any override must be supplemented with a remark. Click the **Remarks** button and type the remarks for the override.

8. Repeat steps 6-8 to override additional discrepancies.

9. When through, click the **Save** button.

To navigate to the correct window to resolve the discrepancy:

1. On the **Estimate** panel, double-click the **Estimate Discrepancy** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

5. Click the discrepancy to be resolved.

6. Click the **Navigate** button.

7. When you have completed resolving the discrepancy, click the **Save** button.

8. Click the **Close** button.

Figure 10-15. The Navigate Button

To recalculate discrepancies after resolution:

1. Click the **Services** menu and click the **Recalculate Discrepancies** choice.

10.2.7 Adjustments

SiteManager allows Adjustments to be made to either a contract or to an item for a pending unapproved estimate. Only First Level Approvers can make adjustments that require an unapproved (in pending or reject status) estimate. These adjustments are:

- Contract Adjustments (and Project Distribution)

- Disincentives

- Liquidated Damages

- Line Item Adjustments

- Incentives

- Estimate Item

Figure 10-16. The Contract Adjustments Panel

Anyone with the correct contract authority and window security access can make contract or milestone adjustments that do not require an unapproved (in pending or reject status) estimate. These adjustments are:

10.2.8 Contract Adjustments

The Contract Adjustments window lists all the different types of contract adjustments and the associated detail information for a contract or an estimate. While in this window, you have the capability of accessing contract adjustments from other estimate s within the same contract or selecting a new contract. The Contract Adjustment types are determined by:

- **System Defined Codes** — Liquidated Damages, Retainage and Training Adjustments

    or

- **Transportation Agency Defined Codes**

    And

- **System-Generated Records**

or

- **User Entered Records**

In this window, you may add, modify, or delete Contract Adjustments that are not System-Generated. Transportation agency-defined contract adjustment descriptions are entered into the system at system setup.

To access contract adjustments:

1. On the contractor **Payments** panel, double-click the **Contract Adjustments** icon.

2. Double-click the desired adjustments icon.

Liquidated Damages as a Contract Adjustment

Liquidated Damages are a system-defined Contract Adjustment. The Adjustments window allows you to view and modify the liquidated damages that have been applied to a contract. The window displays a list of all liquidated damages that have been automatically calculated or manually added. In the Adjustments window, Contract Adjustment would be limited to modifying only the liquidated damage records that are associated with an unapproved estimate. Liquidated damages from an approved estimate can be viewed but not modified or deleted. Adding and deleting a liquidated damage record is only allowed on the main Liquidated Damage window. The following fields may be modified when a liquidated damage record has been selected in Contract Adjustment:

- Begin Date — Date the liquidated damage charges started,

- End Date — Date the liquidated damage charges ended, and

- Nbr of Charged Units– Number of days liquidated damage is applied to a contract.

Retainage

SiteManager lists all system calculated-retainage and user-entered Contract Adjustments as retainage (i.e., add or release of retainage) in the Contract Adjustments window. Only the system-calculated Remarks field can be modified.

Any transaction associated to a retainage (i.e., release of retainage) must be applied as a user-entered Contract Adjustment. Release of retainage can be accomplished through this window by creating a user-defined Contract Adjustment using the New button, choosing an Adjustment Description of Retainage, and entering a positive amount in the Adjustment Amount field. If additional retainage has to applied, then you must add a new user-defined Contract Adjustment using the New button, choosing an Adjustment Description of Retainage, and entering a negative amount in the Adjustment Amount field.

Field Name	Description

Field Name	Description
Estimate Nbr	The Estimate number associated with the contract adjustment record.
Entered Date	Date the contract adjustment was entered.
Adjustment Description	The description (i.e., Retainage, Liquidated Damages, Incentives) of the Adjustment made to the contract.
Remarks	The icon will be displayed if Adjustment has a remark.
Adjustment Amount	Adjustment amount for the particular contract adjustment.
User ID	User ID of the person that entered the user-defined Contract Adjustment. A system-defined Contract Adjustment Contract Adjustment does not have a User ID associated with it.
Nbr of Units	The number of units used when a Liquidated Damage is charged against a contract.
(Date) Begin	Date the liquidated damage started for the contract. ▤ **Note:** This field is required if it's a calendar day or fixed completion date contract. It's optional for a working day contract. The date entered must be earlier or equal to the End date field.
(Date) End	Date the Liquidated Damage ended for the contract. ▤ **Note:** This field is required if it's a calendar day or fixed completion date contract. It's optional for a working day contract. The date entered must be later or equal to the Begin date field.
Rate Unit Type	The time unit associated with a Liquidated Damage for a contract.
Rate Per Unit	The standard amount assessed per time unit for Liquidated Damages. The value defaults to an amount based on contract size and type of time charge (work or calendar days) defined by your transportation agency's setup of SiteManager.
Adjmnt Amount	The amount of adjustment charged against a contract when a Liquidated Damage has been applied. Formula: **Nbr Of Units * Rate Per Unit**

Field Name	Description
Date Created	Date the Liquidated Damage record was entered or date the Liquidated Damages were automatically calculated.
Bid Days	The original number of days for the contract.
Adjmnt Days	The number of days the contract has been extended or reduced through change orders. Can be either work days or calendar days, depending on the type of time charges for the contract.
Tot Charged Days	Number of days the contractor worked, as noted in approved Daily Work Reports. Can be either work days or calendar days, depending on the type of time charges for the contract.
Current Days	Number of days remaining on the contract before it is completed. Formula: **Bid Days + Adjmnt Days - Tot Charged Days**
Remarks	The remarks attached to the Contract Adjustment record.

Table 10-11. The Contract Adjustments Fields Table
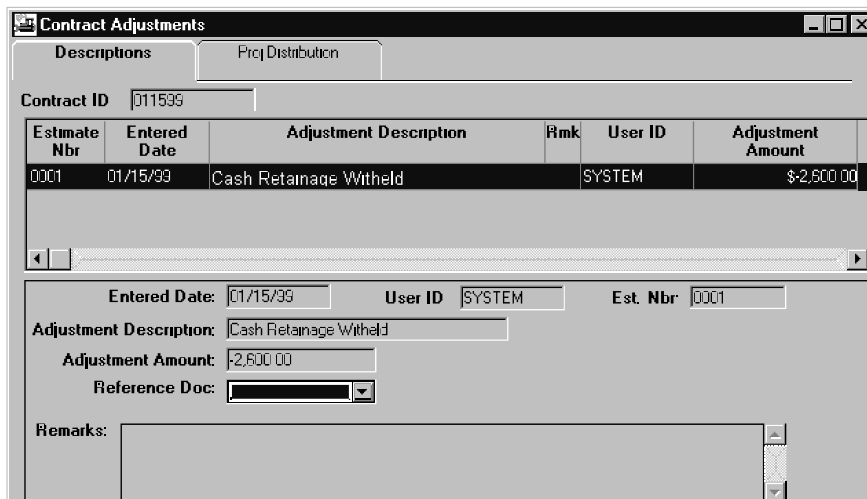
Figure 10-17. The Contract Adjustments Description Folder Tab

📓 **Note:** Contract adjustments may only be made to contracts with an estimate in pending or reject status.

To add a new user-defined contract adjustment:

1. On the **Contract Payments** panel, double-click the **Contract Adjustments** icon.

2. On the **Contract Adjustments (+)** panel, double-click the **Contract Adjustments** icon.

3. In the list box, scroll to and click the desired contract.

4. Click **OK**.

5. Click the **New** button.

6. In the **Adjustment Description** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. In the **Adjustment Amount** field, select the current entry and type the adjustment amount.

8. Press the **Tab** key twice.

9. In the **Remarks** field, type a remark.

10. When complete, click the **Save** button.

To modify a contract adjustment:

1. On the **Contract Payments** panel, double-click the **Contract Adjustments** icon.

2. On the **Contract Adjustments (+)** panel, double-click the **Contract Adjustments** icon.

3. In the list box, scroll to and click the desired contract.

4. Click **OK**.

5. In the list box, scroll to and click the desired contract adjustment.

6. In the desired field, change the current entry to the desired entry. The fields that are available for modification depend on whether the Contract Adjustment is user-generated or system-generated.

7. Repeat steps 5 and 6 until all modifications have been made.

8. When complete, click the **Save** button.

To add a new user-defined contract adjustment for a release of retainage:

1. On the **Contract Adjustments** panel, double-click the **Contract Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. Click the **New** button.

5. In the **Adjustment Description** drop-down list, click the expand arrow to the right of the current selection and click the **Retainage** choice.

6. Press the **Tab** key.

7. In the **Adjustment Amount** field, select the current entry and type the adjustment amount as a negative number.

8. Press the **Tab** key twice.

9. In the **Remarks** field, type a remark.

10. When complete, click the **Save** button.

To add a new user-defined contract adjustment for an additional retainage:

1. On the **Contract Adjustments** panel, double-click the **Contract Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. Click the **New** button.

5. In the **Adjustment Description** drop-down list, click the expand arrow to the right of the current selection and click the **Retainage** choice.

6. Press the **Tab** key.

7. In the **Adjustment Amount** field, select the current entry and type the adjustment amount as a positive number.

8. Press the **Tab** key twice.

9. In the **Remarks** field, type a remark.

10. When complete, click the **Save** button.

To delete a user-defined contract adjustment:

1. On the **Contract Adjustments** panel, double-click the **Contract Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. Scroll to and click the desired adjustment.

5. Click the **Delete** button.

Training Adjustment

If a contract has a training plan and the plan is not tracked by the use of a Training Line Item, on-the-job training reimbursements will display on the Contract Adjustments window.

When an estimate is generated the system compares the number of training hours used to date and the training hours paid to date (these values are stored on the contract). When the system finds a discrepancy between the hours used and the hours paid previously, an adjustment is made to the estimate. The training hours are accrued from certified payrolls that include trainee data. The training hour data is updated each time the Payroll Exceptions Batch Job is run on the batch/background server. (This batch process accrues the training experience for trainees.)

Typically, a training reimbursement is a positive amount (the vendor is being paid for providing on-the-job training). However, if the accrued hours for a trainee are decreased, a negative training reimbursement can be applied to an estimate.

> 📄 **Note:** The Payroll Exceptions Batch Job must be run prior to the Estimate Generation process in order for trainee hours on certified payrolls to be reimbursed.

Project Distribution

The Project Distribution folder tab lists all contract adjustments for an estimate or a contract and the project distribution for each adjustment in a selection list. The selection list displays all of the adjustments either for a selected estimate or the contract. The Project Distribution folder tab displays the project distribution of the total adjustment amount for the selected adjustment of the selected estimate or the contract. As a default, any contract adjustment will be distributed 100 percent to the primary project of a contract.

Figure 10-18. The Contract Adjustment Project Distribution Folder Tab

You can distribute a particular contract adjustment amount to any project in the contract. The distribution of the adjustment for a project is entered as a percentage of the amount of the contract adjustment. If an adjustment is distributed to more than one project, the sum total percentage distributed to the projects must equal 100 percent. As a default, this window displays all projects for a given contract.

Field Name	Description

Field Name	Description
Project Nbr	Number that identifies a project within a contract
Distribute Percentage	The percentage value of the adjustment amount given to Project Nbr. The value in this field cannot exceed 100 %
Distribute Amount	The adjustment amount distributed to the project. The value in this field is calculated by multiplying the distribute percentage with the adjustment amount for the contract.
Total (Percentage)	The summation of all percentage distributed to the project(s). This total percentage cannot exceed 100%.
Total(Amount)	The adjustment amount for the contract.

Table 10-12. The Project Distribution Fields Table

To modify a contract adjustment's project distribution:

1. On the **Contract Adjustments** panel, double-click the **Contract Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. In the list box, scroll to and click the desired contract adjustment.

5. Click the **Proj Distribution** folder tab.

6. In the list box, scroll to and click the desired project.

7. In the Distribute Percentage field, select the current entry and type desired percentage.

8. Modify the percentage of the other projects for a total of 100%.

9. When complete, click the **Save** button.

The following example further illustrates the distribution of a contract adjustment to a project or projects using the Distribute Percentage field.

Contract 1 has three projects. A, B, and C   (w/ Project A as the prime project)

Contract Adj = $10,000.00

By default the detail section of the window displays the following data:

Project Nbr	Distribute Percentage	Distribute Amount

A	100.00	10,000.00
B	0.00	0.00
C	0.00	0.00
Total	100.00	10,000.00

If you want to distribute 20 percent to A, 30 percent to B, and 50 percent to C, then the detail section of the window will display the following data:

Project Nbr	Distribute Percentage	Distribute Amount
A	20.00	2,000.00
B	30.00	3,000.00
C	50.00	5,000.00
Total	100.00	10,000.00

Liquidated Damages for a Contract

The Liquidated Damage window allows you complete maintenance capabilities for Liquidated Damages to be applied to a contract. In this window, Liquidated Damage records that are associated with an unapproved estimate may be adjusted. You cannot modify or delete the system-defined Liquidated Damages amount, but you may adjust the amount by adding a new record. You cannot modify any fields associated to a system-defined Liquidated Damages record except Remarks (and only prior to the estimates approval).
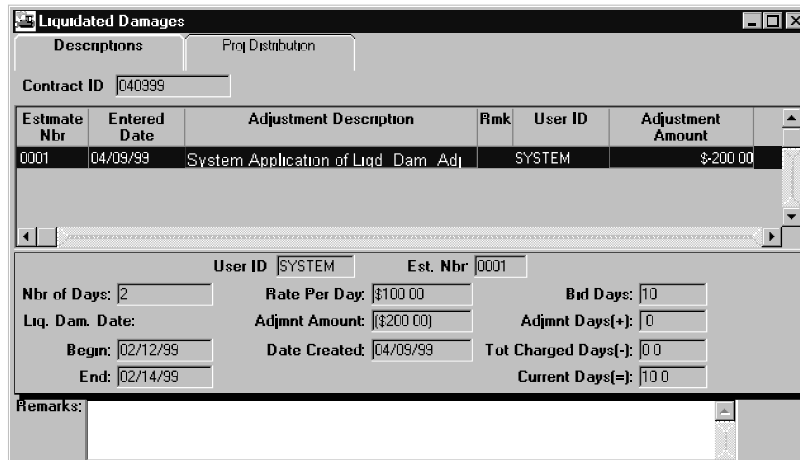
Figure 10-19. The Liquidated Damages Window

The deletion of Liquidated Damage records is allowed only to those that are user-entered and associated with an unapproved estimate. Liquidated Damages from an approved estimate have view-only functionality.

A new liquidated damage to a contract record can be created using the New button. You may add the following Liquidated Damage information:

- Begin Date (the date the liquidated damage charges started),

- End Date (the date the liquidated damage charges ended),

- Nbr of Charged Units (the number of days liquidated damage is applied to a contract)

These fields can also be modified when a user-defined Liquidated Damage record associated with an unapproved estimate has been selected.

Field Name	Description
Estimate Nbr	The estimate number associated with the contract adjustment record.
Entered Date	Date on which the liquidated damage data was entered, or on which the automatic liquidated damages were calculated.
Adjustment Description	A description indicating that the adjustment is a Liquidated Damages Adjustment.
Rmk	Indicator as to whether a remark is attached to the adjustment record.
User ID	User ID of the person that entered the user-defined contract adjustment. A system-define contract adjustment record will not have a User ID associated with it.
Adjustment Amt	The amount of adjustment charged against a contract when a liquidated damage has been applied. Formula: Nbr Of Days * Rate Per Day
Nbr Of Days	The number of days used when a liquidated damage is charged against a contract.
Rate Per Day	The standard amount assessed per day for liquidated damages. Defaults to a transportation agency-defined amount based on contract size and type of time charge (work or calendar days).
Bid Days	The original number of days for the contract.
(Date) Begin	The date that the liquidated damage started for the contract. Required for a calendar day or fixed completion date contract. It's optional for working day contract. The date entered must be earlier or equal to the End date field.
(Date) End	The date in which the liquidated damage ended for the contract. Required for a calendar day or fixed completion date contract. It's optional for working day contract. The date entered must be later or equal to the Begin date field.

Field Name	Description
Adjmnt Amount	The amount of adjustment charged against a contract when a liquidated damage has been applied. This field is protected and displayed on the detail part of the window. Formula: Nbr Of Days * Rate Per Day
Date Created	Date on which the liquidated damage data was entered or on which the automatic liquidated damages were calculated.
Adjmnt Days	The number of days the contract has been extended or reduced through change orders. Can be either work days or calendar days, depending on the type of time charges for the contract.
Tot Charged Days	Number of days the contractor worked, as noted in approved dailies. Work days or calendar days, depending on the type of time charges for the contract.
Current Days	The number of days remaining for the contract before it is completed. Formula: Bid Days + Adjmnt Days - Tot Charged Days
Remarks	The remarks attached to the adjustment record.

Table 10-13. The Liquidated Damages Fields Table

> 📄 **Note:** Contract adjustments may only be made to contracts with an estimate in pending or reject status.

To add liquidated damages for a contract:

1. On the **Contract Adjustments** folder tab, double-click the **Liquidated Damages** icon.

2. In the list box, scroll to and select a contract.

3. Click the **New** button.

4. In the **Nbr of Days** field, type the number of days for which damages should be applied.

5. Press the **Tab** key.

6. In the **Begin Date** field, type the correct beginning date.

7. Press the **Tab** key.

8. In the **End Date** field, type the correct ending date.

9. Press the **Tab** key.

10. In the **Remarks** field, type your comment.

11. When complete, click the **Save** button.

To modify liquidated damages for a contract:

1. On the **Contract Adjustments** panel, double-click the **Liquidated Damages** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. In the list box, scroll to and click the desired liquidated damage.

5. In the **Nbr of Days** field, type the correct number of days.

6. Press the **Tab** key.

7. In the **Begin Date** field, type the correct beginning date.

8. Press the **Tab** key.

9. In the **End Date** field, type the correct ending date.

10. Press the **Tab** key.

11. In the **Remarks** field, enter or modify your remarks.

12. When complete, click the **Save** button.

To delete liquidated damages for a contract:

1. On the **Contract Adjustments** panel, double-click the **Liquidated Damages** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. In the list box, scroll to and click the desired liquidated damage.

5. Click the **Delete** button.

6. Click **OK**.

Only user-defined Liquidated Damage records tied to an unapproved estimate may be modified or deleted.

Contract Time Adjustments

The Contract Time Adjustments windows permits the maintenance of time extensions and reductions for a specific contract during the estimate period in lieu of making adjustments by way of a change order.
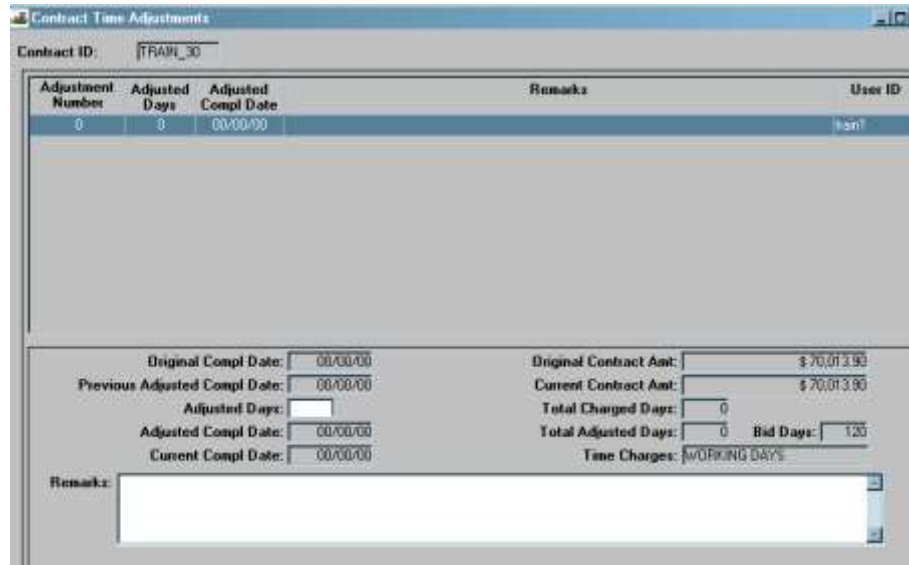
Figure 10-20. The Contract Time Adjustments Window

For a selected contract, you can add a new time extension/reduction adjustment or modify an existing time adjustment. For a contract the following fields may be modified:

- Number of Days Allowed,

- Adjusted Completion Date, and

- Remarks

During installation, the installer must include time extension processing for this window to be added to the contract or payments component.

Field Name	Description
Original Completion Date	The date the contract was estimated to be completed.
Current Completion Date	The revised completion date of the milestone/ contract.
Previous Adjusted Completion Date	The revised adjusted completion date of milestone/contract must not be equal to current completion date or the adjusted complete date.

Field Name	Description
Remarks	The remark associated with the Time Adjustment table.
User ID	The user ID of the person adding this record.
Charge Type	How time charges are assessed for the contract. Cannot change during the life of the contract. **AD** = Available Work Days, **CD** = Calendar Days, or **DT** = Fixed Completion Date
Original Contract Amount	The amount of the bid of the contractor awarded the job.
Current Contract Amount	The difference between Original Contract Amount and Net Change Order Amount.
Total Charged Days	The total number of days charged to the contract or milestone to date. Can be work days or calendar days, depending on the type of time charges for the contract. No value if fixed completion date contract.
Total Adjustment Days	Total number of days extended (or reduced) by change orders that include time extension (or reduction). Can be either work days or calendar days, depending on the type of time charges for the contract.
Bid Days	The original number of days for the contract.
Number Of Days Allowed	Number of days/hours the milestone/ contract is extended.
Revised Completion Date	The revised completion date of the milestone/ contract. Must not be equal to Current Completion Date.

Table 10-14. Time Adjustments Fields Table for Contracts and Milestones

To get the value for Total Adjustment Days field, the Contract CO table is read for all records for the particular contract ID where Approval Date is greater than zeros and Milestone Number is equal to spaces. The Change Order Adjustment Days values are then totaled.

To get the values for the Work Suspended Date and the Work Resumed Date fields, the processing will as follows:

- The Diary table is read for the particular contract ID in descending DWR Date order. The Credit Day Value field of the first record read is checked.

- If it is 0 (full day charged), reading of the table is continued until Credit Day Value changes.

- If the current Credit Day Value is 1 (full day credit), the DWR Date of the previous record will be the Work Resumed Date. Reading of the table is continued until Credit Day Value changes again. The DWR Date of the previous record will be the Work Suspended Date.

- If the current Credit Day Value is 1/2 (half-day charged/half-day credit), the DWR Date of the previous record will be the Work Resumed Date. The DWR Date of the current record will be the Work Suspended Date.

- If it is 1, reading of the table is continued until Credit Day Value changes.

- If the current Credit Day Value is 0, the DWR Date of the previous record will be the Work Suspended Date. Reading of the table is continued until Credit Day Value changes again. The DWR Date of the previous record will be the Work Resumed Date.

- If the current Credit Day Value is 1/2, The DWR Date of the previous record will be the Work Suspended Date. The DWR Date of the current record will be the Work Resumed Date.

- If it is 1/2, the DWR Date of the current record will be the Work Resumed Date and the Work Suspended Date.

To add time extension or reduction for a contract:

1. On the **Contract Adjustments** panel, double-click the **Contract Time Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. In the **Number of Days Allowed** field, type the correct value.

5. Press the **Tab** key.

6. In the **Adjusted Completion Date** field, type the correct date.

7. Press the **Tab** key.

8. Click the **Remarks** button.

9. Type your comment.

10. Click **OK**.

11. When complete, click the **Save** button.

To modify a time extension or reduction for a contract:

1. On the **Contract Adjustments** panel, double-click the **Contract Time Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. In the list box, scroll to and click the desired Contract Time adjustment record.

5. In the **Number of Days Allowed** field, type the correct value.

6. Press the **Tab** key.

7. In the **Adjusted Completion Date** field, type the correct date.

8. Press the **Tab** key.

9. Press the **Tab** key.

10. Click the **Remarks** button.

11. Type your comment.

12. Click **OK**.

13. When complete, click the **Save** button.

Milestone Adjustments

Like the Contract Adjustments panel, the Milestone Adjustments panel permits the maintenance of time extensions and reductions for a specific milestone and the incentives and disincentives during the estimate period, in lieu of making adjustments by way of a change order.

Figure 10-21. The Milestone Adjustments Panel

To access Milestone adjustments:

1. On the **Contractor Payments** panel, double-click the **Milestone Adjustments** icon.

2. Double-click the desired adjustments icon.

Milestone Time Adjustments

Like the Contract Time Extensions/Reductions window, the Milestone Time Adjustments window permits the maintenance of time extensions and reductions for a specific milestone during the estimate period, in lieu of making adjustments by way of a change order.

For a selected milestone, the user can add a new time extension/reduction adjustment or modify an existing time adjustment. For a milestone, the following fields may be modified:

- Number of Days Allowed,

- Adjusted Completion Date, and

- Remarks

During installation, the installer must include time extension processing for this window to be added to the Contractor Payments component as with the Contract Extensions/Reductions window.

The fields of this window are identical to the fields for the Contract Extension/Reductions window.

To get the values for the Work Suspended Date and the Work Resumed Date fields, the following processing occurs:

- The Diary Milestone Credit table is read for the particular Contract ID and Milestone Number in descending DWR Date order. The Credit Day Value field of the first record read is checked.

- If it is 0 (full day charged), reading of the table continues until Credit Day Value changes.

- If the current Credit Day Value is 1 (full day credit), the DWR Date of the previous record is the Work Resumed Date. Reading of the table continues until Credit Day Value changes again. The DWR Date of the previous record will be the Work Suspended Date.

- If the current Credit Day Value is 1/2 (half-day charged/half-day credit), The DWR Date of the previous record will be the Work Resumed Date. The DWR Date of the current record will be the Work Suspended Date.

- If it is 1, reading of the table continues until Credit Day Value changes.

- If the current Credit Day Value is 0, the DWR Date of the previous record is the Work Suspended Date. Reading of the table continues until Credit Day Value changes again. The DWR Date of the previous record is the Work Resumed Date.

- If the current Credit Day Value is 1/2, The DWR Date of the previous record is the Work Suspended Date. The DWR Date of the current record is the Work Resumed Date.

- If it is 1/2, the DWR Date of the current record is the Work Resumed Date and the Work Suspended Date.

Figure 10-22. The Milestone Time Adjustments Window

Field Name	Description
Remarks	Description of a remark associated with the Time Adjustment table.
User ID	The user ID of the person adding this record.

Field Name	Description
Time Charges	How time charges are assessed for the contract. Can be AD = Available Work Days, CD = Calendar Days, or DT = Fixed Completion Date. Cannot change during the life of the contract.
Original Compl Date	The date the milestone was specified to be complete.
Current Compl Date	The revised completion date of the milestone/contract.
Adjusted Compl Date	The revised completion date of the milestone/contract.
Total Charged Days	The total number of days charged to the contract or milestone to date. Can be work days or calendar days, depending on the type of time charges for the contract. No value if fixed completion date contract.
Total Adjusted Days	Total daily work report charge days for a milestone.
Adjusted Days	Number of days/hours the milestone/contract is extended.
Bid Days	The original number of days for the contract.

Table 10-15. Milestone Time Adjustments Fields Table

To add a time extension or reduction for a milestone:

1. On the Milestone Adjustments panel, double-click the **Milestone Time Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. In the Milestone drop-down list, click the expand arrow to the right of the current selection and click the milestone.

5. Press the **Tab** key.

6. In the selected field, type the desired value.

7. Press the **Tab** key.

8. Repeat steps 6-7 until all fields are entered.

9. When complete, click the **Save** button.

To modify time extension or reduction for a milestone:

1. On the Milestone Adjustments panel, double-click the **Milestone Time Adjustments** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. Click the **Open** button.

5. In the list box, scroll to and click the desired record.

6. Modify the milestone as appropriate.

7. When complete, click the **Save** button.

Incentives/Disincentives for Milestones

SiteManager allows the maintenance of incentives or disincentives to be applied to a Milestone. All contract milestones and their associated incentives or disincentives to a may be displayed for selection. Once a milestone with has been selected, all the incentives or disincentives details, automatically calculated or manually added, will display. *Modification is limited to the incentives or disincentives that are associated with an unapproved* estimate. Incentives or disincentives from an approved estimate may only be viewed. Deletion is allowed only to those incentives or disincentives records that are user entered and associated with an unapproved estimate and are entered through this window.

For a selected milestone, you can add a new or modify an existing incentive or disincentive (with the qualifications in the preceding paragraph). The following fields may be modified:

- Begin Date (the date the incentive or disincentive charges started),

- End Time (the time the incentive or disincentive charges started for hour type milestones),

- End Date (the date the incentive or disincentive charges ended),

- End Time (the date the incentive or disincentive charges ended for hour type milestones)

- Nbr of Charged Units (the number of days/hours incentives or disincentives are applied to a contract)

These fields may be modified with the following qualifications.

- When entering Begin and End dates, the dates must be after the current milestone completion date.

- When entering Begin and End time, the times must be after the current milestone completion time.

▪ Addition of incentive or disincentive is allowed for a milestone only when a physical completion date has been entered to SiteManager.

Field Name	Description
Estimate Nbr	The estimate number associated with the incentive or disincentive record.
Nbr Of Units	The number of units used (e.g., days, hours) when an incentive or disincentive is charged against a contract.
Rate Per Unit	The standard amount assessed per time unit (e.g., day, hour) for incentive or disincentive. Defaults to a transportation agency-defined amount based on the type of time charge (days or hours).
Adjustment Amt	The amount of adjustment charged against a contract when an incentive or disincentive has been applied. Formula: **Nbr Of Units * Rate Per Unit**
User ID	User ID of the person that entered the incentive or disincentive. A system calculated incentive or disincentive record will not have a User ID associated with it and will have a value of System.
Nbr of Units	The number of units used (e.g., days or hours) when an incentives or disincentives is charged against a contract.
(Date) Begin	This is the date that the incentive or disincentive started for the milestone. This field is required. The date entered must be earlier or equal to than the End date field.
(Time) Begin	This is the time that the incentive or disincentive started for the milestone. This field is required if it's an hour type milestone. The time entered must be earlier than the End time field.
(Date) End	This is the date that the incentive or disincentive ended for the contract. This field is required. The date entered must be later or equal to than the Begin date field.
(Time) End	This is the time that the incentive or disincentive started for the milestone. This field is required, if it's an hour type milestone. The time entered must be later than the End time field.
Rate Unit Type	The time unit (e.g., days, hours) associated with an incentive or disincentive for a milestone.

Field Name	Description
Rate Per Unit	The standard amount assessed per time unit (e.g., day or hours) for incentive or disincentive. Defaults to a transportation agency-defined amount based on the type of time charge (days or hours).
Adjmnt Amount	The amount of incentive or disincentive charged against a milestone. Formula: **Nbr Of Units * Rate Per Unit**
Date Created	The date on which the incentives or disincentives data was entered, or on which the automatic incentives or disincentives were calculated.
(Bid) Days	The original number of days for the milestone. This field only applies to day type milestones.
(Bid) Hours	The original number of hours for the milestone. This field only applies to hour type milestones.
(Adjmnt) Days	The number of days the milestone has been extended or reduced through change orders.
(Adjmnt) Hours	These are the number of hours the milestone has been extended or reduced through change orders.
(Tot Charged) Days	Number of days the contractor worked on a milestone, as noted in approved dailies. This field only applies to day milestones.
(Tot Charged) Hours	Number of hours the contractor worked on a milestone, as noted in approved dailies. This field only applies to hour milestones.
(Current) Days	This is the number of days remaining for the milestone before it is completed. This field only applies to day milestones. Formula: **Bid Days + Adjmnt Days - Tot Charged Days**
(Current) Hours	This is the number of hours remaining for the milestone before it is completed. This field only applies to hour milestones. Formula: **Bid Hours + Adjmnt Hours - Tot Charged Hours**
Remarks	The full remark attached to the incentive or disincentive record.

Table 10-16. The Milestone Incentive/Disincentive Fields Table
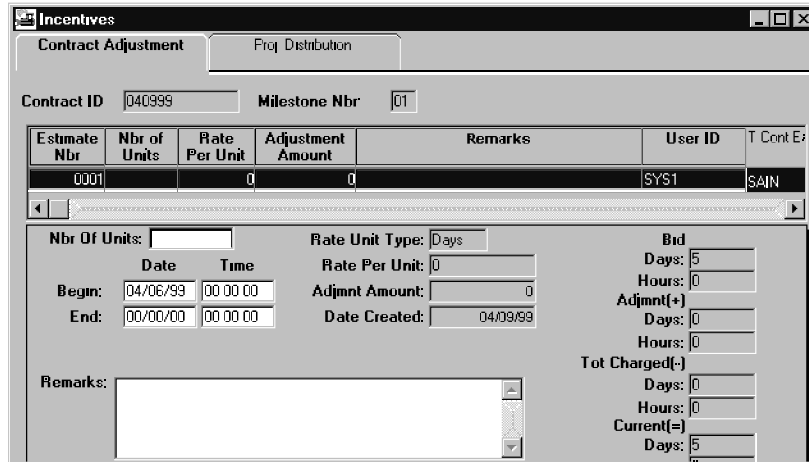
Figure 10-23. The Incentive Window's Contract Adjustments Folder Tab
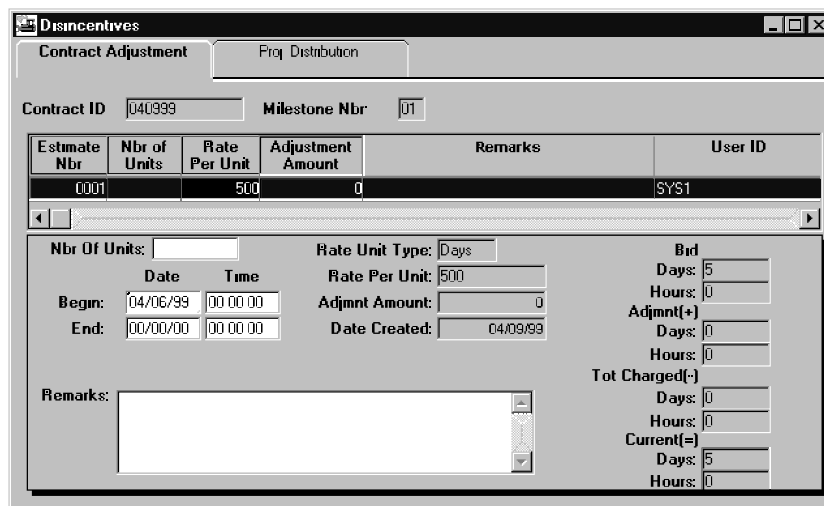
Figure 10-24. The Disincentives Window Contract Adjustments Folder Tab

To modify an incentive or disincentive for a contract adjustment milestone:

1. On the Milestone Adjustments panel, double-click the **Incentives or Disincentives** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired Milestone.

4. Click **OK**.

5. In the list box, scroll to and click the desired record.

6. Click the **Proj Distribution** folder tab.

7. Modify the incentive or disincentive as appropriate.

8. When complete, click the **Save** button.

To add an incentive or disincentive for a contract adjustment milestone:

1. On the **Milestone Adjustments** panel, double-click the **Incentives or Disincentives** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired Milestone.

4. Click **OK**.

5. Click the **New** button.

6. In the **Nbr of Units** field, type the correct value.

7. Press the **Tab** key.

8. In the **Begin Date** field, type the correct value.

9. Press the **Tab** key.

10. If an hourly milestone unit in the **Begin Time** field, type the correct value.

11. Press the **Tab** key.

12. In the **End Date** field, type the correct value.

13. Press the **Tab** key.

14. If an hourly milestone unit in the **End Time** field, type the correct value.

15. Click the **Remarks** button.

16. Type your comment.

17. Click **OK**.

18. When complete, click the **Save** button.

19. When complete, click the **Save** button.
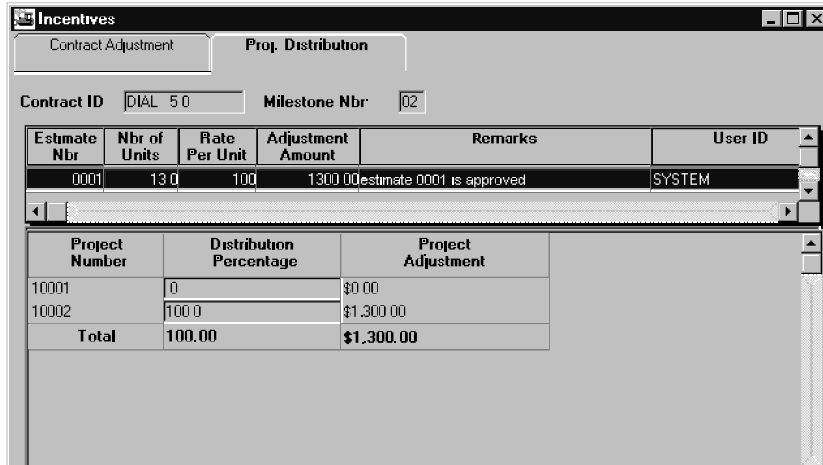
Figure 10-25. The Incentive Window's Project Distribution Folder Tab
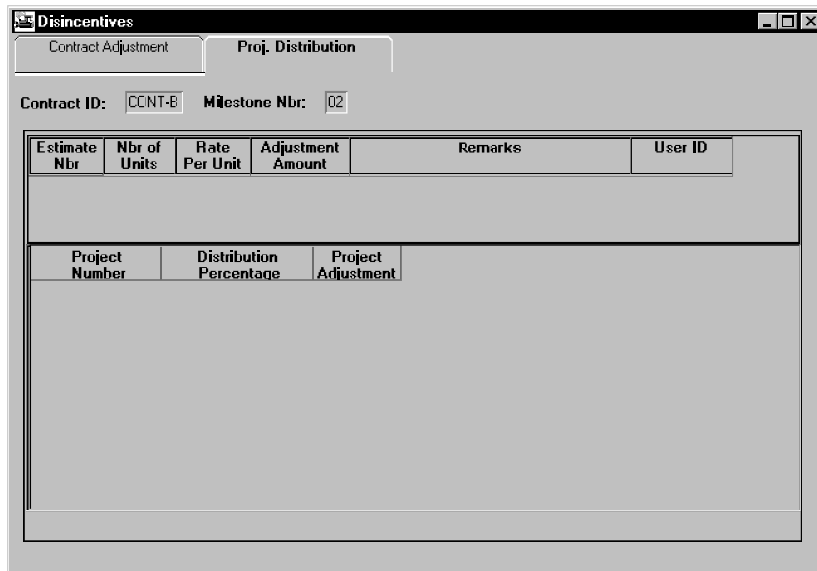
Figure 10-26. The Disincentives Window's Project Distribution Folder Tab

To modify the project distribution of an incentive or disincentive for a milestone:

1. On the **Milestone Adjustments** panel, double-click the **Incentives or Disincentives** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired Milestone.

4. Click **OK**.

5. In the list box, scroll to and click the desired record.

6. Click the **Proj Distribution** folder tab.

7. Modify the project distribution of the incentive or disincentive as appropriate.

8. When complete, click the **Save** button.

To add an incentive or disincentive for a contract adjustment milestone:

1. On the **Milestone Adjustments** panel, double-click the **Incentives or Disincentives** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired Milestone.

4. Click **OK**.

5. In the list box, scroll to and click the desired record.

6. Click the **Proj Distribution** folder tab.

7. Modify the project distribution of the incentive or disincentive as appropriate.

8. When complete, click the **Save** button.

Item Adjustments

SiteManager allows item adjustments to Contract Line Items that will be reflected in the final payable amount for the estimate.

Figure 10-27. The Line Item Adjustments Window

The Line Item Adjustments window allows you to add, modify or inquire about the Line Item Adjustments for an estimate. The top portion of the window displays all the Estimate Line Items for existing adjustments. The bottom portion of the window displays associated adjustment information.

As with Contract Adjustments, you can add modify, or delete manually entered Line Item Adjustments, but can only view system-generated adjustments.

The Contract Line Item Adjustment Amount is entered only when unit price and quantity are both blank. A cross edit verifies that either Unit Price or Quantity are entered or that the Adjustment Amount is entered, but not both sets of fields. The default Line Item Adjustment Date is the current date. The user can only change the date to a past date.

Withholding Payment as a Line Item Adjustment

The Materials Sampling and Testing Requirements function of SiteManager defines the frequency at which samples of a line item's material must be taken. If a deficiency in samples is calculated, there will be a system-generated line item adjustment reducing the paid quantity to match the authorized (not Fail or Void) Sample/Contract Item quantity.

For example: For Pay Period 1 – Authorized DWR Work Item 123-1234 quantity = 100 units, Authorized Sample/Contract Item 123-1234 quantity = 60 units. Line Item Adjustment for item 123-1234 would equal –40 units * contract price).

Releasing Retained Payment as a Line Item Adjustment

If there was a previous line item adjustment reducing payable quantity and there are now sufficient authorized Sample quantities, there will be a system-generated line item adjustment returning the previously withheld amount, up to the total authorized Sample/Contract Item quantity.

For example: For Pay Period 2 – Authorized DWR Work Item 123-1234 quantity = 10 units (total to date = 110). Authorized Sample/Contract Item 123-1234 quantity = 60 units (total to date = 120) Line item adjustment for item 123-1234 = +40 units * contract price (balance =0) OR Authorized DWR Work Item 123-1234 quantity = 10 units (total to date = 110) Authorized Sample/Contract Item 123-1234 quantity = 40 units (total to date = 100) Line item adjustment for item 123-1234 = +30 units * contract price (balance = -10)

If the option to make adjustments on items is unchecked subsequent estimate generation will effectively release withheld amounts by countering any negative amount with an adjustment to bring the withheld payments to zero.

Field Name	Description
Category	Project Category
Project Nbr	Project number of the Line Item Adjustment.
Item Code	Item code for the Line Item
Line Item Nbr	Line Item Number for the Item within the Project.

Field Name	Description
Description	Short Description of the Item.
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supp Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the transportation agency.
Price Adj. Type	Type of Price Adjustment applicable for the Line Item.
Line Item Adjustment Detail Information	
Type	Type of Line Item Adjustment. Required field.
Amount	Amount that the line item is being adjusted.
Quantity	Quantity of the item adjusted.
Unit Price	Unit price of the line item.
Entered By	User ID of the person entering or modifying the Line Item Adjustment.
Entered Date	Date on which this adjustment was entered or modified. Required field.
Stockpiled Information	
Stockpile Sn	The stockpile material sequence number that SiteManager assigns to stockpiled material records on the Maintain Stockpiled Materials window. This is a protected field.
Replenish Sn	The replenishment sequence number that SiteManager assigns to Replenishment stockpile records on the Maintain Stockpiled Materials window. This is a protected field.

Table 10-17. The Line Item Adjustment Fields Table

The Contract Line Item Adjmnt Amount can be entered only when Unit Price and Quantity both are blank. There will be a cross edit to check that either Unit Price and Quantity are entered or Contract Line Item Adjmnt Amount is entered, not both the sets of fields.

The Line Item Adjmnt Entered Date will default to the current date. It can only be changed to a past date if required.

To add a line item adjustment:

1. On the **Contractor Payments** panel, double-click the **Contract Adjustments** icon.

2. Double-click the **Line Item Adjustments** icon.

3. In the list box, scroll to and double-click the desired contract.

4. In the list box, scroll to and click the desired estimate.

5. Click **OK**.

6. If appropriate **In the Project Number** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. In the **Line Item Adjustment Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. Press the **Tab** key.

9. In the **Contract Line Item Adjmnt Amt** field, type the correct value.

10. Press the **Tab** key.

11. In the **Line Item Adjmnt Entered Date** field, type the correct value.

12. Press the **Tab** key.

13. In the **Adjustment Quantity** field, type the correct value.

14. Press the **Tab** key.

15. In the **Unit Price** field, type the correct value.

16. Press the **Tab** key.

17. When complete, click the **Save** button.

To modify a line item adjustment:

1. On the **Contractor Payments** panel, double-click the **Contract Adjustments** icon.

2. Double-click the **Line Item Adjustments** icon.

3. In the list box, scroll to and double-click the desired contract.

4. In the list box, scroll to and click the desired estimate.

5. Click **OK**.

6. In the list box, scroll to and click the desired Line Item record.

7. Modify the line item as appropriate.

8. When complete, click the **Save** button.

Figure 10-28. The Estimate Item Detail Window

Estimate Item Detail

The Estimate Item window displays the Item quantities from approved Daily Work reports. For the current unapproved estimate, this window allows the adjustment of selected Item quantity fields.

This Estimate Item window provides for the current status of Estimate Items and update capability in adjusting the payment of an item and specific installed quantity notification. You may add the following Estimate Item information:

- Notified Qty,

- Projected Qty, and

- Pay This Est.

If a Pay This Est. amount is modified, a Line Item Adjustment will be created for the difference in the payable amount. While in this window, the user navigates to the Estimate Item's Paybook by selecting the Service menu's Paybook choice which would display the entire Item's payment history.

Field Name	Description
Line Item Nbr	The Contract Line Item number that identifies each Item as it appears on the contract for both all bid Items assigned by the pre-construction function and for all Items added to the contract after construction begins by the user.
Item Code	A transportation agency-defined code used to identify a particular Item.
Item Description	The short description for the Item Code.
Supplemental Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supplemental Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the transportation agency.
Quantity Installed This Est.	Installed quantity for the selected Line Item Nbr for the current open estimate.
Quantity Paid This Est.	The amount paid for the installed quantity for the current open estimate. Formula: **Qty Paid This Est = Item Unit Price * Installed Qty This Est**
Bid (Quantity)	The bid quantity for the selected Line Item.
Bid (Amount)	The bid amount for the selected Line Item. Formula: **Bid Amount = Item Unit Price * Bid Quantity**
Current (Quantity)	The quantity resulting from the addition of the Bid Quantity plus the Net Change Order Quantity for the Line Item selected.
Current (Amount)	The current dollar value of the calculated Current Quantity. Formula: **Current Amount = Item Unit Price * Current Qty**
Pending CO (Quantity)	The Net Pending Quantity for the Line Item selected from the unapproved Change Orders.

Field Name	Description
Pending CO (Amount)	The current dollar value of the calculated Pending Quantity. Formula: **Pending Amount = Item Unit Price * Pending Qty**
Notified Qty (Quantity)	Notification Quantity threshold. If the installed Quantity is equal or greater than Notified Qty, then the project manager is notified.
Notified Qty (Amount)	The dollar value for the notified quantity. Formula: **Notified Amount = Item Unit Price * Notified Qty**
Projected Qty (Quantity)	The anticipated number of units installed at the completion of the contract. Formula: **Proj. Qty = Current Qty + Pending Qty**
Projected Qty (Amount)	The dollar value for the notified quantity from above. Formula: **Proj. Amount = Item Unit Price * Projected Qty**
Material Discrepancy	Indicates a material management deficiency exits for the item.
Installed To Date (Quantity)	The total units installed for the Line Item to date. This quantity includes the units installed for the current open estimate.
Installed To Date (Amount)	The dollar value for the Installed To Date Quantity. Formula: **Inst To Date Amount = Item Unit Price * Installed To Date Qty**
Installed This Est (Quantity)	This is the total units installed for the Line Item for the current open estimate. When viewing all Items for the contract this field is not applicable.
Installed This Est (Amount)	The dollar value for the Installed This Est. Quantity. When viewing all Items for the contract this field is not applicable. Formula: **Ins This Est Amount = Item Unit Price * Ins This Est Qty**
Paid Previously (Quantity)	The total units installed that have been paid for the line item. When viewing all items for the contract this field is not applicable.

Field Name	Description
Paid Previously (Amount)	The dollar value for the Paid Previously Quantity. When viewing all Items for the contract this field is not applicable. Formula. **Paid Prev Amount = Item Unit Price * Paid Prev Qty**
Pay This Est (Quantity)	The number of units installed for the Line Item on the current open estimate to be paid. The default value for this field is the installed quantity during the current open estimate period. When viewing all Items for the contract this field is not applicable.
Pay This Est (Amount)	The dollar value for the Pay This Est. Quantity. When viewing all Items for the contract this field is not applicable. Formula: **Pay This Est Amount = Item Unit Price * Pay This Est Qty**
Paid To Date (Quantity)	The total number units that has been paid to date for the line item.
Paid To Date (Amount)	The dollar value for the Paid To Date Quantity. Formula: **Paid To Date Amount = Item Unit Price *Pay To Date Qty**
Quantity Authorized to Date	The total of all reported quantities on DWRs that are authorized. **Installed Quantity from t_cont_item table + sum of all installed quantity for which there are authorized date values but not an estimate number**
Quantity Reported to Date	The total number of units reported as installed to date for the line item.

Table 10-18. The Estimate Item Fields Table

The Notified Quantity field's default value is equal to the Current Quantity. When updated, the valid value for this field must be at least greater than the installed quantity.

The Projected Quantity field's default value is the Current Qty + Pending Qty. This field can be updated to zero quantity if no quantity has been installed for the line item.

The Pay This Est field may be any numeric value that is less than the quantity installed for the estimate. If this is modified, a Line Item adjustment record will be created for the quantity adjustment.

To modify an estimate item:

1. On the **Estimate** panel, double-click the **Estimate Item Detail** icon.

2. In the list box, scroll to and click the desired contract.

3. Click **OK**.

4. Click the **Service** menu and click the **View Estimate** choice.

5. In the **Notified Quantity** field, type the correct value.

6. Press the **Tab** key.

7. In the **Projected Quantify** field, type the correct value.

8. Press the **Tab** key.

9. In the **Pay This Est** field, type the correct value.

10. When complete, click the **Save** button.

Estimate Item Paybook — Inquiry

This Estimate Item Paybook is an inquiry only window showing the payment history for a contract Item. The Item payment history appears in reverse chronological order meaning the current estimate Item displays on the first row. Thus, it is possible that the first row is not yet paid. Whether the first row is paid or not can be determined by the Reviewer User ID. If the Reviewer User ID is the final reviewer, then the Item is sent in the current estimate for payment.

Field Name	Description
Category	Project Category
Project Number	Project number of the Line Item Adjustment
Item Code	Item code for the line item
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supp Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the transportation agency.
Line Item Nbr	Line Item Number for the Item within the Project
Unit Price	Unit price of the line item
Unit Type	Unit type for the Item
Bid Quantity	Bid Quantity for the Item

Field Name	Description
Bid Quantity	Bid Quantity for the Item
Current Quantity	Total quantity for the Item. Formula **Bid Quantity + Change Order Quantity**
Estimate Number	Project number of the Line Item Adjustment
Period End Date	Period End Date for the estimate
Reviewer User ID	User ID of the last reviewer of the estimate
Approval Date	Date the last approval took place
Total Amount	Total amount for the Item in the estimate
Adjmnt (+)	Sum of Positive adjustment amounts for the Line Item
Adjmnt (-)	Sum of Negative adjustment amounts for the Line Item

Table 10-19. The Estimate Item Paybook Fields Table
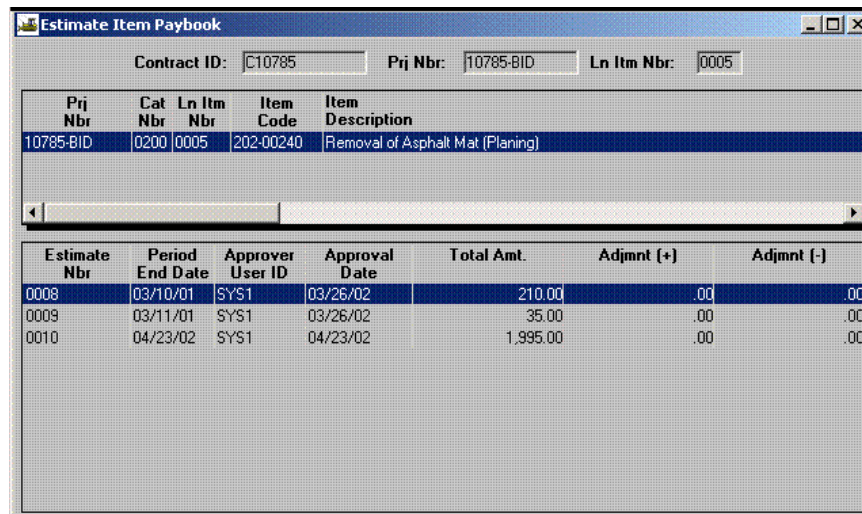
Figure 10-29. The Estimate Item Paybook Window

To access the payment history of a contract item:

1. On the **Contractor Payments (+)** panel, double-click the **Estimate (+)** icon.

2. On the **Estimate (+)** panel, double-click the **Estimate Item Paybook** icon.

3. In the list box, scroll to and double-click the desired contract.

4. In the list box, scroll to and click the desired Line Item.

5. Click **OK**.

10.2.9 Estimate Approval

This Estimate Approval window allows the authorized reviewers to approve all estimate types — progress, final, or supplemental. The approval process provides an audit trail and prepares the estimate for the creation of the extract file that can be used by the transportation agency's financial system. The approval process is conducted by a chain of approvals established during SiteManager installation or at contract setup. Each approval level corresponds to a user group within SiteManager. The estimate is approved starting with the first level, the Project Manager, and completing with the last reviewer who indicates that the estimate is ready for payment. SiteManager allows a maximum of five levels of approval with the fifth level as the last approval level. Once the last approval level has approved the estimate, a generic file layout will be created which contains all payment information required by the transportation agency's financial system and available on SiteManager.

The approval of an estimate has three major stages during its life cycle:

Initial Approval Level

During this approval level, the estimate can only be approved by a limited group of users; more specifically, the person who generated the estimate or a person from the same user group as the owner of the estimate with equivalent contract rights. Additionally, the process performs the following discrepancy logic:

- ▪ If you are approving a progress estimate, any remaining discrepancies must be in an override status. Otherwise, you will receive an In-Box message indicating that unresolved discrepancies exist. At this time you can choose to continue with the approval or terminate the process.

- ▪ If you are approving a final estimate and discrepancies exist (in either an overridden or unresolved status), then you will receive an error message and the approval process will terminate.

- ▪ If you are approving a supplemental estimate, then discrepancies will not exist.

If approval is given at this stage, all information regarding this estimate is frozen and an In-Box message is sent to all the reviewers in the next approval level (indicating the need for another approval). Estimate status is cleared from pending approval to initial approval.

Intermediate Approval Level(s)

During this approval level, no edits are done to the estimate information, only the approval of the reviewer from this level is necessary. Once an approval is made at this stage, an In-Box message is sent to all the reviewers of the next approval level. The reviewer can reject the estimate at this stage using the Estimate Rejection window. Estimate status remains as initial approval.

Final Approval Level

During this approval level the following processes are executed:

- Quantity Totals, Estimate to Approved for Payment Status, Daily Work Report's Paid Indicator, Estimate Total Amounts, Training information, and other estimate-specific information is updated.

- An ASCII sequential extract file is generated/updated that contains estimate information records to be used by the transportation agency's accounting system.

- At this stage, the reviewer can also reject the estimate using the Estimate Rejection window.

While in this window, only the Approved field accepts entry to indicate approval. If you are not the initiator of the estimate and wishes to approve all level between them and the initiators level, you must mark the levels all inclusive. Once you save the data, the system performs the approvals for all the approved levels.

Discrepancy Processing

During the process of estimate approval, SiteManager evaluates the status of all discrepancies during the first level of approval. The following topics describe how discrepancies are processed:

Progress Estimate

During the first level of approval, SiteManager checks if discrepancies exist for a progress estimate. If unresolved discrepancies are found, you are shown a message box giving you the option on whether to continue the approval or not. If you choose to continue, then the approval process will continue; otherwise, it is terminated.

Final Estimate

During the first level of approval, SiteManager will check if discrepancies exist for a final estimate. If unresolved or overridden discrepancies are found, you are shown a message box stating that the system cannot continue until all discrepancies have been resolved. The approval process is terminated.

Information regarding an estimate is updated only if the estimate has not been approved by any of the approval levels. The first level of approval is allowed only by the user who generated the estimate or a user that belongs to the same group as the user who generated the estimate as long as they have contract update authority. If a user belongs to a user group that is designated for one of the estimate approval levels, then that user can approve any unapproved levels that are of a lower level up to the user's group level (excluding the first level). See following example.

Example   Levels of approval: 5 levels (1 to 5 with 1 being the first level of estimate approval)

Figure 10-30. Approval Example

A user with an Auditor, District Manager, or Central Office Manager rights is allowed to approve the next level, level 2, as long as the user has update capability on the contract. Therefore, any user that belongs to a group from any of the unapproved levels can approve the next available approval level.

Because level one has been approved by the Project Manager, any user with Project Manager rights that has update capability cannot *unapprove* the level 1 approval. NOTE: An approved estimate, no matter the approval level given, is not available for update; only viewing is allowed.

In the example:

- If a user has Director rights, then that user can approve levels 3, 4, and 5 (their own level).

- If a user has a Central Office Manager rights, then that user can only approve levels 3 and 4 (their own level).

- If a user has a District Manager rights, then that user can only approve level 3 (only their own level).

Therefore, a user who belongs to an approval level group can approve any level lower than their own approval level; except for the first level.

Once the estimate has been approved by the user, an In-Box message is automatically sent to the next level of reviewer(s) stating that the estimate is ready for the next level of approval.

If an estimate has final approval, the following information is updated:

- The estimate status is updated to *paid* in Contract Estimate Table.

- Quantity Paid To Date and Quantity Installed To Date are updated in Contract Item.

- Current Paid Amount and Quantity are updated in Contract Estimate Item.

- Paid indicator is updated to paid in DWR.

- Total and Previous Training Hours Paid are updated in contract.

If an estimate has been given final approval, the following logic performed.

If the estimate is the first estimate, a sequential ASCII file containing information regarding the estimate is created. The information in this file is used by the individual transportation agency's using SiteManager as an input to their accounting system. This file is generic and does not adhere to any particular transportation agency's accounting system. The process of extracting records from this file is the responsibility of each transportation agency.

NOTE: If a financial file already exists, the information will be appended to the existing file.

The sequential file created during final approval contains three different record types.

- ES = Estimate

- PJ = Project

- LI = Line Item

The fields in a record are separated by a comma (comma delimited) for all record types. The layouts of the files are documented in the following tables:

Field Name	Type	Length	Description
RECORD_TYPE	A	2	The type of the record (ES, PJ, or LI).
CONT_ID	A	15	The ID for the contract.
EST_NBR	A	4	System-generated, sequential number assigned to each draft estimate during the estimate generation process.
VENDOR_ID	A	14	The ID for the Vendor
CO_NM	A	50	Name identifier of company.
ADDR_LN1	A	40	Identifies the first line of an address.
ADDR_LN2	A	40	Identifies a second line of an address.
ADDR_LN3	A	40	Identifies a third line of an address.
CITY_NM	A	40	Identifies the city for an address.
ST_PRVCE	A	2	Identifies the state or province of an address.
POSTAL_CD	A	10	Identifies the postal code of an address.
CNTRY_NM_T	A	20	Identifies the country of an address.
PH_NBR	A	13	Identifies the telephone number of the address.
PH_EXT	A	5	Identifies a telephone extension of an address.

Field Name	Type	Length	Description
FAX_NBR	A	13	Identifies the FAX number of an address.
ESCROW_AGENT	A	50	Full name of the Escrow Agent.
SURETY__CO	A	50	Full name of the Surety CO.
BID_CONT_AMT	N	13	The amount of the bid of the contractor awarded the job.
CUR_CONT_AMT	N	13	The total of BID_CONT_AMT * NET Change C.O.
PCT_CONT_CMPLT	N	13	The percent of the contract completed. Total amount installed divided by CUR_CONT_AMT.
CONT_FUNDS_AVAIL	N	13	The amount of funds available to the contract. Calculated by CUR_CONT_AMT - Total Amount Installed.
CUR_AMT_PD	N	13	Amount paid for this estimate.
CUR_ESCR_AMT	N	13	Escrow amount for this estimate.
CUR_SECUR_USED	N	13	Securities used for this estimate.
CUR_CONT_ADJ_AMT	N	13	Contract adjustment amount for this estimate.
PREV_TOT_AMT_PD	N	13	Total amounts paid for this line item previous to the current estimate.
PREV_TOT_ESCR_AMT	N	13	Escrow amount previous to the current estimate.
PREV_TOT_SECUR_ USED	N	13	Securities used previous to date.
PREV_TOT_CONT_ADJ _ AMT	N	13	Total contract adjustment amount previous to the current estimate.
PRD_BEG_DT	D	8	The begin date for the estimate period. (mm/dd/yy)
PRD_END_DT	D	8	The end date for the estimate period. (mm/dd/yy)

Table 10-20. The Estimate Record Field Details Table

Field Name	Type	Length	Description
RECORD_TYPE	A	2	The type of the record. (ES, PJ, or LI)
CONT_ID	A	15	The ID for the contract.
EST_NBR	A	4	System-generated, sequential number assigned to each draft estimate during the estimate generation process.
PRJ_NBR	A	13	The unique identifier for the Project.
CUR_DISINC	N	13	Disincentives for this estimate.
CUR_INC	N	13	Incentives for this estimate.

Field Name	Type	Length	Description
CUR_LIQ_DAM	N	13	Liquidated damage amount for this estimate.
CUR_NP_RETAIN	N	13	The amount of retainage, in this estimate that is non-participating.
CUR_OTH_ADJ	N	13	Other adjustments for this estimate. These adjustments are line item adjustments.
CUR_PARTIC_RETAIN	N	13	The amount of retainage, in this estimate that is participating.
CUR_RETAIN_RLSE	N	13	The amount of retainage release by the system in this estimate
CUR_PARTIC_AMT	N	13	The total amount installed in this estimate that is participating.
CUR_NP_AMT	N	13	The total amount installed in this estimate that is non-participating.
PREV_TOT_DISINC	N	13	Disincentives previous to this estimate number.
PREV_TOT_INCENT	N	13	Incentives previous to this estimate number.
PREV_TOT_LIQ_DAM	N	13	Liquidated damage amount previous to this estimate.
PREV_TOT_NP_RETAIN	N	13	The amount of retainage, previous to this estimate that is non-participating.
PREV_TOT_OTH_ADJ	N	13	Other adjustments previous to this estimate. These adjustments are line item adjustments.
PREV_TOT_P_RETAIN	N	13	The amount of retainage, previous to this estimate that is participating.
PREV_TOT_RETAIN_RLSE	N	13	The amount of retainage release by the system previous to this estimate.
PREV_TOT_PARTIC_AMT	N	13	The total amount installed previous to this estimate that is participating.
PREV_TOT_NP_AMT	N	13	The total amount installed previous to this estimate that is non-participating.
FED_ST_PRJ_NBR	A	30	The federal or state project number for the contract, project or category.

Table 10-21. The Project Record Field Details Table

Field Name	Type	Length	Description
RECORD_TYPE	A	2	The type of the record. (ES, PJ, or LI)
CONT_ID	A	15	The ID for the contract.
EST_NBR	A	4	System-generated, sequential number

Field Name	Type	Length	Description
			assigned to each draft estimate during the estimate generation process.
PRJ_NBR	A	13	The unique identifier for the project.
CATG_NBR	A	4	
LN_ITM_NBR	A	4	The contract line item number which uniquely identifies each item as it appears on the contract. For all bid items, assigned by the pre-construction function. For all items added to the contract after construction begins, user entered.
ITEM_CD	A	13	A grouping of items assigned during pre-construction. Items can be grouped within categories for various reasons, primarily for funding.
CUR_INSTL_QTY	N	12	Installed quantity for this estimate.
CUR_PD_AMT	N	13	The quantity of the item to be paid times the unit price of the item.
CUR_PD_QTY	N	12	The quantity of the item to be paid.
CUR_PARTIC_AMT	N	13	Amount allocated to this fund (participating) for this item in this estimate period.
PREV_TOT_INSTL_QTY	N	12	Total installed quantities previous to this estimate.
PREV_TOT_PAID_QTY	N	12	Total paid quantities previous to this estimate
PREV_TOT_PAID_AMT	N	13	Total paid amount previous to this estimate.
CUR_NP_AMT	N		Amount allocated to this fund (non-participating) for this item in this estimate period.
FUND_SRC_CODE	A	6	Identifies a particular source of funding.
FUND_ACCTG_FUND_CD	A	9	An accounting department defined fund code.
FUND_DESC	A	40	Fund Code description.
FUND_PREFIX	A	10	An alternate name for the fund.
FUND_GROUP	A	6	Allows the ability to associate several different funds with the same fund group code.
FUND_CUR_AMT_USED	N	13	Amount used from this funding in this estimate.
FUND_PREV_TOT_AMT_USED	N	13	Total amount used from this funding up to the previous estimate.
FUND_CUR_LMT_AMT	N	13	The current dollar limit on funds for a contract.

Field Name	Type	Length	Description
FUND_ORIG_LMT_AMT	N	13	The original dollar limit on funds for a contract.
FUND_SRC_PARTIC_PCT	N	5	The percent of total amount in the project/category which will be provided by the funding source. (For example, many federal aid funding sources provide 80% of the funding for the project/category.)
FUND_ST_ACCTG_CD	C	10	Transportation agency-defined code needed by financial system.
FUND_ST_FUND_CD	C	10	Transportation agency-defined code needed by financial system.

Table 10-22. The Line Item Type Record Field Details Table

Field Name	Description
Generated By:	The User ID of the user that generated the selected estimate number.
Generated On:	The date and time the selected estimate number was generated.
Approved	The check-box field for each approval level.
Date	The date the reviewer for the corresponding approval level approved the estimate. This field will have a value whenever the corresponding Approve check box is checked by the authorized reviewer.
Time	The time the reviewer for the corresponding approval level approved the estimate. This field will have a value whenever the corresponding Approve check box is checked by the authorized reviewer.
User ID	The User ID of the reviewer that approved the corresponding approval level. This field will have a value whenever the corresponding Approve check box is checked by the authorized reviewer.

Table 10-23. The Estimate Approval Fields Table

Figure 10-31. The Estimate Approval Window

To approve an estimate:

1. On the **Estimate** panel, double-click the **Estimate Approval** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

5. Click the **Approved** check box (ON) for your level.

6. Click **OK**.

7. Click the **Save** button.

10.2.10 Estimate Rejection

The Estimate Rejection window allows the authorized Estimate reviewers to reject any Estimate type — progress, final, or supplemental. The Estimate Rejection window provides the estimate reviewers an option to disapprove an estimate for whatever reason they see fit with the requirement of attaching a remark documenting the reason for rejecting the estimate. This remark is attached to the estimate and can be viewed through the Estimate Summary window. This Estimate Rejection window is accessible to only the reviewers whose level has not yet been approved and there exists a previous approval. Once the estimate has been rejected by a reviewer, an In-Box message with the remarks attached is sent to all the previous approvers and all approval data — User ID, date and time, is deleted. At this point, the information regarding the estimate is may be modified only by the first level reviewer, the Project Manager, or a user with equivalent rights. Once updates are completed, the estimate must again go through the chain of approval levels starting with the first level up to the last level. Once an estimate has been approved by the final reviewer the estimate is frozen and cannot be rejected. Also,

when the latest estimate has not been approved by the first level of approval, the contract will not be available for selection. The first level of approval cannot reject an estimate and an estimate cannot be rejected until approved by the first level.
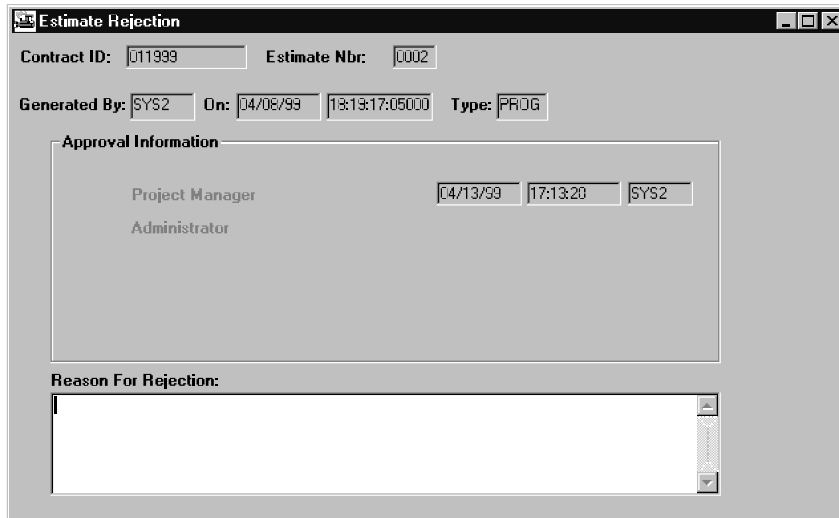
Figure 10-32. The Estimate Rejection Window

When the Save button is selected in the Reject window, the following steps are executed:

1. An In-Box message with the remarks describing the reason for rejecting the estimate is sent to all the previous reviewer(s) of the estimate.

2. The estimate status is updated to Active.

3. All estimate approval information is deleted.

Once an estimate approval level has approved an estimate, that approval level cannot reject the estimate. In the preceding example, the Auditor cannot reject the estimate. Only users from level 3 (District Manager) and above (Central Office and Director) are allowed to reject the estimate.

In the preceding example, if the estimate has been approved by the Director (level 5), then the estimate cannot be rejected. Thus, only estimate without final approval can be rejected.

Field Name	Description
Generated By:	The ID of the user that generated the selected estimate.
Generated On:	The date and time the selected estimate was generated.

Field Name	Description
Approved	The check-box field that corresponds to each approval level. If a check-box is checked, it indicates that the corresponding approval has been approved.
Date	The date the reviewer for the corresponding approval level approved the estimate. This field will have a value whenever the corresponding Approve check box is checked by the authorized reviewer.
Time	The time the reviewer for the corresponding approval level approved the estimate. This field will have a value whenever the corresponding Approve check box is checked by the authorized reviewer.
User ID	The User ID of the reviewer that approved the corresponding approval level. This field will have a value whenever the corresponding Approve check box is checked by the authorized reviewer.
Remarks	Documents the reason(s) that the estimate is being rejected. The Remarks are attached to the In-Box message sent to the previous reviewers.

Table 10-24. The Estimate Rejection Fields Table

To reject an estimate:

1. On the **Estimate** panel, Double-click the **Estimate Rejection** icon.

2. In the list box, scroll to and double-click the desired contract.

3. In the list box, scroll to and click the desired estimate.

4. Click **OK**.

5. Type the reason for the rejection.

6. Click the **Save** button.

7. When complete, click the **Close** button.

10.2.11 Estimate Tracking

The Estimate Tracking window is an inquiry-only window that allows the tracking of an estimate generation, approval, and rejection.

Field Name	Description
(Generated) Date	The date when the estimate was generated.
(Generated) Time	The time when the estimate was generated.
(Generated) User ID	The User ID of the person that generated the estimate.
(Level 1) Date	The date when the estimate was approved by the corresponding level.
(Level 1) Time	The time when the estimate was approved by the corresponding level.
(Level 1) User ID	The User ID of the reviewer of the corresponding level.
(Level 2) Date	The date when the estimate was approved by the corresponding level.
(Level 2) Time	The time when the estimate was approved by the corresponding level.
(Level 2) User ID	The User ID of the reviewer of the corresponding level.
(Level 3) Date	The date when the estimate was approved by the corresponding level.
(Level 3) Time	The time when the estimate was approved by the corresponding level.
(Level 3) User ID	The User ID of the reviewer of the corresponding level.
(Level 4) Date	The date when the estimate was approved by the corresponding level.
(Level 4) Time	The time when the estimate was approved by the corresponding level.
(Level 4) User ID	The User ID of the reviewer of the corresponding level.
(Level 5) Date	The date when the estimate was approved by the corresponding level.
(Level 5) Time	The time when the estimate was approved by the corresponding level.
(Level 5) User ID	The User ID of the reviewer of the corresponding level.

Table 10-25. The Estimate Tracking Fields Table

≣ **Note:** The levels of estimate approval given in the table are for four levels of estimate approval. SiteManager requires at least one level of approval and allows a maximum of five levels. Thus, this window and associated data fields are dynamically adjusted to the number of required estimate approvals of a contract which is set up in the contract or the installation of SiteManager.

Figure 10-33. The Estimate Tracking Window

To track an estimate:

1. On the main panel, double-click the **Contractor Payments** icon.

2. On the **Contractor Payments** panel, double click the **Estimates** icon.

3. On the **Estimate** panel, double-click the **Estimate Tracking** icon.

4. In the list box, scroll to and double-click the desired contract.

5. In the list box, scroll to and click the desired estimate.

6. Click **OK**.

To select a new contract and estimate in the Estimate Tracking window:

1. Click the **Open** button and select a different contract and estimate.

10.2.12 Enter Check Number

This Enter Check Number enables the user to enter the check number for a specific contract estimate. The Check Number can be entered, modified, and removed only when all of the following conditions are satisfied:

▪ The Global option to enter Check Number is present and

▪ The estimate for which the check number to be entered has passed the final approval.
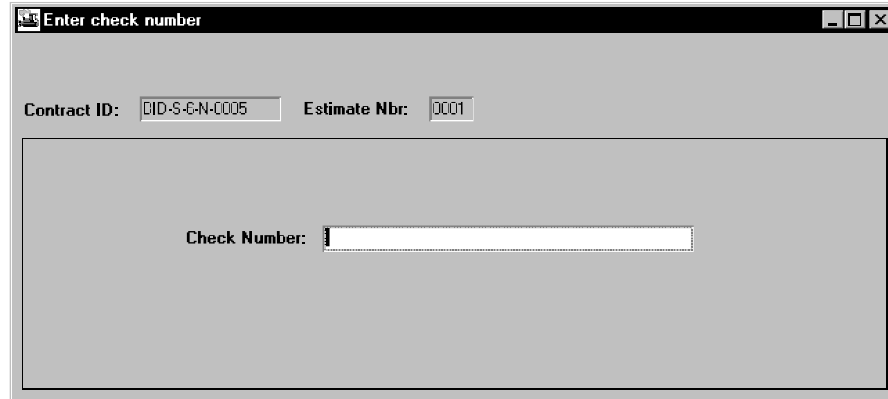
Figure 10-34. he Enter Check Number Window

To enter a check number:

1. On the main panel, double-click the **Contractor Payments** icon.

2. On the **Contractor Payments** panel, double click the **Estimates** icon.

3. On the **Estimate** panel, double-click the **Enter Check Number** icon.

4. In the list box, scroll to and double-click the desired contract.

5. In the list box, scroll to and click the desired estimate.

6. Click **OK**.

7. Type the check number.

8. Click the **Save** button.

10.2.13 Contractor Payment Approval Levels

The Contractor Payment Approval Levels reference table allows approval authority to be modified for individual contracts. The actual setting up of the user groups (up to five) and the definition of what users are in each group is addressed by the System Administration function. The Contractor Payment Approval Levels merely allows the assignment of approval levels within the predefined groups for a specific contract.

10.3 Reports (Contractor Payments)

The Reports (CP) panel generates commonly used Contractor Payments reports. The following report topics are available on this panel:

▪ Summary by Project,

- Summary by Funding,

- Estimate Activity Log,

- Installed Work Report

- Work Suspend/Resume Times, and

- View Saved Reports (PSR)
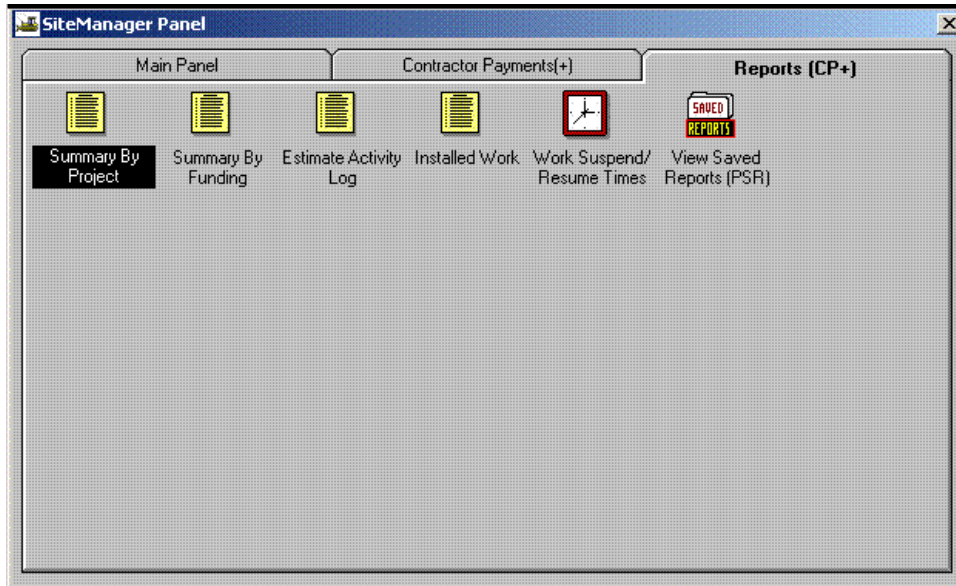
Figure 10-35. The Reports (CP) Panel

To access Contractor Payment reports:

1. On the **Contractor Payments** panel, double-click the **Reports (CP)** icon.

2. Double-click the icon for the desired report.

To generate a Contractor Payment Report (except where otherwise noted):

1. Double-click the desired report icon.

2. Select the desired report criteria (contract, estimate number, etc.).

3. Click **OK**.

For more information, please see the Reports section.

10.3.1 Summary by Project Report

The Summary by Project report is a multi-page report generated for those who require estimate Summary and details at the project level. It summarizes detailed information for all projects within an estimate. Included in the report are an itemized description of quantities and amounts by projects.

The report consists of three page types. The first page summarizes the contract information on an estimate. The second page summarizes the payment information for each Project within the contract. The third page type summarizes the quantities and amounts of items used for each Project for this estimate.

To produce the report, the contract ID and Estimate Number are required. If Estimate Number is not known at the time of request, the correct estimate may be selected from a selection list. This report may be printed for multiple estimates by clicking the Generate Off Line Print check box and selecting multiple estimates from the selection list.

The Summary By Project report is unique in that multiple reports may be generated in a batch print process. To select multiple reports, simply select multiple records using basic Windows functionality - clicking the selected rows while holding down either the Control or the Shift key.

To select reports to be printed:

1. On the Report Criteria window, click the **Generate Off-line Print** check box (ON).

2. To select multiple report criteria, highlight the desired criteria by holding down the shift and/or control keys and clicking the desired report criteria. The shift key allows an entire block of criteria to be selected, while the control key allows individual rows of criteria to be selected.

3. Click **OK**.

Figure 10-36. The Summary by Project Report (Page 1)

Field Name	Description

Field Name	Description
Contract ID	The ID for the contact.
Estimate Number	The system-generated sequential number assigned to each draft estimate during the estimate generation process.
Pay Period	The day following the Period End Date of the previous estimate. If first estimate, it will be the Notice To Proceed Date. The Pay Period includes the first and last days of the current estimate's payment period.
To (End Date)	The last day of the current estimate's payment period.
Contract Location	The description of the physical location of the contract.
Time Allowed	For Available or Calendar day charge type contracts, this is the current number of days for the contract (original bid days, plus the total adjusted days [+/-]). For Fixed Date charge type contracts, this is the total number of days from the Notice to proceed date to the current estimate's Pay Period end date.
Time Charged	The number of days charged based on Diaries for the estimate's time period. If Diaries are adjusted, the charge days are adjusted accordingly. If a Diary is added late (i.e. the time period including the Diary date has already been covered by an estimate) the Diary charge is reflected in the next report.
Percent Time	The percentage of time charged.
Level 2 and Level 3 Office	Identifies the first (Level 2) and second (Level 3) level offices below the department's central or state headquarters office.
Contractor	The full name and complete address of the contract's primary vendor.
Phone	The telephone number of the contractor's address.
Date Let	The date the contract was let.
Date Awarded	The date the contract was awarded.
Date Contract Executed	The date the contract went into execution.

Field Name	Description
Date Notice To Proceed	The date the notice to proceed was received.
Date Work Began	The date construction began.
Date Time Stopped	The date time charges stopped.
Date Accepted	The date the contract was accepted.
Escrow Agent	The full name of the contractor's escrow agent.
Surety Co	The full name of the contractor's surety company.
Counties	The counties involved in the contract.
Current Contract Amt	The amount of the contract for the current requested estimate.
Original Contract Amt	The amount of the contract awarded.
Funds Available	The amount remaining in the contract.
Percent Complete	The percentage of the contract amount paid through the end date of the current estimate.
Project Number	The unique identifier for the Project, and a short description of the Project.
Federal State Project Number	The unique Federal/State identifier for the contract.
Total To Date	The total project amount of all estimates through the current requested estimate.
Previous To Date	The total project amount of all estimates prior to the current requested estimate.
This Estimate	The total project amount of the current requested estimate.
Participating	The estimate amount for the project for items that have known funding sources.
Non-Participating	The estimate amount for the project for items that have not been funded.
Total Earnings	The total of the participating and non-participating estimate amounts for the project.

Field Name	Description
Stockpiled Materials	The estimate amount for the project for stockpiled materials that have been installed.
Gross Earnings	The total of total earnings and stockpiled materials estimate amounts for the project
Payment Adjustment 1	The Total to Date, Previous to Date and Current estimate amounts for fuel adjustments made on the contract.
Payment Adjustment 2	The Total to Date, Previous to Date and Current estimate amounts for bituminous adjustments made on the contract.
Payment Adjustment 3	The Total to Date, Previous to Date and Current estimate amounts for Autopay adjustments made on the contract.
Other Adjustments	The estimate amount of other adjustments made on the project
Retainage	The Total to Date, Previous to Date and Current estimate amount of cash withheld from (-) or released to (+) the contractor, per contract retainage obligations, for the project.
Escrow Amount	The Total to Date, Previous to Date and Current estimate amount of escrow withheld from (-) or released to (+) the contractor, per contract retainage obligations, for the project.
Securities Encumbered	The Total to Date, Previous to Date and Current estimate amount of contractor securities frozen (encumbered;-) or unfrozen (unencumbered;+) the contractor, per contract retainage obligations, for the project.
Total	The Total to Date and Previous to Date total amount of the Gross Earnings and adjustments for the project.
Total Payable	The total amount of the project's Gross Earnings and adjustments for the current estimate.

Table 10-26. The Summary by Project Report Fields (Page 1) Table

The report fields are calculated as follows:

Percent Time = (Time Charged / Time Allowed) * 100

Current Contract Amount = Total Bid Amount - Total Change Order Amount Where Total-Change-Order-Amount is the sum of the values of the Change Order Amount field from all the records from the Contract CO table whose Contract ID is equal to the passed parameter and Approval Date is not later than the Pay Period reported on.

Funds Available = Total Bid Amount - Net Pay To Date

Percent Complete = (Net Pay To Date / Total Bid Amount) * 100

Total To Date are amounts from the first estimate to the current estimate reported on. For example if the current estimate reported on is Estimate Nbr. 3, Total To Date amounts will be from Estimate Nbr. 1 to Estimate Nbr. 3, although the latest estimate may be Estimate Nbr. 5.) Or,

Total-To-Date = Previous-To-Date + This-Estimate.

Previous To Date are amounts from the first estimate to the estimate prior to the current one reported on. For example if the current estimate reported on is Estimate Nbr. 3, Previous To Date amounts will be from Estimate Nbr. 1 to Estimate Nbr. 2, although the latest estimate may be Estimate Nbr. 5.)

Total Earnings = Participating + Non-Participating

Gross Earnings = Total-Earnings + Stockpiled-Materials

Total = Gross Earnings + Payment Adjustment-1 + Payment Adjustment-2 + Payment Adjustment-3 + Other-Adjustments
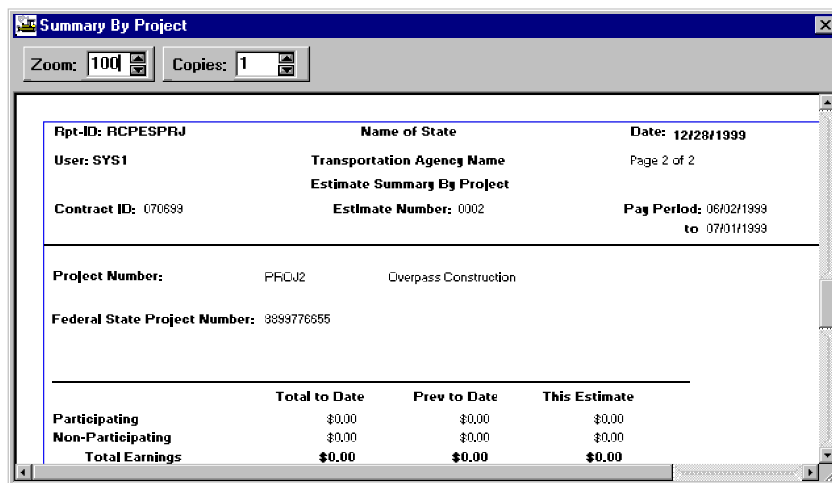
Figure 10-37. The Summary by Project Report (Page 2)

Field Name	Description
Contract ID	The ID for the contact.

Field Name	Description
Estimate Number	The system-generated sequential number assigned to each draft estimate during the estimate generation process.
Pay Period	The day following the Period End Date of the previous estimate. If first estimate, it will be the Notice To Proceed Date. The Pay Period includes the first and last days of the current estimate's payment period.
to (End Date)	The last day of the current estimate's payment period.
End Date	The last day of the estimate period.
Project Nbr	The unique identifier for the project.
LIN	The contract line item number which uniquely identifies each item as it appears on the contract.
Category Number	The identifier for and description of a grouping of items assigned during pre-construction. Items can be grouped within categories for various reasons, primarily for funding.
Description	The description of the item.
Supplemental Description	Additional description of the item.
Auth Qty	The contract bid quantity plus the approved change order quantity.
Units	The unit of measure for the item.
Unit Price	The unit price of the item identified on the invoice.
Prev Qty	The total quantity of the project category item on all estimates prior to the current requested estimate.
Qty This Period	The quantity of the project category item on the current requested estimate.
Qty To Date	The total quantity of the project category item on all estimates through the current requested estimate.
Amount This Period	The estimate amount of the item for the current requested estimate.
Cumulative Amount	The total estimate amount of the project category item through the current requested estimate.

Field Name	Description
Category Amount	The total amounts for the project category items for the current estimate and all other estimates related to the contract.
Project Total Amount	The total amounts for the project items for the current estimate and all other estimates related to the contract.

Table 10-27. The Estimate Summary by Project Report Fields (Page 2) Table

The report fields are calculated as follows:

Cumulative Amount = Unit Price * Quantity of participating (funded) items

10.3.2 Summary by Funding Report

The Summary by Funding report is intended for those who require information on funding source and associated payments and adjustments for a given project in a contract. It summarizes all project totals for the estimates and funding for a project within a contract.

The report consists of two pages. This first page summarizes the payments and adjustments made to a Project and estimate. This second page summarizes the different funding for a Project in a contract.
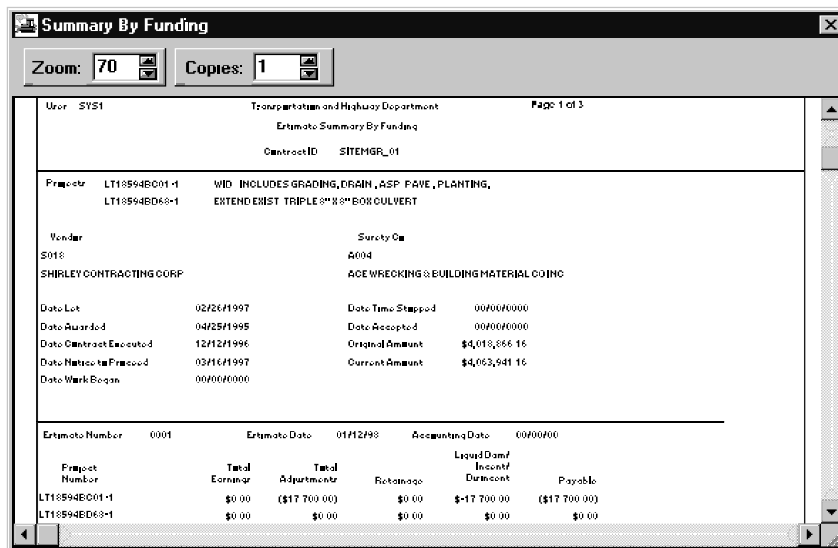
Figure 10-38. The Summary by Funding Report (Page1)
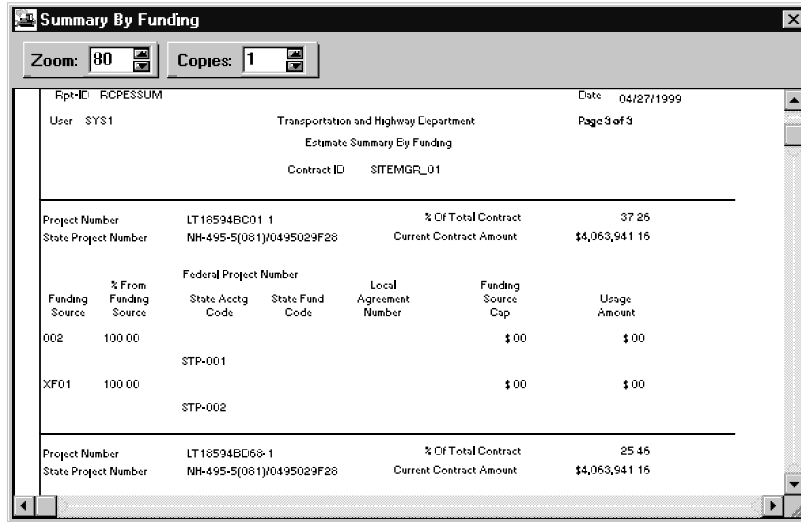
Figure 10-39. The Summary by Funding Report (Page 2)

Field Name	Description
Contract ID	The ID for the contact.
Projects	The contract's Projects.
Project Number	The unique identifier for the Project.
Project Description	Textual description.
Vendor	The unique identifier of the vendor/ contractor.
Vendor Full Name	The full name of the primary vendor of the contract.
Surety Co.	The unique identifier of the contractor's surety company.
Surety Co. Full Name	The full name of the contractor's surety company.
Date Let	The date the contract was let.
Date Awarded	The date the contract was awarded.
Date Contract Executed	The date the contract went into execution.
Date Notice To Proceed	The date the notice to proceed was received.
Date Work Began	The date construction began.
Date Time Stopped	The date time charges stopped.
Date Accepted	The date the contract was accepted.

Field Name	Description
Original Amount	The amount of the contract awarded.
Current Amount	The amount of the contract for the current requested estimate.
Est Nbr	The system-generated sequential number assigned to each draft estimate during the estimate generation process.
Estimate Date	The last day of the estimate period.
Acctg Date	The date the estimate was passed to Accounting or Financial system via the interface.
Total Earnings	The total of the participating and non-participating project amounts and the estimate amount for stockpiled materials that have been installed.
Total Adjustments	The total amount of the line item adjustments and contract adjustments for a Project (not including retainage, liquidated damages, or incentives/disincentives).
Retainage	The project amount for retainage withheld.
Liquidated Damages	The Project amount of the liquidated damages assessed and incentives and disincentives incurred.
Payable	The total amount to be paid to the contract or on the Project.
Total For Contract	The total amounts for all Projects and estimates.

Table 10-28. The Summary by Funding Fields (Page 1) Table

Total Earnings is calculated as the total amounts for participating and non-participating items and the amount for stockpiled materials installed.

Current Amount is calculated as the difference of the Total Bid Amount and all Change Order Amounts.

Field Name	Description
Contract ID	The ID for the contact.
Project Number	The unique identifier for the Project.
State Project Nbr	The state project number for the contract, project or category.

Field Name	Description
% Of Total Contract	The percentage of the contract the project accounts for.
Current Contract Amount	The total amount of the contract.
Funding Source	The source of funding for the project.
% From Funding Source	The percentage of the cost that will be paid by the funding source.
Federal Project Number	The number used to identify the federal project covering the work being done.
State Acctg Code	The transportation agency-defined code needed by the financial system.
State Fund Code	The transportation agency-defined code needed by the financial system.
Local Agreement Number	The number used to identify an agreement between a local authority and the transportation agency.
Funding Source Cap	The dollar limit on funds which can be provided by a funding source.
Usage Amount	Amount used from this funding as of the current estimate.

Table 10-29. The Summary by Funding Fields (Page 2) Table

The report fields are calculated as follows:

% Of Total Contract = (Project-Amount / Total-Bid-Amount) * 100

Where Project-Amount is the sum of the values of the Amount This Period field of records from the Contract Estimate Item table for all items within the project for all estimates.

Current Contract Amount = Total-Bid-Amount - Total-Change-Order-Amount

Where Total-Change-Order-Amount is the sum of the values of the Change Order Amount field of records from the Contract CO table where the Contract ID is equal to the passed parameter.

10.3.3 Estimate Activity Log

The Estimate Activity Report displays the activity messages issued during the various processes in the estimate process — estimate generation, approval, and rejection.
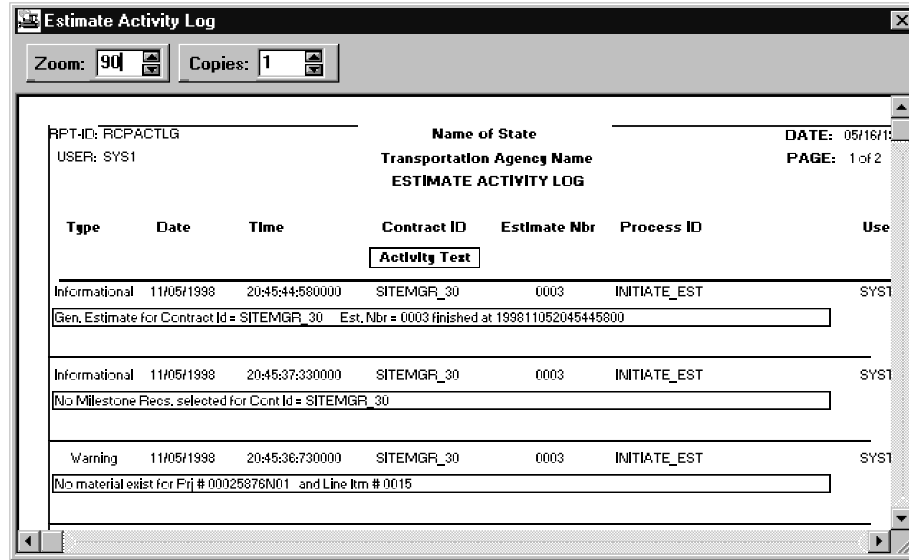
Figure 10-40. The Estimate Activity Log

Field Name	Description
Type	The type of the generated message. Valid values are E - Error, I - Informational, W - Warning.
Date	The date the message was generated.
Time	The time the message was generated.
Contract ID	The primary identifier for the contract.
Estimate Nbr	System-generated, sequential number assigned to each estimate during the estimate generation process.
Process ID	The name of the process that generated the message.
User ID	The unique identifier for the user that accessed the process that generated the message.
Message	The text of the message.

Table 10-30. The Estimate Activity Log Fields Table

10.3.4 Installed Work Report

This Installed Work report displays the amounts for all items installed in a contract (from both unauthorized and authorized Daily Work reports) that are not included on an estimate.
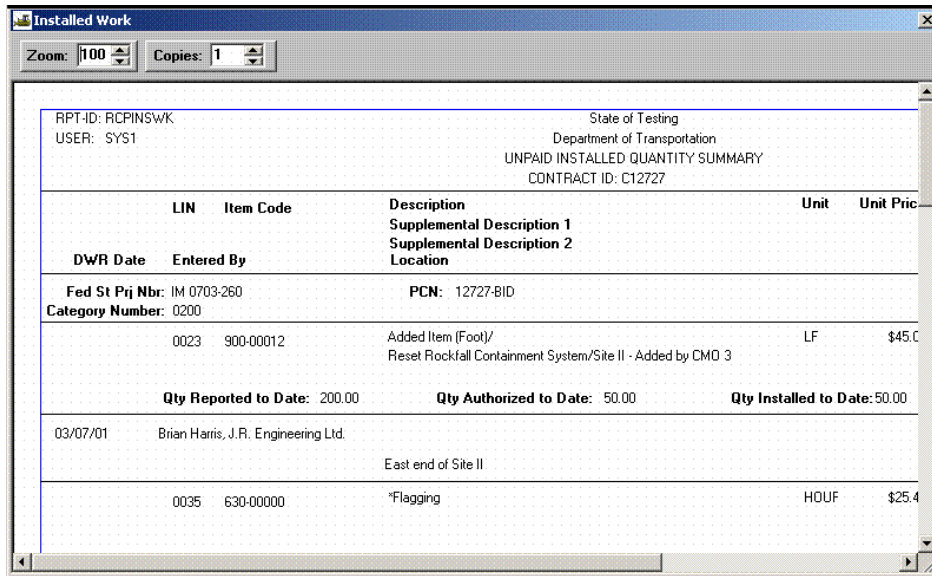
Figure 10-41. The Installed Work Report

Once an estimate has been generated, all authorized quantities for that estimate's pay period no longer appears on the Installed Work report. This Report only contains *current* unauthorized quantities.

Field Name	Description
Project Number	The Fed St Prj Nbr, the unique identifier for the project. Can be multiples per contract.
PCN	Primary Control Number/Primary Project Number for the contracts. For contracts with multiple projects, this is the primary identifying project for the contract.
Cat Nbr	A grouping of items assigned during pre-construction. Items can be grouped within categories for various reasons, primarily for funding.
Entered by	The name of the inspector who recorded the installed quantity on the Daily Work report.
DWR Date	The date of the Daily Work report on which the installed quantity is reported.
LIN	The contract line item number which uniquely identifies each item as it appears on the contract. For all bid items, assigned by the pre-construction function. For all items added to the contract after construction begins, user entered.
Item Code	An agency defined code used to identify a particular item.

Field Name	Description
Description	Short textual definition for the item code.
Suppl Description 1	Additional description of the item.
Suppl Description 2	Secondary additional description of the item.
Location	The location where the item was installed, as described on the Daily Work report.
Unit	The code that identifies the unit of measure which describes the item's installed quantity (i.e.: EA-each, CUYD-cubic yard, SQFT-square foot, etc.).
Installed Quantity	The sum total of all the Daily Work report's Item Reported Quantity.
Auth	A check box which indicates whether or not the installed quantity has been authorized by qualified personnel.
Unit Price	Unit price of the item.
Installed Amount	The product of Installed Quantity and Unit Price.
Total For Project	The total installed amount for a specific project.
Total Amount For All Items	The sum total of Installed Amount.
Qty Reported to Date	The total of all reported quantities in DWRs, regardless of whether the quantities are authorized or unauthorized and regardless of whether or not they are included on an estimate.
Qty Authorized to Date	The total of all reported quantities on DWRs that are authorized
Qty Installed to Date	The total of all reported authorized reported quantities included on estimates (of all statuses).
Qty Paid to Date	The total of all authorized reported quantities included on estimates (of all statuses). This value is always the same as Qty Installed to Date unless the quantity to pay has been adjusted on the Estimate Item Detail window. This window includes a Pay This Est field which can be modified when an estimate is pending. If the quantity in this field is adjusted, the Qty Paid to Date field will reflect the modification, which will cause the value to differ from the Qty Installed to Date.

Table 10-31. The Installed Work Report Fields Table

10.3.5 Work Suspend/Resume Times Report

The Work Suspend/Resume Times report displays suspension activity details for a contract or a particular milestone completion.
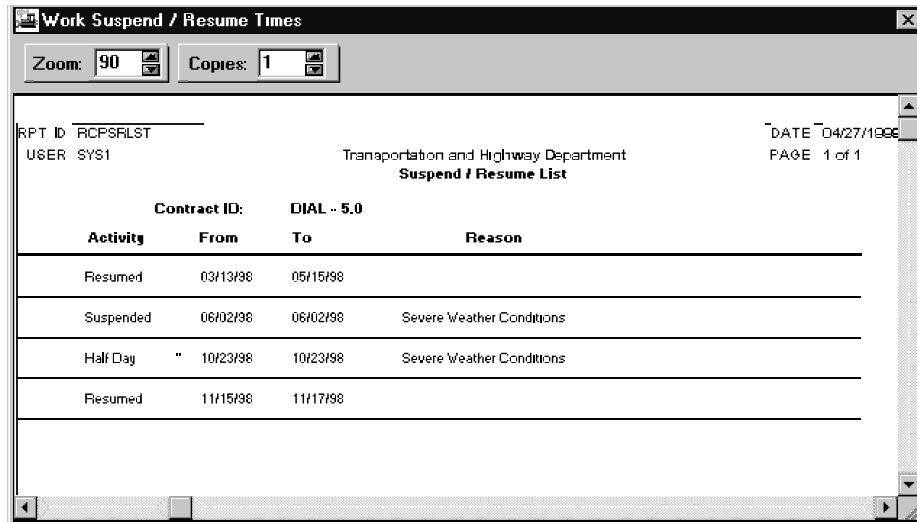
Figure 10-42. The Work Suspend/Resume Times Report

Field Name	Description
Begin Date	The start date of the period indicated for the report. Date cannot be a future date.
End Date	The end date of the period indicated for the report. Date cannot be a future date.
Activity	Either Suspended or Resumed.
From	The date the activity started.
To	The date the activity ended.
Reason	Description of the transportation agency-defined reasons for granting a credit day.

Table 10-32. The Work Suspend/Resume Times Report Fields Table

10.4 Process List (Contractor Payments)

The Process List window lists processes that are available to the authorized user. Available processes depend upon the functional area of the process list, for example, Contractor Payment processes are available by clicking the Process List icon located on the Contractor Payments panel. Processes appearing in process lists also depend upon the user security assigned to the individual process.

The Contractor Payments process list contains the following standard processes:

- Summary to Contractor Report (RCPCSUM1)

- Estimate Financial File Extraction (CCPESTAP)

Processes may be RTF reports, SiteManager PowerBuilder reports, or batch processes. From this window, authorized users may submit processes for batch and background execution.

A process is run from the Process List window by clicking on the named process, and choosing Run Process from the Services menu, or by clicking the named process and clicking the Run Process button or double-clicking the process.
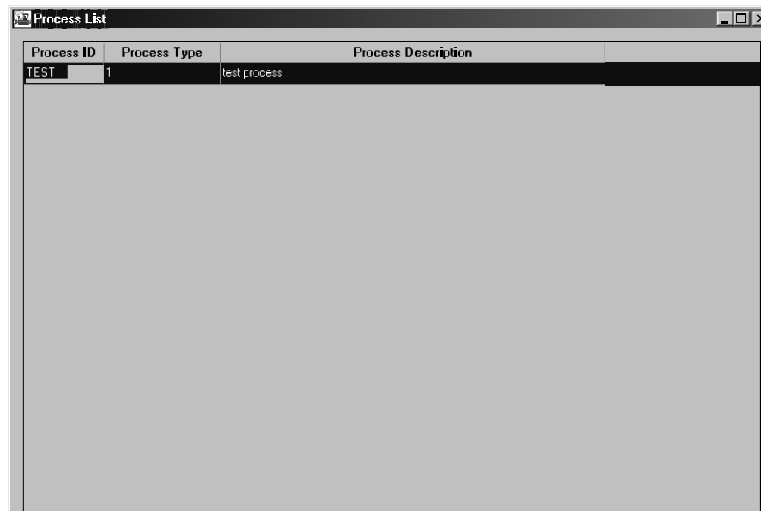
Figure 10-43. The Process List Window

Field Name	Description
Process ID	The name of the process.
Process Description	Short textual description of the process.
Process Type	Denotes whether the process is a standard process or custom process.

Table 10-33. The Process List Window Field Descriptions Table

To display the Process List window:

1. From the **Main panel**, double click the icon for the desired functional area.

2. Double click the **Process List** icon.

10.4.1 Submitting a Process

In addition to the parameters that may be specified while defining a process, there are runtime parameters that may be specified by the user at the time the process is executed. Processes may also be scheduled to run continuously on a specific day, week, or month. If there are any parameters associated to the process during its definition, a window will display when the process is run requesting the specified information from the user.

The Confirm Process Submission window allows users to choose to continue submission directly, cancel submission immediately, or navigate to a runtime parameters window before queuing the job for execution. The Confirm Process Submission window is accessed when the user selects/highlights a process row then selects Run from the Services menu or when the user double clicks on the process row. If any process-specific parameters have been associated to the process, a process parameter window will display, and the options to submit, cancel or specify parameters are available. The Confirm Process Submission window has three buttons, which are described in the table below.

Figure 10-44. The Confirm Process Submission Window

Button Name	Description
Submit	Submits the selected process for execution.
Parameters	Displays the Process Submission Parameters window.
Cancel	Exits the window without submitting the selected process for execution.

Table 10-34. The Confirm Process Submission Button Description Table

To submit a process:

1. From the **Main panel**, double click the icon for the desired functional area.

2. Double click the **Process List** icon.

3. Double click the desired process.

4. If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired.

5. If the process does not have any runtime parameters associated with it, the Confirm Process Submission window displays.

6. Click the **Submit** button.

10.4.2 Setting Process Submission Parameters

The Parameters button on the Confirm Process Submission window navigates the user to the Process Submission Parameters window. This window allows the user to declare certain runtime parameters for each process as it is selected for execution.

Standard SiteManager reports may utilize the Parameters window to schedule the execution of reports off-line.
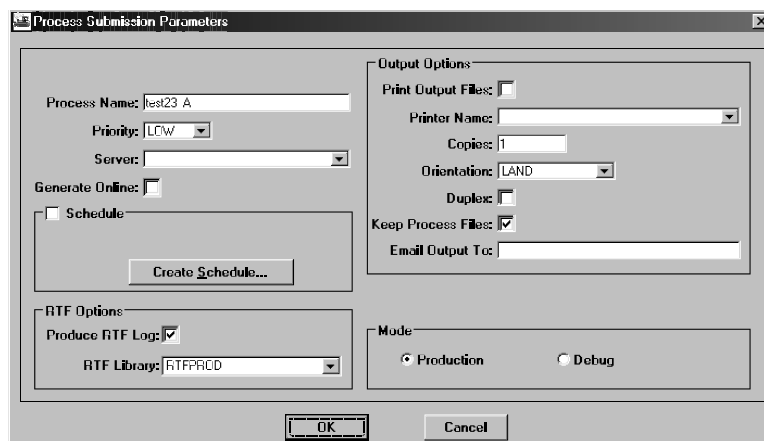
Figure 10-45. The Process Submission Parameters Window

Field Name	Description
Process Name	System-populated from the selected row on the Process List window.
Priority	Specifies the priority (the level of importance) of the process. Available priority levels are high, medium, or low.
Server	Displays the IP address of the application server.

Field Name	Description
Generate Online	If checked on, indicates that the report should be generated online in the client machine and not submitted for application server batch processing.
Schedule	If checked on, indicates the process has a previously-defined schedule for processing. This box may not be check on/off manually.
Create Schedule (Button)	Clicking this button begins the Create Schedule process.
RTF Options	
Produce RTF Log	If selected, this field indicates that RTF log files such as job control and error processing should be generated and included in the output files. The default value for this field is ON.
RTF Library	This field indicates from which report template repository directory the job should obtain its template files. Valid values are test, production, and base (RTFTEST, RTFPROD, RTFBASE). The default is RTFBASE. This access hierarchy applies to all templates used within a custom report. The user CANNOT indicate one template from production and another from test. Regardless of which the user indicates, if the template file is not found where indicated, all jobs will then search for the template in the following hierarchical sequence: base, production, test. The default RTF library is specified on the User Security window for the User ID.
Output Options	
Print Output Files	If checked, the user has chosen to send the executed process's output directly to a printer.
Printer Name	This is the printer name of the printers available to the application server.
Copies	This field declares the number of copies the user wants to print. Default value is one.
Orientation	Indicates the orientation of the report. Valid values are LAND-landscape and PORT-portrait.
Duplex	If checked, this indicates that the user has chosen to print the report double-sided. Regardless of whether checked, this is overridden by the selected printer's print duplex documents configuration and setting. If the selected printer is not set to print duplex it will not.
Keep Process Files	If checked, the user has chosen to send the executed process's output to electronic files accessible through the Process Status window. This holds the output to be viewed or printed at a later time.

Field Name	Description
Email Output To	This is the e-mail address to which the user wants to send the output.
Mode	
Production	If selected, this radio button indicates the process is to be run normally.
Debug	If selected, this radio button indicates the process is to be run in debug mode. Do not select this mode unless instructed to do so by the system manager. This mode generates a detailed log of the batch program for problem determination and resolution.

Table 10-35. The Process Submission Parameters Window Field Description Table

To modify the Process Submission parameters of a process:

1. From the **Main** panel, click the icon for the desired functional area.

2. Double click the **Process List** icon.

3. Double click the desired process.

4. If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired.

5. Click the **Parameters** button.

6. On the **Process Submission Parameters** window, click the arrow to the right of the **Priority** field to display the drop down list.

7. Click the desired priority level.

8. Click the arrow to the right of the **Server** field to display the drop down list, and click the desired server. If any application server may execute the process, it is not necessary to select a specific server.

9. If desired, click the **Generate Online** check box on.

10. If desired, click the **Create Schedule** button.

11. If an RTF Log file is desired, click the **Produce RTF Log** check box on.

12. Click the arrow to the right of the **RTF Library** field to display the drop down list, and click the desired RTF Library.

13. If desired, click the **Print Output Files** check box on.

14. If the Print Output Files check box is clicked on, click the arrow to the right of the **Printer Name** field to display the drop down list. Click the desired printer.

15. If the Print Output Files check box is clicked on, click the **Copies** field and enter the desired number of copies.

16. If the Print Output Files check box is clicked on, click the arrow to the right of the **Orientation** field to display the drop down list. Click the desired page orientation.

17. If the Print Output Files check box is clicked on, click the **Duplex** check box on if desired.

18. If desired, click the **Keep Process Files** check box on.

19. If desired, click the **Email To** field and enter an email address.

20. Click the **Production** mode radio button or the **Debug** mode radio button.

21. Click the **OK** button.

22. On the **Confirm Process Submission** window, click the **Submit** button.

10.4.3 Creating a Process Schedule

The Create Process Schedule window allows users to create a scheduled submission and frequency for a process. A process may be scheduled to run Once, Daily, Weekly, or Monthly. Depending upon the frequency (once, daily, weekly, or monthly), different fields will be presented on the Schedule window.

Figure 10-46. The Schedule Monthly Window

Field Name	Description
Schedule Process	The process schedule's frequency type. Option is Monthly. Selected from drop-down box.
Start Time	Time of day the process is scheduled to execute.
Day	Indicates that the monthly schedule is a numerical day of the month. This radio button enables the day spin box and disables the radio button.
Of the month	Identifies the scheduled numerical day of the month. Values are 1 through 28.
The	Indicates that the monthly schedule is a regular day of the month. For example, third Monday and last Friday. This radio button enables the Of the month boxes and disables the day radio button.
Of the month (first box)	Identifies which regular occurrence of a month's day is scheduled. Values are First through Fourth and Last.
Of the month (second box)	Identifies which day is scheduled. Values are Monday through Sunday.

Table 10-36. Schedule Job Monthly Window Field Descriptions

To schedule a process to execute monthly:

1. From the **Main** panel, click the icon for the desired functional area.

2. Double-click the **Process List** icon.

3. Double-click the desired process.

4. If the process has any runtime parameters associated, a screen appears requesting values from the user. Enter the requested values as desired, and click the **Parameters** button.

5. Click the **Create Schedule** button. The Schedule window appears.

6. Click the arrow to the right of the **Schedule Process** field to display the drop down list, and click the **Monthly** choice.

7. Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

8. If an exact date is desired, click the radio button beside the **Day of the Month** choice and use the up or down arrow to display the desired day of the month.

9. If a day of the week is desired, click the radio button beside the **Day of the Month** choice.

10. Click the arrow to the right of the first blank field to display the frequency choices. Choose the desired frequency.

11. Click the arrow to the right of the second blank field to display the day choices. Choose the desired day of the week.

12. Click the **OK** button.
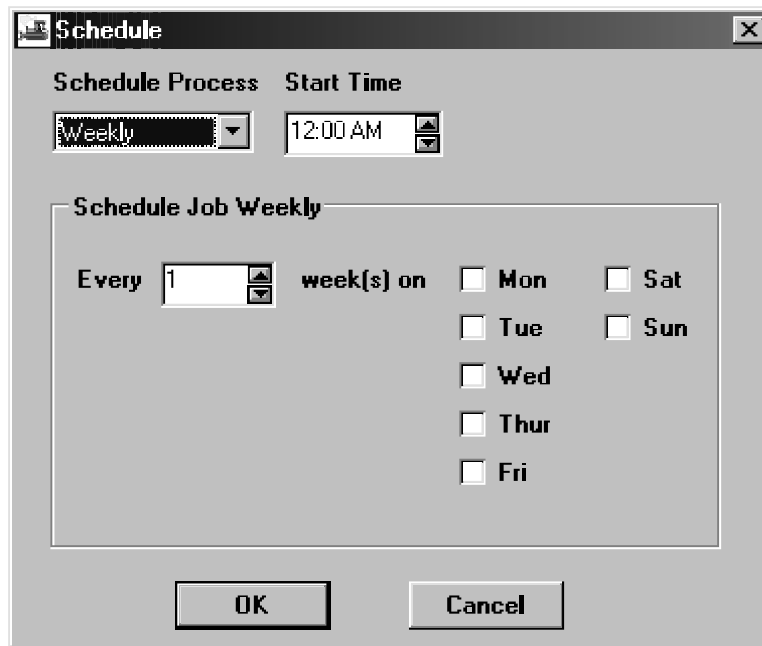
Figure 10-47. The Schedule Weekly Window

Field Name	Description
Schedule Process	The process schedule's frequency type. Option is Weekly. Selected from drop-down box.
Start Time	Time of day the process is scheduled to execute.
Every	The frequency number of the schedule week. Values are 1 through 104.
On	Day of the week the weekly job is scheduled to run. Values are Monday through Sunday.

Table 10-37. Schedule Job Weekly Window Field Descriptions

To schedule a process to execute weekly:

1. From the **Main** panel, click the icon for the desired functional area.

2. Double click the **Process List** icon.

3. Double click the desired process.

4. If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired, and click the **Parameter** button.

5. Click the **Create Schedule** button. The Schedule window appears.

6. Click the arrow to the right of the **Schedule Process** field to display the drop down list, and click the **Weekly** choice.

7. Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

8. Click the up or down arrow to the right of the **Every** field to display the desired frequency in weeks.

9. Click the check box (es) beside the desired day(s) of the week.

10. Click the **OK** button.
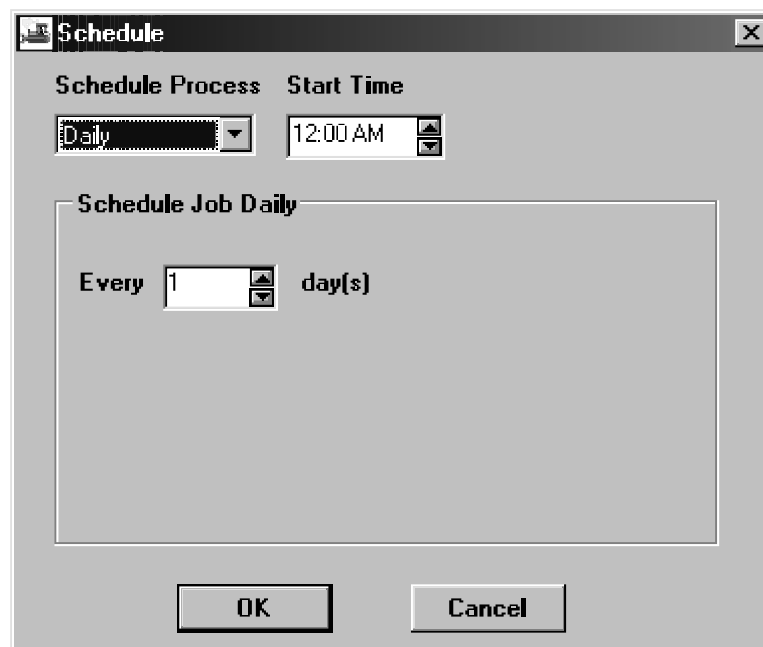
Figure 10-48. The Schedule Process Daily Window

Field Name	Description
Schedule Process	The process schedule's frequency type. Option is Daily. Selected from drop-down box.
Start Time	Time of day the process is scheduled to execute.

Every	The day frequency of the daily job. Every day equals one (1). Quarterly equals 91.

Table 10-38. Schedule Job Daily Window Field Descriptions

To schedule a process to execute daily:

1. From the **Main** panel, click the icon for the desired functional area.

2. Double click the **Process List** icon.

3. Double click the desired process.

4. If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired, and click the **Parameter** button.

5. Click the **Create Schedule** button. The Schedule window appears.

6. Click the arrow to the right of the **Schedule Process** field to display the drop down list, and click the **Daily** choice.

7. Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

8. Click the up or down arrow to the right of the **Every** field to display the desired frequency in days.

9. Click the **OK** button.
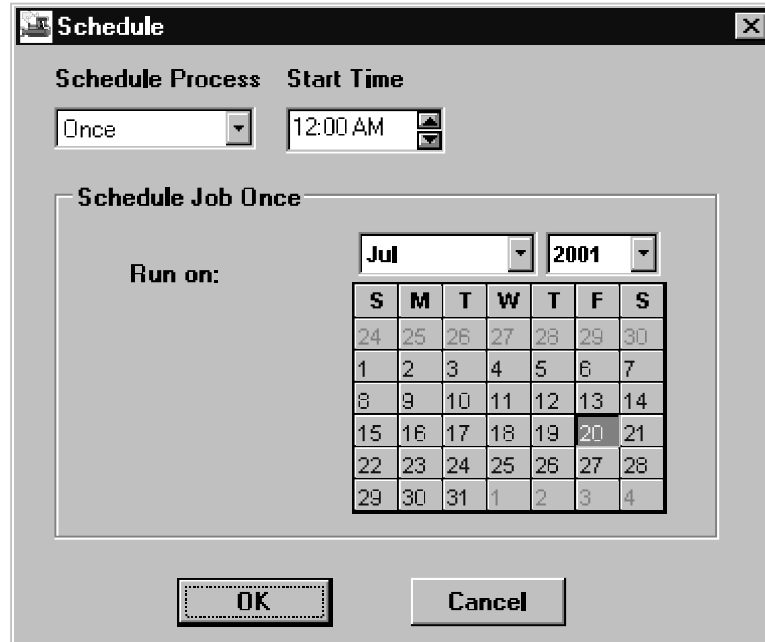
Figure 10-49. The Schedule Process Once Window

Field Name	Description
Schedule Process	The process schedule's frequency type, selected from a drop-down list. Option is Once.
Start Time	Time of day the process is scheduled to execute.
Run On: Month	The month the one-time process is scheduled to execute, selected from a drop-down box.
Run On: Year	The year the one-time process is schedule to execute, selected from a drop-down box.
Run On: Day	The day and date the one-time process is scheduled to execute, selected from a calendar.

Table 10-39. Schedule Job Once Window Field Descriptions

To schedule a process to execute once:

1. From the **Main** panel, click the icon for the desired functional area.

2. Double click the **Process List** icon.

3. Double click the desired process.

4. If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired, and click the **Parameter** button.

5. Click the **Create Schedule** button. The Schedule window appears.

6. Click the arrow to the right of the **Schedule Process** field to display the drop down list, and click the **Once** choice.

7. Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

8. Click the **OK** button.

10.4.4 Summary to Contractor Report

The Summary to Contractor report is intended for the contractor and displays the relevant data on the amounts being paid for in an estimate. The report summarizes previous payments made to a contractor and the current status of the contract when an estimate is generated. An itemized description of quantities and amounts on all items in every project contained in an estimate is also given.

Once the process has completed, the process files may be viewed and printed from the Process Status window. The Process Status icon is located on the Accessories panel.

To select reports to be printed:

1. On the Process List window, click the **Summary to Contractor** process, and click the **Run** button.

2. To select multiple reports to be generated, highlight the desired criteria by holding down the shift and/or control keys and clicking the desired report criteria. The shift key allows an entire block of criteria to be selected, while the control key allows individual rows of criteria to be selected.

3. Click **Submit**.
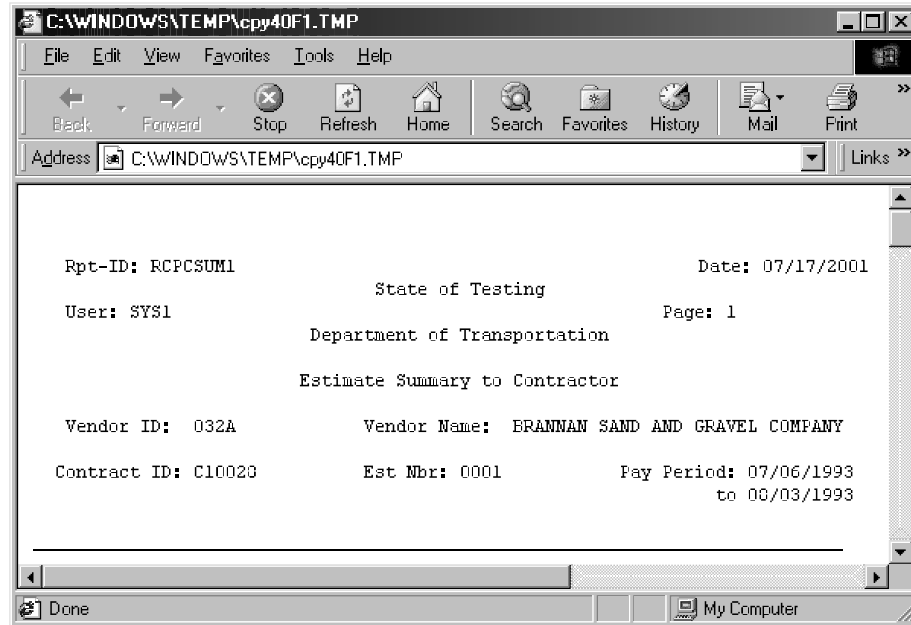
Figure 10-50. The Summary to Contractor Report (Page 1)

The report consists of two pages. The first page summarizes the contract information on an estimate.
The second page lists the quantities and amounts of all the items in every project in the contract. It
also includes the total amounts for each project and the contract. To produce the report, the contract
ID and Estimate Number are required. If the Estimate Number is not known at the time of request,
the user may choose the correct estimate from a selection list.

Field Name	Description
Vendor ID	The ID of the vendor/ contractor.
Contract ID	The ID for the contact.
Estimate Nbr	The system-generated sequential number assigned to each draft estimate during the estimate generation process.
Pay Period (Start Date)	The day following the Period End Date of the previous estimate (If first estimate, it will be the Notice To Proceed Date).
Pay Period - "to"	The last day of the estimate period.
Start Date	The next day of the Period End Date of the previous estimate. If first estimate, it will be the Notice To Proceed Date.
End Date	The last day of the estimate period.

Field Name	Description
Contract Location	The description of the physical location of the contract.
Time Allowed	The original number of days for the contract.
Time Charged	The total number of days charged to the contract to date.
Percent Time	The percentage of time charged.
Contractor	The full name of the primary vendor of the contract.
Contractor Address Line 1	The first line of the contractor's address.
Contractor Address Line 2	The second line of the contractor's address.
Contractor Address Line 3	The third line of the contractor's address.
Contractor City Name	The city of the contractor's address.
Contractor State Province	The state or province of the contractor's address.
Contractor Postal Code	The postal code of the contractor's address.
Phone	The telephone number of the contractor's address.
Date Let	The date the contract was let.
Date Awarded	The date the contract was awarded.
Date Contract Executed	The date the contract went into execution.
Date Notice To Proceed	The date the notice to proceed was received.
Date Work Began	The date construction began.
Date Time Stopped	The date time charges stopped.
Date Accepted	The date the contract was accepted.
Escrow Agent	The full name of the contractor's escrow agent.
Surety Co	The full name of the contractor's surety company.
Counties	The counties involved in the contract.

Field Name	Description
Projects	The projects in the contract.
Nbr	The unique identifier for the project.
Pct	The percentage of the contract for the project.
Federal/State Project Number	The federal or state project number for the contract, project or category.
Description	The description of the project.
Current Contract Amount	The amount of the contract for the current requested estimate.
Original Contract Amount	The amount of the contract awarded.
Percent Complete	The percentage of the contract amount paid through the end date of the current requested estimate.
Total To Date	The total amount of all estimates through the current requested estimate.
Previous To Date	The total amount of all estimates prior to the current requested estimate.
This Estimate	The total amount of the current requested estimate.
Participating	The estimate amount for items that have known funding sources.
Non-Participating	The estimate amount for items that have not been funded.
Total Earnings	The total of the participating and non-participating estimate amounts.
Stockpiled Materials	The estimate amount for stockpiled materials that have been installed.
Gross Earnings	The total of total earnings and stockpiled materials estimate amounts.
Retainage	The estimate amount for retainage withheld.
Securities Encumbered	The estimate amount of securities encumbered in lieu of withholding retainage.

Field Name	Description
Net Earnings	The total of the securities encumbered and the difference between gross earnings and retainage estimate amounts.
Liquidated Damages	The estimate amount of the liquidated damages assessed and incentives and disincentives incurred.
Payment Adjustment 1	The estimate amount of the first type of adjustment made on the contract.
Payment Adjustment 2	The estimate amount of the second type of adjustment made on the contract.
Payment Adjustment 3	The estimate amount of the third type of adjustment made on the contract.
Amount Due	The difference between net earnings and the total of liquidated damages and payment adjustment estimate amounts.
Other Adjustments	The estimate amount of other adjustments.
Payment	The difference between amount due and other adjustments.

Table 10-40. The Summary to Contractor Report (Page 1) Fields Table

The report fields are calculated as follows:

Percent-Time = (Time-Charged / Time-Allowed) * 100

Current-Contract-Amount = Total-Bid-Amount - Total-Change-Order-Amount Where Total-Change-Order-Amount is the sum of the values of the Change Order Amount field from all the records from the Contract CO table whose Contract ID is equal to the passed parameter and Approval Date is not later than the Pay Period reported on.

Funds-Available = Total-Bid-Amount - Net-Pay-To-Date

Percent-Complete = (Net-Pay-To-Date / Total-Bid-Amount) * 100

Total-To-Date are amounts from the first estimate to the current estimate reported on. (For example, if the current estimate reported on is Estimate Nbr. 3, total-to-date amounts will be from Estimate Nbr. 1 to Estimate Nbr. 3, although the latest estimate may be Estimate Nbr. 5.) Or, Total-To-Date = Previous-To-Date + This Estimate.

Previous-To-Date are amounts from the first estimate to the estimate prior to the current one reported on. (For example, if the current estimate reported on is Estimate Nbr. 3, previous-to-date amounts will be from Estimate Nbr. 1 to Estimate Nbr. 2, although the latest estimate may be Estimate Nbr. 5.)

Total-Earnings = Participating + Non-Participating

Gross-Earnings = Total-Earnings + Stockpiled-Materials

Net-Earnings = Gross-Earnings - Retainage + Securities-Encumbered

Amount-Due = Net-Earnings - Liquidated-Damages + Incentives - Disincentives + Payment-Adjustment-1 + Payment-Adjustment-2 + Payment-Adjustment-3

Payment = Amount-Due + Other-Adjustments
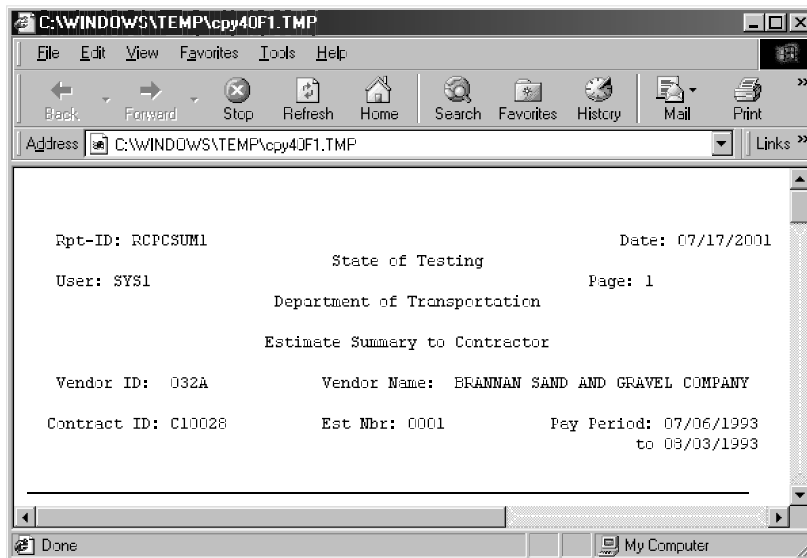
Figure 10-51. The Summary to Contractor Report (Page 2)

Field Name	Description
Contract ID	The primary identifier for the contact.
Estimate Nbr	The system-generated sequential number assigned to each draft estimate during the estimate generation process.
Pay Period (Start Date)	The day following the Period End Date of the previous estimate (If first estimate, it will be the Notice To Proceed Date.)
Pay Period - "to"	The last day of the estimate period.
Project Nbr	The unique identifier for the project.
Line Item Nbr	The contract line item number which uniquely identifies each item as it appears on the contract.

Field Name	Description
Category Number	A grouping of items assigned during pre-construction. Items can be grouped within categories for various reasons, primarily for funding.
Item Code	The unique identifier for the Item.
Item Description	The description of the item.
Unit Price	The unit price of the item identified on the invoice.
Qty This Estimate	The quantity of the item to be paid.
Units	The unit of measure for the item.
Quantity Paid	The quantity of the item to be paid times the unit price of the item. The amount to be paid plus any amount paid for stockpiled material must be less than the bid amount plus the change order amount plus the allowed overrun amount.
Cumulative Amount	The amount of the quantity paid to date for the item.
Project Current Amount	The total quantities and amounts for the project.
Contract Current Amount	The total quantities and amounts for the contract.

Table 10-41. The Estimate Summary to Contractor Report (Page 2) Fields Table

The report fields are calculated as follows:

Cumulative Amount = Unit Price * Quantity Paid To Date for the item

11. Change Orders

11.1 Change Orders General Concepts

The change order process allows legal changes to be made to a contract by creating, approving, and tracking changes.

Contract change orders may include:

- Quantity adjustments for existing items

- Adding new items of work to the contract

- Time extensions on milestones or revisions to a contract completion date

- Adding items of work to the contract per a force account

- Zero dollar adjustments to a contract

- Final quantity

New projects may also be authorized as part of the change order planning process, but a new project must be added via the Project window, and a category and funding source must be associated to the new project prior to creating the change order items. The reason for the new project (such as additional work requested and funded by the county) should be included in the change order explanation.

Except for the Zero Dollar and Final Quantity functions, you can specify more than one function to make up a change order. The Zero Dollar function is only used to make contract adjustments that will not affect the dollar amount of the contract. The final quantity function is used only when setting the final status and quantities for existing contract items. Before a change order is saved, edits are performed to ensure that its components are reconciled with its selected functions. Messages advise you if information has not been entered for a selected function.

Before you can select a specific window in the change order (CO) function, a specific contract must be selected from a pick list containing valid contracts and associated, existing COs. A specific contract must be selected from the pick list to create a new change order.

The CO activities are grouped on three panels (icons) as follows:

Panel (Icon) Name	Description
Change Order Maintenance Panel	This panel contains the functions used to add, maintain, manage and monitor the change order process. This panel also contains functions that allow the user to view, add, and modify change orders associated with a selected Contract. Other functions allow you to submit the CO for review and approval and control legal documents related to the contract modification. The Tracking function allows you to view the tracking records associated with a change order. An online signature page is available.
Reports Panel	This panel contains a group of CO-specific documents and reports to help you manage and control the change order process. These reports include summaries of all change orders associated with a contract and their status, an aging report of unapproved change orders, an analysis of change order reasons, and a summary Time Extension Report granted on a contract. There is also the ability to save a simple report.
Reference Tables Panel	This panel contains sources of standards and data for change orders. The reference tables supply the CO defaults, information about approval groups, approval rules, and standard explanations for change order reasons.

Table 11-1. The Change Order Panel Table

11.1.1 Creation of a New Change Order

A CO can only be created by a user with specific authority to create new change orders. A change order must be associated with an existing contract. Specific information about the change order must be recorded using the Change Order Header folder tab, the Change Order Items folder tab, the Time Adjustments folder tab, and/or the Change Order Explanations folder tab.

11.1.2 Maintaining Change Orders

Once a CO has been created, updates to the CO information may be required. Change order deader information, items, time frames, and explanations may be modified in update mode on the appropriate windows.

11.1.3 Review and Approval of Change Orders

After it is created, a draft CO can be forwarded via in-box notification for parallel review. Parallel review is concurrent review by more than one reviewer at a time.

The writer of the CO can also place the change order into Pending status and submit it for a hierarchical approval, skipping the review process.

Users involved in reviewing a draft CO or approving a pending CO can record their decisions about proposed changes to the contract online, using the Review/Approve window. Reviewers/Approvers receive an In-Box message from the author requesting an action, review or approval for the CO. The In-Box message specifies the contract and change order number.

All change orders on a contract must be either approved or disapproved in order for the Contract Items Complete Date to be entered in Contract Administration as part of the contract completion process. (Change orders may not be in a Draft or Pending status for the contract completion process.) Refer to the Contract completion process section for more information.

11.1.4 Tracking the Change Order

The writer of the CO may view the status of a change order in the review or approval cycle by opening the Tracking window. The Tracking window for a CO is a view-only window and displays:

- The date a request for recommendation was sent to a reviewer or approver

- The reviewer or approver's name

- The action requested - review or approve

- The date the reviewer or approver makes a recommendation

- The recommendation - Approved or Denied

- Any Remarks the reviewer or approver has made

Authorized users may also display details about current and historic contract items online using the Item Summary window.

11.1.5 Reports

Once approved, change order data may be analyzed to help manage the change order process. The Change Order Reports function allows you to produce reports that gather information about trends in contract changes.

11.1.6 Change Order Conditions

There are three conditions that affect how the change order process works in SiteManager. These are:

- Type of contract

- Function(s) associated with the change order

- Status of the change order

Change Order Types

There are six types of change orders:

- Overrun/Underrun

- Extra Work

- Time Adjustment

- Force Account

- Zero Dollar

- Final Quantity

A change order may be a combination of types, unless it is either a Zero Dollar or Final Quantity change order (a singular change order required for contract completion).

Change Order Functions

Users define the purpose of the change order by selecting among the different functions. Except for the Zero Dollar and Final Quantity functions, users can specify more than one function to make up a change order. The functions available on a change order are:

Overruns or Underruns	When the quantities associated with the contract items are either exceeded or not needed to complete the contract or work item.
Extra Work	When additional work items are required to complete the contract.
Time Adjustments	When the timeframes need to be adjusted to reflect the completion period for a milestone or contract.
Force Account	When the parties agree that a change is required but there is not yet an agreement on the cost of that change. A force account occurs when there is emergency work on a contract. A force account CO requires adding a new line item to the contract.
Zero Dollar	Used only for contract adjustments that will not affect the dollar amount of the contract (example changing the location of a project).
Final Quantity	Used only when setting the final status and quantities for existing contract items. None of the other functions may be combined with a Final Quantity change order.

Change Order Status

The following table contains the allowable change order status types:

Style Type	Description
Draft	The status of a CO that the author is in the process of creating or editing.
Pending	The status of a CO undergoing the review or approval process. The user cannot modify a change order while it is in Pending status.
Denied	The status of a CO when it is not approved. When a change order is denied on the Change Order Review/Approve window, the change order is then returned Draft status. Changes may then be made, and the change order may be sent through the Review process again.
Approved	The status of a change order that has been approved by the final level approver. Once approved, a change order cannot be altered. Adjustments affected by an approved change order may only be altered by creating a new change order.

Table 11-2. The Change Order Approval Status Table

When the CO is created and saved to the database, the status is checked. The initial status of a change order is Draft. The creator of the change order manually changes the status of the change order to Pending when the change order is ready for the Review/Approval process. The SiteManager system automatically changes the status to Approved or Denied as a result of the approval process. All change orders must be in the Approved or Denied status on the Change Order Header folder tab in order for the contract to be completed.

SiteManager processes perform a series of actions determined by:

- pre-defined change order approval levels and associated rules;

- the change order function;

- the type of status change;

- the results of edits and verifications applied to the change order;

- other reference points associated with the change order (i.e., disputes, reference documents, etc.); and

- Reviewer/Approver responses to messages.

11.2 Change Order Panel

The Change Order panel provides you with the ability to navigate to all the different windows within Contract Change Order function. The Change Order Panel has three icons. The Change Order Maintenance panel, the Reports panel, and Reference Tables panel.
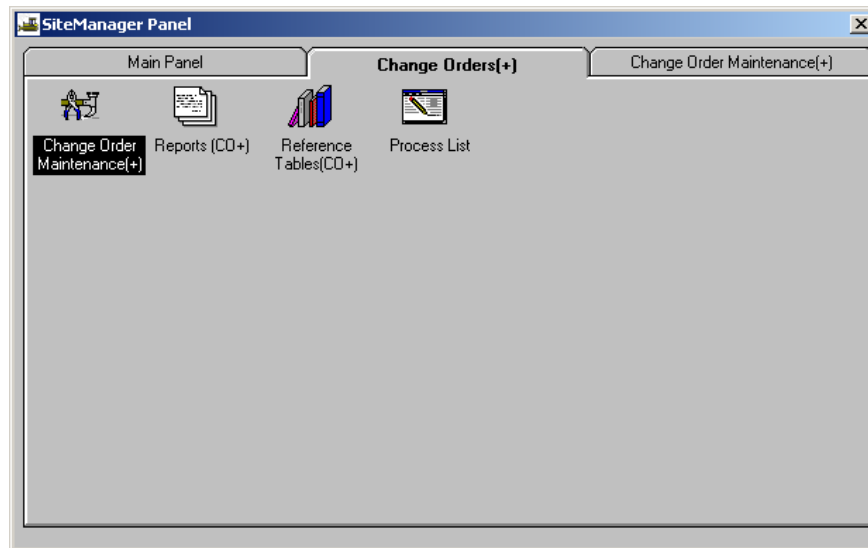
Figure 11-1. The Change Order Panel

11.2.1 Reference Tables (Change Orders)

The Reference Table Panel contains sources of standards and data for change orders. The reference tables supply the default values, information about approval groups, approval rules or levels, and standard explanations for change order reasons. There are three icons on the Change Order Reference Table panel that provide access to change order reference table windows:

- Change Order Approval Groups

- Change Order Approval Rules

- Standard Explanations
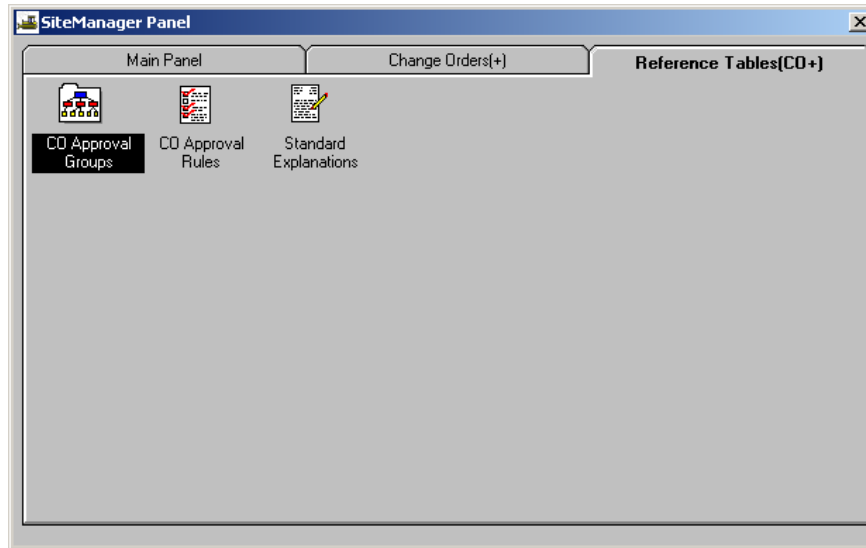
Figure 11-2. The Change Order Reference Table Panel

Change Order Approval Groups

A contract change order must go through a hierarchy of approvals before any changes can be made to the contract. This window, combined with the Approval Rules window, defines each contract's hierarchy of approvals. The hierarchy, or approvals order, consists of one or more SiteManager users belonging to User Groups who are authorized to approve contract change orders.

Approval level groups and user groups must be established before any change orders are written in SiteManager. In addition, if the transportation agency would like an option to process negative change orders (change orders with final dollar amounts less than zero), then the System Administrator, or other authorized user, should verify that the Change Order Absolute Value Approval indicator (on the Contract Administration tab of the System Operational Parameters window) is set to Yes (which is the indicator's default setting). When the indicator is set to Yes, the system applies the existing Change Order Approval Rules to negative dollar COs as if they have positive dollar values. For example, if the indicator is set to Yes, and a change order has a value of -$1,000, the system uses the same approval rules applied to a change order worth $1,000.
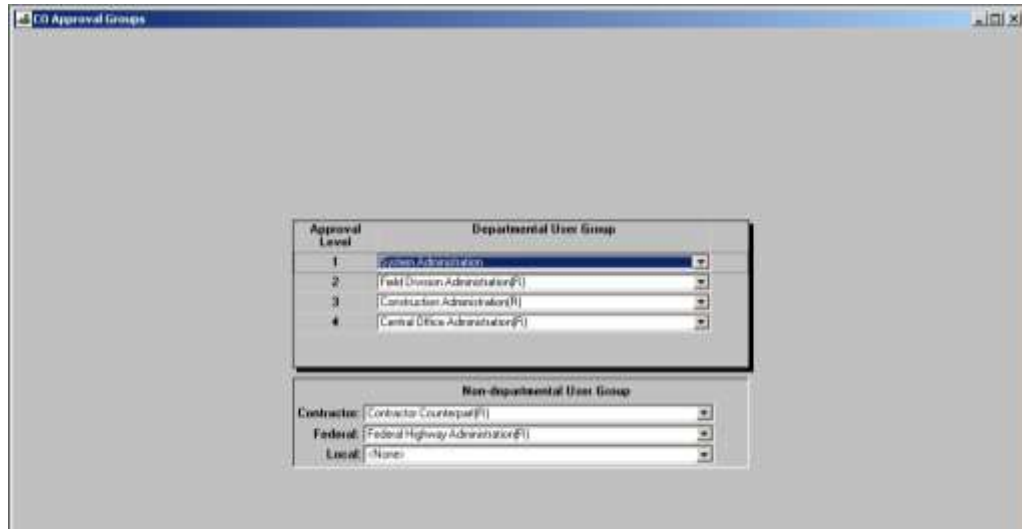
Figure 11-3. The Change Order Approval Groups Window

Change Order Approval Groups - Creating and Maintaining

The Change Order Approval Groups window allows authorized personnel to establish and maintain a reference table that defines the departmental and non-departmental user groups required to approve change orders. It also allows authorized personnel to define where those user groups fit in the approval hierarchy.

SiteManager defines the hierarchical sequence in which at least one member of a user group approves change orders. The sequence is:

- Contractor approval

- Local approval, if there is local oversight of the contract

- Any departmental approval, (for example, Project Engineer, Construction Engineer, etc.)

- Federal approval, if there is federal oversight of the contract

The default values for the number and type of approval levels, the sequence of those levels, and the users associated with each level are defined by the transportation agency when SiteManager is initially setup, but *before* any change orders are written. Changes in department hierarchy may affect the levels of change orders sent for approval. SiteManager allows the system parameters to be changed as a part of the System Administration function.

Any authorized user may then apply these system parameters in the Change Order function to add new departmental approval levels or delete approval levels from the contract change order approval process.

Field Name	Description
Departmental	Department of Transportation defined
Approval Level	The hierarchy, or order in sequence, of user groups in the Departmental approval process. This field is display only. Sequential numbers are added as approval groups are added.
User Group	The unique identifier for a group of approving users. At least one group must be selected.
Non-Departmental User Group	
Contractor:	User group assigned to approve when Non-departmental contractor approval of a change order is required. A selection for this group is mandatory.
Federal:	User group assigned to approve when Non-departmental federal approval of a change order is required on federal oversight contracts. A selection for this group is not mandatory for change orders involving federal oversight. This field must have been entered to secure approval for the change order if it is associated with a contract requiring federal oversight.
Local:	User group assigned to approve when Non-departmental local approval of change order is required on local oversight contracts. A selection for this group is not mandatory, but this field must have been entered to secure approval for the change orders if it is associated with a local oversight contract.

Table 11-3. The Change Order Approval Groups Window Fields Table

To add a new Departmental approval level to the table:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **CO Approval Groups** icon.

4. On the **CO Approval Groups window**, in the **Departmental User Group** upper data window, click any choice.

5. Click the **New** button on the tool bar to insert a blank line at the end of the Departmental User Group approval level table. This new table entry displays the next sequential level number and a blank user group field.

6. On the **Blank** line, in the **Departmental User Group** data window, click the desired choice.

7. Click the **Save** button.

To delete a Departmental approval level from the table:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **CO Approval Groups** icon.

4. In the **Departmental User Group** list box, scroll to and highlight the user group for the level to be deleted.

5. Click the **Delete** button on the tool bar on the lowest approval level first. (**See Tip**).

6. Click the **Save** button.

Approval Groups must be deleted in descending order. The user must delete the last approval group first and continue, if required, until the lowest level is deleted. There is no confirmation of the deletion. A message appears if the approval level selected for deletion is not the lowest level (or next in the hierarchy).

Also, Approval Groups cannot be deleted if they are referenced in other tables. Specifically, an Approval Group cannot be deleted if it has been used for a Change Order's approval before.

Figure 11-4. The Change Order Approval Groups Delete Message

11.2.2 Change Order Approval Rules

The level at which a change order is approved depends on rules established by the Transportation Agency. There are different approval levels depending on:

▪ The type of contract

▪ The functions included in a change order

▪ The amount of money a change order increases the contract

▪ The addition of a new item to the contract

The Change Order Approval window allows authorized users to

- Define the set of rules that apply to each contract type and change order function combination

- View established rules for the contract types and change order functions.
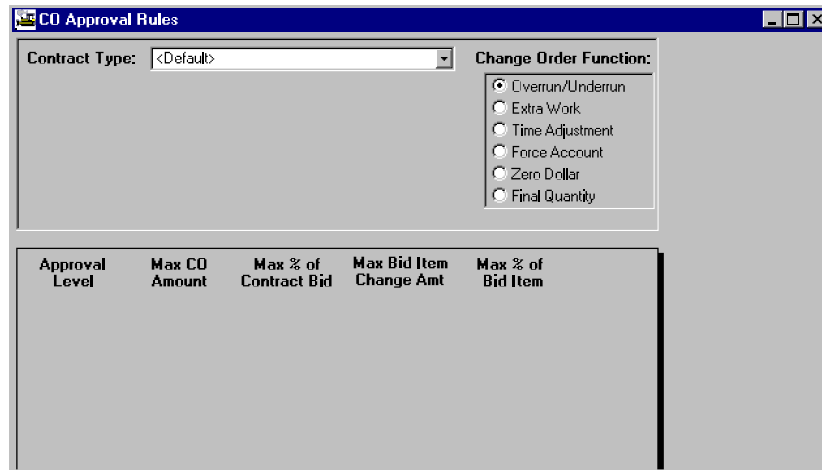
Figure 11-5. The Change Order Approval Rules Window

The Change Order Approval Rules window has two data windows. The top data window allows the user to select the Contract Type and the Change Order Function(s) for which they wish to define or view rules. The lower data window displays blank lines for entry of new rules or displays the existing rules for the selected Contract Type and Change Order Function, depending on the window authority of the user.

During system setup, and before any change orders are written, the Transportation Agency *must* establish the maximum dollar amounts for one or more approval levels for the different change order types associated with each type of contract. The following conditions apply when creating new rules using the Change Order Approval window:

- Before any rules can be established, the approval levels for the Contract Type and Change Order Function must be established using the Change Order Approval Groups window.

- If the rules are not established prior to creation of change orders for a particular Contract Type and Change Order Function, SiteManager assumes the change order function requires the highest level of approval and applies those rules when the change order is edited for compliance with the rules.

- No rules may be specified for the highest approval level. Therefore, if there is only one approval level, no rules may be entered.

- If the rules for a lower approval level are entered as zeros, this level is ignored in the approval hierarchy.

- Rules may only be added within the range of previous and subsequent rules (that is, within the hierarchy).

- Rules may only be deleted beginning with the last rule, as the lowest approval level and working up the hierarchy.

- If any one criteria is left blank, the Change Order will automatically go to the next approval level. If a Change Order is to stop at an approval level (for certain criteria) a value must be put in each of the fields. If there are certain criteria which would not be important to the transportation agency's Change Order processing (for example, Max % of Bid Item), then some unrealistic value that will never be reached should be entered (for example, 999.99%).

To create Change Order Approval Rules:

1. On the **Main** panel, double-click the **Change Order** icon.

2. Double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **Change Order Approval Rules** icon.

4. On the **Change Order Approval** window, in the **Contract Type** drop-down list, click the desired choice.

5. Click the **Change Order Function** radio button for the desired function.

6. Change focus to the lower datawindow by clicking anywhere in the lower datawindow.

7. Click the **New** icon. This action displays the appropriate rule categories in the lower data window and a blank line for entry of rule values.

8. In the **Approval Level** drop-down list, click the desired choice (a number).

    Only the approval levels for which the user may define rules display in the drop-down list. The Zero Dollar function allows selection of only *one* approval rule level. Therefore, the users should choose the highest level required by their state's Transportation Agency for approval of a Zero Dollar CO.

9. In the **Approval Rule Values** fields, type the appropriate limits for the approval level.

10. Press the **Tab** key to advance through the fields. (see the Change Order Approval Rule Values fields table referenced in this section)

11. Verify that amounts do not overlap for different levels.

12. Click **Save**.

Approval Rules: Amounts and Percentage Fields by Change Order Function Type

The fields available for defining the approval rule values depends on the Contract Type and the Change Order Function selected in the top data window. The fields that apply for each change order function are described in the following table (with exception of the Zero Dollar CO function):

Change Order Function	Maximum Days	Maximum Change Order Amount	Maximum Percentage of Contract Bid Amount	Maximum of Bid or New Item Amount	Maximum Percentage of Bid Item
Overrun/Underrun		X	X	Bid	X
Extra Work		X	X	New	
Time Adjustment	X				
Force Account		X	X		
Final Quantity		X	X	Bid	X

Table 11-4. The Change Order Function Approval Rules - Available Fields Table

To delete a Change Order Approval Rule:

1. On the **Main** panel, double-click the **Change Order** icon.

2. Double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **Change Order Approval Rules** icon.

4. On the **Change Order Approval Rules** window, in the **Contract Type** drop-down list, click the desired choice.

5. Click the **Change Order Function** radio button for the desired function.   This action displays the highest existing approval level and the associated rules in the lower data window and a blank line for entry of rule values.

6. Change focus to the lower datawindow by clicking anywhere in the lower datawindow.

7. In the **Approval Level** drop-down list, click the desired level.

8. Click the **Delete** icon.

9. Click the **Yes** button to confirm the deletion.

10. When complete, click the **Save.**

11. Click the **Close**.

The last approval rule in the sequence of rules may be deleted. The deleted approval level and its associated rules are deleted from the database.

Applying Change Order Approval Rules

When the status of a Change Order is changed from Draft to Pending or from Pending to Approved, SiteManager automatically applies the existing approval rules for the Contract Type Change Order Function(s) and Change Order values. The **Change Order Status Table** referenced in the Change Order General Information section describes the results of edits that are passed versus failed with each type of status change.

Field Name	Description
Contract Type	A Transportation Agency-defined code used to classify contracts. This field defaults to Regular contract type. Selecting another contract type triggers edits on approval levels. It also triggers the redisplay of levels for the selected contract type.
Change Order Function	Functions that can comprise a change order. This field is a radio button list displaying all change order functions in SiteManager. The types are: Overrun/Underrun, Extra Work, Time Adjustment, Force Account, Zero Dollar and Final Quantity. The default selection is Overrun/Underrun. Selecting another change order function triggers edits on approval levels. It also triggers the redisplay of level rules for the selected change order function.
Approval Level	The hierarchy, or order in sequence, of user groups in the approval process. This field is mandatory. Levels are chosen from those established in the Change Order Approval Groups process. At least one maximum amount, either the percentage or days rule, must be entered for each level selected. The selected level must be higher than the previous rules' levels.
Max C.O. Amount	The amount by which the change order modifies the total contract amount. This is the maximum change order amount the selected approval level may approve. Higher amounts may only be approved by one of the higher levels. This field is optional, but at least one maximum amount, either the percentage or days rule, must be entered for each approval level selected.

Field Name	Description
Max % of Bid Amt	The percentage change to a contract's bid amount that the change order modifies the total contract amount. This is the maximum amount the selected approval level may approve. Higher percentages may only be approved by one of the higher levels. This field is optional, but at least one maximum amount, either the percentage or days rule, must be entered for each level selected.
Max Bid Item Amt	The dollar amount limits a change order modifying an individual existing contract item. This amount includes previously (accumulated) approved changes. This is the maximum amount a selected approval level may approve. Higher amounts may only be approved by one of the higher levels. This field is optional but, at least one maximum amount or percentage rule must be entered for each approval level entered.
Max % of Bid Item	The percentage change limitation to an existing contract item's bid amount that a change order may modify a total contract amount. This percentage includes previously approved changes. This is the maximum amount a selected approval level may approve. Higher percentages may only be approved by one of the higher levels. This field is optional but, at least one maximum amount or percentage rule must be entered for each approval level entered.
Max New Item Amt	The dollar amount limit of a new contract item on a change order. This is the maximum amount a selected approval level may approve. Higher amounts may only be approved by one of the higher levels. This field is optional but, at least one maximum amount or percentage rule must be entered for each approval level entered.
Max Days	Maximum number of adjusted days a selected approval level may approve. More days adjusted may only be approved by one of the higher levels. This field is required when defining time adjustment rules.

Table 11-5. The Change Order Approval Rules Window Fields Table

11.2.3 Change Order Explanations

When a contract change order is being written, users must enter explanations to document reasons or descriptions of contract changes included in a change order. Using the Change Order Explanations folder tab, a user may:

- Use pre-written standard explanations defined by the Transportation Agency before any change orders are created and displayed for selection on the Change Order Explanations folder tab (Search and Select a Standard explanation),

  OR

- Write new text to explain a change order, creating a non-standard Explanation, using the Change Order Explanations folder tab lower datawindow. (Create a new, non-Standard explanation.)

Standard Explanations are established before any contract change orders are written using the Change Orders Explanations folder tab. Using the CO function, users can also define their own explanations and their own Explanation IDs.
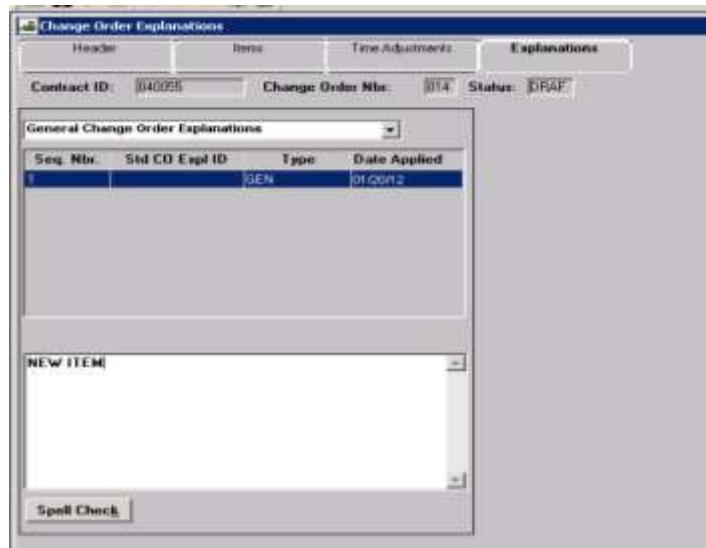
Figure 11-6. The Change Order Standard Explanations Folder Tab

The CO Standard Explanations folder tab contains two data windows:

- The top data window displays the Explanation ID and explanation text for pre-defined standard explanations.

- The lower data window displays any saved remarks related to the explanation highlighted in the top data window.

- A Spell Check button is available. The Spell Check option will be visible if Microsoft Office is installed.

  The Spell Check button will be enabled if the current window rights are set to 'Update' and the Change Order is not pending or approved.

Once the Spell Check button has been clicked, the Microsoft Spell Checker will be called using the text entered in the Remarks field. The spell check uses the dictionary that is utilized by Microsoft Office applications, in addition to the custom dictionary, 'custom.dic.' The Spell Check function allows for the addition of new words not in the current dictionary.

The following table defines the fields found on the CO Standard Explanations folder tab:

Field Name	Description
Explanation ID	This is a transportation agency defined identifier that identifies a standard change order explanation. This field is only editable when creating a new explanation. The Explanation ID must be unique in the database.
Explanation Text	Transportation Agency defined text that describes the CO Standard Explanation. This field is only editable for new and unused standard explanations.

Table 11-6. The Change Order Standard Explanations Folder Tab Fields Table

Retrieving and Viewing Standard Explanations

When the CO Standard Explanation folder tab is retrieved, the rows in the top data window are protected and cannot be edited. The user may scroll the list of Explanations or use Filter or Find options to make a selection.

The initial retrieval of the Standard Explanations folder tab retrieves up to 100 change order explanation rows in the top data window. If there are more than 100 rows in the database, the user is warned with a message notifying them to use the Find - Filter capabilities to limit the number of rows displayed.

Adding Standard Explanations

The Standard Explanations process also allows authorized Transportation Agency personnel to create and maintain standard change order explanations. Each standard explanation has an Explanation ID defined by the Transportation Agency.

To create a new standard explanation:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **Standard Explanations** icon.

4. On the **Standard Explanation** folder tab, highlight and click any row in the top data window to return focus to the top data window.

5. Click the **New** button on the tool bar to insert a blank row in the top data window.

6. In the **Explanation ID** field, type an ID for the new standard explanation.

7. In the **Explanation Text** field, type a brief the description for the new standard explanation.

8. Press the **Tab** key to move to the lower data window.

9. In the **Enter/Edit Explanation** field, type the non-standard reason for this change order.

10. Click **Save**.

Explanation IDs must be unique to be added to the database. The **Save** process edits new Explanation IDs to ensure that each is unique before adding them to the database.

- If the Explanation ID *is not* a duplicate, the new Explanation ID and Explanation Text are added to the database and focus is returned to the unprotected column on the top data window.

- If the Explanation ID *is* a duplicate, the user is prompted with a message box and focus is returned to the Explanation ID field where the user may type a new, unique Explanation ID.

Maintaining Standard Explanations

Once entered and saved standard change order explanations may be modified or deleted with the following limitations:

- Explanation text may be modified if the explanation has not yet been used in any change order in the database.

- Standard Explanation ID's cannot be modified, but may be deleted, if the explanation has not yet been used in any change order in the database.

- A Standard Explanation may be deleted if the explanation has not yet been used in any change order in the database.

To change Explanation Text for an existing, but unused Explanation:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **Standard Explanations** icon.

4. On the **Standard Explanations** folder tab, in the **top** data window, click the **Explanation ID and Text** row.

5. Press the **Tab** key to access the lower data window and enable the multi-line-edit capability.

6. In the **Enter/Edit Explanation** field, type a modified entry.

7. Click the **Save** button on the tool bar.

To change a Standard Explanation ID:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **Standard Explanations** icon.

4. Perform the **Delete Explanation** procedure for the standard explanation with the incorrect Explanation ID.

5. Click the **Save** button on the tool bar.

6. Perform the **Add Explanation** procedure (referenced in this Section) and enter corrected Explanation ID.

7. Click the **Save** button on the tool bar.

To delete a standard explanation:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Reference Tables** icon.

3. On the **Reference Tables** panel, double-click the **Standard Explanations** icon.

4. On the **Standard Explanations** folder tab, in the **top** data window, click the **Explanation ID** and **Text** choice.

5. Click the **Delete** button on the tool bar.

6. Click the **Yes** button (to confirm the delete).

7. Click the **Save** button on the tool bar.

📄 **Note:** The user cannot modify or delete CO Standard Explanations or Remarks unless the change order associated with it is in Draft status and the explanation has not been used on a previous change order.

11.3 Change Orders - Creating and Maintaining

The user must have specific authority to create and maintain change orders in SiteManager.
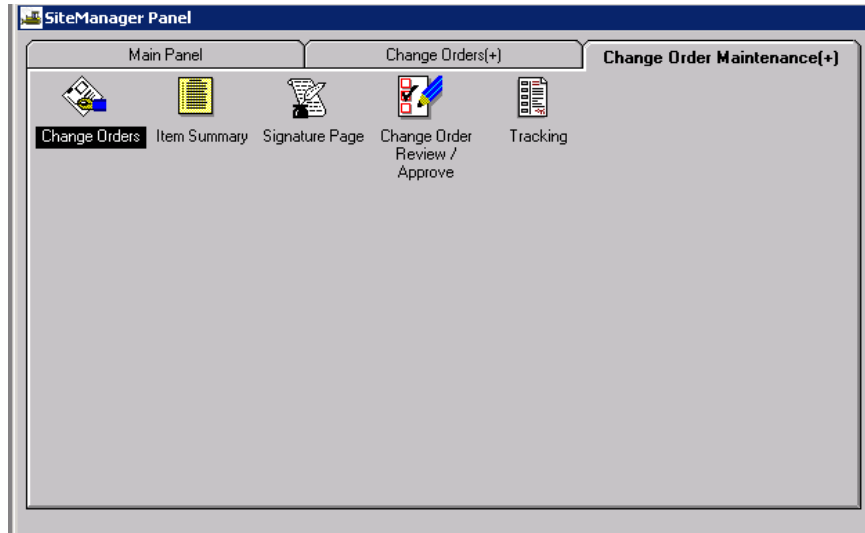
Figure 11-7. The Change Order Maintenance Panel

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the Change Order sub-panel, double-click the Change Orders icon.

The change order function determines the entries that must be made and the windows that must be accessed to create and maintain a change order. With the exception of the Final Quantity change orders, multiple functions can be checked. Zero Dollar change orders must be segregated as well. Messages appear prompting users to complete required fields.

The following entries must be made on the referenced windows to comply with the change order function edits in SiteManager:

Overrun/Underrun	When the quantities of existing items must be changed through a change order, this qualifies as an overrun or an underrun of the contract quantities.
On the Header Folder Tab:	The Overrun/Underrun Change Order Function must be selected on the Header window to define the purpose of the change order.
On the Items FolderTab:	The item quantities associated with the contract must be modified.
Extra Work	When new items are added to a contract as a result of a change order, this is classified as extra work.

On the Header Folder Tab:	The Extra Work Function must be selected on the Header tab to define the purpose of the change order.
On the Items Folder Tab	At least one new item must be added to the contract using the New icon on this tab.
Time Adjustments/Extension	If there is a change to the contract completion date or to any milestones associated with the contract, this qualifies as a Time Adjustment Change Order.
On the Header Tab	The Time Adjustments Function must be selected on the Header folder tab to define the purpose of the change order.
On the Time Adjustments Tab	At least one adjustment must be made to the contract completion date or a milestone using this folder tab. Multiple time adjustments may be made to milestones. Only one change to the contract completion date is allowed per change order. The net results of Change Order revisions to the Contract Completion Date are reflected in the Contract Administration, Contract Records, Contracts window, Critical Dates Tab. The net results of Change Order revisions to Contract Milestone Dates are reflected in the Contract Administration, Contract Records, and Milestones.
Force Account	When the CO involves an overrun/underrun, and/or extra work, and/or an adjustment in time but there is no agreement on the amounts associated with the change, this CO qualifies as a force account situation. The Force Account is created by the Transportation Agency office in the Force Account Summary panel. Actual costs for equipment, labor and materials are adjusted using DWR information recorded by an inspector. This information is combined to prepare a Force Account Change Order. Once the Force Account CO is approved, an Inspector records actual or usage numbers in a Daily Work Reports. The installed items are then included in Estimates and paid along with other contract items. A Force Account Change Order requires adding a new line item to the contract.
On the Header Folder Tab	The Force Account Function must be selected on the Header window to define the purpose of the change order.

	The *Reference to:* field for Force Account (Dispute:, Force Account:, Reference Doc:) should also be completed.
On the Items Folder Tab	The quantities and/or values of the new or modified items may be incomplete.
On the Time Adjustments Folder Tab	The time adjustment entries may be imprecise.
Zero Dollar	Occasionally, a contract will require changes that do not affect the actual dollar amount of the contract.
Final Quantity	Users may exercises the option of generating a final quantity change order on any contract. This change order records the final modifications (if any) to the item quantities for the contract. In some cases, this may be the only change order associated with a contract.
On the Header Folder Tab	The Final Quantity Function must be selected on the Header window to define the purpose of the change order. No other type of change order may be indicated if this is a Final Quantity Change Order.
On the Items Folder Tab	The ending quantities and/or values of the contract items are recorded on this folder tab one item at a time. This information is required to compute the final payment on the contract.

The net results of a Final Quantity Change Order are reflected in the Contract Items window |

> 📄 **Note**: During the contract finalization process, the system will automatically assign final quantities for all items on the contract when final quantities have not already been assigned via a change order. The system will automatically change the item status to Final.

11.3.1 Change Order Header

The Change Order Header folder tab allows an authorized user to:

- Create a new change order by entering enter new descriptive information for a change order, or

- Maintain the current descriptive information about an existing change order as the status of the change order progresses from Draft through Pending.

- Change the status of a change order permanently to Approved or Disapproved.

Change orders must be associated with existing contracts. The Change Order Header is used to select the contract for which the change order or the contract and change order number to be modified. The user may click **Services/Choose Keys** or Open icon to select the appropriate contract and/or change order in the database.

Figure 11-8. The Change Order Header Folder Tab

To access the Header Folder Tab:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Orders** icon.

A blank Change Order Header folder tab displays, if the user has not previously specified a contract and/or change order on another window prior to accessing the Header folder tab.

To choose the keys to select the contract associated with this change order:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Orders** icon.

4. On the blank **Header** tab, click the **Services** menu and click the **Choose Keys** choice or press **Cntl K**.

5. On the **Select Contract and Change Order** data window, double click the desired **Contract ID** choice or click the **OK** button.

This action redisplays the Change Order Header foldertab with the identifying information for the selected Contract in the display-only fields.

To select a different contract to create a new Change Order Header:

1. On the **Main** panel, double-click the **Change Orders** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Orders** icon.

4. On the **Header** folder tab, click the **New** button.

5. On the **Header message** window, click the **Yes** or **No** button, to confirm the save of any changes to the existing change order header data.

6. On the blank **Header** folder tab, click the **Services** menu and click the **Choose Keys** choice or press **Cntl K**.

7. On the **Select Contract and Change Order** window, in the **Contract ID** data window, double click the **Desired Contract** choice or click the **OK** button. *The Change Order Header folder tab is redisplayed with the identifying information for the selected contract in the display-only fields. It also automatically increments the change order numbering and displays the next change order number for this contract in the CO Number field.*

Field Name	Description
CO Created by	This is user name (from the User ID table) for the SiteManager user that created the change order and the date it was created. This is a display only field. It is populated the first time the new change order is saved.
On	This is the date the change order was created. This is a display only field. It is populated the first time the new change order is saved.
Status	Stage in the life of the change order. Available status codes include: Draft, Pending, Approved, and Disapproved. Changing the Status to Disapproved in this window permanently changes the status, and the Change Order is then read-only.
Approval Level	This field displays the level comprising the step needed to approve different change orders. The values displayed in this field are derived based on the matrix of change order criteria defined when the DOT established the change order approval levels and associated approval rules.
Description	A short narrative description of the referenced change order. This field is a mandatory field.
Reason Code	Transportation Agency defined reasons for change orders. This information is used for management reporting.
CO Type	Change order types define the purpose of the change order.

Field Name	Description
Override Approval Rules	A check box that indicates that the established Approval Rules do not apply to the change order. When this indicator is selected for a change order, the user is allowed to specify a sequence of approval groups which will only apply to the *current* change order.
Functions	
Overrun/Underrun	A check box that indicates that the quantities associated with at least one item have been modified as a result of the change order.
Extra Work	A check box that indicates that there is extra work or at least one new item included on the change order.
Time Adjustments	A check box that indicates that at least one of the timeframes associated with the contract is modified as a result of the change order.
Force Account	A check box that indicates that there is a force account associated with the contract that affects the change order.
Zero Dollar	A check box that indicates that the change order does not affect the dollar amount of the contract. Zero Dollar change orders *cannot* include any other functions.
Final Quantity	A check box that indicates that the final item quantity for all items on the contract is included in the change order. Final quantity change orders *cannot* include any other functions.
Emergency Work	An informational check box that indicates that the change order is for emergency work. In order to expedite the CO Review/Approval process, the author can select this indicator which is linked to an Emergency indicator on the CO Review/Approval window. The Emergency indicator alerts approvers that the change order is for emergency work.
Bid Amount	The original bid amount of the contract. This is a display-only field.
Current Contract Amount	The current amount of the contract. This is a display-only field.
CO Amount	The amount of the change order derived from all contract

Field Name	Description
	items modified by the change order. This is a display-only field.
Reference to:	
Dispute	This field is a key for any disputes associated with the change order.
Force Account	This field identifies an associated force account. This field is only used for force account change orders.
Tentative Verbal Approval Dates:	
Federal	The date on which a federal agency gives its tentative verbal approval of the change order. This is an optional field.
Local	The date on which a local agency gives its tentative verbal approval of the change order. This is an optional field.

Table 11-7. The Change Order Header Window Fields Table

To create a new change order:

1. In the **Description** field, type a description of the change order

2. Press the **Tab** key.

3. In the **Reason Code** drop-down list, click the desired **Change Order Reason** choice.

4. Press the **Tab** key.

5. In the **CO Type** drop-down list, click the desired **Change Order Type** choice.

6. Press the **Tab** key.

7. In the **Functions** data box, click the desired Function radio button.

8. Press the **Tab** key.

9. Click the **Emergency Work** check box (ON), if this change order involves emergency work.

10. Press the **Tab** key.

11. Complete **Reference to** options as required.

12. In the **Dispute** field, use the Search Lens to find and select a **Dispute Identifier,** if there is a Dispute related to this change order.

13. Press the **Tab** key.

14. In the **Force Account** field, use the Search Lens to find and select the Force Account Identifier, if there is a Force Account related to this change order.

15. Click the **Reference Doc** spin button and select a Reference Document related to this change order.

16. Click the **Save** button. *The cursor is automatically returned to the **Status** field.*

17. In the **Status** drop-down list, click the desired **Change Order Status** choice. *(**Draft** - the CO can be forwarded for review. **Pending** - the CO can be forwarded for Approval.)*

18. Press the **Tab** key.

19. If a Federal Agency has given its tentative approval to this change order, type the **Date** of that approval in the **Federal** field.

20. Press the **Tab** key.

21. If a Local Agency has given its tentative approval to this change order, type the **Date** of that approval in the **Local** field.

22. Press the **Tab** key.

23. Click the **Save** button.

24. Continue the creation of the new change order by completing any entries required to the contract items, time frames, or explanations using the instructions referenced in this section. Navigate to required folder tabs.

If there is a Reference Document entry for this new Change Order, the user may associate a copy of the Document with the change order record using the procedures outlined in the Contract Administration - Maintenance section, under the Document Submission topic.

Special Approval Change Orders

Figure 11-9. The Special Approval CO Approval Window

When a Transportation Agency needs to process a CO that requires different approval rules than the standard rules previously established (i.e. Specification Work), authorized users can override the standard approval rules by selecting the Override Approval Rules indicator, on the Change Order Header window. Once the user selects the indicator, changes the CO status to Pending and saves the change order, the user can then select the number of approval levels and designate User Groups/IDs on the Special Approval CO Approval window. This function looks much like the CO Review/Approve window, except it allows the user to select the User Groups *and* User IDs on a single window.

Field Name	Description
Seq No.	The number which designates the sequential order of the User Groups/IDs in the approval process.
Groups for Approval	A drop down list containing the list of User Groups that are authorized to approve change orders. This is a required field.
User ID	A drop down list containing the list of users in the selected Approval Group, for the current approval level. This is a required field.

Table 11-8. The Special Approval CO Approval Window Fields Table

The following restrictions apply when creating or maintaining a Special Approval Change Order:

- The user must choose an approval group and User ID for each approval level.

- Once the approval process has begun, the user may add additional approval levels.

- Once the change order has been approved by a user, the user's ID appears as a protected field in the Special Approval CO Approval window and *cannot* be deleted from the.

- The approval level and User ID that follows the last level that *approved* the change order, cannot be deleted from the Special Approval CO/Forward To window.

- When a Special Approval CO is in Pending status, the user can delete every approval level *except* the first one. If the user wishes to delete the first approval level, the CO's status must be changed back to Draft.

- **Note:** The Change Order Tracking window will reflect *any* changes made on the Special Approval CO/Forward To window.

Maintaining Change Order Header Information

Maintaining existing change order header information involves:

- Accessing the correct contract and Change Order Header window

- Updating the editable fields appropriate for the change order status

- Updating the appropriate contract and change order items, time adjustments and explanations to complete the maintenance process

Access existing change order information for the same or another contract following the same procedures described for accessing a change order.

Maintain existing change order header information for a Draft change order using the same procedures described in creating a change order.

The status of a Pending change order may be changed back to Draft for revision. A Pending CO that has been Denied on the Change Order Review/Approve window is automatically changed back to Pending, and may be changed back to Draft status by the author. The CO may then be revised, have its status changed to Pending and be re-submitted for approval.

Once a change order has been approved on the Change Order Review/Approve window by the final approver, the system automatically changes the CO's status to Approved on the Change Order Header window. If the status on the CO Header window is changed to Denied, then saved, any further modifications to data on the CO header and its related windows are prevented.

Navigation to Other Change Order Functions

Depending on the Status and the Contents of a CO header, the user may directly access other change order functions.

From the CO header folder tab, users may select:

- the Items folder tab

- ▪ the Time Adjustments folder tab

- ▪ the Explanations folder tab

Forwarding the Change Order for Review or Approval:

Draft change orders may be forwarded for *review* from the Header window. Pending change orders may be forwarded for *approval* from the Header window.

Draft Change Orders	During the life of the contract change order, the author of the change order is responsible for forwarding the change order to identified SiteManager users for review. If the change order is in Draft status, the *author* has the option whether to submit the draft change order for review and which SiteManager users should review the change order.
Pending Change Orders	During the life of the contract change order, the author of the change order is responsible for forwarding the change order to identified approval level SiteManager users for approval. When the change order is in Pending status, the *system* defines approval levels and approval rules according to the Contract Administration tab on the System Operational Parameters window and the CO Reference Tables. Except for Zero Dollar COs, which only requires one approval level, the author must select at least one approver from each approval level.
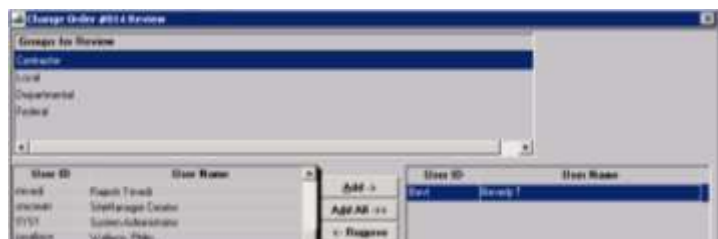
Figure 11-10. The CO Groups for Review Window

To forward a Draft change order for review:

1. On the **Header** window, click the **Services** menu and click the **Forward To** choice. The Groups for Review window appears.

To forward a Pending change order for review:

1. On the **Header** window, click the **Services** menu and click the **Forward To** choice. The Groups for Approval window appears.

To select Reviewers or Approvers for the change order:

1. In the Groups for Review or Groups for Approval window, select the top group level name. (Contractor, in the example.) The ID and name of all members of this group appear in the lower left datawindow.

   📄 **Note:** In the **Groups for Approval** window, only **User(s)** who are in the selected group and have Contract Authority will appear in the list. Both criteria must be true for a user to appear in the list.

2. Select (Highlight) the name of at least one group member.

3. Click the **Add** button. The selected name appears in the lower right datawindow. Select and add names as desired.

4. Select the next level group name. (Local in the example) The ID and name of all members of this group appear in the lower left datawindow.

5. Select (Highlight) the name of at least one group member.

6. Click the **Add** button. The selected name appears in the lower right datawindow. Select and add names as desired.

7. Continue these procedures through each group listed in the upper datawindow until at least one user has been selected and added for each group level.

8. Authors may use the **Add All** button to add members of a group to the Reviewer or Approver list or use the **Remove**, or **Rem All** buttons to remove group members. These buttons apply only to the current level group. For example, **Rem All** does not remove every selection made in the window, only in the currently selected group.

9. Complete adding Reviewers or Approvers until at least one user has been selected and added for each group level.

10. Click the **Save** icon. Respond to any messages.

11. Click **Yes** on the Mail is Sent Message

12. Review the Change Order Tracking window for this contract and Change Order.

While the change order remains in a Draft or Pending status, this option is accessible from the Change Order Header Services menu. When the status is changed to *Approved* or *Disapproved* the *Forward to* option on the Services menu of the Header window is not enabled.

Calculating the Change Order

After the full change order creation or maintenance activities are complete, including entries or updates to the change order items, time adjustments and explanations windows, the user may re-calculate the display only values on the Change Order Header window.

To calculate the change order values:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Orders** icon.

4. On the **Header** folder tab, click the **Services** menu and click the **Calculate Change Order** choice.

5. Click the **Save** icon.

If the Change Order maintenance activities (e.g.,. adding new change order items, making time adjustments) are performed by navigating to the corresponding Change Order folder tabs, a Save must be performed before Calculate Change Order may be selected from the Services menu. Prior to performing the Save, the Calculate Change Order option is disabled.

11.3.2 Change Order Items

The Change Order Items folder tab allows the user to:

- Select an existing item on the contract for inclusion in the change order

- Add a new item to the contract by including it in the change order

- Select and modify an existing item in the contract and already associated with the change order

- Delete an item from a change order

Whenever the change order function is an overrun/underrun and/or extra work, the Items folder tab must be used to make the corresponding entries and/or modifications to the change order item(s). To access the Items folder tab:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order** Maintenance panel, double-click the **Change Orders** icon.

4. On the **Header** folder tab, click the **Services** menu and click the **Choose Keys** choice.

5. In the **Contract ID** data window, double-click the desired **Contract** choice.

6. On the **Header** folder tab, confirm that the Change Order functions radio button for **Overrun/Underrun** and/or **Extra Work** are selected (ON).

7. Click the **Items** folder tab. This action displays the Change Order Items tab with the selected contract and change order information displayed in the appropriate fields.

11.3.3 Change Order Items Folder Tab

The Items folder tab shows detailed information about items included in the change order. On the Items folder tab the user may:

- Select an existing item in the contract and add it to the change order,

- Select an existing item in the current change order for modification; and/or

- Complete the entry of change order information required for a new contract item..

Figure 11-11. The Change Order Items Folder Tab

When the contract does not already contain the item to be included in the current change order, the user must first *add* the new contract item using the Items folder tab. The new contract item must be created through the change order process, including approval of the change order, before it can be officially added to the contract.

On the Items folder tab the user may:

- Create a new item to be added to the contract through this change order; or

- Update new contract item information included in this change order.

After the new contract item data is created and associated (saved) to the change order, updates to the data may continue to be made on the Items tab as long as the change order is in Draft status.

For additional information on Force Account processing refer to the CO Force Account topic in this manual.

Note that the Obsolete Item Indicator setting may prevent some Item Master records from being displayed or selected.
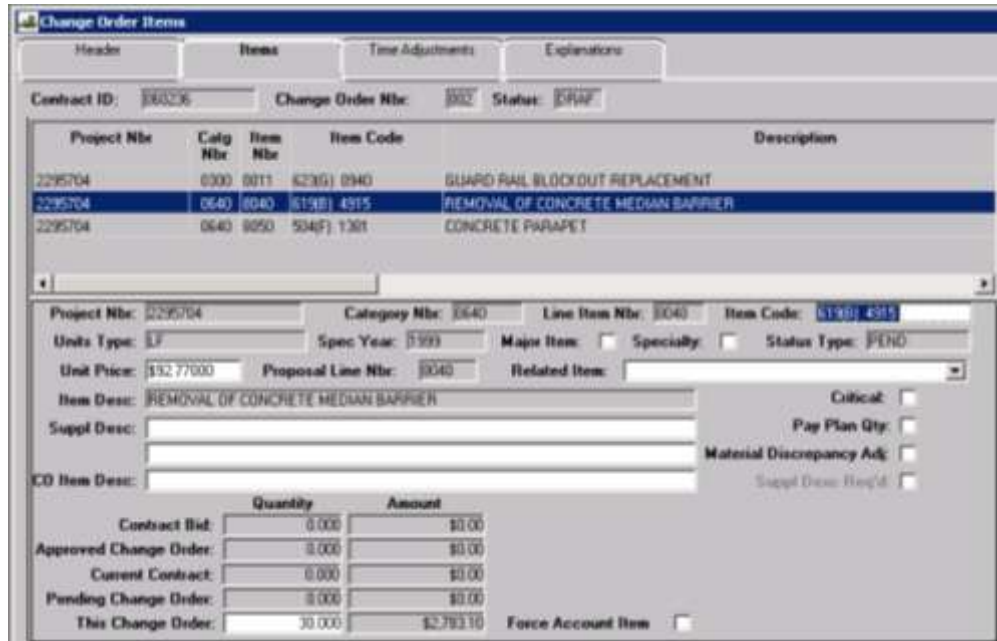
Figure 11-12. The Items Tab

11.3.4 Adding an Existing Contract Item to the Change Order

To add an existing **Contract** item to the current change order:

1. On the **Main** panel, double-click the **Change Orders** icon.

2. On the **Change Orders** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order** Maintenance panel, double-click the **Change Orders**icon.

4. On the **Header** tab, click the **Services** menu and click the **Choose Keys** choice.

5. In the **Contract ID** Selection window, double-click the desired **Contract** choice, or

6. Click the Open icon.

7. In the Contract Id, Change Order pick list (Selection) window, doubleclick the desired Contract choice, then highlight the desired change order and click the **OK** button.

8. Enter a **Change Order Description.**

9.   Select a **Reason Code** from the dropdown list.

10. Select a **CO Type** from the dropdown list.

11. Select the **Overrun/Underrun** Function.

12. Click **Save**.

13. Click the Items tab.

14. Click the **Select Item** icon; or

15. Click the **Services** menu and click the **Select Item** choice.

16. This action displays a pick list (Select Contract Items) of all the items in the contract not associated with a change order.

17. On the **Select Contract Items** window, use the scroll bar to the right of the current selection to locate and highlight the desired Contract Item.

18. Double-click the highlighted Contract Item choice or click the **OK** button. This action re-displays the Items tab showing the current contract values for the selected contract item with display only fields.

19. Type the **CO Item Description**.

20. Press the **Tab** key.

21. Type the **Quantity**.

22. Click the **Save** button.

To add more existing **Contract** items to the current change order:

1.   Repeat steps 8 through 16 from above.

11.3.5 Adding a New Item to the Contract through the Change Order Process

New items may only be added to an existing contract through the change order process. New items must be:

- Selected from the Transportation Agency's previously defined Item Master listing.

- When a new item is added to a contract, the user must select the Project AND Category, and then enter a unit price and any agency-required Supplemental Description of the Item on the Items tab. The quantity of the item must be entered on the Items tab of the Change Orders window before the new Item may be saved.

To add a new contract line item from the Item Master List:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Orders** icon.

4. On the **Header** tab, click the **Services** menu and click the **Choose Keys** choice.

5. In the **Contract ID** data window, double-click the desired **Contract** choice, or

6. Click the Open icon.

7.   In the Contract Id, Change Order pick list (Selection) window, double-click the desired Contract choice, then highlight the desired change order and click the **OK** button.

8. Enter a Change Order Description.

9.   Select a Reason Code from the dropdown list.

10. Select a CO Type from the dropdown list. Select the Extra Work Function.

11. Click Save.

12. Click the **Items** tab, then click the **New** button on the menu bar to refresh the window and put it in *new* mode.

13. The cursor appears in the **Project Number** drop-down list; click the desired **Project Number** choice.

14. Press the **Tab** key.

15. Select a **Category Nbr** from the drop-down list.

16. Move the cursor to the **Line Item Number** field and type the Line Item Number.

17. Press the **Tab** key.

18. The cursor appears in the **Item Code** field. Click the Search lens.

19. Scroll the Item Master list of existing items. Select the existing item desired. The Units Type:, Spec Year:, Description:, and Unit Price: Fields populate with data.

20. Click the **Major Item** check box (ON) if this is a major item in the contract.

21. Press the **Tab** key.

22. Click the **Specialty** check box (ON) if this is a specialty item for this contact. The Status Type: field remains gray.

23. Press the **Tab** key.

24. Type the new **Unit Price** of the item.

25. Press the **Tab** key. Move the cursor to the **Proposal Line Nbr** field and type the Proposal Line Nbr.

26. In the **Related Item** drop-do**wn list, cli**c**k** the Related Item choice.

27. Press the **Tab** key.

28. Click the **Critical** check box (ON) if this is a critical item in terms of scheduling.

29. Press the **Tab** key.

30. Type a Supplemental Description for the new item.

31. Press the **Tab** key.

32. Click the **Pay Plan Qty** check box (ON) if the item is paid to plan quantity, that is, no overruns are allowed.

33. Press the **Tab** key.

34. Click the **Material Discrepancy Adj** check box (ON) if the item is paid to plan quantity, that is, no overruns are allowed.

35. Press the **Tab** key.

36. Type the Change Order Item Description.

37. Press the **Tab** key.

38. Type the **Quantity** of the item required.

39. Press the **Tab** key.

40. Click the **Force Account** check box (ON) if the new contract item is for a force account.

41. Click the **Save** button.

When a new item is added to the contract through this process, the information about the new line item is not saved to the database until all required fields are completed, edited and saved on the Items tab. The contract item list *is not* updated with the new item until the change order is approved.

To add remarks associated for the new contract item:

1. Click the **Remarks** button.

2. In the **Remarks** field, type any comment associated with the change order item.

3. Click the Remarks button.

4. Click the **Save** button.

The remarks are associated only with the new contract item highlighted on the Items tab. This information may only be accessed and updated on that tab.

A supplemental description may be required by turning on the Require Supp Desc indicator on the Item Master.

11.3.6 Maintaining Change Order Item Information

New contract items added through the change order process must be maintained using the Items tabs on the Change Order window. The new item is added to the contract in pending status until the change order is approved; the item cannot be used on a Daily Work Report. The new item data can be maintained within the Change Order Item window; it may be modified or deleted while the Change order is in Draft status.

Name	Description
Cont ID	Transportation agency-defined ID for the Contract. Corresponds to the Contract ID assigned by AASHTOWare Project software or another preconstruction system. This is a required field.
Co Nbr	Sequential number assigned to all change orders for the contract.
Project Nbr	Identifies the project to which the item is associated. Can be multiples per contract.
Line Item Nbr	The contract line item number that uniquely identifies each item as it appears on the project. For all bid items, this item is assigned by the preconstruction function. When entered, this value must be unique within the contract. Once saved, this value is protected from modification. Items created with wrong line item numbers must be deleted first, then recreated to correct.
Item Code	An agency-defined code used to identify a particular item. This field has a search lens.
Unit	The positive or negative line item quantity added or removed. This value is passed from Change Order Item program when the item is added to the contract through a change order .
Unit Price	Unit price of the item. This price is identified on the invoice. These fields are display only.
Item and Supplemental Descriptions	A display field which populates when the item is selected.

Name	Description
Change Order Item Description	An additional change order description for items not sufficiently described in the Item Master. This field is optional. It is modifiable only when the change order is in Draft status.
Contract Bid Quantity	The quantity of the line item, as indicated on the proposal or contract. This field is display only.
Contract Bid Amount	The quantity of the line item, as indicated on the proposal or contract, multiplied by unit price. This field is display only.
Approved Change Order Quantity	The net change to the item quantity from all approved change orders.
Approved Change Order Amount	The net change to the item quantity from all approved change orders, multiplied by unit price. This field is display only.
Current Contract Quantity	Bid contract plus approved quantities. This field is display only.
Current Contract Amount	Bid contract plus approved quantities, multiplied by unit price. This field is display only.
Pending Change Order Quantity	The net change to the item quantity from all unapproved change orders. This field is display only.
Pending Change Order Amount	The net change to the item quantity from all unapproved change orders, multiplied by unit price. This field is display only.
This Change Order Quantity	The positive or negative line item quantity added or changed on this change order. This is a mandatory entry field. It is modifiable only when the change order is Draft status.
This Change Order Amount	The positive or negative line item quantity added or changed on this change order, multiplied by unit price. This field is display only.
Force Account	Check box indicating that the new item is for the force account associated with the change order. This box may be selected for only a new item and for only one new item per force account change order.

Table 11-9. The Change Order Item Tab Fields Table

Field Name	Description

Field Name	Description
Contract ID	The primary identifier for the contract. This identifier is the primary contract identifier for a proposal generated from a preconstruction system if the department is not using AASHTOWare Project products.
Change Order Nbr	Sequential number assigned to all change orders for the contract.
Line Item Nbr	The contract line item number that uniquely identifies each item as it appears on the project. For all bid items, this item is assigned by the preconstruction function. When entered, this value must be unique within the contract. Once saved, this value is protected from modification. Items created with wrong line item numbers must be deleted first, then recreated to correct.
Category	A grouping of items assigned during preconstruction. Items can be grouped within categories for various reasons, such as for funding. This field defaults to the value stored in global parameter area. This value may be either a valid project category number or spaces. The field is protected from modification. Items created for wrong categories must be deleted first, then recreated to correct.
Project Nbr	The unique identifier for the project associated with this item. Can be multiples per contract.
Item Code	An agency defined code used to identify a particular item. This field has a search lens.
Unit Type	The unit of measure for this item. This is display field only.
Spec Year	The specification year as stated in the Item Master. This field populates automatically after Item Code selection.
Description	A field which contains a textual description of the item as stored on item master list. This field populates automatically after Item Code selection.
Major Item	A check box indicating the line item is a major item. If not selected the item is a minor item.
Specialty	Indicates whether the line item is a specialty item. Specialty items are excluded from the calculation to determine the amount of the contract which can be sublet. This field is protected from modification if any of the following conditions apply:

Field Name	Description
	▪ there is an associated change order; ▪ there is an associated dispute; ▪ there is an associated plan discrepancy (through change order); ▪ there is an associated stockpiled material; or ▪ the contract has an associated estimate.
Status Type	Code indicating the current status of an item. **Pending.** Status defaults to pending when the item is added. **Active.** When a contract's status is changed to active, the status of all of the contract's items is changed to active. An active item cannot be deleted. **Final.** When a Final Item Quantity Change Order is approved, the status of all of the change order's items is changed to Final. **Audited.** When an item has been approved or accepted through an audit, the user must indicate its status as Audited. **Complete.** When a contract's status is changed to complete, the status of all of the contract's items is changed to complete.
Unit Price	Unit price of the item. This price is identified on the invoice. This field is display only.

Field Name	Description
Proposal Line Nbr	The line number which identifies the item as it appears on the proposal. This is a protected, and display only field. The value for this field is derived from information in the preconstruction system.

Related Item	Allows grouping of line items (e.g., all traffic control items or all items for a structure) for reporting and funding purposes.
	
	If a state/province wants to report items together it may:
	
	    ▪ create a related item code (e.g., RPT1 - Report #1)
	
	    ▪ develop a report which selects and groups these items together.
	
	If a state/province wants to fund a group of items the same but does not want to place them within the same category they may:
	
	    ▪ create a related item code (e.g., FND1 - Funding Source #1)
	
	    ▪ select those items with this code in the funding process
	
	thereby funding all these items with the same source and participation percentages.
	
	This field is a protected from modification if any of the following conditions apply:
	
	    ▪ there is an associated change order;
	
	    ▪ there is an associated dispute;
	
	    ▪ there is an associated plan discrepancy (through change order);
	
	    ▪ there is an associated stockpiled material; or
	
	    ▪ the contract has an associated estimate.

Critical	If selected, indicates that an item is considered critical. Used for tracking the progress of contracts with the Critical Items Installed progress schedule type. Non-critical items such as landscaping are not included in progress tracking.

Field Name	Description
Pay Plan Qty	This check box indicates if the line item is paid to plan quantity; no overruns are allowed. This field is a protected from modification if any of the following conditions apply: ▪ there is an associated change order; ▪ there is an associated dispute; ▪ there is an associated plan discrepancy (through change order); ▪ there is an associated stockpiled material; or ▪ the contract has an associated estimate.
Supplemental Descriptions	This field contains a two line, textual description that is supplemental to the item's description.
Material Discrepancy Adjustment	When an authorized user adds contract items online in SiteManager, the item's adjustment flag is set according to the settings in System Operational Parameters. This flag's check box defaults to On if the system-wide discrepancy adjustments flag is selected and if the default calculation for all items flag is turned on. The default setting for the item may be changed at any time during the course of a contract. The item's check box is disabled if the system setting for the discrepancy adjustments flag is cleared.

Table 11-10. The Items Tab Fields Table

11.3.7 Change Order Time Adjustments

The Time Adjustments folder tab allows authorized users to enter one or more time adjustments for a change order. At least one adjustment must be recorded using this window if the Time Adjustment function applies to the change order.

Restrictions on Time Adjustment Entries

Time adjustments may be related to:

▪ the contract completion date

▪ milestone(s) on the contract, or

- both the contract completion date and milestone(s) associated with the contract

The Charge Type for the contract determines which timing components of the contract and its associated milestones may be entered and modified. There are three charge types for contracts. The editable fields and required fields on the Time Adjustment Window are determined by the contract's charge types are as follows:

Available Days (AD) Charge Type	Computes time periods based on the working days charged to the contract and/or to each milestone. Only the number of days adjusted may be entered in the Time Adjustment Window. No completion date applies to this charge type.
Fixed Date (DT) Charge Type	Has a specific fixed end date for the contract or for milestones within the contract. Only the completion date field is entered. The system computes the number of days adjusted.
Calendar Days (CD) Charge Type	Computes the end date for the contract and for milestones based on the number of calendar days allocated for the work. The number of days adjusted is entered. The system then computes the completion date.

Additional limitations apply to entries on the Time Adjustments folder tab as follows:

- Only one adjustment to the contract completion date may be entered per change order.

- Multiple contract milestone adjustments may be entered for a single change order.

- Each milestone may only be included in one change order, but that change order time adjustment may be maintained (updated or deleted) subsequently.

- Text explaining reasons for the time adjustment may be entered.

- The status of the associated change order determines whether the fields on this folder tab are display only or may be modified by the user.

- Time adjustments may only be entered while a change order is in Draft status.

- Change orders in Draft status allow the following fields to be entered or updated: time adjustment days, adjusted completion date, milestone/contract completion status (radio button), and milestone.

- Change orders in a Pending, Approved, or Disapproved status do not allow updates to these fields.
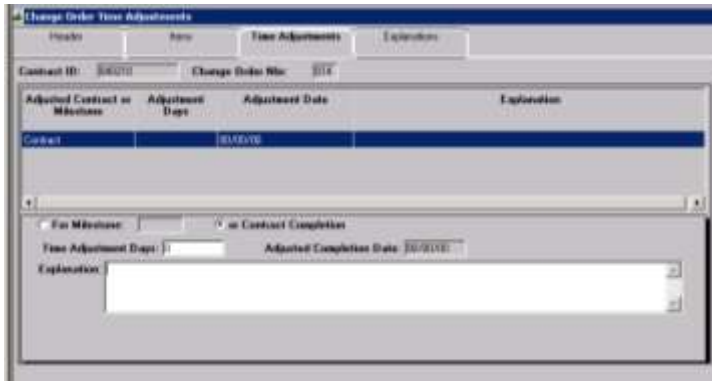
Figure 11-13. Change Order Time Adjustments Window

When the Time Adjustment folder tab displays initially, it lists all of the time adjustments associated with the selected contract and change order;you are not prompted to select a contract number from a pick list. To choose the keys to display data on the Time Extension window:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Orders** icon.On the **Header** tab, click the **Services** menu and click the **Choose Keys** choice.

4. In the **Contract ID** data window, double-click the desired **Contract** choice.

5. On the Change Order pick list window, highlight the desired change order or click the **OK** button.

6. Click on the Time Adjustments folder tab. This action displays the Change Order Time Adjustment folder tab containing the adjustments associated with the selected contract and change order number.

To select a different contract at any time:

1. On the **Change Order Header folder tab**, click the **Open** button. This redisplays the **Select Contract** and Change Order window where you may select a different contract and change order number for display of time adjustment data.

To add a new Time Adjustment to a contract change order:

1. On the **Time Adjustments** folder tab, click the **New** button. This action creates a blank line in the top data window where the entries for the new time adjustment are displayed after the window is saved.

2. Select either the **For Milestone (ON)** or the **or Contract Completion** option (ON) to indicate whether this adjustment is for a milestone or for the contract.

3. For a **Contract Completion** adjustment with the **Contract Completion** radio button (ON), type the number of days the contract is to be adjusted in the **Time Adjustment Days** field. Press the **Tab** key.

4. The **Adjusted Completion Date** field automatically displays the adjusted date of the contract

5. For a **Milestone** adjustment with the **Milestone** radio button (ON), click the down-arrow button and make a selection from the user-defined drop list.

6. Press the **Tab** key.

7. Type an explanation for either the milestone or the Contract Completion adjustment.

8. Click the **Save** button. The adjustment information appears in the upper datawindow in the previously blank line.

To modify an existing time adjustment to a contract or milestone:

1. On the **Change Order Header** tab, click the **Open** button.

2. In the **Contract ID** data window, double-click the desired **Contract** choice.

3. On the Change Order pick list window, highlight and double-click the desired change order or click the **OK** button.

4. Click on the Time Adjustments folder tab.

5. In the top data window, highlight the desired **Contract** or **Milestone** adjustment choice.

6. If enabled, in the **Time Adjustment Days** field, type the modified number of days the contract or a milestone is adjusted.

7. Press the **Tab** key.

8. If enabled, in the **Adjusted Completion Date** field, type the modified completion date of the contract or a milestone.

9. Press the **Tab** key.

10. Select either the **for Milestone** or the **or Contract Completion** option (ON) to indicate whether this is a modification of a previous milestone or a contract adjustment

11. Press the **Tab** key.

12. Modify the **Explanation** for the new time adjustment if desired.

13. Click the **Save** button.

Only one adjustment may be modified at a time. You must save the changes to one adjustment before making other modifications to the data for the change order time adjustments.

To delete a time adjustment from the selected change order and from the database:

1. On the **Time Adjustments** window, in the top data window, highlight the desired Contract or Milestone adjustment choice.

2. Click the **Delete** button.

3. Click the **Yes** button (to confirm the deletion).

4. Click the **Save** button.

Field Name	Description
Contract ID	The primary identifier for the contract. This identifier is the primary contract identifier for a proposal generated from a preconstruction system if the department is not using AASHTOWare Project products.
Change Order Nbr	Sequential number assigned to all change orders for the contract.
Adjusted Contract or Milestone:	List of contract and/or milestones adjustments associated with this change order.
Adjustment Days	Number of days the contract or a milestone is to be adjusted. This field is a mandatory entry for all **Available Days** and **Calendar Days** charge type contract or milestone adjustments.
Adjusted Completion Date	The new completion date of the contract or a milestone to be adjusted.
For Milestone	Radio button indicating that the time adjustment is for a milestone rather than for the contract's completion. List of contract milestones. Either the For Milestone button or the or Contract button must be selected for each record.
or Contract Completion	Radio button indicating that the time adjustment is for the contract's completion rather than for a milestone. Either the for Milestone button or the or Contract button must be selected for each record.
Explanation	Text describing reasons for the time adjustment. This field is optional. The first line of the text appears in the upper datawindow Explanation field after a Save.

Table 11-11. The Time Adjustments Window Fields Table

11.3.8 Change Order Explanations

The Change Order Explanation folder tab is used to document the reasons for contract changes.

This window allows the author of the change order to record the reason for changes in the contract included in the change order. It also allows reviewers and approvers to view the change order reasons.

There are two types of explanations that may be associated with a contract change order:

- One or more explanations pertaining to items on a change order, and

- Explanations describing the necessity of a change order as a whole.

To access the **Change Order Explanations** window to maintain change order explanations window:

1. On the **Change Order Header** tab, click the **Open** button.

2. In the Contract Id, Change Order pick list (Selection) window, double-click the desired Contract choice, then highlight the desired change order and click the **OK** button.

3. Click on the **Explanations** folder tab.

4. Click **New** button, you will be able to enter **Pick Stand Exp. ID or Enter Text below** field.

If a contract number is already in the key from previous work in another window, you may select a different contract and/or change order number to display explanations.

To select a new contract and/or change order at any time:

1. On the **Change Order Header** tab, click the **Open** button.

2. In the **Contract ID** data window, double-click the desired **Contract** choice.

3. In the Contract Id, Change Order pick list (Selection) window, double-click the desired Contract choice, then highlight the desired change order and click the **OK** button.
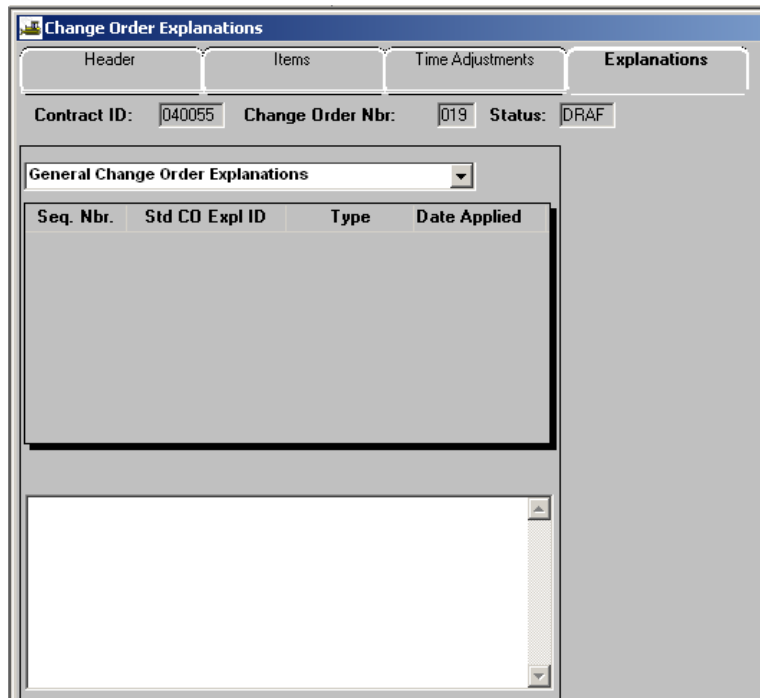
Figure 11-14. The Change Order Explanation Folder Tab - Default Mode

Field Name	Description
Seq Nbr	The system-assigned sequence number of the change order explanation.
Std CO Expl ID	The ID for the standard change order explanation.
Type	The type of explanation, selected from a standard set of defined types.
Date Applied	The date the explanation was applied to the change order.

Table 11-12. The Change Order Explanation Window Fields Table

The window heading displays the Contract Number, Change Order Number, and Change Order Status. The status of the selected change order determines whether changes may be made to the explanations or whether they may only be viewed on this window.

If the status is Draft, you may:

- Apply new explanations to the change order

- Remove explanations from the change order

- Apply/Un-apply explanations to line items of the change order

You must first associate CO items with this change order to enable all three explanation type options for the Explanation Type field. When the window first opens, it defaults to General Change Order Explanations.

Adding New Explanations to an Existing Change Order

When the CO is in Draft Status and the window is in new mode, you may use the lower data window to:

- Display and search the pick list of standard explanations for this contract type, or

- Type a non-standard explanation description in the multi-line edit text field.
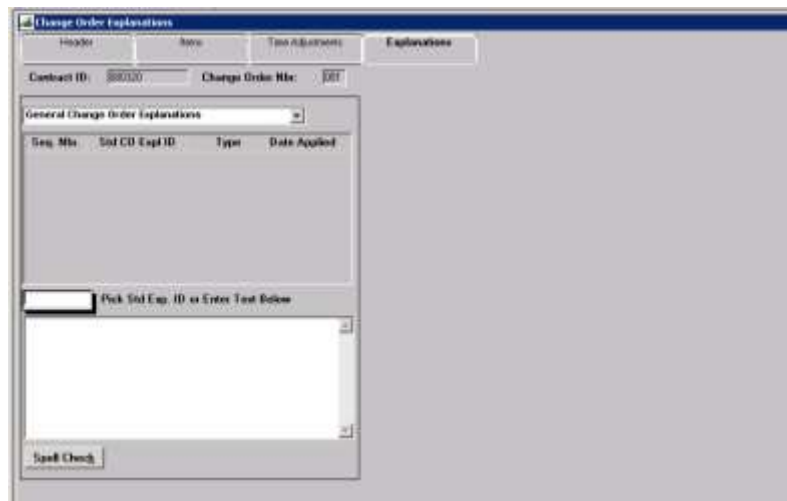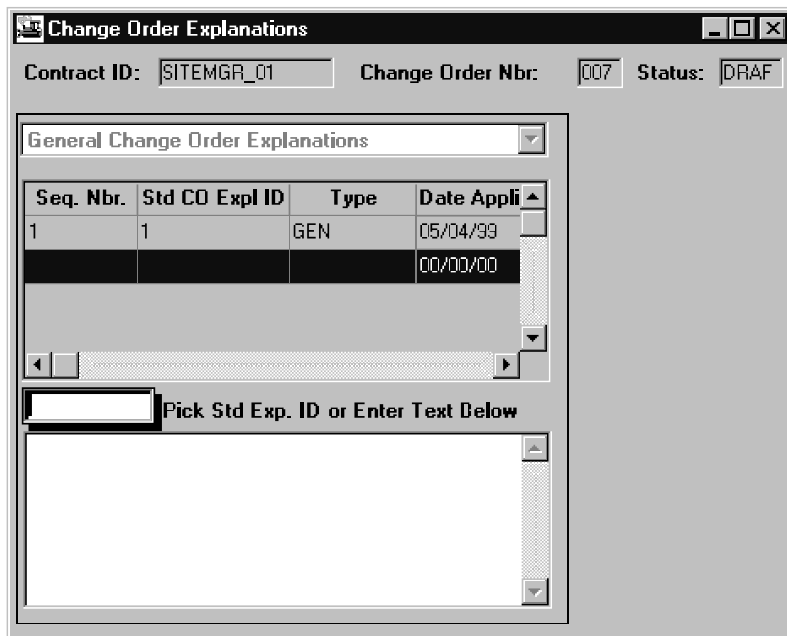
Figure 11-15. The Change Order Explanations Window - *New* Mode

The preceding figure shows the Change Order Explanation window in a new mode. If there are no explanations present for the selected change order and selected explanation type the Change Order Explanation window defaults to the new mode.

To select a standard explanation:

1. On the **Change Order Explanations**, click the **New** icon on the menu bar. A blank row appears in the upper data window.

2. In the **Pick Std Exp. ID** field, click the right mouse button to perform a Search.

3. Scroll the list of explanations, highlight the desired explanation and click **OK**.

4. Click the **Save** button on the tool bar. This action causes the blank row for a new explanation in the upper datawindow to populate with explanations data.

To create a non-standard explanation:

1. On the **Change Order Explanations** window, click the **New** icon on the menu bar. A blank row appears in the upper data window.

2. Click the lower **Text** field to change focus to that multi-line edit box.

3. Type the non-standard explanation in the **Text** field.

4. Click the **Save** button on the tool bar. This action causes the blank row for a new explanation in the upper datawindow to populate with explanation data.

Applying New Explanations to Line Items Explanations

If the Explanation Type is Explanations Applied to Specific Line Items, you may add a new explanation to the change order and also apply the new explanation to specific line items before saving the new entry.
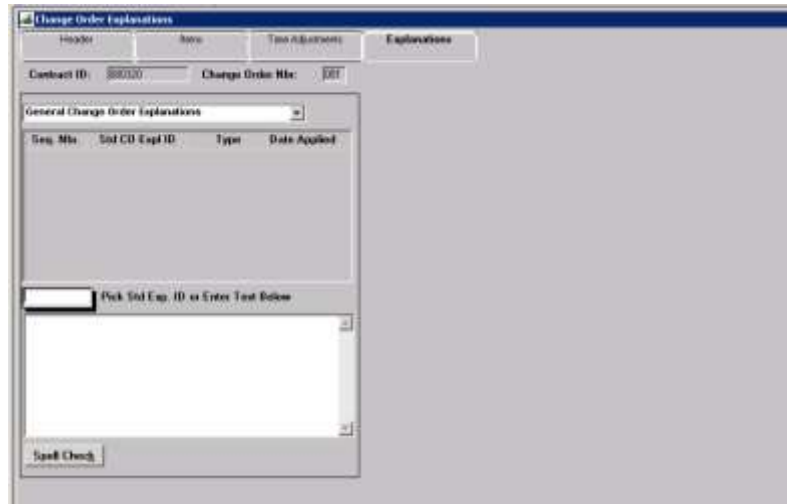
Figure 11-16. The Change Order Explanations window with Dropdown List

To concurrently add a new explanation and apply explanations to line items:

1. On the **Change Order** Explanations, click the **New** icon on the menu bar.

2. In the **Pick Std Exp. ID** field, click the right mouse button and perform a **Search**

3. Click the **Desired** change order explanation displayed in the Search Window.

4. Click the **Save** button on the tool bar.

5. Respond **Yes** to the Change Order Explanations dialog window (to confirm associating explanations with line items in the change order). (A **Yes** response abandons the **Save** process and allows the user to continue working on the window. A **No** response completes the **Save** process and exits the new mode of the window.)

6. Click the **Change Order Line Item** data window to change focus to that window.

7. Highlight and double-click the **desired** change order line item row to display the bitmap ☑ icon (ON).

8. Click the **Save** button.

9. Respond **Yes** to the Change Order Explanations dialog window (to confirm applying the new explanation to the change order). This action causes the window to exit the new mode and return to the default mode.

If you do not choose to apply explanations to line items at the same time that the change order explanation is added, line item explanations may be applied at a later time, but before the change order is approved.

To exit the new mode version of the Change Order Explanations folder tab:

1. On the **Change Order Explanations** folder tab in new mode, click the **Save** button on the tool bar.

   OR

2. On the **Change Order Explanations** folder tab in new mode, click the **Delete** button on the tool bar.

Applying Existing Explanations to Line Items

Once change order items are associated with the change order, you may use the Change Order Explanation window to record item explanations:

- for each separate line item in the change order or

- for all of the line items in the change order.
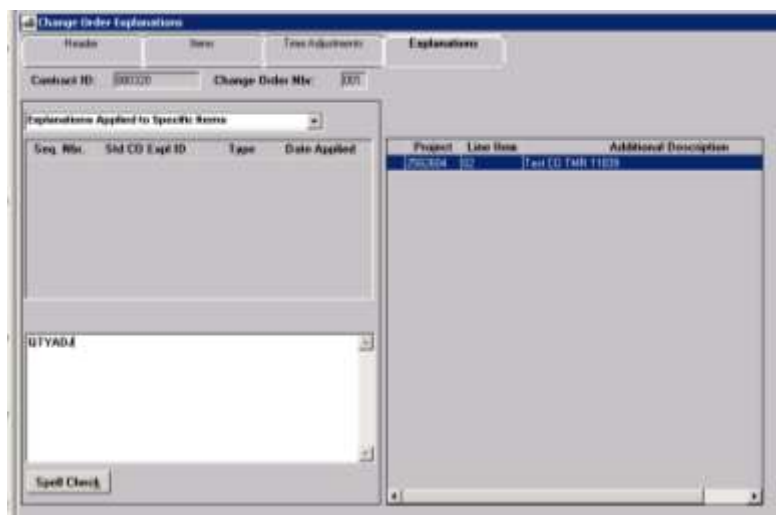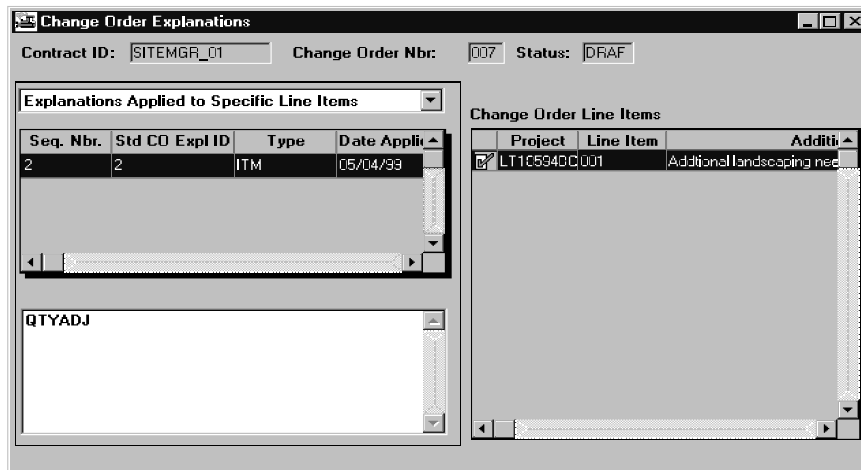
Figure 11-17. The Change Order Explanations Folder Tab - Three Data Windows

In the Change Order Explanations folder tab, when **Change Orders Applied to Specific Line Items** has been chosen, the data window lists the line items at the right. You may apply or un-apply the selected explanation here.

When change order explanations are applied to line items in the change order there are three data windows in the Change Order Explanations folder fab.

The top data window shows the type(s) of explanation(s) that apply to the change order and the specific explanations in each category that apply to this active change order. The types of change orders include:

- General Change Order Explanations (type GEN;

- Explanations applied to specific line items (type ITM) or

- Explanations applied to all line items (type ALL)

The lower data window displays any non-standard explanation text associated with the explanation highlighted in the top data window.

The right data window displays the explanations for each line in the active change order. If you select Explanations Applied to Specific Line Items, in the Explanation Type field in the top data window. A ☑ on the left column of this data window indicates that the currently selected explanation has been applied to the line item highlighted in the top data window.

To select a Change Order Line Item explanation and associate it with the unapproved change order:

1. On the **right** data window, double-click the **desired** explanation line item row.

11.3.9 Deleting, Replacing or Disassociating Explanations

You may delete an explanation associated with an unapproved change order or delete an explanation associated with a change order line item.

To delete an explanation associated with a change order when the window is in new or default mode:

1. On the Change Order Explanations folder tab, in the top data window, highlight the d**esired** explanation row in the top data window.

2. Click the **Delete** button.

3. Click the **Save** button.

To remove a Change Order Line Item explanation for an unapproved change order:

1. On the **right** data window, double-click the ☑ icon for the selected line item.

2. Click the **Save** button.

If you want to replace a non-standard explanation with a standard explanation, the corresponding non-standard explanation must first be deleted from the change order and contract ID. Then a non-standard explanation is added to the change order.

11.3.10 Item Summary Window

The Contract Change Order Item Summary window allows users (including the author of the change order, the reviewer, or the approver) to view the details of an item on a change order in any status.
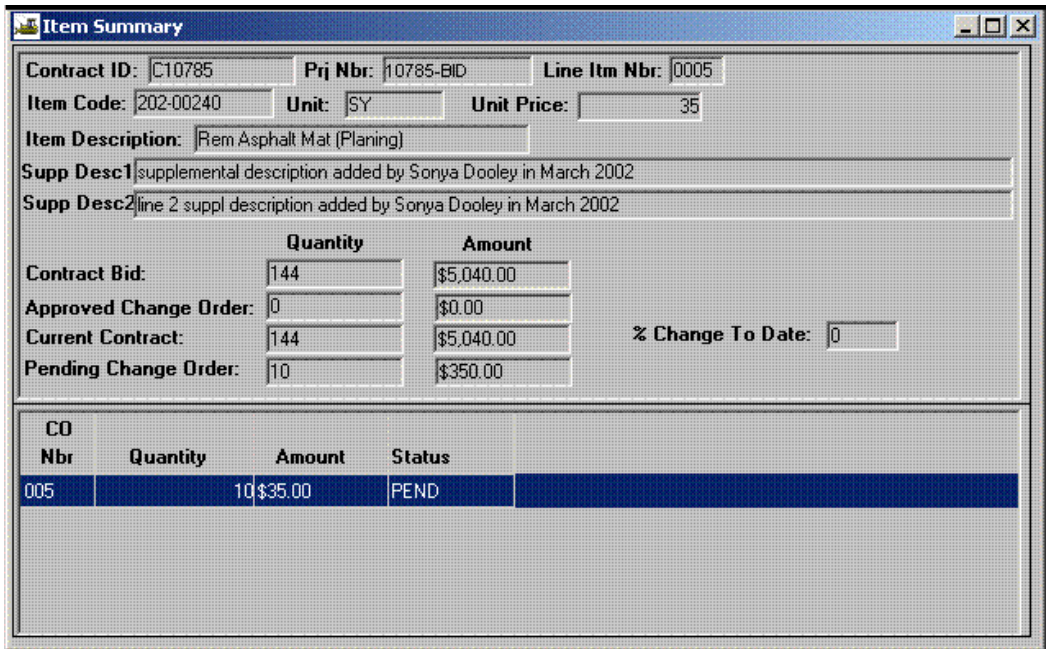
Figure 11-18. The Item Summary Window

Field Name	Description
Item Code	An agency defined code used to identify a particular item. This field is display only.

Field Name	Description
Unit	The unit of measure for this item. This field is display only.
Unit Price	Unit price of the item, identified on the invoice. This field is display only.
Item Description	Textual description of the item as stored on item master list.
Supp Description 1	A textual description that is supplemental to the item's description.
Supp Description 2	A secondary textual description that is supplemental to the item's description.
Contract Bid Quantity	The quantity of the line item, as indicated on the proposal or contract. This field is display only.
Contract Bid Amount	The quantity of the line item, as indicated on the proposal or contract, multiplied by unit price. This field is display only.
Approved Change Order Quantity	The net change to the item quantity from all approved change orders. This field is display only.
Approved Change Order Amount	The net change to the item quantity from all approved change orders, multiplied by unit price. This field is display only.
Current Contract Quantity	Bid contract plus approved quantities. This field is display only.
Current Contract Amount	Bid contract plus approved quantities, multiplied by unit price. This field is display only.
Pending Change Order Quantity	The net change to the item quantity from all unapproved change orders. This field is display only.
Pending Change Order Amount	The net change to the item quantity from all unapproved change orders, multiplied by unit price. This field is display only.

Table 11-13. Item Summary Window Fields Table

The Item Summary window is a display-only window with two data windows:

- The top data window displays the selected change order item the description and original, current, and pending contract item quantities and corresponding amounts.

- The lower data window displays a list of the change orders associated with the selected change order item, the Quantity, the dollar amount and the Status of the Change Order.

11.3.11 Selecting the Contract and Change Order

When the Item Summary window displays initially, you are prompted with a pick list to select a contract number. If a contract number is already in the key from previous work in another window, you are prompted to choose only the change order item number.

To select a change order item :

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Item Summary** icon.

4. On the **Item Summary** window, click the Open menu.

5. On the **Select Change Order Item** window, highlight the desired **Item** choice.

6. Click **OK**. This action displays the Item Summary window with the selected contract, change order, and item information displayed in the appropriate, view-only fields.

If a contract number or change order item number is already in the key from previous work in another window, you may select a different contract or change order item number to display item summary information on this window.

To select a new contract or change order item at any time:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Item Summary** icon.

4. On the **Item Summary** window, click the **Open** button. This redisplays the pick list where you may select a new contract or a different change order for the same contract.

11.3.12 Navigation to Other Windows from the Item Summary Window

After viewing a particular item in the change order, you may wish to modify the item. The Item Summary window allows you direct access to change order item. Items may be modified as follows:

- Select and add an existing contract item to the current change order.

- Select a new contract item (from the Item Master List) to be added to a change order and added to the contract after approval.

To access the CO Item window from the Item Summary window:

1. On the Item Summary window, click the **Services** menu.

2. In the **Services** drop-down menu, click **CO Item** choice.

11.3.13 Change Orders Review / Approve

Before a change order is finalized:

- It may be subjected to an online parallel review by interested parties.

- It must be approved by each of the Approval Levels and members of the User Group(s) defined in the Change Order Approval Rules.

- It may require the prime contractor to sign a legal document regarding the modification.

11.3.14 Change Order Review and Approval Sequence

There are six SiteManager windows that facilitate this online review and approval process. These are:

- The Forward Change Order For Review window

- The Forward Change Order For Approval window

- The Change Order Review window

- The Change Order Approval window

- The Signature Page window

- The Change Order Tracking window

The sequence of events in the change order review and approval process are as follows:

1. When the change order is still in Draft status, you may forward the draft change order for parallel review using the Forward To For Review Window. This review may be eliminated and the Status changed immediately to Pending to begin an approval process.

2. Reviewers record their comments using the Change Order Review window.

3. When the change order is changed to Pending status, you are prompted to submit the change order for approval using the Forward To For Approval window.

4. Approvers record their decisions using the Change Order Approval window.

5. Optionally, you may record the prime contractor's signing of a legal document associated with an approved contract change order on the Signature Page window.

6. At any time during the review and approval process, the status of reviews and approvals may be viewed online using the Change Order Tracking window.

7. The author forwards a signature page to Approvers after the change order has been approved.

11.3.15 Multiple Review and Approval Cycles

If a change order is placed in a Draft status from a Pending status, any approvals secured while in Pending status are automatically deleted to allow updates to the change order. In order for the change order to be approved, it must be placed in Pending status again and forwarded for approval.

11.3.16 Change Order Review Process

Optionally, the author of the change order may designate reviewers for the change order while it is still in a Draft status. The author has the option of using the existing reviewer list or updating or modifying the reviewer list each time the change order is submitted for review. The change order may be reviewed online by those designated by the author. It may be accessed and reviewed by multiple reviewers concurrently. Reviewers may provide their comments and recommendations to the author online.

11.3.17 Forwarding for Review (CO)

During the life of the contract change order, the author is responsible for forwarding it to identified SiteManager users for review.
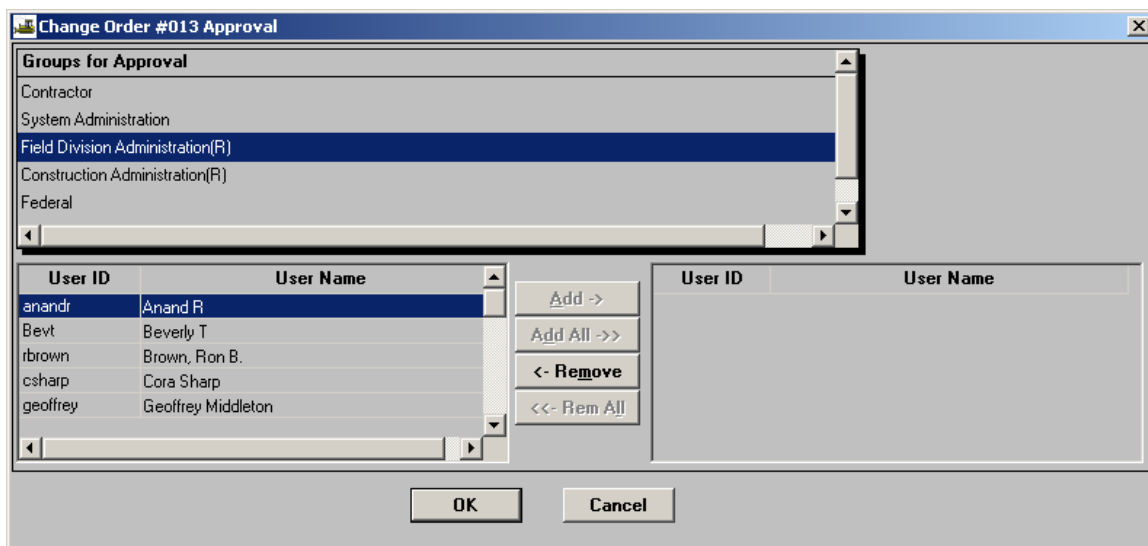
Figure 11-19. The Forward Change Order For Review Window

This window is accessible to the author of the change order and other users authorized to view the change order details. Also, Approvers have access to this window in order to select a replacement or proxy if they are unavailable.

To access the Forward Change Order For Review window for a draft change order:

1. On the **Change Order Header** window, click the **Services** menu and click the **Forward To** choice. The Groups for Approval window appears.

   📄 **Note:** If the author changes the status to Pending (to skip the review process) and saves the change order, the Forward to option on the Services menu is disabled. The Groups for Approval window appears as a result of saving the change order. The author then selects at least one approver from each approval level.

The **Forward Change Order for Review** window includes the selected contract ID and change order number in the window title when the window displays. This window contains three data windows:

1. The Groups For Review data window displays a list of categories from which the change order reviewers may be selected including:

   ▪ Departmental

   ▪ Contractor

   ▪ Local

   ▪ Federal

2. The **User ID / User Name** data window lists the Names and User IDs of those included in the User Group for the selected category of reviewers.

3. The **Add**, **Add All**, **Remove**, and **Rem All** buttons allow you to pick names from the **User ID / User Name** window and designate these users for review of this draft change order.

As long as the change order remains in a Draft status the **Forward Change Order for Review** window:

▪ Displays the current list of reviewers

▪ Allows additions, deletions, and updates to the list of reviewers;

11.3.18 Selecting or Deleting Reviewers for the Change Order

The authorized user may select one or more reviewers for the change order. The user may use the existing list of reviewers or select and add new reviewers and delete reviewers in the existing list.

The User ID / User Name list varies depending on whether the Group for Review is a Departmental group or a Non-departmental group.

Departmental reviewers are the SiteManager users who have an associated SiteManager user ID and name for the current contract.

Non-departmental reviewers may be either:

- SiteManager users responsible for forwarding change orders and receiving comments from non-departmental reviewers,

  OR

- SiteManager users who have an associated SiteManager user ID and name for the current contract and are members of the non-departmental user category.

Refer to the CO Reference Tables, CO Approval Groups for establishing groups and group membership.

To select non-departmental reviewers (that is, contractor, local, or federal reviewers) on the Forward Change Order for Review window:

1. On the **Forward Change Order for Review** window, in the **Groups for Review** window, click a desired **Group for Review** choice.

2. In the **User ID / User Name** data window, scroll to and highlight the desired reviewer name and user ID.

3. Click the **Add** button to add the person to the Selected Names data window.

   OR

4. If all the individuals are to be selected from the **Available Names** data window, click the **Add All** button.

5. Click the **Save** button.

6. Click **OK** on the Mail has been Sent message.

To delete a reviewer:

1. On the **Forward Change Order for Review** window, in the **Groups for Review** data window, click desired **Group for Review** choice.

2. In the **User ID / User Name** data window, scroll to and highlight the desired reviewer name and user ID to be deleted.

3. Click the **Remove** button to return the name to the list box containing Available Names.

   OR

4. If all the individuals are to be removed from the Selected Names data window, click the **Rem All** button.

5. Click the **Save** button on the tool bar.

6. Click **OK** on the Mail has been Sent message.

A reviewer cannot be removed if the reviewer has already made a recommendation on the change order.

> 🗎 **Note**: The tracking records for the reviewers are created after the data is saved. Also, if the author selects new reviewers for a change order, only tracking records corresponding to the new selections are created. These tracking records allow you to monitor progress of the review using the Change Order Tracking window.

Notice to Reviewers

When a user is selected to review a change order, this process creates an in-box notification for the designated reviewer at the time of the selection. When a reviewer is deleted from the selected names list, another in-box message is created informing the user of the deletion. A message appears stating that Mail has been Sent after the author has completed the selection of reviewers.

11.3.19 Change Orders - Online Review

The Change Order Review window allows the user who receives an in-box message to review a draft change order to:

- Access the change order information

- View the contract and change order information online

- Document their recommendation to approve or deny the Draft change order

- Record optional remarks related to their recommendation.

Throughout the review process, the change order remains in Draft status. The author may modify or delete the change order at any time during this review process.
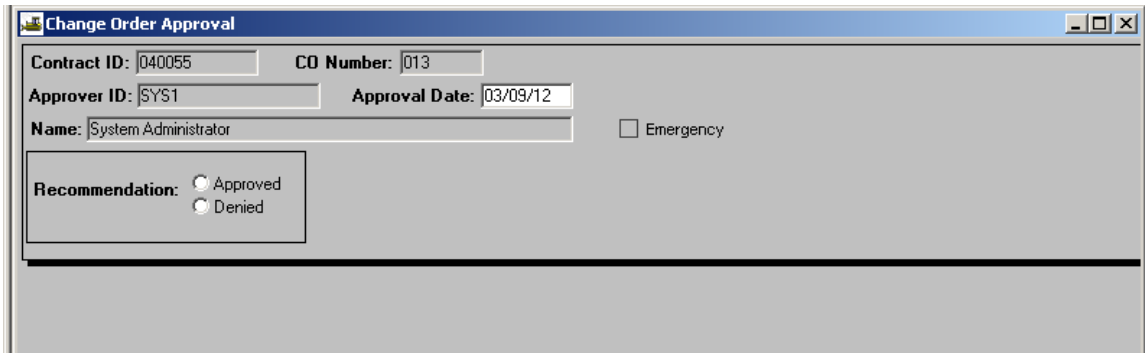
Figure 11-20. The Change Order Review Window

Field Name	Description
Approver ID	The user ID of the person approving the change order.
Approval Date	The date upon which the user approved the change order.
Name	The full name of the reviewer.
Emergency	If selected, indicates a change order covers emergency work and should therefore be reviewed as quickly as possible.
Recommendation	The approver's approval or disapproval of the change order.

Table 11-14. The Change Order Review Window Fields Table

11.3.20 Accessing the Change Order Review Window

The Change Order Review window is accessible to the author of the change order and the users who have been selected to review it. The contract ID and change order number are selected before this window is displayed.

To access the **Change Order Review** window:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Order Review /Approval** icon.

To view contract and change order information when other change orders have been previously accessed (previously selected in another window):

1. Click the **Change Order Review** icon. The approval window appears with the contract and change order number present.

To select and view contract and change order information:

1. On the **Change Order Review** window, click the **Services** menu and click the desired **Contract** and **Change Order** choice.

11.3.21 Recording Review Recommendations:

Reviewers are invited (by an in-box message) to record their views about a Draft change order on the Change Order Review window. When a reviewer accesses the Change Order Review window, and selects the contract ID and change order number for review, the window displays the reviewer's user ID and name. If the user is not a selected reviewer for this change order, access to this window is denied.

The reviewer may recommend that the change order be Approved or Denied. The reviewer may also record specific remarks about the change order and recommendation.

To record a review recommendation:

1. In the Recommendation data window, click either the **Approved** or **Denied** option.

2. Click the **Save** button on the tool bar.

3. Click the **Yes** button to confirm the recommendation message.

4. Click **Yes** to save changes.

To record a specific remark about the reviewer's recommendation:

1. On the **Change Order Review** window, click the **Remarks** icon to display the Remarks window.

2. Add **Remarks** using procedures referenced in the General Concepts section.

    OR

3. Click **Services** and choose **Remarks.** Type remarks in the Remarks text box.

4. Click the **Remarks** icon to close the Remarks text box or click just outside the Remarks box.

5. Click the **Save** button on the tool bar.

6. Click the **Close** button to move to another window.

11.3.22 Tracking Review Status and Results

Change order reviews are executed and tracked online, with notification being sent to the appropriate personnel at each step. The tracking records for the reviewers are created after the data is saved.

- The reviewer is notified and a tracking record is created when the change order is forwarded for review.

- If the reviewer has not yet reviewed the document and the status is changed from Draft to Pending, the reviewers are advised when they open the review window that they are no longer a valid reviewer.

When a Draft change order is disapproved, all the approval records and the corresponding remarks entered remain in the tracking window.

11.3.23 Notices to Selected Reviewers:

The following notices are generated by SiteManager to selected approvers:

- When a change order is forwarded for review, SiteManager sends an in-box message to the first person in the review level hierarchy.

- When a reviewer replacement is made, SiteManager sends an in box message to the new reviewer and to the previous reviewer informing them.

11.3.24 Forwarding for Approval (CO)

During the life of the contract CO, the author of the change order is responsible for forwarding it to identified approval level SiteManager users. If the change order is in Pending status, the system defines the process based on approval levels and rules established in the CO, Reference Tables, Approval Groups and Rules tables.

When the change order status is changed from Draft to Pending, the Forward Change Order for Approval window automatically displays. This window is also accessible on the Change Order Header window in Services menu.

> 🗎 **Note**: Two system operational parameters have been added on the Other System Operational Parameters tab titled Change Order Federal Approval Level and Change Order Federal Approval Level From. These parameters allow users to customize the order in which Federal Approval occurs among the department levels of change orders.

Figure 11-21. The Forward Change Order for Approval Window

The Forward Change Order for Approval window includes the selected contract ID and change order number in the window title.

The Groups For Approval data window displays:

- The different approval levels for SiteManager categories

- The names of the non-SiteManager categories authorized for approval of this contract (that is, the Federal, Local, and Contractor categories).

- The User ID / User Name window lists the names and user IDs of valid approvers for the selected approval level or category. Only users who have contract authority for the contract affected by the change order appear in this list.

- The User ID / User Name window allows you to pick names of users for approval of a Pending change order

This window is accessible to the author of the change order and other users authorized to view the change order details. Designated change order approvers have access to this window to select a replacement or proxy if they are unavailable to complete their approval duties

To access the Forward Change Order for Approval window for a Pending change order:

1. On the **Change Order Header** window, in the **Status** drop-down list, click **Pending**.

   OR

2. On the **Change Order Header** window, click the **Services** menu and click the **Forward To** choice.

The Forward To option on the Services menu is disabled when the change order's status is changed to Approved or Disapproved.

11.3.25 Selecting Approvers:

At least one approver must be selected for each approval level required by the approval rules for this Contract and Change Order type.

To select Approvers:

1. On the Forward **Change Order for Review** window, in the **Groups for Approval** data window, click desired **Approval Level or Person** choice.

2. In the **User ID / User Name** data window, scroll to and highlight the desired approver name and user ID.

3. Click the **Add** button to add the approver to the Selected Names data window.

   OR

4. If all the individuals are to be selected from the User ID / User Name data window, click the **Add All** button.

5. Click the **Save** button on the tool bar.

6. Click **OK** on the Mail Has been Sent message.

All the approvers for all of the valid approval levels must be selected simultaneously. This window does not allow you to add an approver to a previously established list.

The Mail Has been Sent message confirms that notice has been sent to the first level approver specifying the contract and change order plus the action required.

11.3.26 Replacing Approvers

If the approver is unavailable, the approver has the option of reselecting another approver or authorizing someone on the approver's behalf (by giving the logon password information) for the approval of the change order. In this situation, the record corresponding to the previous approver is deleted from the tracking records, and a record for the new approver is added. If the previous approver tries to approve or disapprove the change order, a message notifies the person that this user is no longer a valid approver.

A previously selected approver may be replaced if unavailable within the following limitations:

▪ Only the unavailable approver may make the replacement online.

▪ The unavailable approver may designate another member to the User Group to act on their behalf.

▪ An approver may not be replaced after approving a change order (when the tracking record is frozen).

If a selected person is unavailable to serve as an approver, there are two ways replacement can be accomplished:

- If an approver is temporarily unavailable, they may forward all the change orders received to other authorized approvers to act on their behalf.

- If an authorized approver is unavailable for an extended period, the approver should:

  request that the system administrator replace them in the user group (to allow an alternate to be selected for approval of subsequent change orders), and

  authorize their replacement to act on their behalf on all pending approvals.

To authorize another approver to act on behalf on an unavailable approver, only the selected approver may:

- On the **Forward Change Order for Approval** window, in the **Selected Names** data window, click the name of the approver to be replaced.

- This action automatically selects the corresponding approval level in the **Groups for Review** data window and displays the remaining **Available Names** for approvers in this approval level group.

- Click the **Remove** button.

- In the **Available Names** data window, click the name of the replacement approver.

- Click **Save**.

The tracking records for the approvers are created after their selection and saving of the data using the Forward Change Order for Approval window. Also, if the designated approver selects a replacement approver for a Change Order, only tracking records corresponding to the new approver are created. These tracking records allow the user to monitor progress of the approval process using the Change Order Tracking window.

11.3.27 Forward to User for Change Order Approval

The Forward to User for Change Order Approval dialog window queries the System Operational Parameters Change Order Federal Approval Level and Change Order Federal Approval Level From options to determine the federal group's order in the approval level hierarchy. A setting of zero (0) places the federal group last in the approval order. This is the same as the original design of change order approvals. A Change Order Federal Approval Level setting of at least one (1) places federal approval in that order amongst the departmental approvals. If federal approval is required, the federal approval group is placed in the system set order and the departmental group in that place is moved to the level after the federal group.

A Change Order Federal Approval Level From setting of B (From Beginning) places the order relative to the beginning of the departmental group list and contractor remains as the first.

Conversely, a setting of E (From End) places the order relative to the end. Subsequent approvals continue according to the specified hierarchy as defined on the Change Order Approval Groups window. If the federal approval level parameter is set greater than the number of departmental levels required for a given change order, the federal approval is placed first or last depending on the Change Order Federal Approval Level From setting to beginning or end.

Figure 11-22. The Forward Change Order Federal Approval Level 1 & Level B

The Contractor remains as the first approval level and Federal is the first in order relative to the beginning of the departmental group list.

To set FHWA approval levels for change orders:

- The Change Order Approval Level and Change Order Federal Approval Level From must be set in the System Operational Parameters.

- The contract must be FHWA.

- The Non-Departmental User Group must have an active federal user.

The following shows examples of the different approval levels based on the System Operational Parameters settings Change Order Federal Approval Level and Change Order Federal Approval Level From.
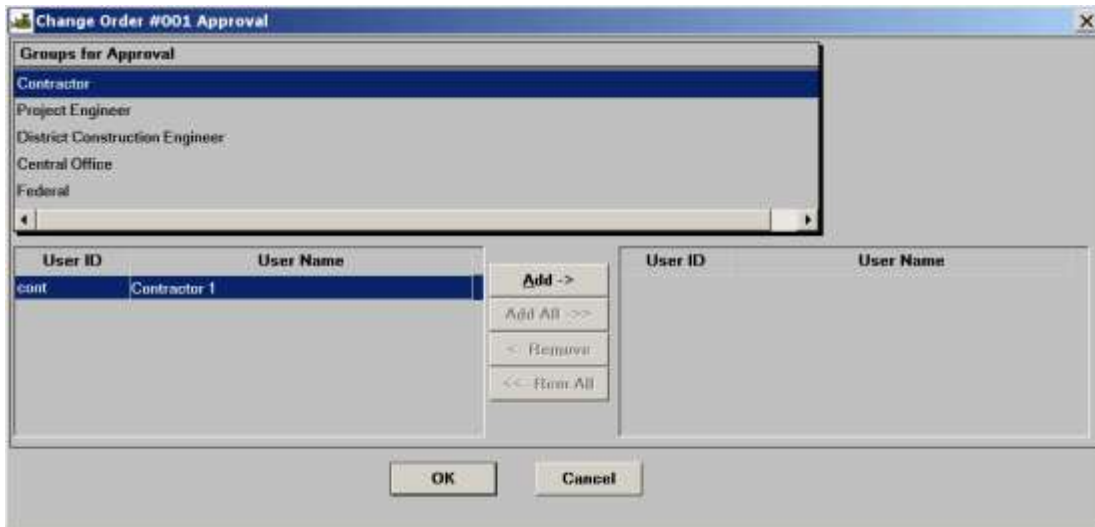
Figure 11-23. The Forward Change Order Federal Approval Level 1 & Level E

The contractor remains as the first approval level and Federal is the first in order relative to the beginning of the departmental group list.
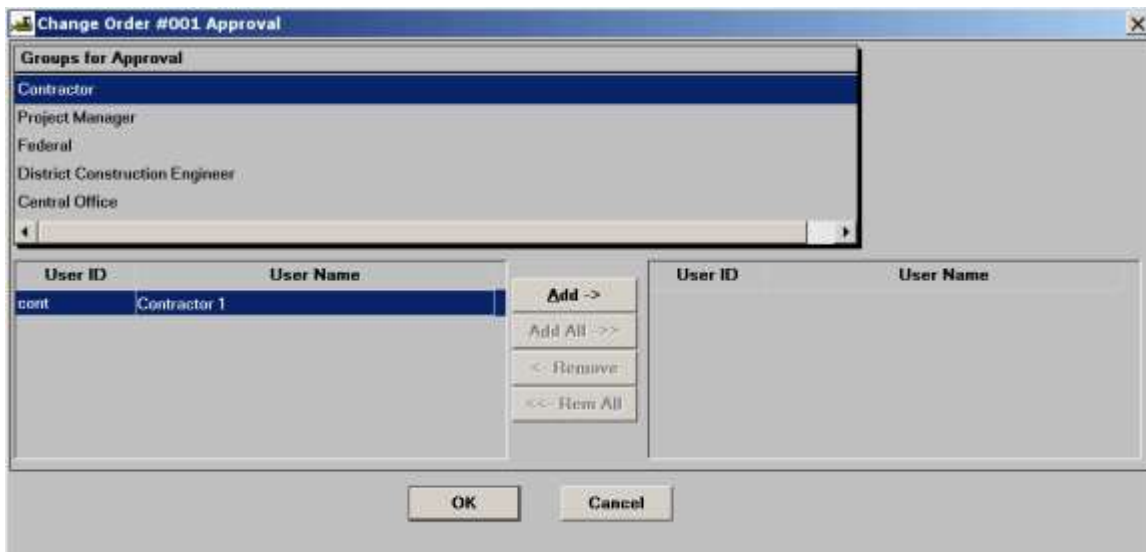
Figure 11-24. The Forward Change Order Federal Approval Level 2 & Level B

The Contractor remains as the first approval level and Federal is the first in order relative to the beginning of the departmental group list.

Figure 11-25. The Forward Change Order Federal Approval Level 2 and Level E

11.3.28 Online Approval

The Change Order Approval window allows the authorized user who receives an in-box message to approve a Pending change order to:

- view the contract and change order information;

- document their recommendation to approve or disapprove the Pending change order; and

- record remarks related to their recommendation (an option)
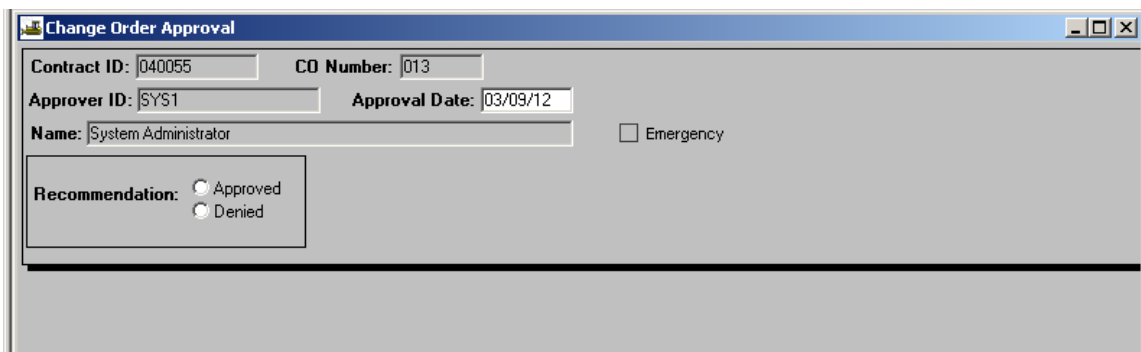
Figure 11-26. The Change Order Approval Window

11.3.29 Accessing the Change Order Approval Window

The Change Order Approval window is accessible to the author of the change order and SiteManager users who have authority to review or approve of this change order. The contract ID and change order number must be selected before this window displays.

To access the **Change Order Approval** window:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Order Review /Approval** icon.

To view contract and change order information when other change order function windows were previously accessed:

1. On the **Change Order Approval** window, click the **Window** menu and click the desired **Change Order Window** choice displayed.

To view contract and change order information when other change order function windows were previously accessed

1. On the **Change Order Approval** window, click the **Services** menu and click the desired **Change Order** choice.

2. On the **Change Order Header** window, click the **Services** menu and click the desired **CO Items** choice.

3. On the **Change Order Items** window, click the **Services** menu and click the desired **Contract** choice

11.3.30 Recording Approval Recommendations:

Authorized approvers are invited (by an in-box message) to record their decisions about a Pending change order on the Change Order Approval window. When an authorized approver accesses the Change Order Approval window and selects the Contract ID and Change Order Number, the window displays the approver's user ID and name. If the user is not an authorized approver for this change order, access to this window is denied.

On this window, the authorized approver may recommend that the change order be Approved or Denied. The approver may also record specific remarks about the change order and their recommendation.

To record an approve or deny recommendation:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Order Review /Approval** icon.

4. On the **Change Order Approval** window, in the Recommendation data window, click the **Approved** or **Denied** option.

5. Click the **Save** button on the tool bar.

6. Click the **Yes** button to confirm the recommendation message.

7. If the approver is not the last level of Approver, a message appears the Mail has been sent. Click **OK**. (The last approver in the process does not receive this message.)

To record a specific remark about the reviewer's recommendation:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Change Order Review /Approval** icon.

4. On the **Change Order Approval** window, click the **Remarks** icon or Services, Remarks to display the Remarks window.

5. Add **Remarks** using procedures referenced in the General Concepts section.

6. Click the **Remarks** icon or click just outside the remarks text box to close remarks.

7. Click the **Save** button on the tool bar.

11.3.31 Notices to Designated Approvers

SiteManager manages the approval process by notifying each approval level in sequence. The system notifies the next level when the preceding level has completed their review and recommended approval of the change order. This prevents higher levels in the hierarchy from the review process until lower levels concur that approval is appropriate. The order of approvals is:

▪ Contractor approval

▪ Local approval (if local oversight applies to this contract); and

▪ Federal approval (if federal oversight applies to this contract).

SiteManager sends the following notices under the following conditions to manage the approvals process:

▪ When all authorized approvers at a lower level have recommended approval of the change order, the next person in the approval level hierarchy is informed.

▪ When the next person on the approval level is a non-SiteManager user (also referred to as a verbal approver), the change order author is informed to record this approver's recommendation and remarks.

11.3.32 Tracking Review Status and Results

Change order approvals are executed and tracked online, with notification being sent to the appropriate personnel at each step. The tracking records for the approvers are created when the data is saved.

The approver is notified and a tracking record created when the change order is forwarded for review.

If the designated approver selects a replacement approver for a change order, SiteManager creates tracking records only for the new approver. Replacement approvers are notified when the new selection occurs.

If an approver has not yet recorded a recommendation, the status of the change order cannot be changed to Approved or Disapproved.

When the status changes from Pending back to Draft, any associated tracking records and approval recommendations are deleted and the approval process must be repeated.

11.3.33 Signature Page

After a contract change order has gone through its online approval process, an Agency may require that the prime contractor sign a legal document regarding the modification. This legal document is written using a non-SiteManager-related word processor.

The Change Order Signature Page window allows Agency personnel to:

- Export important data about a change order to an ASCII or text file;

- Using a word processor that has mail merging capabilities, they can merge the data with the prewritten legal document;

- Once printed, they can attach this document to the Change Order Report; and

- Require a signature the contract's prime vendor acknowledging the modification to the contract.
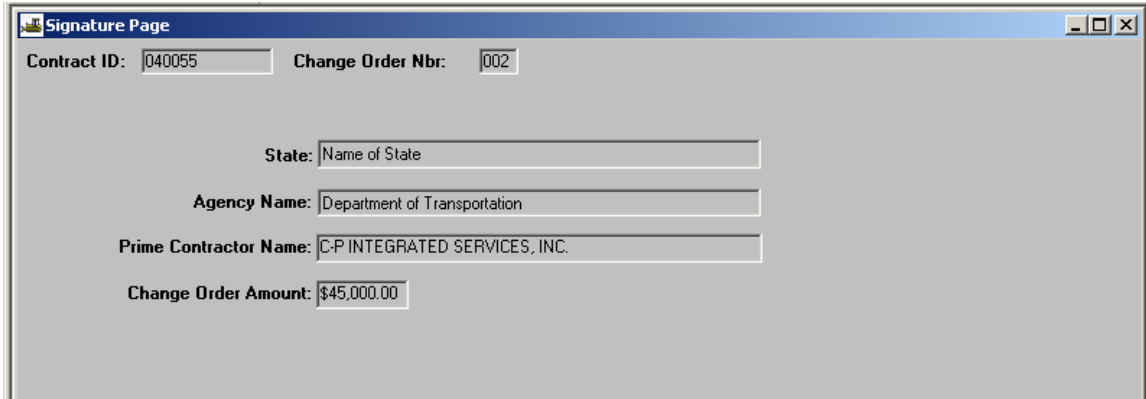
Figure 11-27. The Change Order Signature Page Window

Field Name	Description
State	The state's name
Agency Name	The transportation agency's name
Prime Contractor Name	The name of the contract's prime contractor
Change Order Amount	The amount of the change order.

Table 11-15. The Change Order Signature Page Window Fields Table

To access the **Change Order Signature Page** window:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Signature Page** icon.

If a contract ID and change order number was not previously specified, the first window to display is the **Select Contract and Change Order** window.

To export the selected change order data to a word processing document file:

1. On the **Signature Page** window, click the **Save** button on the tool bar to display the **Generate Tab Delimited ASCII File**, a word processing Save Dialog box.

2. In the **Save Dialog** box, specify the name and location of the word processing file to be saved.

3. Click the **OK** button to save the named file and close the dialog window.
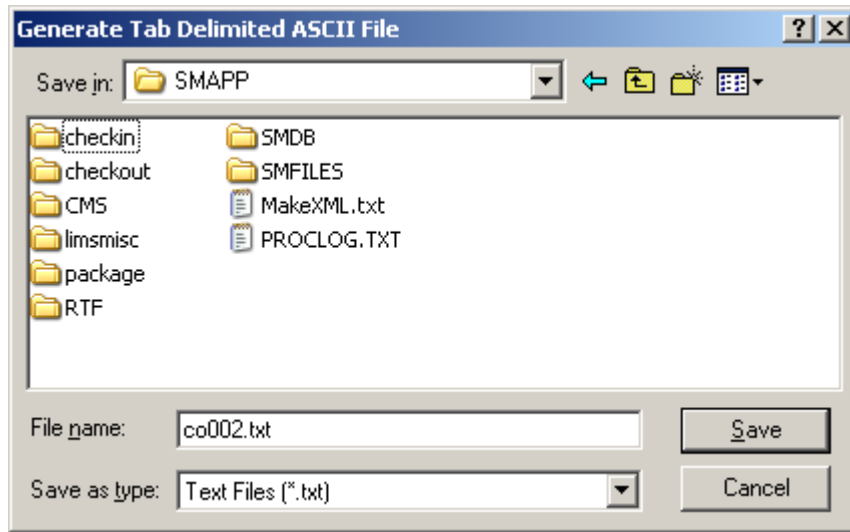
Figure 11-28. The Signature Page Save Window

11.3.34 Tracking

The change order author can view the status of the review and approval cycle. The Change Order Tracking window lists all users to whom the change order was forwarded and shows the status of their review and approval actions.

A tracking record is a summary record for each reviewer and each approver of the change order. The Track Change Order window is a display-only window and does not allow records to be added, deleted, or updated. Those functions are performed on other windows, as follows:

- On the **Change Order Header** window, identifying information that displays in the tracking record may be added, updated, or deleted.

- On the **Forward Change Order to User** window, tracking records may be created or deleted.

- On the **Review/Approve Change Order** window, tracking records may be updated indicating the action to be taken (that is, reviewed or approved/disapproved).

Once the change order is approved, tracking records are saved. Thereafter, the tracking records can only be viewed and cannot be added to, deleted, or modified from any window.

Figure 11-29. The Change Order Tracking Window - CO Header Tab

Field Name	Description
Tentative Verbal Approval Dates: Federal and Local	Date a federal or local agency gives its tentative verbal approval. These fields are optional.
CO created by, on	This is user's ID who created the change order and the date it was created. These fields are display only.
Status	Stage in the life of the change order. Available status codes are Draft, Pending, Approved, and Disapproved.
Approval Level	Displays the highest level needed to Approve different change orders. This is based on the change order criteria defined by the transportation agency.
Description	Short description of the entered change order.
Reason Code	Transportation agency-defined reasons for change orders. Used for management reporting.
CO Type	Change order types defining the purpose of the change order.
Emergency Work	Check box indicating whether the change order is for an emergency.

Field Name	Description
Functions	Check boxes allowing users to select the functions comprising a change order. Possible functions are: Overrun/underrun, Extra work, Time adjustment, Force account, and Final quantity. At least one box must be selected. Multiple functions are allowed except for final quantity. Final quantity change orders may include no other functions. During change order verification, a function's matching components must be included in change order to proceed.
CO Amount	Amount of the change order derived from any contract items to be modified by the change order.
Dispute	Key for any disputes associated with the change order.
Force Account	The identifier of an associated force account. Only for force account type change orders

Table 11-16. The Change Order Tracking Window Fields Table

When the Change Order Tracking window opens, it displays two tabs:

- **The CO Header** tab displays the change order header. It contains display-only fields. Header information may not be added, updated, or deleted here.

- **The CO Tracking List** tab displays all the individual tracking records for the change order. These records are scrollable. They show the Reviewer and Approver details including the date sent, the person responsible, the action taken and the date, and any recommendations (Remarks) from the reviewer or approver.
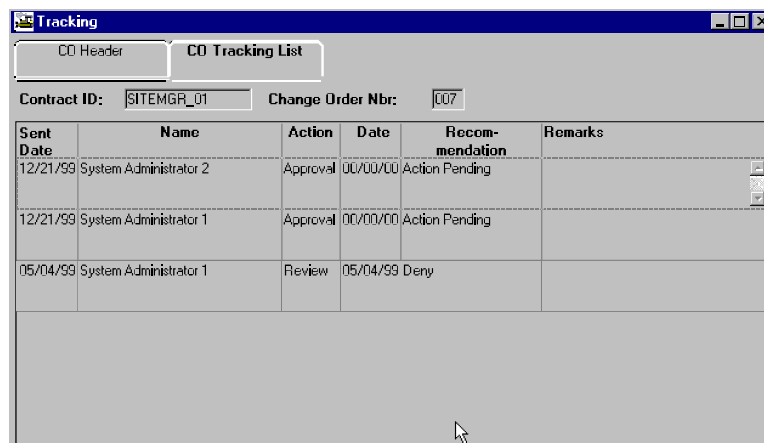
Figure 11-30. The Change Order Tracking Window - CO Tracking List Tab

Field Name	Description
Sent Date	The date the user was sent the document for review or approval.
Name	Name of the reviewer/approver.
Action	The action being taken by the reviewer/approver.
Date	Date of the review/approval of the change order.
Recommendation	The recommendation given by the reviewer/approver.

Table 11-17. The Change Order Tracking Window - CO Tracking List Tab Fields Table

To access the Change Order Tracking window and view tracking records for a different contract ID or a different change order within the selected contract:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Maintenance** icon.

3. On the **Change Order Maintenance** panel, double-click the **Tracking** icon.

4. Click the **Open** button on the tool bar to display the Change Order Tracking Select window.

5. On the **Change Order Tracking Select** window, in the **Contract ID** data window, double-click the desired **Contract ID**.

6. On the **Change Order Tracking Select** window, in the **Change Orders** data window, double-click the desired **Change Order** or highlight and click the **OK** button. The CO Header tab of the Tracking window is displayed.

7. To view the Change Order Tracking List, click the **CO Tracking List** tab.

8. To close the window, click the **CO Header** tab, and then click the **Close** icon.

11.4 Reports (Change Order)

The Change Order Reports (CO) panel generates commonly used trends in contract changes reports. The following report topics are available on this panel:

- Change Order Report

- Change Order/Reason Code Breakdown

- Unapproved Change Order Aging Report

- Time Extension Granted Report

- View Saved Reports (PSR)
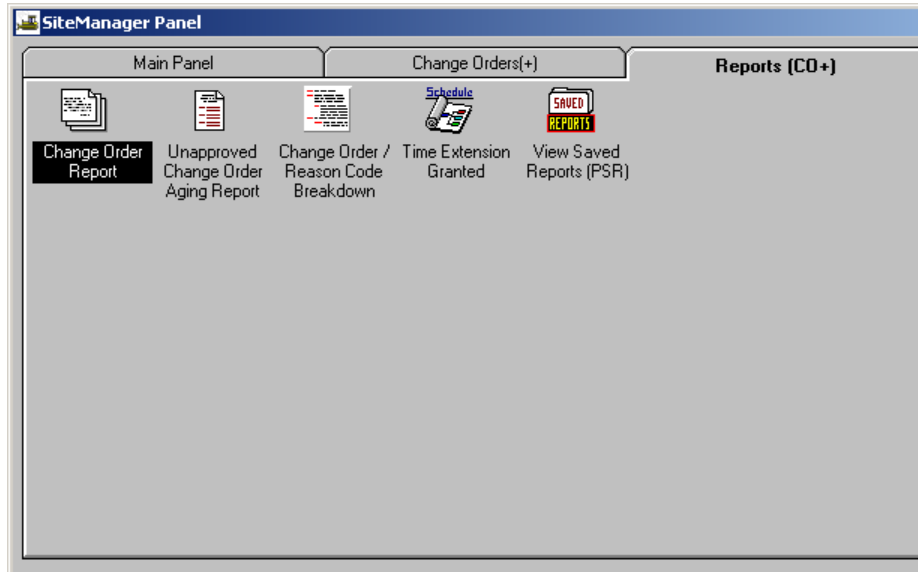
Figure 11-31. The Change Order (CO) Reports Panel

For information on generating reports, please see REPORTS.

11.4.1 Change Order Report

This is a two page report window. The second page displays only if there are Time Extension associated with the change order selected for this report. This report is used primarily by the contractor.
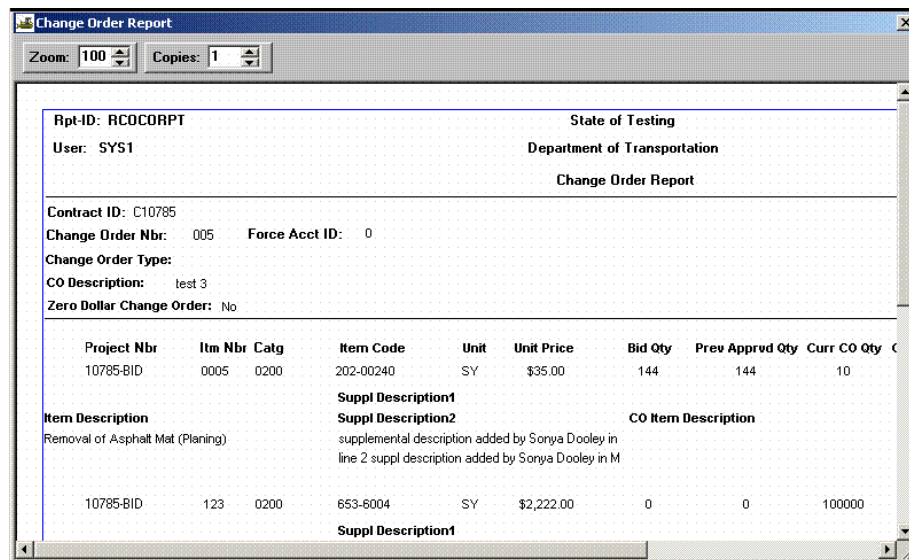
Figure 11-32. The Change Order Report Window

The Zero Dollar Change Order indicator, located in the header section of the report, alerts you if the change order is a Zero Dollar Change Order.

To access the **Change Order Report** window and select the report criteria

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Reports** icon.

3. On the **Change Order Reports** panel, double-click the **Change Order Report** icon.

4. Search and select the contract.

5. Search and select the desired change order.

6. Generate the report on your PC or select to generate and/ or print off-line.

7. Click **OK.**
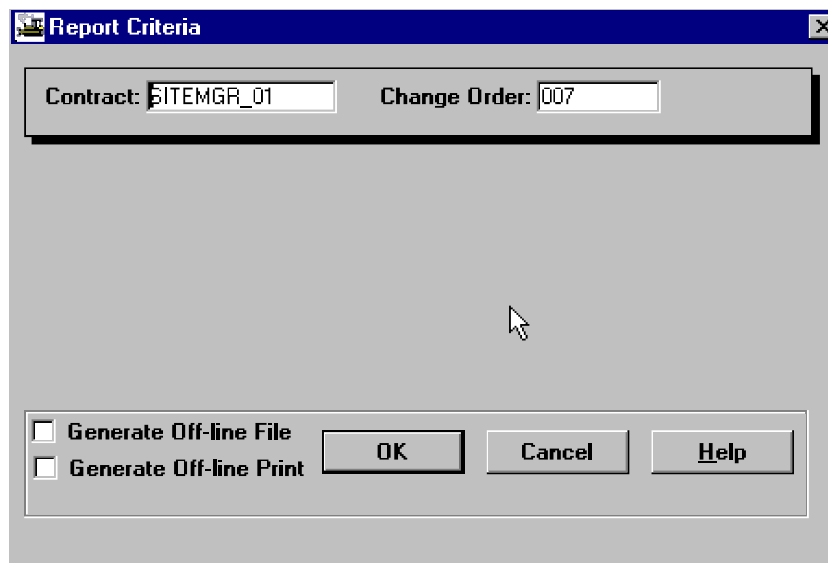
Figure 11-33. The Change Order Report - Report Criteria Window

The computation formulas for the computed fields are included in the Change Order Report Fields table.

At the end of the Items Detail Information section a total line displays the total value for this change order.

11.4.1 Unapproved Change Order Aging Report

Information regarding all change orders associated with a contract that are not yet approved are displayed on this report. This report listing can be grouped by district or contract.

To access the Unapproved Change Order Aging Report window:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Reports** icon.

3. On the **Change Order Reports** panel, double-click the unapproved **Change Order Aging Report** icon.

To select the report criteria:

1. On the Report Criteria window, click the radio button for the desired grouping.

2. Generate the report on your PC or select to generate and/ or print off-line.

3. Click **OK**.
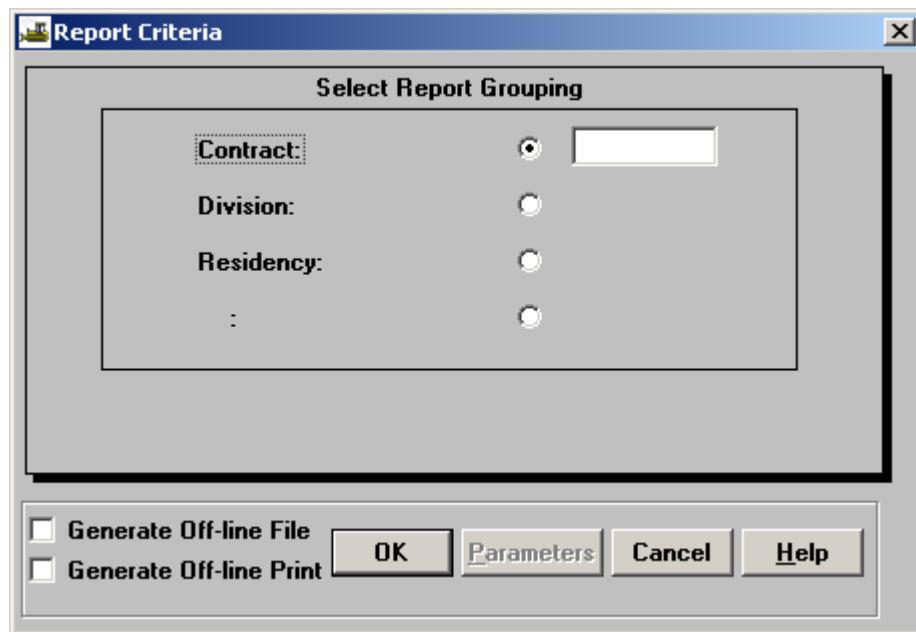
Figure 11-34. The Unapproved Change Order Aging Report Criteria Window

Figure 11-35. The Unapproved Change Order Aging Report Window

11.4.2 Change Order/Reason Code Breakdown Report

This report window displays the Change Order/Reason Code Breakdown details indicating trends in contract changes..

To access the **Change Order/Reason Code Breakdown Report** window and select the report criteria:

1. On the **Main** panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the **Change Order Reports** icon.

3. On the **Change Order Reports** panel, double-click the **Change Order/Reason Code Breakdown Report** icon.

4. On the **Report Criteria** window, click the radio button for the desired grouping.

5. Click the radio button for desired **Additional Break Criteria**.

6. Generate the report on your PC or select to generate and/ or print off-line.

7. Click **OK**.
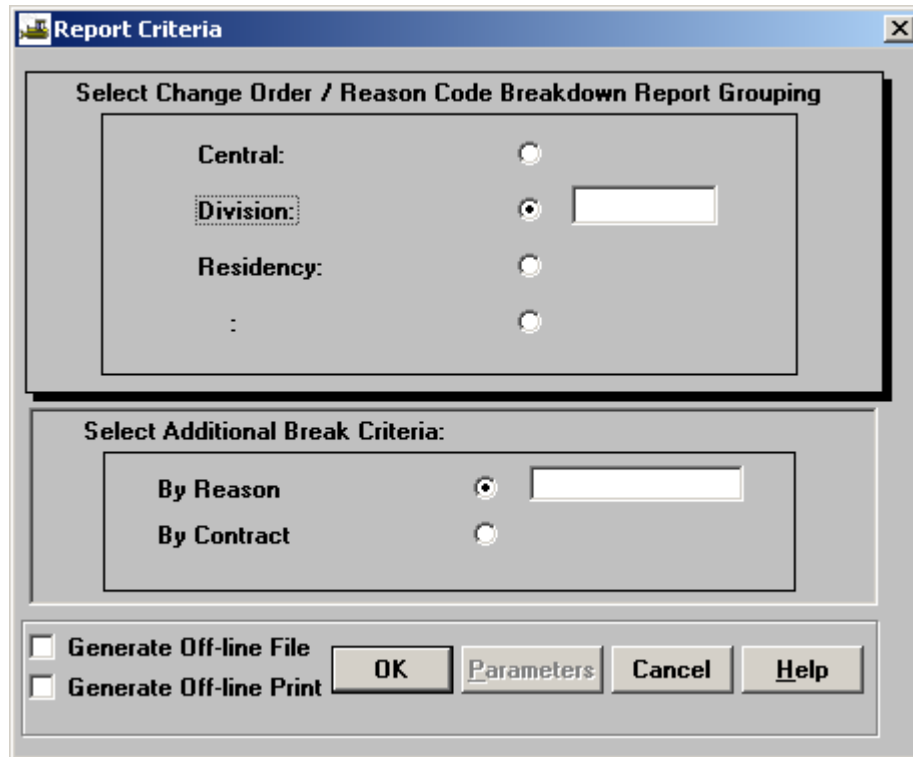
Figure 11-36. The Change Order/Reason Code Breakdown Report - Report Criteria Window

Figure 11-37. The Change Order/Reason Code Breakdown Report Window

11.4.3 Time Extension Granted Report (CO)

This report lists all approved change orders that relates to time adjustments for a particular contract.

To access the Time Extension Granted Report window:

1. On the Main panel, double-click the **Change Order** icon.

2. On the **Change Order** panel, double-click the Change Order Reports icon.

3. On the **Change Order Reports** panel, double-click **Time Extension Granted Report** icon.
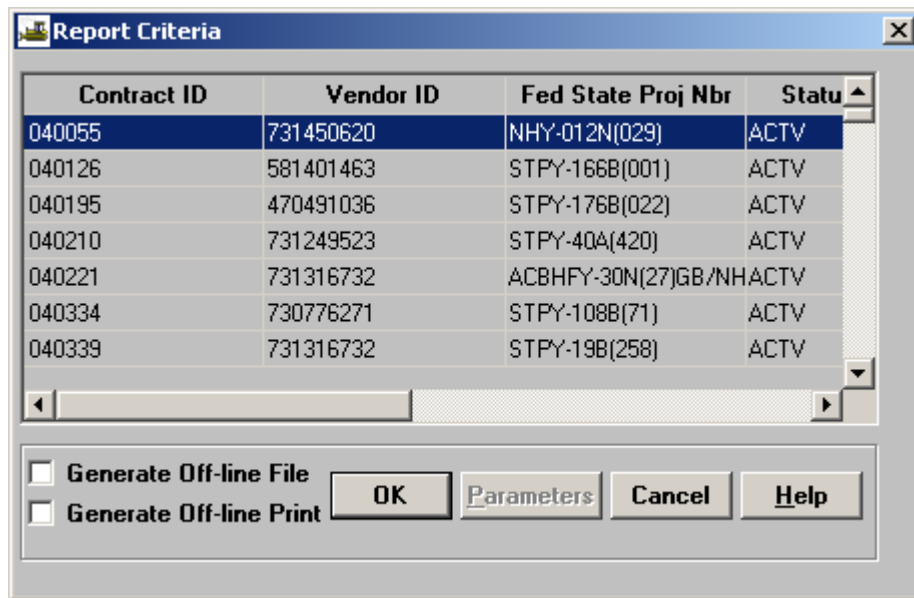
Figure 11-38. The Time Extension Granted Report - Report Criteria Window
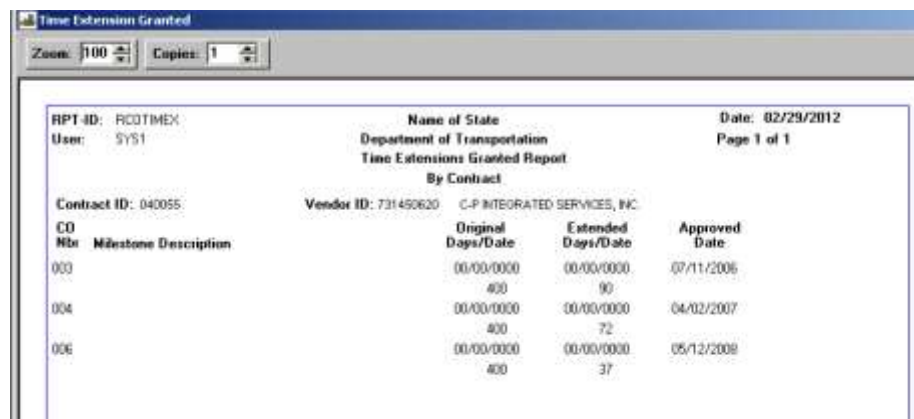
Figure 11-39. The Time Extension Granted Report Window

12. Civil Rights

12.1 Reference Tables

The Reference Tables store the default data and the transportation agency-defined standards that are added to a contract either by SiteManager or by an authorized user. An authorized user accesses the following list of panels:

Wage Decisions Panels	To modify (create a new decision or copy and rename an existing decision) on the Description folder tab and save the changes to database. To add, update, view, or delete the Job Classification information associated with the wage decision on the Job Classification folder tab. To add, update, view, or delete wage decision associated with counties on the Counties folder tab.
Training Programs Panels	To maintain training programs with the recommended wage rate adjustments and goals in hours for mid-level requirements and graduation requirements.
System User Type Mapping Panel	To add, update, view or delete associations between user-defined code tables(Work Class, Job Class, DBE Type, and Ethnic Group) and system-defined code tables that are used for federal reports.
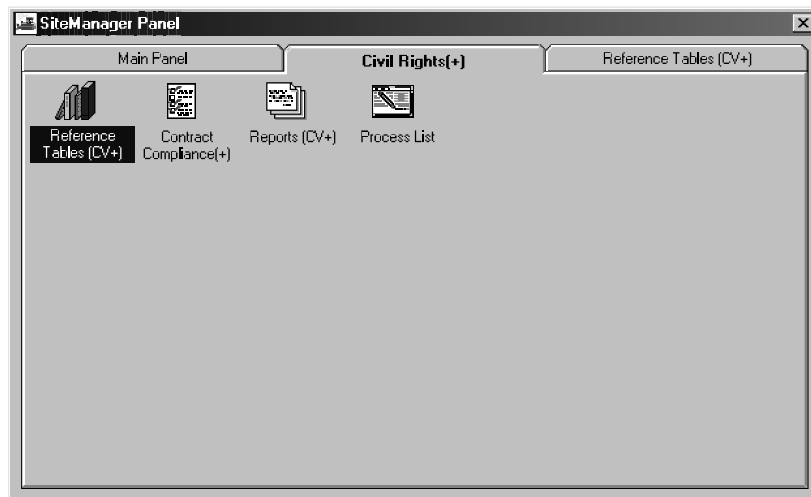
Figure 12-1. The Civil Rights Reference Tables Folder Tab

12.1.1 Wage Decisions

This folder tab control window allows easy access to all the wage decision related information. Each folder tab represents one component of wage decision information. A wage decision ID may

be selected in the Description or Job Classification tabs but not in the Counties tab. The Wage Decision Reference Table is created in these three tabs and is accessed in a Wage Decision pick list by users creating a contract in Contract Records, contract window on the Description tab.

To navigate to the Wage Decisions panel:

Double-click the **Civil Rights** icon on the Main menu.

Double-click the **Reference Table** icon on the Civil Rights folder tab.

Double-click the **Wage Decisions** icon on the Reference Tables folder tab.
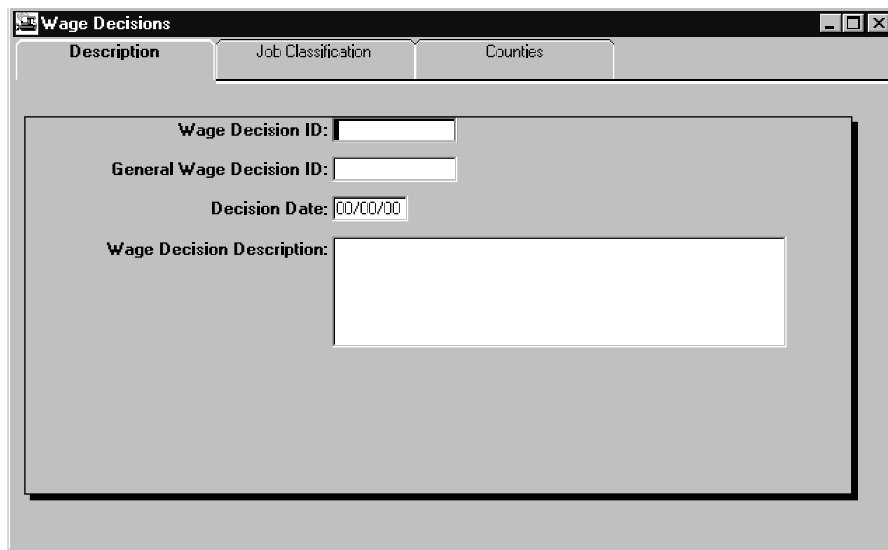
Figure 12-2. The Wage Decisions Descriptions Tab Window

The three folder tabs in the window associated with wage decision information are:

Description	The Description tab displays the wage decision information that can be added, updated or viewed. Users can modify (create a new decision or copy and rename an existing decision) and save the changes to database.
Job Classification	The Job Classification tab displays the list of wage rates for specific job classes for the current wage decision. Users can add, update, view, or delete the job classification information associated with the wage decision.
Counties	The Counties tab displays the counties that are associated to the current wage decision. Users can add, update, view, or delete counties associated with the wage decision.

When you open the Wage Decision window, the Description tab displays the following fields:

Field Name	Description

Field Name	Description
Wage Decision ID	Unique transportation agency-defined ID for wage decision
General Wage Decision ID	General Wage Decision ID
Decision Date	Date of Decision
Wage Decision Description	Description of wage decision. (First 55 characters)

Table 12-1. The Wage Decisions Fields Table

Initially, the Description screen opens as New with no data displayed, ready for you to enter a new decision or to select an existing decision. This window also displays the last wage decision you worked on. Selecting the Open icon activates the Select Wage Decision pick list window. If an existing Wage Decision ID is selected, all the fields in all three Wage Decision folder tabs populate with data for the selected Wage Decision ID.

To create a New Wage Decision:

1. Double-click the **Civil Rights** icon on the main panel.

2. Double-click the **Reference Table** icon.

3. Double-click the **Wage Decisions** icon.

4. Type the new Wage Decision Number.

5. Press the **Tab** key.

6. Type the General Wage Decision.

7. Press the **Tab** key.

8. Type the Decision date.

9. Press the **Tab** key.

10. Type the Wage Decision Description.

11. Click the Save button.

12. Click **OK** on the message At least one job classification must be associated for every wage decision.

13. Proceed with required entries on the Job Classification and Counties tabs to complete the new wage decision.

Copying an Existing Wage Decision

You may also copy an existing wage decision and rename it as a new wage decision. You may then modify the decision without recreating/typing all the original data or use it in its original state.

To copy an existing Wage Decision to a new Wage Decision:

1. Double-click the **Civil Rights** icon on the main panel.

2. Double-click the **Reference Table** icon.

3. Double-click the **Wage Decisions** icon.

4. On the **Description t**ab, select the desired existing Wage Decision. All fields populate on all tabs.

5. Click the **Services** menu and select **Copy Wage Decision**. A message appears requesting a new ID.

6. Click **OK** on the message

7. Type the Wage Decision ID.

8. Click the Save button.

9. Click **Yes** to Save Changes message.

Modifying Wage Decision Information

The Wage Decision Description folder tab is used to add, update or view wage decision information. The information is retrieved for the Wage ID selected from the Select Wage Decision pick list and displayed in all folder tabs. You can modify the displayed information in each tab and save the changes.

To modify an Existing Wage Decision:

1. Double-click the **Civil Rights** icon on the main panel.

2. Double-click the **Reference Table** icon.

3. Double-click the **Wage Decisions** icon

4. On the **Description** tab, select the desired Wage Decision ID.

5. Press the **Tab** key to move from field to field when updating, modifying or deleting data.

6. Type or copy or delete information in the desired field.

7. Click the Save button.

8.   Click the **Close** button.

Or

9.   Click the **Cancel** button to cancel changes.

10. Continue the modification of the Wage Decision in the Job Classification and Counties tabs.

Or

11. Select another Wage Decision for modification.

Modifying a Wage Decision Job Classification

The Job Classification folder tab is used to add, update, view or delete the Job Classifications associated with the selected wage decision. When the Job Classification folder tab is selected, the information is retrieved and displayed for the selected wage decision.

The Job Classifications folder tab displays the list of wage rates for specific job classes for the current wage decision. The user may add, update, view or delete the information on each job classification.

At least one job classification must exist for every wage decision.

The Job Classification folder tab opens with the last worked-on Wage Decision number displayed. For a New Wage Decision, select the New icon to display a new row to enter a new job classification(s).
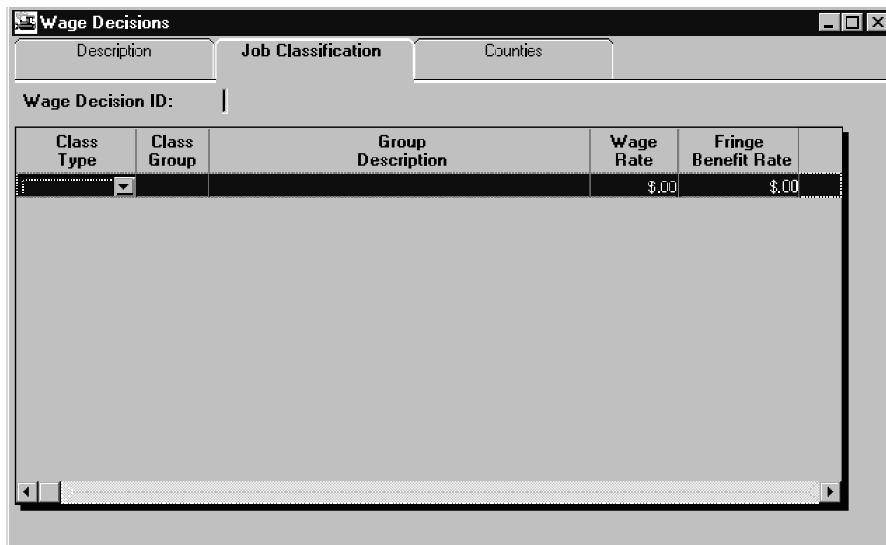
Figure 12-3. The Wage Decisions Job Classification Tab Window

Field Name	Description

Field Name	Description
Class Type	The transportation agency-defined ID for a job classification such as Carpenter, Electrician, Blaster, Laborer, etc. This is a required field. At least one job classification must exist for every wage decision.
Class Group	Defines the subgroup within the job classification.
Group Description	Describes the group.
Wage Rate	Specifies the recommended wage rate for job classification by the Department of Labor. This is a required field.
Fringe Benefit Rate	Employee fringe benefit rate. This is a required field.

Table 12-2. The Wage Decisions Job Classification Fields Table

To modify a Job Classification for a Wage Decision ID

1. Double-click the **Civil Rights icon** on the Main panel.

2. Double-click the **Reference Tables** icon.

3. Double-click the **Wage Decisions** icon.

4. Click the **Open** icon.

5. Select the Job Classification tab.

6. Double-click the desired Wage Description ID. All data related to the ID appears.

7. Select the desired Job Classification row.

8. In the **Class Type Column**, click the expand (down arrow) button to see the drop-down list

9. Highlight the desired job title. The job title appears in the **Class Type** field.

10. Tab to the **Class Group** column of the row.

11. Type the **Class Group** number(s).

12. Press the **Tab** key.

13. Type or copy the **Group Description** text.

14. Press the **Tab** key.

15. Type the dollar amount of the Wage Rate. The dollar sign and the decimal are supplied by the system. The system does not allow symbols or letters in this field.

16. Press the **Tab** key.

17. Type the dollar amount of the **Fringe Benefit** rate. The dollar sign and the decimal are supplied by the system. The system does not allow symbols or letters in this field.

18. Click the Save button or click the **Cancel** button to not save this action.

19. Click the **Counties** folder tab to complete the wage decision.

Adding and Modifying Wage Decision Counties

The Counties folder tab is used to add, view or delete the Wage Decision Counties for the selected wage decision. The Wage Decision ID must be selected in the Description or Job Classification tabs. It cannot be selected in the Counties tab. The Counties folder tab displays the list of current wage decision counties from a reference table and the list of counties already associated with the Wage Decision ID. The user may add and remove counties in the selected wage decision.

When the user selects the Counties folder tab, the available counties not currently associated with the wage decision are retrieved and displayed in the Available Counties datawindow.

The Wage Decision Counties datawindow displays all the counties currently associated with the wage decision.

The following describes the buttons associated with the Wage Decision Counties:

Association	Prior to pressing the Add or Remove buttons, multiple counties can be cleared by pressing and holding down the CTRL key and clicking the County names.
Add	Is disabled if all available counties have already been associated with the wage decision or if no counties are selected from the Available Counties datawindow Only those counties that are selected in the Available Counties window are added to the Wage Decision Counties window.
Remove	Is disabled if no counties are associated with wage decision or if no counties are selected from the Wage Decision Counties datawindow Counties selected by the user in Wage Decision Counties window are removed. There is no message to confirm the removal.
Add All	Selects all the counties in the Available Counties window and adds them to the Wage Decision datawindow. If no county names are displayed in the current datawindow, this menu option is disabled. You must confirm this selection.
Rem All	Removes all counties from the Wage Decision datawindow and adds them to the Available Counties datawindow. You must confirm this selection.
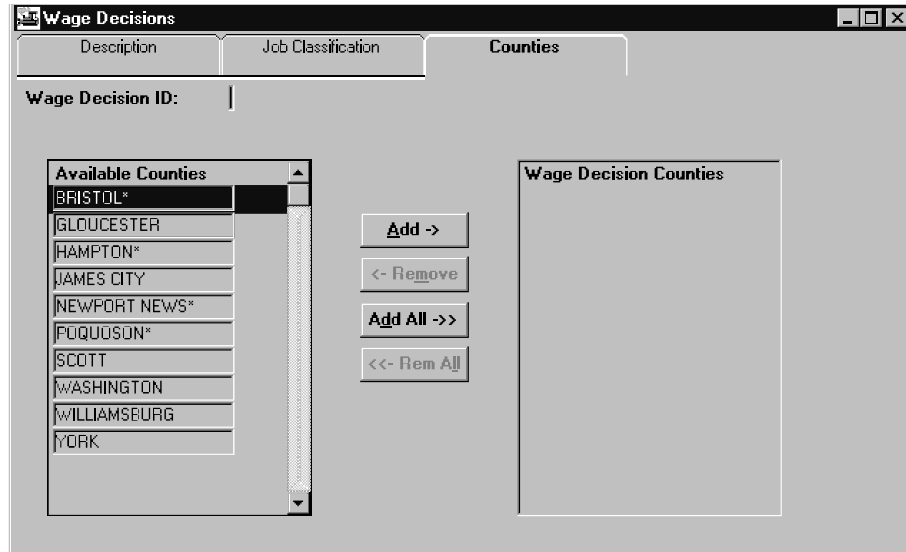
Figure 12-4. The Wage Decisions Counties Tab Window

Field Name	Description
Available Counties	The list of counties from a user-defined reference table available to associate with the Wage Decision

You may select multiple Available Counties at one time. |
| Wage Decision Counties | The list of counties that are already associated with the wage decision.

You are allowed to select multiple Wage Decision Counties at one time.

At least one county must be associated to every wage decision. |

Figure 12-5. The Wage Decisions Counties Tab Fields Table

To view, add or delete counties to/from the Wage Decision:

1. Double-click the **Civil Rights** icon on the main panel.

2. Double-click the **Reference Tables** icon.

3. Double-click the **Wage Decisions** icon.

4. Click the **Open** icon in either the Description or Classification tab.

5. Double-click the desired **Wage Description ID**. All data related to the ID appears.

6. Click the **Counties** tab. All counties currently selected for the Wage Decision ID are visible in the Wage Decision Counties Scroll List.

To add one county to the Wage Decision Counties list:

1. Scroll the Available Counties list.

2. Select the desired county.

3. Click the **Add** button.

4. Click the Save button or click the **Cancel** button to not save this action.

To add many counties to the Wage Decision Counties list:

1. Press and hold down the **CTRL** key.

2. Click the desired counties and release the **CTRL** key.

3. Click the **Add** button.

4. Click the Save button or click the **Cancel** button to not save this action.

To add all available counties to the Wage Decision Counties list:

1. Click the **Add All** button.

2. Click the Save button or click the **Cancel** button to not save this action.

To delete one county from the Wage Decision Counties list:

1. Scroll the Available Counties list.

2. Highlight the desired county.

3. Click the **Remove** button.

4. Click the Save button or click the **Cancel** button to not save this action.

To delete many counties from the Wage Decision Counties list:

1. Press and hold down the **CTRL** key.

2. Scroll the Available Counties list.

3. Select the desired counties and release the **CTRL** key.

4. Click the **Remove** button.

5. Click the Save button or click the **Cancel** button to not save this action.

To delete all available counties to the Wage Decision Counties list:

1. Click the **Remove All** button.

2. Click the Save button or click the **Cancel** button to not save this action.

3. Click the **Save** icon.

12.1.2 Training Programs
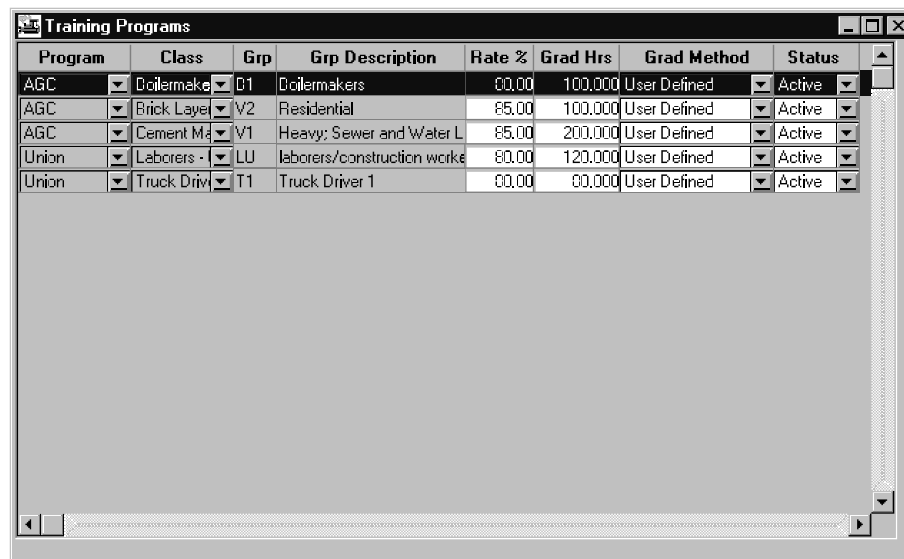
The Training Programs window allows SiteManager users to maintain training programs, with recommended wage rate adjustments, recommended goals in hours for intermediate level, and program graduation. Each training program is defined by a Program Name, a Classification, a Classification Group and its wage rate adjustment in percent. The same combination of Program, class and Group can be maintained for a different wage rate adjustment.

The Training Program window is accessible within the Civil Rights Contracts Compliance function by selecting the Training Program menu item. The user has the Find, Filter and Sort facilities from right mouse button within the datawindow.

> 📄 **Note:** When the status of the Job Program is changed to Inactive, it cannot be assigned
> to a trainee as a new program. An Inactive Job Program will not be displayed in the list
> of programs available for selection.

A user-defined filter is used to retrieve the list of training programs. If the number of rows being retrieved from the database exceeds the user-specified value, a message is displayed containing the number of rows about to be retrieved.

You may choose to retrieve the data or cancel the retrieval and apply a filter. If you choose to retrieve, the datawindow displays the list of wage decisions. The first wage decision record is highlighted. If you choose to cancel the retrieval, an empty datawindow appears, allowing you to start the Filter.

Figure 12-6. The Training Programs Window

Field Name	Description
Program	A user-defined training program. For example, AGC, union, journeyman, etc. This is a required field.
Class	A user-defined Job Classification. Examples include carpenter, electrician, blaster, laborer, etc. This is a required field. Job Classification and Group combination must exist in the WAGE DECISION JOB CLASS table.
Group	Defines the subgroup within the job classification. Group and Job Classification combination must exist in the WAGE DECISION JOB CLASS table.
Group Description	Describes the classification group selected. This is a display-only field.
Rate %	States the percentage of the journeyman's rate of pay for the classification and level based on the program type. This is a required field.
Grad Hrs	The cumulative hours a trainee must achieve to be considered for graduation from the level or from the program. This is a required field.
Grad Method	Specifies the Graduation Method Type for trainees, defined by agency-code, such as hours of experience, a competency test or a peer review.
Usage Status	Specifies the status of the program with a classification such as Active or Inactive. This is a required field. Defaults to Active.

Table 0-3 The Training Programs Window Fields Table

To maintain Training Programs:

1. Double-click the **Training Programs** icon. The Trainee Programs Window appears. The cursor appears in the Grad Hrs column.

To view, add, modify or delete Training Programs to/from the list of Training Programs:

1. Scroll the list of programs and click the desired Program row.

   Or

2. To find a specific Training Program, perform a **Filter**, **Find** or **Sort** using the right mouse options (referenced in the getting started section).

3. Click the row of the desired program.

To add one or more new Training Programs to the list:

1. Click the **File** menu and click **New**. A new row appears at the bottom of the list.

2. Place the cursor in the Program Column.

3. Click the expand button and select the Program title.

4. Place the cursor in the Class Column.

5. Click the expand button and select the Job Classification.

6. Place the cursor in the Grp Column.

7. Type the Grp letter-number.

8. Press the **Tab** key.

9. In the Rate % column, type the percentage numbers of the journeyman's rate of pay.

10. Press the **Tab** key.

11. In the Grad Hrs column, type the number of hours required for graduation.

12. Press the **Tab** key.

13. In the Grad Method column, click the expand button and select the required graduation method.

14. Press the **Tab** key.

15. In the Status column, click the expand button and select the status of the program.

16. Click the Save button or click the **Cancel** button to not save this action.

17. Respond to the Duplicate Record message or any other error message.

18. Correct the errors.

19. Click the Save button. The **Grp Description** text appears automatically when the save button is clicked.

20. Repeat the steps to add another new program. You can add single or multiple new programs (up to three new programs) at one time.

The Group Description field should be filled in after you click Save. If it remains empty:

1. Return to the Job Classification tab in Wage Decisions in the Reference Tables.

2. Click the **Exit** button to exit the Trainee Programs screen.

3. Click the main panel button.

4. Click the **Civil Rights** icon.

5. Click the **Reference Tables** icon.

6. Click the **Job Classification** tab.

7. Scroll to find the **Class Type** and **Class Group** used for the new trainee Program.

    Or

8. Perform a **Find** using the object menu (referenced in the General Concepts section).

9. Type the **Grp Description**.

10. Click the Save button.

11. Click the **Exit** button.

12. Click the main panel to return to the Trainee Programs screen.

13. Double-click the **Civil Rights** icon on the main panel.

14. Double-click the **Training Programs** icon. The Trainee Programs Window appears.

15. Highlight the **New Program Row** and repeat any required entries.

16. Click the Save button. The **Grp Description** appears automatically.

To modify a Training Program

1. Find the desired Training Program.

2. Click the column in the row requiring modification.

3. Type or copy the correction or make the desired selection with the expand button.

4. Click the Save button or click the **Cancel** button to not save this action.

To delete one Training Program at a time from the list:

1. Find the desired Training Program.

2. Click on the row of the program to highlight it. Do not click an expand button column.

3. Click the **Delete** button.

4. Click the Save button or click the **Cancel** button to not save this action.

To exit this screen:

1. To exit this screen and return to the main panel, click the main panel button.

Trainee Programs can be sorted (using the right mouse button menu) by program name, by Class or by Group to solve and correct error messages.

12.1.3 System User Type Mapping

The System/User Type Mapping window is used to add, update, view or delete associations between user-defined code tables and system-defined code tables that are used for federal reports. The associations are made with the following code types:

- Work Class

- Job Class

- DBE Type

- Ethnic Group

The System/User Type Mapping window is accessible within the Civil Right Reference Table function. This window appears when you select System/User Type Mapping from the menu bar. When you make a valid code selection, the corresponding datawindows appear on the main window.

All controls in the window are invisible except Open.

Select a table-type option from the list. The window first determines if any modification has been made on the current type and not been saved. If the data has not been saved, you are prompted to either save the data or to continue without saving. If you choose to save, the data is saved.

A new set of datawindows appears on the window corresponding to the type the user selected. All system-defined types are retrieved and displayed as a pick list on the top datawindow. The first row in the top datawindow is highlighted.

The available user-types that are not currently associated with any system-type are retrieved and displayed in the Available Type datawindow.

The Associated Type datawindow displays all the user-types already associated with the highlighted system-type.

The following lists the buttons associated with the System User Type Mapping:

Add	Is disabled if all user-types have been associated with the Reference SYSTEM-Type or if no user-type is selected from the Available User-Type datawindow.

Add All	Is disabled if all user-types have been associated with the Reference SYSTEM-Type.
Remove	Is disabled if no user-types are associated with Reference SYSTEM-Type or if no user-type is selected from the Associated User-Type datawindow.
Remove All	Is disabled if no user-types are associated with the Reference SYSTEM-Type.
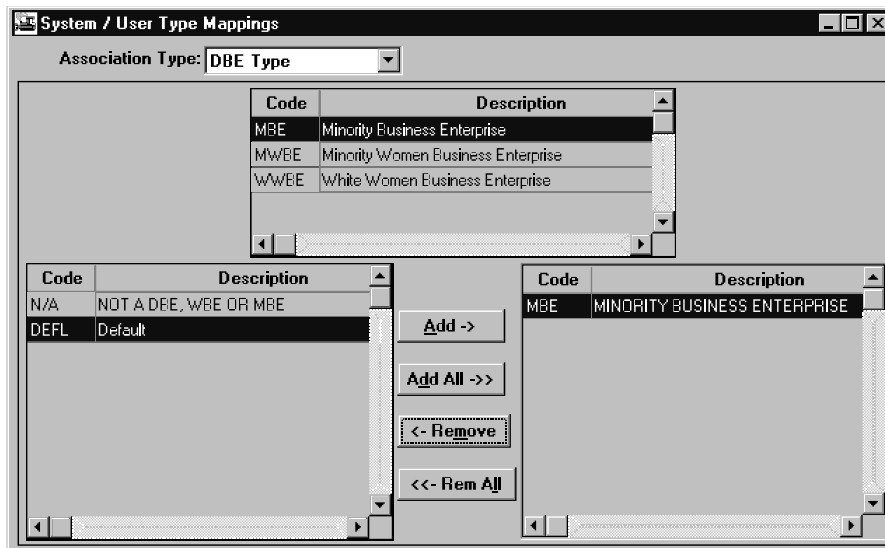
Figure 12-7. The System/User Type Mapping Window

Field Name	Description
Description	Textual description
System Job Class	Is a system-defined code that uniquely identifies each job class type such as officials, supervisors, foremen/women, clerical, equipment operators, mechanics, truck drivers, ironworkers, carpenters, cement masons, electricians, pipe fitters and plumbers, painters, laborers (semi-skilled), laborers (unskilled), apprentices and on-the-job-trainees.
User Job Class	Is a user-defined code that uniquely identifies each job class type such as form setter, mason, pipe layer, and drill operator.
System Work Class	Is a system-defined code that uniquely identifies each work class type such as grading and drainage, paving, structures/buildings, materials, equipment, trucking, traffic control, landscaping, and others

Field Name	Description
User Work Class	Is a user-defined code that uniquely identifies each work class type such as bridge and freeway.
System DBE Type	Is a system-defined code that uniquely identifies each DBE type such as MBE, MWBE, and WWBE.
User DBE Type	User-defined code that uniquely identifies each DBE type such as SBE and WBE.
System Ethnic Group	Is a system-defined code that uniquely identifies each ethnic group such as Black American, Hispanic American, Native American, Asian-Indian American, Asian-Pacific American, Other Minority, or Non-Minority.
User Ethnic Group	Is a user-defined code that uniquely identifies each ethnic group such as Appalachian.

Table 12-4. The System/User Type Mappings Window Fields Table

To associate code types:

1. In the **Association Type**: field, click the down button until the desired choice appears: DBE Type, Ethnic Group, Job Class or Work Class. The code and the code descriptions appear in the top Code Description box.

2. Make or remove code associations using the appropriate button - **Add**, **Add All**, **Remove** or **Rem All**. These buttons are unavailable if the function cannot be executed.

12.2 Contract Compliance

The Contract Compliance folder tab is reached by selecting the Civil Rights icon on the main panel. This folder tab is used to define and track state (provincial) DBE goals for both the prime contractor DBE and the subcontractor DBE. For example, if the prime contractor is a DBE, 100 percent of the contract is committed to the DBE goals for the state.
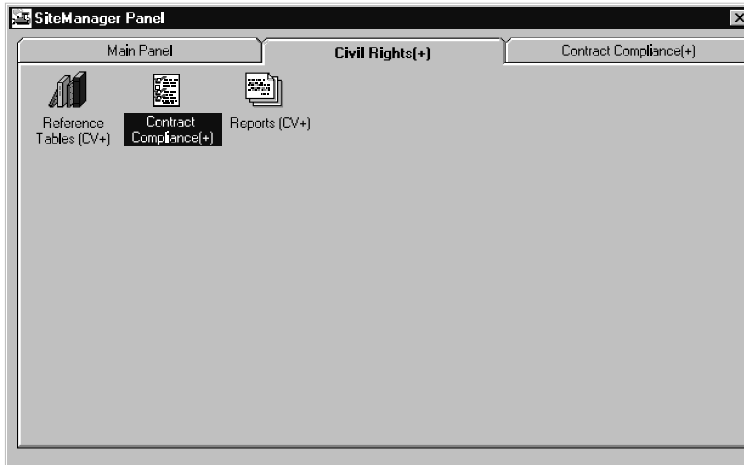
Figure 12-8. The Contract Compliance Icon on the Civil Rights Tab

The Civil Rights, contract Compliance folder tab displays the following icons:

Contracts	Described in the Contracts Administration section of this manual and also accessible in the Contracts Administration main panel icon
Subcontracts	Described in the Contracts Administration section of this manual and also accessible in the Contracts Administration main panel icon
Trainees	Described in this section of the manual and <u>only</u> accessible through the Civil Rights, contract Compliance icon
Key Dates	Described in the Key Dates and Checklist Events section of this manual and also accessible in the Contract Administration, Reference Tables folder tab
Checklist Scheduled Events	Described in the Key Dates and Checklist Events section of this manual and also accessible in the Contract Administration, Reference Tables folder tab
Checklist Events Dates	Described in the Key Dates and Checklist Events section of this manual and also accessible in the Contract Administration, Reference Tables folder tab.
Document Submission	Described in the Contracts Maintenance section of this manual and also accessible in the Contract Administration, contract Management folder tab.
Contractor Payrolls	Described in the Contracts Maintenance section of this manual and also accessible in the Contracts Maintenance, contractor

Payrolls icon.
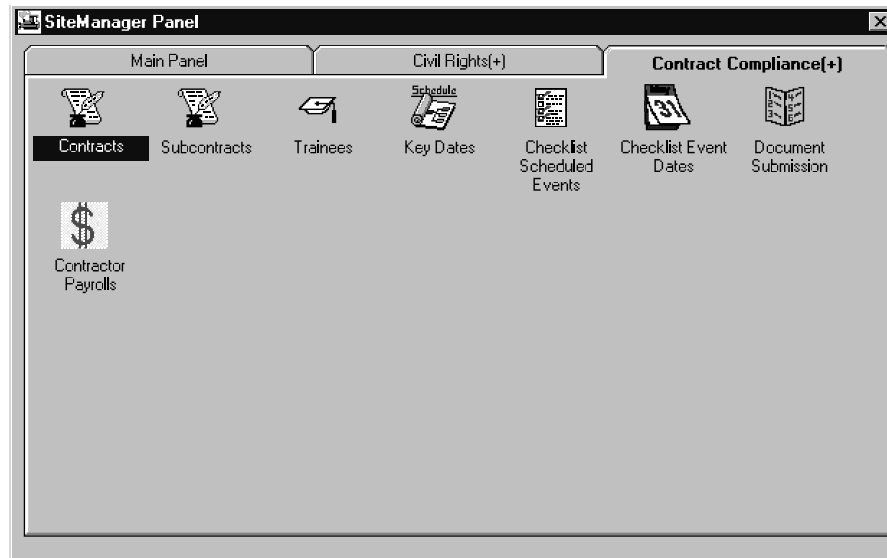
Figure 12-9. The Civil Rights, contract Compliance Tab Window

12.2.1 DBE Commitments

The DBE Commitments folder tab is described completely in the Contracts Administration section of this manual.

The DBE Commitments folder tab in the Civil Rights panel lets SiteManager users with specific authority view and update the DBE goal and commitments for a contract. If the contract data is passed over to SiteManager from a preconstruction system, the DBE goal percentage and original commitment amount are computed during the download process. In SiteManager online contracts, the original commitment amount and the DBE goal percentage are entered by a user with the appropriate authority.

To access DBE commitments in Civil Rights:

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon to record and track.

3. Double-click the **Contracts** icon.

4. On the **Contracts** window, click the **DBE Commit** folder tab.

Or

To access the DBE commitments folder tab via **Contract Administration** on the main panel:

1. On the main panel double-click the **Contract Administration** tab.

2. On the **Contract Records(+)** tab, double-click the **Contracts** icon.

3. On the Contracts window, click the **DBE Commit** Folders tab.

The contract ID is selected in the Contracts Description folder tab and passed to the DBE Commitments folder tab, retrieving all the DBE information.

The following processing is performed by SiteManager depending on the source of contract:

- If the contract was passed from the preconstruction system, all of the fields are protected. The contract is in a view-only status and cannot be modified.

- If the contract was added in SiteManager, the DBE Goal Percentage and the DBE Commitment Original Amount can be updated.

Remarks, a toolbar button, allows the user to maintain the contract DBE remarks. The Remarks toolbar icon is displayed indicating that DBE Remarks text exists for a contract. The icon is not displayed if Remarks text does not exist.

To view remarks:

1. Click the **Remarks** button. A remarks screen appears.

2. A check symbol appears next to the most recently added Remarks topic and can be viewed.

3. Click the topic with a check mark. Existing Remarks text appears in the Remarks box.

4. To close this screen, click the **Remarks** button.

To add remarks:

1. Click the **Remarks** button. A remarks screen appears.

   Or

2. On the **Services** menu, choose **Remarks**.

3. Select a topic: comments, Prime Contractor, Description or General.

4. Type or copy text in the Remarks text box.

5. To close this screen, click the **Remarks** button.

To add remarks if the Remarks box is present on the window:

1. Place the cursor in the Remarks box.

2. Type the desired text.

3. Click the next tab to save and close the current tab.

   Or

4. Click the **Close** button.
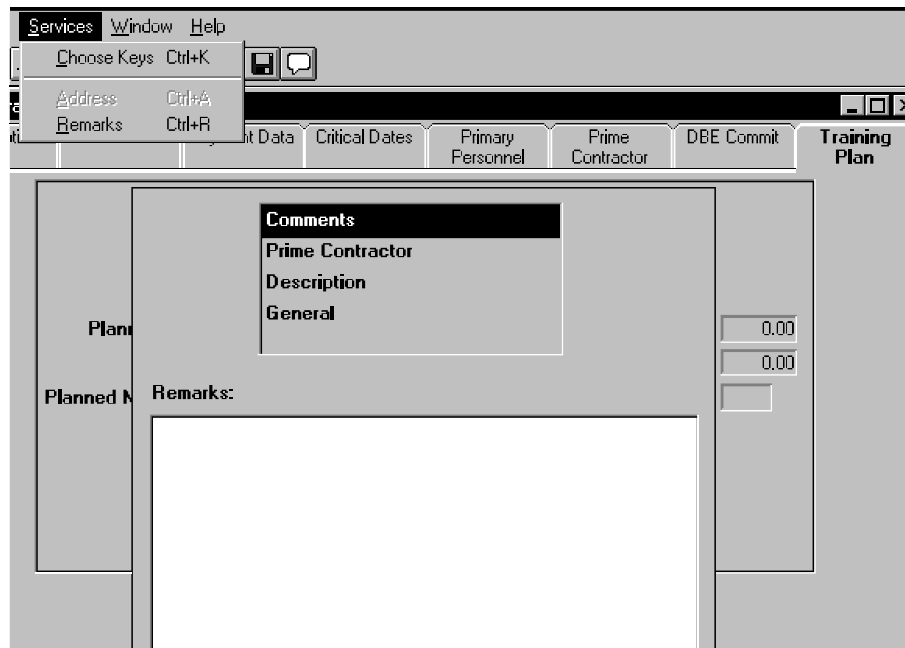
Figure 12-10. The DBE Commitments Remarks Window

12.3 Training

The Training Plan is accessed and maintained via the associated contract in Contract Administration while trainees and their training programs are accessed and maintained in the Civil Rights portion of SiteManager.

12.3.1 Contract Training Plan

The Contract Training Plan is described in the Contracts Administration section of this manual.

The Training Plan folder tab lets the user view, add and modify the prime contractor's on-the-job-training commitments for a contract. You identify the prime contractor's On-the-Job-Training contract commitment used during estimate generation to perform automated reimbursement. If the contract contains a training line-item (identified on the Civil Rights tab of the System Parameters window), the system automatically enters the training plan from the corresponding line-item code. If the contract does not have a training line item, an authorized user can enter the plan.

If the contract training plan is tracked by a training line item, reimbursements for on-the-job training are managed via the line item. In other words, the number of training hours accrued are attributed to the training line item as the quantity installed, and the quantity is paid on an estimate. If the contract training plan is entered manually, reimbursements for on-the-job training appear as Contract Adjustments.

The training plan consists of:

- The total training hours for the contract

- The hourly (unit) price for contract reimbursement

- The approximate number of trainees

Trainees identified for the contract are maintained via the Contract Trainee process in the Civil Rights section of the system. Refer to the Trainees Section in this manual.

> 🖹 **Note:** If the system enters the training plan, the data cannot be modified. You'll have view-only privileges of the plan. SiteManager users must allocate only one line-item on each contract using the corresponding training item code. This panel retrieves only the first item code of the type (metric or English) specified in the System Operational Parameter table.

If you use a contract line-item for the training plan, this system opens the window with data using the line-item. It protects all fields from modification, and disables the Save menu item. Otherwise, all fields open directly from the database and are enabled for update as displayed.

To add a new Training Plan, refer to the Contracts Administration section of this manual.

12.3.2 Trainees

The Training Plan is maintained in the Training Plan folder tab of Contract Administration.

Training Programs are maintained in the Reference Tables of Civil Rights.

Trainees are maintained through the Civil Rights main panel icon, Contract Compliance folder tab accessed through the Trainee icon.

The Trainees window is a three tab control window allowing easy access to all the trainee-related information. Each folder tab represents one component of trainee-related information. The information displayed on the folder tab corresponds to the trainee ID number selected on the Select Trainee window.

The Trainees window allows you to identify contractor personnel designated to receive on-the-job training for an active contract. You track trainee hours by contract and cumulative hours achieved towards craft or skill goal. A trainee may be enrolled in more than one training program, but must graduate from the first before starting the next one. A trainee may have Active status in only one program at a time. If a trainee transfers from one contract to another, his or her current training hours can be applied to the next contract.

The three folder tab controls in the Trainee window are:

Description Tab	Trainee's personal information This folder tab is used to add, update, or view trainee information.. The trainee description is retrieved by the trainee ID. Personal information about the trainee such as Name, Social Security Number, SIN, Ethnic Group and Gender Type are maintained in this window. Selecting Open produces the Select Trainee pick list. Selecting New produces a blank window to create a new trainee. Both Services/Address and Generic Fields options are available only in this tab.
Program Experience Tab	Trainee's program and status This folder tab is used to add, update, view, or delete the trainee Program Experience. The trainee's program experience is retrieved by the trainee ID. Program Experience displays the trainee's enrollment and activity status in training programs. The list (the upper data window) is for selection only, while the detail (the lower datawindow) allows program information to be added, updated, or deleted. The Group designation of the trainee, DOT Hours, Non DOT Hours, and Current Program Status of the trainee are maintained. Selecting New produces the Training Program Pick list. Selecting Open produces the Select Trainee pick list.
Contract Experience Tab	Trainee's related contract and status This folder tab is used to add, update, view, or delete the Trainee Contract Experience. The trainee contract information is retrieved by the trainee ID. The Contract Experience folder tab displays the contracts for which the trainee has had or will have experience. The list (the upper datawindow) is for selection only, while the detail (the lower datawindow) allows contract information to be added, updated, or deleted, including DOT Hours, Training Status and Contract Status. Selecting New produces a new row in the lower datawindow to select a new contract. Selecting Open produces the Select Trainee pick list.

The Open button or File/Open in any of the tabs opens Select Trainee pick list and allows you to open the record of a different, existing trainee. In the Select Trainee pick list, you select a trainee ID. The data in each folder tab then corresponds to the selected trainee ID and can be edited. Each tab must be saved when editing is complete. If you select New in the Description tab to create a new trainee, all tabs display empty datawindows. All three tabs must be completed for a new trainee and saved when all are completed.

Select Trainees

The Select Trainee window is used to display the list of trainees and to select a trainee for further user actions. The Select Trainee pick list displays when you click Open or select Open from the File menu.

Select Cancel to close the window any time without selecting a Trainee. The window closes without displaying a warning message.

Field Name	Description
Trainee Name	Unique transportation agency-defined ID for an individual
SSN	The trainee's Social Security Number or SIN.
Pgm	A user-defined code for a training program. Examples include AGC, union, journeyman.
Class	A user-defined code for a job classification. Examples include carpenter, electrician, blaster, laborer.
Grp	Defines the subgroup within the job classification
Status	The status of the trainee's training for this contract. This status information is available from a user-defined list. Examples of status include Graduated, Terminated, Active.
Vendor ID	Unique transportation agency-defined ID for a vendor Generally the company's Federal Tax ID. This field has Search Lens capability.
Contract ID	The transportation agency-defined ID for the contract. The ID corresponds to the contract ID assigned in preconstruction/LAS TM or is generally the contract transportation agency-defined ID for a proposal generated from a preconstruction system.

Table 12-5. The Contract Training Plan Maintenance Fields Table

Trainee Description

The Trainee Description tab is used to create, update, or view the trainee personnel information. The information is retrieved for the given Trainee ID selected from the Select Trainee pick list and displayed in the folder tab. You may modify the displayed information and save the changes to database.

Begin by selecting the trainee ID or selecting New to create a new trainee.

If an existing trainee ID was selected on the Select Trainee pick list, the related information for that ID is displayed in the folder tab. If you create a new trainee, all fields in the Description tab are empty.

The window enables functions according to the source of the trainee as follows:

- For a New Trainee, all of the fields are editable.

- For a trainee active in any program or on any contract or with any transportation agency experience (hours) logged, the Delete menu item is disabled and the Trainee cannot be deleted.
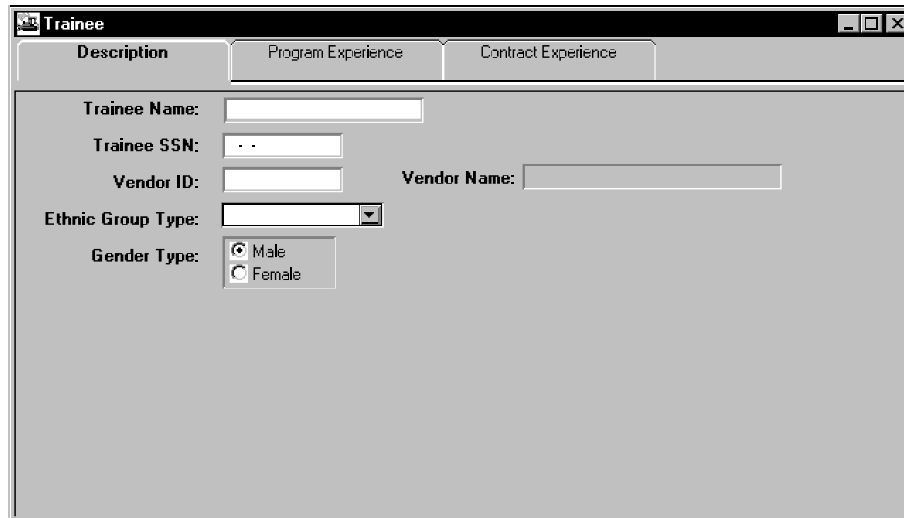
Figure 12-11. The Trainee Description Tab

Field Name	Description
Trainee Name	The Trainee's Name typed last name first. This is a required field.
Trainee SSN	The Trainee's Social Security Number or SIN. This entry must be unique and is a required field.
Vendor ID	A unique transportation agency-defined ID for a vendor. Generally, the ID is the company's Federal Tax ID. This is a required field and has Search Lens capability.
Vendor Name	Vendor Personnel Name. This field populates when Vendor ID is selected.
Ethnic Group Type	An agency-defined code identifying a person's ethnic background (Black American, Hispanic American, Native American, etc.). This is a required field.
Gender Type	Indicates an individual's gender. Select the radio button for each trainee. This is a required field.

Table 12-6. The Trainee Description Tab Table

To select an existing trainee (in all Trainee window tabs):

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. On any **Trainee** tab, click the **Open** button. The **Select Trainee** pick list appears.

5. Scroll the list and highlight the **Trainee Name** and **ID**.

6. Click **OK**. The fields in all the tabs display related data.

To create a new trainee in the Trainee Description tab:

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. On the **Trainee** window Description tab, click the **New** button. All fields in the Description tab appear blank.

5. Type the Trainee's name.

6. Press the **Tab** key.

7. Type the Trainee's Social Security Number or SIN.

8. Press the **Tab** key.

9. Use the Search Lens in the Vendor ID field to select the Vendor ID and Vendor Name The search window for **Vendor Name:** and **Vendor ID:** appears.

10. Scroll the list of Vendors.

11. Highlight the appropriate **Vendor Name:** and **Vendor ID:** row, and click **OK**. The **Vendor Name** and **Vendor ID** appear in the appropriate fields of the Trainee tab.

12. In the **Ethnic Group Type** button, click the up or down button until the correct choice appears.

13. Click the appropriate **Gender Type** radio button and select Male or Female.

14. Click the **Program Experience** Tab to continue entering new Trainee data.

    Or

15. When modifying an existing trainee's data, click **Save**.

To add address(s) information for a trainee:

1. On the Description tab, click **Services/ Address**. The Address window appears. The procedure for completing a trainee address(s) is described in detail in the Getting Started section of this manual.

To use Generic Fields for a trainee's records:

1. On the Description tab, click **Services/Generic Fields**. The Generic Fields window appears. The procedure for completing a Generic field is described in detail in the Getting Started section of this manual.

Program Experience

The Program Experience folder tab allows you to add, view or delete the trainee's Program Experience. Trainee Program Experience is retrieved by trainee ID. The Program Experience folder tab displays the trainee's program enrollment and the experience (hours) in those programs. All fields appear blank for a new trainee. You may add and delete training programs in the current training program list and update the corresponding details of a selected program. A Remarks box is available to enter details about a trainee's program(s) and graduation status.

When the Program Experience tab opens, the Trainee Name: field displays the name of the trainee selected or created in the Description folder tab. By default, the first row of the Program Experience list is highlighted in the upper data window. Corresponding details of the highlighted program are displayed in the detail (lower) datawindow. Since a trainee may have experience in multiple programs, highlight the desired program in the upper datawindow and changes focus to the lower datawindow to view or edit program details.

Program experience can be modified, for example, by adding Remarks, changing the trainee's status, or adding Non-DOT hours. New allows you to select and add a training program from the Training Program pick list. Open allows you to select a different existing trainee record and make modifications without returning to the Description tab.

The DOT Accrued Hours are protected, but they can be modified on the Contract Experience tab.
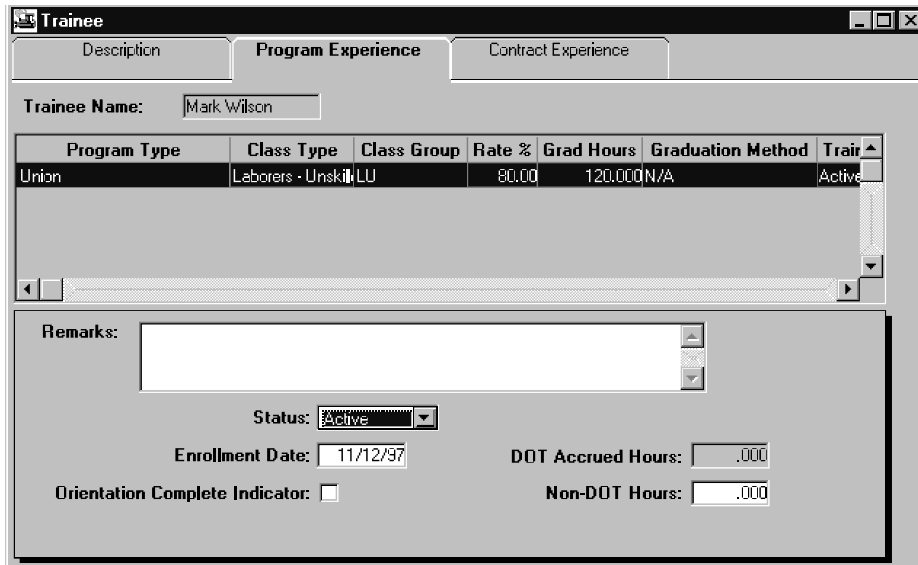
Figure 12-12. The Trainee Program Experience Tab Window

Field Name	Description
Program	A user-defined Training Program such as AGC, union, journeyman, etc.
Class	A user-defined Job Classification such as carpenter, electrician, blaster, laborer, etc.
Group	Defines the subgroup within the job classification.
Group Description	Description of the classification group.
Rate %	The percentage of the journeyman's rate of pay for the classification and level based on the program type.
Grad Hrs	The cumulative hours a trainee must achieve in order to be considered for graduation to the next level or from the program (classification group).
Grad Method	Specifies the Graduation Method Type for trainees, defined by DOT-code, such as hours of experience, a competency test or a peer review.
Status	Specifies the status of the trainee by a classification such as Active or Inactive, Graduated or Terminated.

Table 12-7. The Trainee Program Experience Window Table

To add Program Experience for a new trainee:

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. On the **Trainee** window Program Experience tab, click the **New** button. The Training Program pick list appears.

5. Scroll the pick list and highlight a training program.

6. Click **OK**. The selected Training program appears in the upper datawindow. The cursor appears in the lower datawindow in the Remarks box.

7. Type **Remarks**.

8. In the **Status** field, click the up or down arrows until the appropriate choice appears. Choices are Active, Graduated Inactive or Terminated.

9. Press the **Tab** key.

10. Type the new date in mmddyy order.

11. Press the **Tab** key.

12. Select the **Orientation Complete Indicator** check box (Complete = X, Not Complete or Not Applicable = blank).

13. Press the **Tab** key.

14. In the **Non DOT Hours** field, type the number of hours or leave blank.

15. Click the **Contract Experience** tab.

To modify Program Experience for an existing trainee:

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. On the **Trainee** window Program Experience tab, click the **New** button. Highlight the **Program Type** row in the upper data window.

5. Change focus to the lower datawindow by clicking in it.

6. Place the cursor in the Remarks box, and type remarks.

7. In the **Status** field, click the up (or down) arrow until the appropriate choice appears. Choices are Active, Graduated Inactive or Terminated.

8. Press the **Tab** key.

9. Type the new date in mmddyy order.

10. Press the **Tab** key.

11. Select the **Orientation Complete Indicator** check box (Complete = X, Not Complete or Not Applicable = blank).

12. Press the **Tab** key.

13. In the **Non DOT Hours** field, type the number of hours.

14. Click the **Contract Experience** tab.

    Or

15. Click the **Save** button if no other modification will be made to this trainee's record.

Select Training Program Pick List

The Select Training Program pick list is used to display the list of training programs and to select a training program for further user actions. The Select Training Program pick list displays when you click the New button in the Program Experience folder tab.

Field Name	Description
Program	A user-defined training program such as AGC, union, journeyman, etc.
Class	A user-defined job classification such as carpenter, electrician, blaster, laborer, etc.
Group	Defines the subgroup within the job classification.
Group Description	Description of the classification group.
Rate %	The percentage of the journeyman's rate of pay for the classification and level based on the program type.
Grad Hrs	The cumulative hours a trainee must achieve to be considered for graduation to the next level or from the program (classification group).
Grad Method	Specifies the Graduation Method Type for trainees, defined by DOT-code, such as hours of experience, a competency test or a peer review.

Field Name	Description
Status	Specifies the status of the trainee by a classification such as Active or Inactive.

Table 12-8. The Select Training Program Fields Table

To select a Training Program:

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. On the **Trainee** window Program Experience tab, click the **New** button. The Select Training Program pick list appears.

5. Scroll the list.

6. Click the desired **Training Program** row, highlighting it.

7. Click **OK**.

To add a new Training Program for a trainee

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. On the **Trainee** window Program Experience tab, click the **New** button. The Select Training Program pick list appears.

5. Choose a new program by highlighting it.

6. Click **OK**. A new Training Program appears under the trainee's listing of programs in the upper datawindow.

7. Complete the fields in the lower datawindow.

Trainee Contract Experience

This window allows you to add, view or delete the Trainee Contract Experience. The trainee contract information is retrieved for the selected Trainee ID. The Contract Experience tab displays the detailed contract experience of the trainee. Click one of the trainee programs listed in the upper datawindow and assign new contract information or update and delete corresponding contract information in the lower datawindow. Only active contracts may be associated to a trainee. The

trainee may have only one Active status within all contracts for a program. The Trainee may not be Active in two contracts for different programs simultaneously.

The trainee ID and program(s) display in the Contract Experience tab. By default, the first row is selected (highlighted) in the upper datawindow. The corresponding contract experience details display in the lower datawindow. Add Contract Experience by selecting New. A new row is inserted in the lower datawindow. Select a contract and types new information.

Remove a contract or delete experience by highlighting the program in the upper datawindow, refocusing to the lower datawindow, and delete the contract row. You cannot remove the contract association if the trainee is active on the contract, or if the trainee has any DOT experience (hours) logged. When a Contract Experience is deleted, the next Contract Experience in the list is automatically highlighted.

The DOT Hours can be manually entered or the hours can be automatically updated by the system when certified payrolls including trainee data are processed via the Payroll Exceptions Batch Job. Changes to the number of DOT hours accrued affects the number of training hours used to date field that is displayed on the contract's Training Plan folder tab. The accrual of these hours is what drives the on-the-job training reimbursements. When an estimate is generated, the system checks to see if there is a difference in the number of training hours used and the hours paid previously, and adjustment are applied to the estimate.

Figure 12-13. The Trainee Contract Experience Window

Field Name	Description
Program Type	The transportation agency-defined ID for a training program
Class Type	The craft or skill the trainee is currently training for on the contract

Field Name	Description
Class Group	Defines the subgroup within the job classification
Rate %	The percentage of the journeyman's rate of pay for the classification and level based on the program type
Graduation Hours	Specifies the cumulative hours a trainee must achieve in order to be considered for graduation to the next level or from the program (i.e., classification group)
Graduation Method	Specifies the Graduation Method Type for the trainees by DOT-defined code (e.g., hourly, competency test, peer review, etc.)
Contract ID	The transportation agency-defined ID for the contract corresponds to the contract ID assigned in preconstruction or LAS® or is the contract transportation agency-defined ID for a proposal generated from a preconstruction system. Must be unique within the currently selected training program and is a required field.
Contract Description	Textual description of the contract. This field is display-only.
DOT Hours	Specifies the current total hours the trainee has worked towards completing the skill on this agency contract. The amount of hours normally accrues automatically by SiteManager from the contractor Payrolls, but may be updated manually by the user. This capability is especially useful when hours are not automatically updated because of payroll exceptions.
Status	The status of the trainee's training for this contract such as Active or Inactive The trainee can only be Active on one training program at a time. The trainee can be Active on multiple contracts for the same program. If the status on a contract is changed to Active, SiteManager ensures that the corresponding training program is set to Active.

Table 12-9. The Trainee Contract Experience Fields Table

To modify existing Contract Experience for a trainee:

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. In the upper data window, highlight the desired program. The contract ID, contract Description and DOT Hours and Status for the highlighted for contracts display in the lower portion of the window.

5. The cursor appears in the DOT Hours field.

6. Type the new number of hours.

7. Press the **Tab** key.

8. In the **Status** field, click the up (or down) arrow until the desired choice (Active or Inactive) appears.

9. Respond to any error messages. The Trainee may now have Active status in more than one program. Change the Status in the non-active program using the Status button.

10. Click the **Save** button.

To add a new contract to the Trainees Contract Experience:

1. On the main panel, double-click the **Civil Rights** icon.

2. Double-click the **Contract Compliance** icon.

3. Double-click the **Trainees** icon.

4. On the **Trainee** window, Contract Experience tab, highlight the desired program in the upper datawindow.

5. Click the **New** button. A new row appears in the lower portion of the window.

6. In the **Contract ID** field, click the up (or down) arrow until the correct contract ID number choice appears. The contract description appears and DOT hours appear as 0.00.

7. Press the **Tab** key.

8. Type the number of DOT hours.

9. Press the **Tab** key.

10. In the **Status** field, click the down arrow until the Active choice appears.

11. Respond to any error messages. The Trainee may now have Active status in more than one program. Change the Status in the non-active program using the Status arrows.

12. Click the **Save** button.

12.4 Key Dates and Checklist Events for Civil Rights

Key Dates and Checklist Events allow you to establish, monitor, and maintain a series of key dates and scheduled events specifically related to the administration of the contract. The messages and discrepancy tracking associated with Key Dates and Checklist Events enhance your ability to administer the contract. For more information, refer to the Key Dates, Checklist Scheduled Events, and Checklist Event Dates topics.

12.4.1 Discrepancies

For more complete coverage of this topic, refer to the Key Dates and Checklist Events section in this manual.

You may also indicate when a discrepancy exists associated with a Checklist event. For those Checklist Events associated with a discrepancy, the actual date must be displayed before the projected date expires, or you will be notified of a discrepancy when an estimate is generated for the contract.

12.4.2 Accessing Key Dates and Checklist Events Windows

For more complete coverage of this topic, refer to the Key Dates and Checklist Events section in this manual.

To access the Key Dates window , the Scheduled Checklist Events window, or the Checklist Event Dates window from the Contract Administration Panel:

1. On the SiteManager main panel, double-click the **Civil Rights** icon.

2. On the **Civil Rights** panel, double-click the **Contract Compliance** icon.

3. On the **Contract Compliance** panel**,** double-click the desired icon for either **Key Dates, Checklist Scheduled Events**, or **Checklist Events**.

12.4.3 Select Contract

For more complete coverage of this topic, refer to the Key Dates and Checklist Events section in this manual.

The Key Date, checklist Scheduled Event, or Checklist Event Dates information is retrieved for the selected contract ID on the Select Contract window. There are two selection methods that can be used on this window. You may either select:

- a contract from the displayed default data as   or

- search the pick list using the Find - Filter - Sort options on the object menu.

To select a contract and access its Key Dates, Scheduled Checklist Events, or Checklist Event Dates:

1. Perform a **Select** using the Select and Add Contract procedure referenced in the Contract Administration Procedure.

To search the contract pick list and select a contract to access its Key Dates, Schedule Checklist Events, or Checklist Event Dates:

1. Perform a **Search** using the Object Menu and procedure referenced in the General Concepts section.

   Or

2. Perform a **Find**, **Filter**, or **Sort** using the Object Menu and procedures described in the General Concepts section.

   Or

3. Perform a **Select** using the Select and Add Contract procedure referenced in the Contract Administration Procedure.

12.4.4 Key Dates

For more complete coverage of this topic, use the glossary to find the topic in this manual or refer to the Key Dates and Checklist Events section in this manual.

The Key Dates window displays the Key Dates associated with the specified contract in the top or list datawindow for viewing and selection only. The Key Dates window displays the Key Date Detail information for the selected Key Date in the bottom or detail datawindow. The Key Date detail datawindow allows you to complete add, update and delete choices for Key Dates.

To view and select or to add, update or delete Key Dates:

1. Access the **Key Dates** window by selecting the **Key Dates** icon on the **Contract Administration** panel.

2. Perform the selected procedure using the procedures referenced in the Key Dates section.

12.4.5 Checklist Scheduled Events

For more complete coverage of this topic, refer to the Key Dates and Checklist Events section in this manual.

The Checklist Scheduled Events window displays the scheduled event list associated with the selected contract in the top or list datawindow for viewing and selection only. The Checklist Scheduled Events window displays the scheduled event detail information for the selected event in the bottom or detail datawindow. The Checklist Scheduled Event detail datawindow allows you to add, update and delete information for a scheduled event.

To view and select or to add, update or delete checklist events:

1. Access the Checklist Scheduled Events window by selecting the **Checklist Scheduled Events** icon on the **Contract Administration** panel.

2. Perform the selected procedure using the procedures referenced in the Checklist Scheduled Events section.

12.4.6 Checklist Event Dates

The **Checklist Event Dates** window displays the pre-scheduled events list associated with the selected contract in the top or list datawindow for viewing and selection only. It displays the detail information for the selected pre-scheduled event in the bottom or detail datawindow. The detail shows a chronological history of each occurrence of a repetitive scheduled event. The next projected date displayed last in the series. It also shows the actual date recorded by the user for each occurrence of a repetitive event. The detailed datawindow allows you to add additional occurrences of scheduled events, update exiting occurrence detail data, and delete occurrence entries for a Scheduled Checklist Event.

To view and select or to add, update or delete checklist event dates:

1. Access the Checklist Event Dates window by selecting the **Checklist Event Dates** icon on the **Contract Administration** panel.

2. Perform the selected procedure using the procedures referenced in the Checklist Event Dates section.

12.4.7 Document Submission

Refer to the Document Submission section of this manual for a complete description of this topic and its procedures.

The Document Submission processes support the Civil Rights components of SiteManager by allowing you to establish, monitor, and maintain a series of key dates and scheduled events specifically related to the administration of the contract.

The Document Submission panel supports the Civil Rights component of SiteManager by allowing you to add, modify, and delete records of documents submitted for a selected contract. Many contract documents must be submitted for approval or resolution (e.g., shop drawings, catalog cuts, changes to traffic control plans, and complaints from the public). Users who can submit documents for review are designated by the transportation agency during security setup.

On the Document Submission panel, you can enter or view the document type, document category, submission date, name of the submitter, and document description. You can modify and delete a document submission record only there are no assigned reviewers. You can track the document review (reviewer name, review date, recommendation, and remarks) in the lower part of the Document Submission panel, which is view only.

To begin the review process, select one or more reviewers on the Forward to Selected users panel. The reviewers can be selected simultaneously or sequentially. The selected reviewer receives an In-

Box notification that the document is ready for review. After reviewing the document, the reviewer adds recommendations on the Review Submitted Document panel. A recommendation cannot be modified after it is saved, but a reviewer can add another recommendation. A new tracking record is created for every new recommendation.

Some document submissions are events on the Contractors Checklist. When such a document is submitted, the system updates this event on the checklist. If the Checklist Event ID and Event Projected Date are entered, the system adds the document submission date to the Event Actual Date on the Contractors Checklist.

Selecting a Submitted Document

Refer to the Document Submission section of this manual for a complete description of this topic and its procedures.

The Selecting Submitted Select window supports the Civil Rights component of SiteManager by listing the details of the documents related to the selected contract. The first document on the list is highlighted. The user can find, filter, and sort the list.

Reviewing Submitted Documents

Refer to the Document Submission section of this manual for a complete description of this topic and its procedures.

The Review Submitted Document panel supports the Civil Rights component of SiteManager by allowing you to enter recommendations for a submitted contract document. To access this panel, you must be one of the reviewers assigned to review the document. When a submitted document is forwarded for review, the system notifies all reviewers by In-Box message that the document is ready for review.

The upper part of the Review Submitted Document panel displays the document type, document category, submission date, name of the submitter, and document description. The reviewer adds a recommendation in the lower part of the window. The three valid choices are Approved, Approved as Noted, and Denied. The reviewer can add comments in the Remarks field. A recommendation cannot be changed or deleted after it is saved, but the reviewer can add another recommendation. A new record is created for each new recommendation.

12.5 Contractor Payrolls

Refer to the Contract Maintenance section of this manual for a complete description of this topic and its procedures.

Contractor Payroll information and functionality supports the Civil Rights component of SiteManager by allowing users to maintain trainees (verify accrued training hours and wage rates) and to verify labor and wage rate compliance.

The Contractor Payrolls panel lets you view and modify Contractor Payroll information and related employee information. The payroll information is submitted to the transportation agency by prime contractors and subcontractors who employ at least one non-supervisory employee. Before a payroll can be selected and displayed on the Contractor Payrolls panel, the payroll file must be uploaded to the SiteManager database. The system uses the payroll data for Contractor Payments. The Contractor Payrolls panel has three folder tabs as follows:

Payroll Information	The Payroll Information folder tab displays the payroll dates and whether the payroll is certified.
Employee Information	The Employee Information folder tab displays a list of employees for the selected payroll and details for the employee selected on the list.
Employee Daily Information	The Employee Daily Information folder tab displays the daily records for each employee during a payroll period.

Table 12-10. The Contractor Payrolls Panel Folder Tabs Table

12.5.1 Selecting a Contractor Payroll

Refer to the Contract Maintenance section of this manual for a complete description of this topic and its procedures.

The Select Payroll for Vendor panel supports the Civil Rights component of SiteManager by allowing you to select a contract, a prime contractor or subcontractor, and a payroll. You can find, filter, and sort the lists.

12.5.2 Payroll Information

Refer to the Contract Maintenance section of this manual for a complete description of this topic and its procedures.

The Payroll Information folder tab supports the Civil Rights component of SiteManager by letting you view and modify contractor payroll information. This information is received from the prime contractor or subcontractor and uploaded to the SiteManager database. You can modify uncertified payroll information until payments are made for that payroll. If there is no employee data, the No Employees for Period indicator is selected. If a payroll with employee hours is selected, you can view employee data on the Employee Information and Employee Daily Information folder tabs. You can add payroll remarks only when the Payroll Information folder tab is selected. The data on this panel includes the following:

- Payroll Received date

- For Period Ending date

- Certified payroll indicator

- No Employees Hours for Period indicator

Employee Information

Refer to the Contract Maintenance section of this manual for a complete description of this topic and its procedures.

The Employee Information folder tab supports the Civil Rights components of SiteManager by displaying a list of employees for the selected payroll and details for the employee selected on the list. If the selected payroll is not certified, you can modify payroll information until payments are made for that payroll. This includes adding and deleting employees or payroll dates for employees.

Employee Daily Information

Refer to the Contract Maintenance section of this manual for a complete description of this topic and its procedures.

The Employee Daily Information folder tab supports the Civil Rights components of SiteManager by showing the daily records for each employee during a payroll period.

Upload Payroll Files

Refer to Sub-section 6.7 of Section 6 (Contract Administration-Maintenance, in this manual) for a complete description of this topic and its procedures.

12.6 Reports (Civil Rights)

On the Civil Rights Reports folder tab, each report is displayed with an icon. Each report presents a criteria window to specify the type of report to be generated. Additionally, you may choose to create the report off-line and to print the report off-line. You may check the status of a report generated off-line in the Jobs Monitor.

The following reports are available on this panel:

- DBE Status

- DBE Breakdown

- Commitments by Contractor

- Quarterly DBE Commitments

- Trainee Affirmative Action

- Annual EEO

- Wage Survey

- View Saved Reports
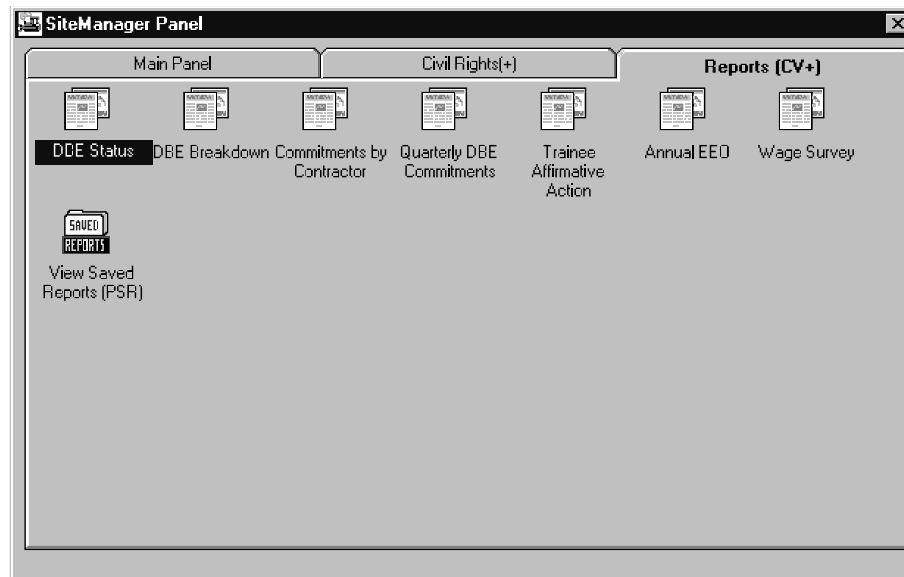
Figure 12-14. The Civil Rights Reports Panel

For more information about generating the different reports, report options, saving and exporting simple reports, and viewing saved reports, please see Chapter 3.

12.6.1 DBE Status Report

The DBE Status Report window allows you to generate a report on the DBE goal and participation of the state or of a contract. The report is presented in two formats: Summary and By Contract. The Summary format is a summary of the statewide DBE goal and participation listing totals by transportation agency level two office. The By Contract format lists the DBE goal and participation for an individual contract.

A Report Criteria window appears where the user selects the format of the report desired. If the second option (By Contract) is selected, a Contract ID must be indicated.
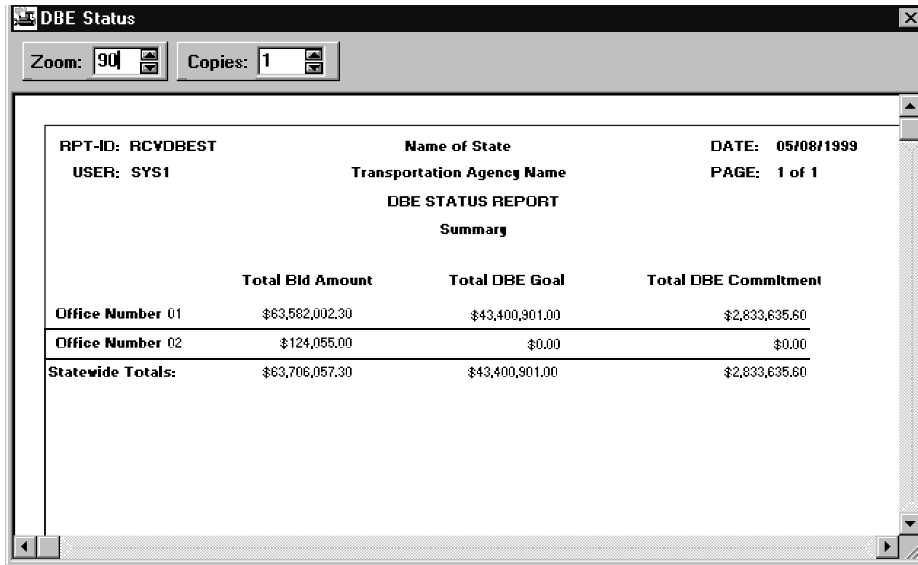
Figure 12-15. The DBE Status Report - Statewide Summary of DBE Goals and Commitment Totals Format
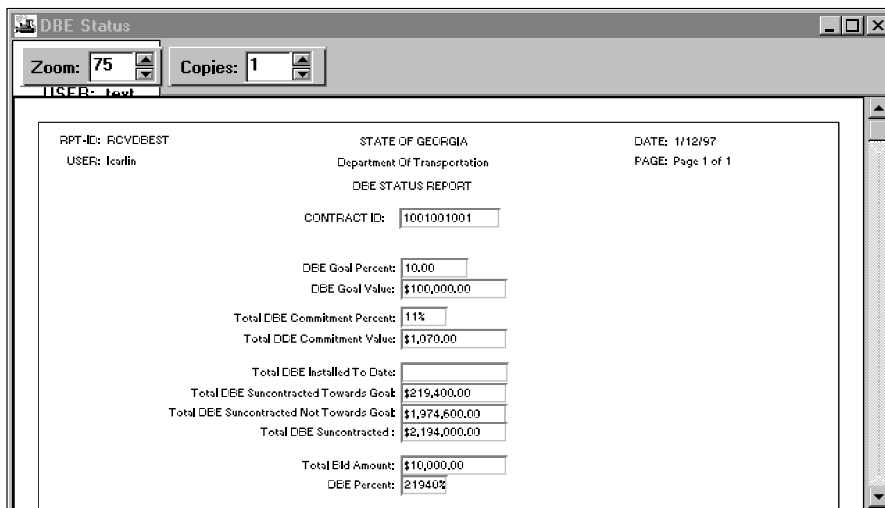
Figure 12-16. The DBE Status Report - Individual Contract Format Window

Field Name	Description
By Contract	
Contract ID	The transportation agency-defined ID for the contact
DBE Goal Percent	The percentage DBE goal assigned to the contract
DBE Goal Value	The part of the contract's bid amount earmarked for the DBE goal
Total DBE	The percentage of the sum of the commitment amount of all

Field Name	Description
Commitment Percent	subcontracts within the contract in relation to the bid amount of the contract
Total DBE Commitment Value	The sum of the commitment amount of all subcontracts within the contract
Total DBE Installed To Date	The current quantity of all subcontract items that were installed
Total DBE Subcontracted Towards Goal	The dollar amount of the subcontract items credited towards the DBE goal
Total DBE Subcontracted Not Towards Goal	The dollar amount of the subcontract items not credited towards the DBE goal
Total DBE Subcontracted	The quantity times the line-item unit price for all subcontract items.
Total Bid Amount	The amount of the contractor's bid awarded the job
DBE Percent	The percentage of Total DBE Subcontracted in relation to Total Bid Amount
Summary	
Office Nbr	Identifies the number of the level two office of the transportation agency
Total Bid Amount	The sum of the Total Bid Amount of all contracts within the office

Table 12-11. The DBE Status Report Fields Table

To make selections in the By Contract format for a DBE Status report:

1. Perform a **Search** by clicking the right mouse button.

2. Click on the desired Contract ID row.

3. Click **OK**. The Contract ID appears in the Report Criteria ID field. The Search screen disappears.

4. Click **OK** to generate the report on the users screen.

5. Select the **Generate Off-line File** check box (ON) to generate the report off-line.

6. Select the **Generate Off-line Print** check box (ON) to print the report off-line.

12.6.2 DBE Breakdown Report

This window generates a report on the DBE subcontracts by DBE type. The report is presented in two formats: Summary and By Contract. The Summary is a summary of the subcontract amounts listing totals by DBE type. The By Contract format lists the subcontract amounts by DBE type in an individual contract.

Select the desired format of the report in the report criteria window. If the By Contract option is selected, a contract ID must be typed or found.
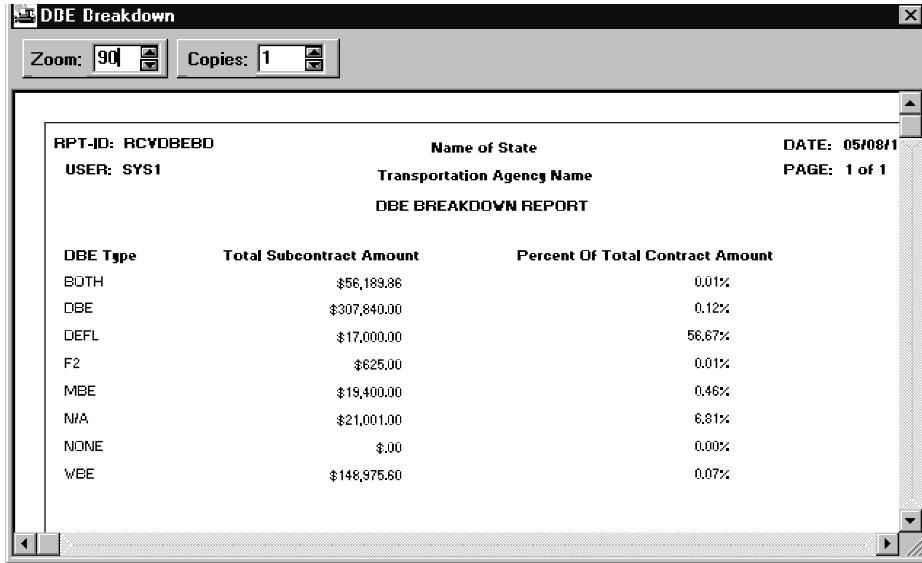
Figure 12-17. The DBE Breakdown Report Summary Format Window
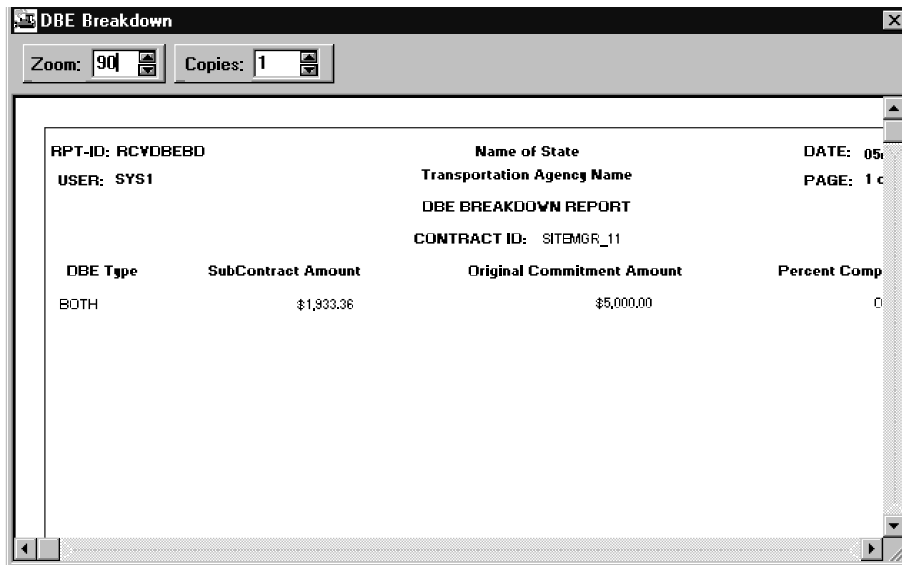
Figure 12-18. The DBE Breakdown Report By Contract Format Window

Field Name	Description

Field Name	Description
By Contract	
Contract ID	The transportation agency-defined ID for the contact
DBE Type	A transportation agency-defined code indicating that the company has certification as a disadvantaged business enterprise or as some other historically disadvantaged group. Examples are DBE, MBE, WBE, or other.
Subcontract Amount	Generally, the quantity times line-item unit price for all subcontract items.
Original Commitment Amount	The original dollar amount committed by the prime contractor for the subcontractor
Percent Complete	The percentage of the installed line item quantities in relation to the subcontract item quantities.
Summary	
DBE Type	A transportation agency-defined code to indicate the company has certification as a disadvantaged business enterprise or as some other historically disadvantaged group Examples are DBE, MBE, WBE, or other.
Total Subcontract Amount	The sum of the DBE subcontract amounts
Percent of Contract Amount	The percentage of the sum of the DBE subcontract amounts in relation to the sum of the contract amounts

Table 12-12. The DBE Breakdown Fields Table

Choose **By Summary** to select all contracts.

To make selections for the Contract ID in the Report Criteria Window for the DBE Breakdown report:

1. Type the Contract ID.

   Or

2. Perform a **Search** (referenced in the General Concepts section).

3. Click on the desired Contract ID row.

4. Click **OK**. The Contract ID appears in the Report Criteria Contract ID field. The Search screen disappears.

5. Click **OK** to generate the report on the Users screen.

6. Select the **Generate Off-line File** check box (ON) to generate the report off-line.

7. Select the **Generate Off-line Print** check box (ON) to print the report off-line.

12.6.3 Commitments by Contractor

The Commitments by Contractor window generates a report on the subcontract commitments of a contractor. The report presents all the contractor's DBE contracts and subcontracts.
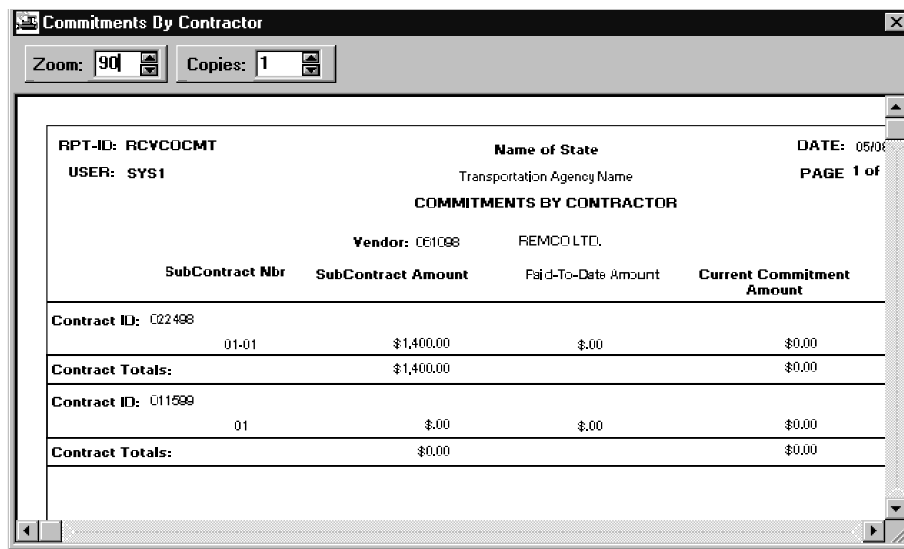
Figure 12-19. The Commitments by Contractor Report Window

Field Name	Description
Vendor ID	Unique identifier for a vendor. Generally the company's Federal Tax ID.
Contract ID	The primary identifier for the contact.
Subcontract Number	User-entered number associated with each subcontract.
Subcontract Amount	Generally, the quantity multiplied by the line item unit price for all subcontract items.
Paid-To-Date Amount	The total verified amount that has been paid to the subcontractor.

Field Name	Description
Current Commitment Amount	The current DBE commitment amount that has been committed by the prime contractor for the subcontractor.
Original Commitment Amount	The original DBE commitment amount committed by the prime contractor for the subcontractor.

Table 12-13. The Commitments by Contractor Report Fields Table

Choose **By Summary** to select all contracts.

To make selections for the Contract ID in the Report Criteria Window for the Commitments by Contractor report:

1. Type the Contract ID.

    Or

2. Perform a **Search** (referenced in the General Concepts section).

3. Click on the desired Contract ID row.

4. Click **OK**. The Contract ID appears in the Report Criteria Vendor ID field. The Search screen disappears.

5. Click **OK** to generate the report on the Users screen.

6. Select the **Generate Off-line File** check box (ON) to generate the report off-line.

7. Select the **Generate Off-line Print** check box (ON) to print the report off-line.

12.6.4 Quarterly DBE Commitments Report

You may generate a quarterly report to the Federal Highway Association (FHWA) that lists the number and value of DBE prime contracts and subcontracts. The report also lists the number and dollar value of DBE prime contracts and subcontracts by ethnic group and type of work.

If the second format, By Contract, is selected, a Contract ID must be typed or selected.

A criteria window appears and you must select the dates (fiscal year and quarter) of the report desired.
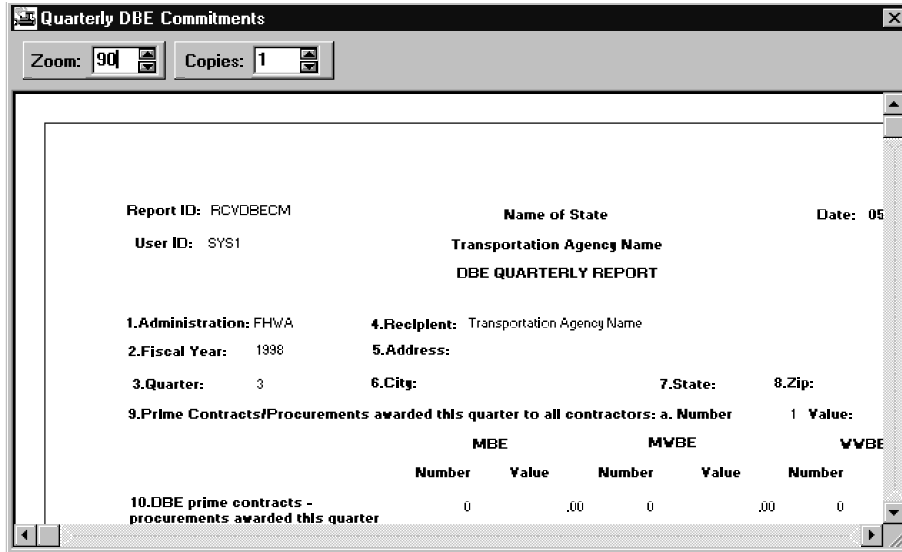
Figure 12-20. The Quarterly DBE Commitments Report By Summary Format

Field Name	Description
Administration	The transportation agency administration group responsible for the specific program
Fiscal Year	The federal fiscal year, beginning October 1 and ending June 30
Quarter	The quarter of the federal fiscal year for which the report is being submitted The choices for are: 1st October 1 - December 31 2nd January 1 - March 31 3rd April 1 - June 30 4th July 1 - June 30
Name of Recipient	The name of the primary program recipient such as the transportation agency
Address	The street address or post office box number of the primary recipient

Field Name	Description
City/State/Zip	The city of the primary recipient The state or province of the primary recipient The zip code of the primary recipient
Total prime contracts/ procurements awarded this quarter to all contractors	(a) Number The total number of federally-supported prime contracts/procurements awarded during the reporting period (b) $ Value The total dollar amount of federal share of all prime contracts/procurements reported in item (a)
DBE prime contracts- procurements awarded this quarter	The number of the prime contracts/procurements awarded during the reporting period to MBEs/MWBEs/WWBEs The federal share of the prime contracts/procurements awarded during the reporting period to MBEs/MWBEs/WWBEs
DBE subcontracts- procurements awarded this quarter	The number of subcontracts/procurements executed during the reporting period by MBEs/MWBEs/WWBEs The federal share of subcontracts/procurements executed during the reporting period by MBEs/MWBEs/WWBEs
Subcontracting- procurement commitments to DBEs this quarter	The number of subcontracting commitments to the MBEs/MWBEs/WWBEs during the reporting period The federal share of subcontracting commitments to the MBEs/MWBEs/WWBEs during the reporting period
MBE-DBE prime and subcontract- procurement awards by ethnic group	The breakdown by ethnic group of the number of all MBE-DBE prime contracts-procurements plus all executed MBE-DBE subcontracts-procurements. The breakdown by ethnic group of the number of all MBE-DBE prime contracts-procurements plus all executed MBE-DBE subcontracts-procurements.
Number of DBE prime and subcontract-awards by type of work	The number of awards by type of work performed by MBEs/MWBEs/WWBEs for the prime contracts-procurements and the executed subcontracts-procurements during the reporting period.

Table 12-14. The Quarterly DBE Commitments Report Fields Table

In the **Quarterly DBE Commitments Report:**

Choose **By Summary** to select all contracts.

To make selections for the Contract ID in the Report Criteria window for the Quarterly DBE Commitments report:

1. Perform a **Search** by clicking the right mouse button or type the Contract ID.

2. Click on the desired Contract ID row in the pick list.

3. Click **OK**. The Contract ID appears in the Report Criteria Contract ID field.

4. Click **OK** to generate the report on the Users screen.

5. Select the **Generate Off-line File** check box (ON) to generate the report off-line.

6. Select the **Generate Off-line Print** check box (ON) to print the report off-line.

12.6.5 Trainee Affirmative Action Report

A SiteManager user may generate the Trainee Affirmative Action report within a Start Date and End Date for a specified criteria: contract, contractor or for Over All (i.e., program and classification). Report details include Status and Ethnic breakdown (minority or non-minority) of trainees.

The report criteria window displays where you click the criteria for the report. You can make a selection to generate report for a contract, contractor or for Over All. The fields Contract ID and Contractor ID are protected depending on the report selection. For Contract and Contract fields, search lens functionality is available to select a valid ID. If an individual contractor or contract ID are not entered, all records are included in the report. Otherwise, only the individual record of the type is included.
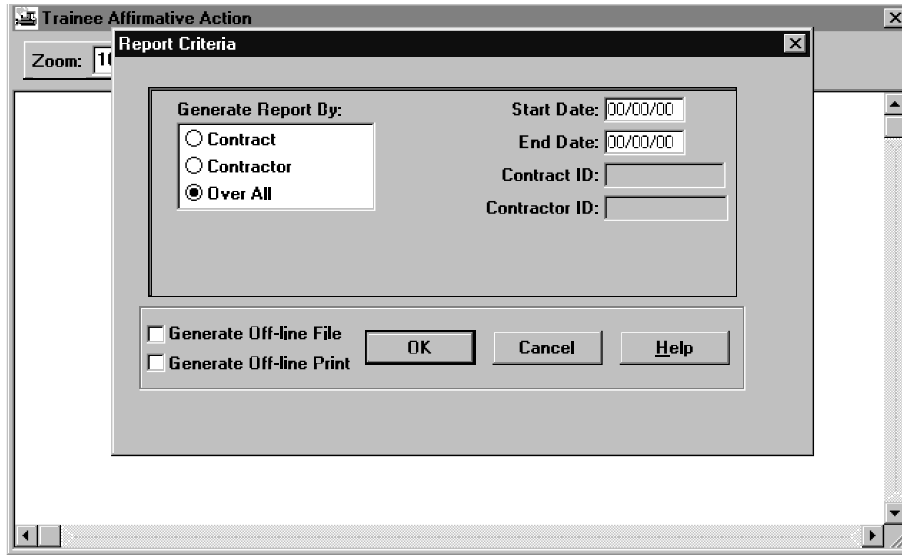
Figure 12-21. The Trainee Affirmative Action Report Criteria Window
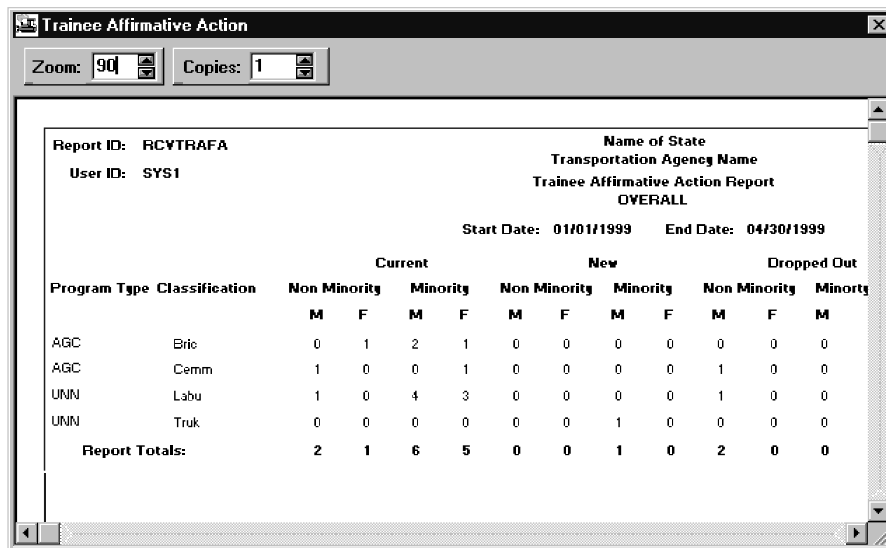
Figure 12-22. The Trainee Affirmative Action Report

Field Name	Description
Report Criteria Window	
Generate Report By	Report selection criteria such as contract, contractor, Over All. This is a required field. Default selection criteria is Over All.
Start Date	Start Date should not be later than End Date. This is a required field.
End Date	End Date for the report.

Field Name	Description
	End Date should not be earlier than Start Date. This is a required field.
Contract ID	The transportation agency-defined ID for the contract. Corresponds to the contract ID assigned in preconstruction or LAS software or is the contract transportation agency-defined ID for a proposal generated from a preconstruction system. You can use Search in this field.
Contractor ID	Unique transportation agency-defined ID for a vendor, generally, the company's Federal Tax ID. You can use Search in this field.
Trainee Affirmative Action Report Window	
XXXXXXXXX	This is a dynamic label. It displays the value of contract ID or contractor ID or nothing, depending upon the user-selected option in the report criteria window.
YYYYYYYYYYYYYYY	This is a dynamic label. It displays if the report was generated by contract, contractor, or Over All.
Program	The transportation agency-defined ID for a training program
Classification	The craft or skill the trainee is currently training for on the contract
Total Planned Trainees	Total number of trainees planned for the contract
Total No. of Hours Planned	Total number of training hours planned for the contract.
Total Hours Used	Total number of hours used to date
Current/Non-Minority/M	The total number of Non-Minority Males is the number of males that belong to non-minority Ethnic Group (e.g., White American Males, Not Black American, Hispanic American etc.). Current/Non-Minority/Males have the same Enrollment Date as the Start Date given at the report criteria window for the program classification.

Field Name	Description
Current/Non-Minority/F	The total number of Non-Minority Females is the number of females that belong to a non-minority Ethnic Group; For Example - White American Females, Not Black American, Hispanic American, etc. Current/Non-Minority/Females have the same Enrollment Date as the Start Date given at the report criteria window for the program classification.
Current/Minority/M	The total number of Minority Males belonging to a Minority Ethnic Group; For Example - Black American, Hispanic American, etc. Current/Minority/Males have the same Enrollment Date as the Start Date given at the report criteria window for the program classification.
Current/Minority/F	The total number of Minority Females belonging to a Minority Ethnic Group that have the Enrollment Date same as Start Date given at the report criteria window for the program classification.
New/Non-Minority/M	The total number of Non-Minority Males belonging to a non-minority Ethnic Group that have the Enrollment Date between the Start Date and the End Date given at the report criteria window for the program classification
New/Non-Minority/F	The total number of Non-Minority Females belonging to a non-minority Ethnic Group that have the Enrollment Date between the Start Date and the End Date given at the report criteria window for the program classification
New/Minority/M	The total number of Minority Males belonging to a Minority Ethnic Group that have the Enrollment Date between the Start Date and the End Date given at the report criteria window for the program classification
New/Minority/F	The total number of Minority Females belonging to a Minority Ethnic Group that have the Enrollment Date between the Start Date and the End Date given at the report criteria window for the program classification.
Dropped Out/Non-Minority/M	The total number of Non-Minority Males belonging to a Non-Minority Ethnic Group that have the Program Status Date between the Start Date and the End Date given at the report criteria window and have Program status as

Field Name	Description
	Terminated for the program classification
Dropped Out/Non-Minority/F	The total number of Non-Minority Females belonging to a Non-Minority Ethnic Group that have the Program Status Date between the Start Date and the End Date given at the report criteria window and have Program status as Terminated for the program classification
Dropped Out/Minority/M	The total number of Minority Males belonging to a Minority Ethnic Group that have the Program Status Date between the Start Date and End Date given at the report criteria window and have Program Status as Terminated for the program classification
Dropped Out/Minority/F	The total number of Minority Females belonging to a Minority Ethnic Group that have the Program Status Date between the Start Date and the End Date given at the report criteria window and have Program Status as Terminated for the program classification.
Graduated/Non-Minority/M	The total number of Non-Minority Males belonging to a Non-Minority Ethnic Group that have the Program Status Date between the Start Date and End Date given at the report criteria window and have Program Status as Graduated for the program classification
Graduated/Non-Minority/F	The total number of Non-Minority Females belonging to a Non-Minority Ethnic Group that have the Program Status Date between the Start Date and End Date given at the report criteria window and have Program Status as Graduated for the program classification.
Graduated/Minority/M	The total number of Minority Males belonging to a Minority Ethnic Group that have the Program Status Date between the Start Date and End Date given at the report criteria window and have Program Status as **Graduated** for the program classification.
Graduated/Minority/F	The total number of Minority Females belonging to a Minority Ethnic Group that have a Program Status Date between the Start Date and End Date given at the report criteria window and have a Program Status as **Graduated** for the program classification

Field Name	Description

Remaining/Non-Minority/M	This trainee number is calculated by adding the Current/Non-Minority/M plus the New/Non-Minority/M and subtracting the number of Dropped Out/Non-Minority/M and the number of Graduated/Non-Minority/M.
	
	For example: Current/Non-Minority/M + New/Non-Minority/M = NNN
	
	Dropped Out/Non-Minority/M
	+ Graduated/
	
	    Non-Minority/M = nnn
	
	    NNN - nnn = Remaining/Non-Minority/M

Remaining/Non-Minority/F	This trainee number is calculated by adding the Current/Non-Minority/F plus New/Non-Minority/F and subtracting the number of Dropped Out/Non-Minority/F plus the number of Graduated/Non-Minority/F.
Remaining/Minority/M	This trainee number is calculated by adding the Current/Minority/M plus the New/Minority/M and subtracting the number of Dropped Out/Minority/M plus the number of Graduated/Minority/M)
Remaining/Minority/F	This trainee number is calculated by adding the Current/Minority/F plus the New/Minority/F and subtracting the number of Dropped Out/Minority/F plus the number of Graduated/Minority/F.

Table 12-15. The Trainee Affirmative Action Report Fields Table

Choose **By Summary** to select all contracts.

To make selections for the Contract ID in the Report Criteria Window for the Trainee Affirmative Action report in a **By Contract** format:

1. Type the Contract ID.

    Or

2. Perform a **Search** (referenced in the General Concepts section).

3. Click on the desired Contract ID row.

4. Click **OK**. The Contract ID appears in the Report Criteria Contract ID field. The Search screen disappears.

5. Click **OK** to generate the report on the Users screen.

To make selections for the Contract ID in the Report Criteria Window for the Trainee Affirmative Action report in a **By Contractor** format:

1. Perform a **Search** (referenced in the General Concepts section).

2. Click on the desired Vendor ID and Vendor Name row.

3. Click **OK**. The Vendor ID appears in the Report Criteria Vendor ID field. The Search screen disappears.

4. Click **OK** to generate the report on the Users screen.

5. Select the **Generate Off-line File** check box (ON) to generate the report off-line.

6. Select the **Generate Off-line Print** check box (ON) to print the report off-line.

12.6.6 Annual EEO Report

A SiteManager user may generate the Annual EEO Report by selecting the Annual EEO Report icon.

You can define the scope of the report:

- by starting and ending dates

- to include all department contracts   OR

- to include federal-aid contracts only

You can further define the report by responsibility:

- by Contract

- by Contractor   or

- by Area of Responsibility

The report detail includes Job Classification breakdown for each federally defined ethnic group type.

Figure 12-23. The Report Criteria Window for the Annual EEO Report

On the report criteria window, select the criteria for the report by choosing to generate report for a Contract, contractor, Area of Responsibility, or for State Wide.

The fields contract ID, contractor ID and Area of Responsibility are protected depending on the report selection.

For Contract and Contractor fields, search lens functionality is available to select a valid ID. When an individual contract ID or contractor ID is not entered, all records of that type are included on the report. Otherwise, only the individual record of the type entered is included.

The file name extension is always .PSR.

The selections received from the Report Criteria window are used to generate the Annual EEO report. The transportation agency-specific header details are retrieved and displayed for the report.

Figure 12-24. The Annual EEO Report Window

Field Name	Description
Report Criteria Window	
Start Date	Starting Payroll Date. This is a required field.
End Date	Ending Payroll Date. This is a required field and should be greater than Start date.
Contract ID	When a valid contract ID is entered, contractor ID and Area of Responsibility are protected and cannot be edited. You can search in this field.
Contractor ID	Unique transportation agency-defined ID for a vendor. Generally the company's Federal Tax ID If a vendor ID is not entered for this field, all contractors are included in the report. When a valid Contractor ID is entered, contract ID and Area of Responsibility will be protected. You can search in this field.
xxxxxxxxxx Level 2 (see installation specific instructions)	The office number for the states level 2 office responsible for administering the contract. Level 1 office is the Central or Dept. Of Transportation. Level 2 is typically the District Office, but can be any user-defined organizational level such as Division, Region, Section, etc.

Field Name	Description
xxxxxxxxxx Level 3 (see installation specific instructions)	The office number for the states level 3 office responsible for administering the contract. Level 1 office is the Central or Dept. Of Transportation. Level 3 is typically the Area Office, but can be any user-defined organizational level such as District, Unit, etc. For states with only two administration levels (e.g., central and district only) this field and its label will not display
xxxxxxxxxx Level 4 (see installation specific instructions)	The office number for the states level 4 office responsible for administering the contract. Level 1 office is the Central or Dept. Of Transportation. Level 4 is typically the Area Office, but can be any user-defined organizational level such as Unit, etc. For states with only two or three administration levels (e.g., central and district only or central, district, and area) this field will not display
Federal/State Aid	Generate EEO report for contracts funded by Federal, State or Both. The default is Both.
Generate State Wide	When selected, contract ID, contractor ID and Area of Responsibility are protected.
Annual EEO Report Window	
Check Appropriate Block	Contractor or subcontractor.
Name and Address of Firm	Contractor name and address.
Federal-Aid Project Number	DOT-defined project number for each contract.
Type of Construction	A DOT-defined code that can be used to identify the major type of works (e.g., road, bridge work, beautification).
County and State	County and state location where the major type of work being performed on the contract.
Percent Complete	Percentage of work being completed.

Field Name	Description
Construction Begin Dt.	The date that construction work began.

Table 0-16 The Annual EEO Report Fields Table

In the **Annual EEO Report:**

Choose **By Summary** to select all contracts.

To make selections in the Report Criteria Window for the Annual EEO report:

1. Click the radio button to select the desired **Start and End Dates**.

2. Click the radio button to select the desired format type.

   ▪ **By Summary** selects all contracts

   ▪ **By Contract** selects an individual contract

   ▪ **By Federal-Aid Contract only** selects

3. Click the radio button to select the desired area of responsibility.

   ▪ by Contract

   ▪ by Contractor

   ▪ by Area of Responsibility

In a **By Contract** format:

1. Type the Contract ID.

   Or

2. Perform a **Search** using the object menu (referenced in the General Concepts section).

3. Click on the desired Contract ID row.

4. Click **OK**. The Contract ID appears in the Report Criteria Contract ID field. The Search screen disappears.

5. Click **OK** to generate the report on the Users screen.

6. Select the **Generate Off-line File** check box (ON) to generate the report off-line.

7. Select the **Generate Off-line Print** check box (ON) to print the report off-line.

12.6.7 Wage Survey Report

You may generate a report to list average wage rates for job classifications. The report also displays the lowest and highest wage rates for each corresponding Job Classification /Job Group. The report details breakdown according to the contractor. You access this report by selecting the Wage Survey Report icon.

The Report Criteria window is displayed to specify the report parameters. You may elect to generate the report for a Contractor, Job Class, or Over All.

For the Contractor field, search lens functionality is available to select a valid ID.

Only the individual record of the type is included when an individual Contractor, Job Class or Class Group is entered. Otherwise, all records of a type are included in the report.
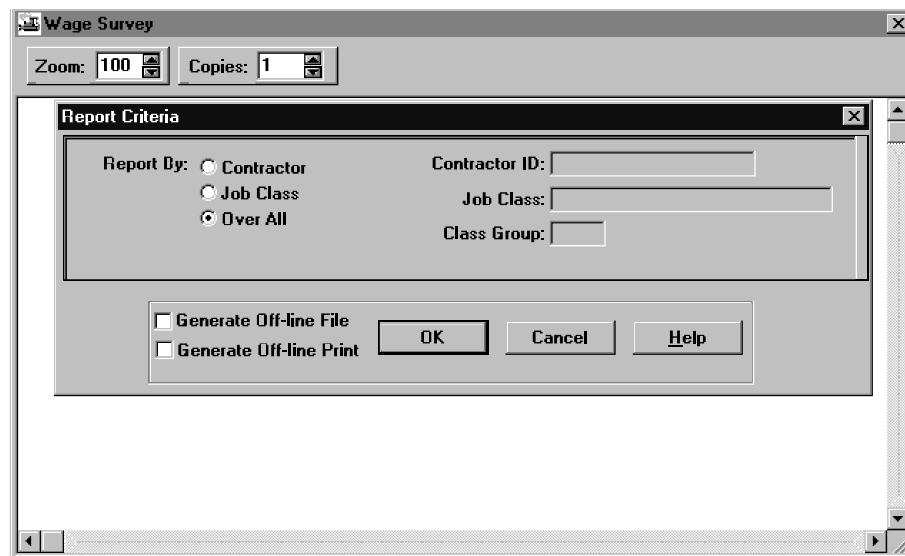
Figure 12-25. The Wage Survey Report Sort Criteria Window
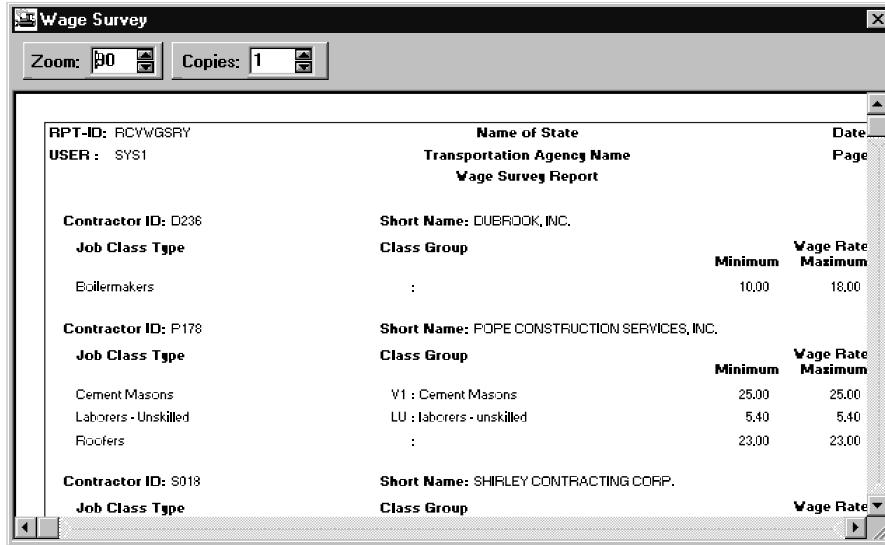
Figure 12-26. The Overall Wage Survey Report Window

Field Name	Description
Report Criteria Window	
Generate Report By	Report selection criteria such as Contractor, Over All. Over All is the Default selection.
	This is a required field.
Contractor ID	Unique transportation agency-defined ID for a vendor. Generally the company's Federal Tax ID.
	If an ID is not entered in the Contractor option, all contractors are included in the report.
	You have search capability in this field.
Short Name	Abbreviated Vendor Name
Job Class	The transportation agency-defined ID for a Job Classification such as Carpenter, Electrician, Blister, Laborer, etc.
	If a Job Class is not entered, all Job Classes are included in the report.
Class Group	Specifies the Group within the classification.
	If a Class Group is not entered for the Class Group option, all Class Groups are included in the report.

Field Name	Description
Wage Survey Report Window	
Contractor ID	Unique transportation agency-defined ID for a vendor. Generally the company's Federal Tax ID.
Job Classification	The transportation agency-defined ID for a Job Classification such as Carpenter, Electrician, Blister, Laborer, etc.
Class Group	Defines the subgroup within the Job Classification.
Average Wage Rate	Specifies the Average Wage Rate (rounded up to the nearest penny) of the Job Classification for the Contractor or for the Wage Decision County.
Highest Wage Rate	Specifies the Highest Wage Rate (rounded up to the nearest penny) of the Job Classification for the Contractor or for the Wage Decision County.
Lowest Wage Rate	Specifies the Lowest Wage Rate (rounded up to the nearest penny) of the Job Classification for the Contractor or for the Wage Decision County.

Table 12-17. The Wage Survey Report Table

In the **Wage Survey Report:**

Choose **By Summary** to select all contracts.

To make selections in the Report Criteria Window for the Wage Survey report:

Click the radio button to select the desired format.

- **By Summary** selects all contracts

- **By Contractor** selects contracts for a specific vendor

- **By Job Class** selects a specific Job Classification

In a By Contractor format:

Type the Contractor ID.

Or

Perform a **Search** using the object menu (referenced in the General Concepts section).

Click on the desired Contract ID row.

Click **OK**. The Contract ID appears in the Report Criteria Contract ID field. The Search screen disappears.

Click **OK** to generate the report on the Users screen.

Click the **Generate Off-line File** check box (ON) to generate the report off-line.

Click the **Generate Off-line Print** check box (ON) to print the report off-line.

In a **By Job Class** format:

Type the Job Class name.

Click **OK**.

Follow the procedures described in Contractor format using the Job Class Name.

> 📄 **Note**: Only the individual record of the type is included when an individual Contractor, Job Class or Class Group is entered. Otherwise, all records of a type are included in the report.

12.6.8 Trainee Accrual Exceptions Report

The Accrue Training Experience report accrues contract trainee hours from Contractor Payrolls. After the contractor payroll has successfully been uploaded to the server or added manually to the database, this report is automatically queued for execution on the batch server. The report is processed as part of the Payroll Exceptions Batch Job.

The report highlights any on-the-job training deficiencies including:

- Person is not currently registered as a trainee

- Trainee is not enrolled in specified program

- Trainee is attempting to accrue experience after graduation or termination

- Trainee status is currently Inactive for this contract

- Trainee is not included in specified contract's training plan

- Trainee has potentially graduated from specified program/level

- Trainee has exceeded the planned contract training hours by a specified number of hours

> 📄 **Note:** Accrual takes place ONLY when the trainee is actively training in the program on the contract specified in the payroll. Also, the trainee data (name, SSN/SIN, ethnicity, gender type, class type, class group, and program type) must match the payroll employee data exactly.

The exception report is generated by the system. Each exception includes the Contract ID, Vendor ID, SSN/SIN, Trainee Name, Program Type, Classification, Classification Group, Ethnic Group, Gender Type, DOT Accrued Hours, Graduation Hours and Exception Text.

The **Trainee Accrual Exceptions Report** is a system-generated report. The report will be saved to the drive specified in the LANPATH code table for batch processing.

Field Name	Description
Vendor ID	Unique transportation agency-defined ID for a vendor. Generally, the company's Federal Tax ID.
Contract ID	The transportation agency-defined ID for the contract. Corresponds to the contract ID assigned in AASHTOWare Project Preconstruction™ or LAS software or is the contract transportation agency-defined ID for a proposal generated from a preconstruction system.
Period End Date	The Payroll process date.
Trainee Name	Trainee Name.
SSN/SIN	The Social Security Number or transportation agency-defined ID for the individual.
Program	The transportation agency-defined ID for a training program. Examples include AGC, Union, Journeyman, etc.
Class	The transportation agency-defined ID for a job classification. Examples include Carpenter, Electrician, Blaster, Laborer, etc.
Group	Specifies the subgroup within the job classification.
Rate %	The percentage of the journeyman's rate of pay for the classification and level based on the program type.
Ethnic Group	DOT-defined code identifying a person's ethnic background. Examples include Black American, Hispanic American, Native American, etc.
Gender Type	Indicates an individual's gender. For example, M = male or F = female.
Accrued Hours	The current total hours the trainee has worked towards completing the skill on this transportation agency contract.

Field Name	Description
Grad Hours	The cumulative hours a trainee must achieve in order to be considered for graduation to the next level or from the program.
Exception Text	Exception error text.

Table 12-18. The Accrue Training Experience Fields Table

12.6.9 Wage Rate Exceptions

The Potential Wage Rate Variance window reports any potential wage rate variances found in the Contractor Payrolls. After the contractor payroll has successfully been uploaded to the server, this report is automatically queued for execution. The system highlights any potential wage rate deficiencies in an exception report. The report uses the applicable Contract Wage Decisions specified at contract setup. The payroll rate is compared with the value defined in the wage decision table for each matching classification.

If multiple wage decisions are associated to the contract, the comparison is made using the greatest wage rate. If a Payroll rate is found to be less than a Wage Decision rate, the applicable data is added to an exception report. Classifications that do not exist in the contracts associated Wage Decision(s) are also reported on the exception report.

This report selects records for the latest payroll date in contractor payroll, and checks the validity of the contractor payroll record (i.e., contract ID, Vendor ID, SSN). The report includes the following exceptions:

- Wage plus Fringe Rate is less than Wage Decision Wage Rate

- Overtime Rate is less than 1.5 times the Wage Decision Wage Rate

- Job Classification/Group is not found in Contracts associated Wage Decisions

The exception report is generated and saved as a .PSR file. Each exception includes the Contract ID, Vendor ID, SSN/SIN, Employee Name, Program Type, Classification, Classification Group, Wage Decision ID, Wage Decision County Minimum Wage/Fringe Rate, Payroll Wage/Fringe Rate, Straight Hours, Overtime Rate, and Exception Text. Users receive an in-box message that the report is available.

The **Wage Rate Exceptions Report** is system-generated and in view-only mode.

Field Name	Description
Contract ID	The transportation agency-defined ID for the contract. Corresponds to the Contract ID assigned in Preconstruction or LAS software or is, generally, the contract transportation agency-defined ID for a proposal generated from a preconstruction system.
Vendor ID	Unique transportation agency-defined ID for a Vendor. Generally the company's Federal Tax ID.
Period End Date	The Payroll process date
SSN/SIN	The Social Security Number or transportation agency-defined ID for the individual.
Employee Name	Employee Name.
Program Class	The transportation agency-defined ID for a job classification. Examples include AGC, Union, Journeyman, etc.
Group	Specifies the subgroup within the job classification. Examples include Carpenter, Electrician, Blaster, Laborer, etc.
Wage Decision ID	Wage Decision ID.
Wage Decision/ County	Identifies the County for this wage decision.
Wage Decision/Rate	Recommended Wage Rate for job classification by the Department of Labor; Specified in the Wage Decision
Wage Decision/Fringe Rate	Employee fringe benefit rate. Specified in the Wage Decision
Payroll / Rate	Recommended wage rate for job classification by the Department of Labor, specified in the Payroll.
Payroll / Fringe Rate	Employee fringe benefit rate, specified in the Payroll.
Regular Hours	The number of regular pay hours worked for the time period.
Overtime Hours	The number of overtime pay hours worked for the time period.
Overtime Rate	Overtime wage rate.
Exception Text	Exception error text.

Table 12-19. The Wage Rate Exceptions Report Fields Table

13. Materials Management

13.1 Overview
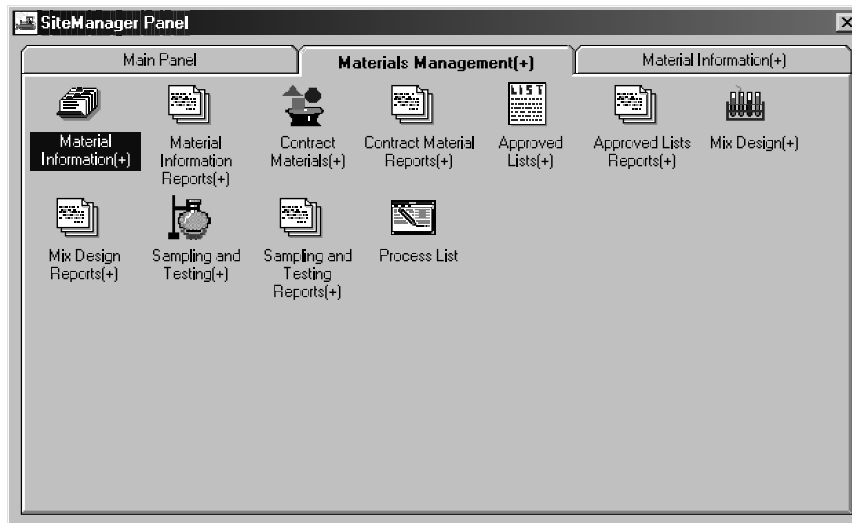
Figure **13**-**1**. The Materials Management Panel

To perform Materials Management activities:

1. On the **Main Panel**, double-click the **Materials Management** icon.

2. Double-click the icon of the desired Materials Management component.

13.2 Materials Management Reports

There are several report activities that are common among Materials Management reports.

The following is a list of the most common activates used by the Materials Management reports:

- Generate a report

- Report options

- Saving and exporting simple reports

- View Saved Reports (PSR)

13.2.1 Generate a Report

To generate a report:

1. Select the **Reports** icon for the desired Material Management activity on the **Materials Management** panel.

2. Double-click the icon for the desired report.

3. Select the option for the desired format

   ▪ By Summary (selects all items)

   ▪ By Criteria (field name) selects an individual field.

   a) If you select By Criteria, click the field using the right mouse button.

   b) Perform a **Search** using the object menu (referenced in the Getting Started section).

   c) Click **OK**.

4. To generate the report online, click **OK**.

5. To generate the report to a file, select the **Generate Off-line File** check box (ON) and click **OK**.

6. To generate and print the report, select the **Generate Off-line Print** check box (ON) and click **OK**.

13.3 Materials

Materials and their associated sampling and testing requirements are maintained using the components of the Materials information panel.

The Material Information Reports panel generates commonly used material information reports. Also note that Sampling and Testing Requirements reports can be accessed from the Sampling and Testing Reports panel. See Section 13.2, Material Management Reports, for more information.

To access the Material Information panel:

1. On the **Materials Management** panel, double-click the **Material Information** icon.
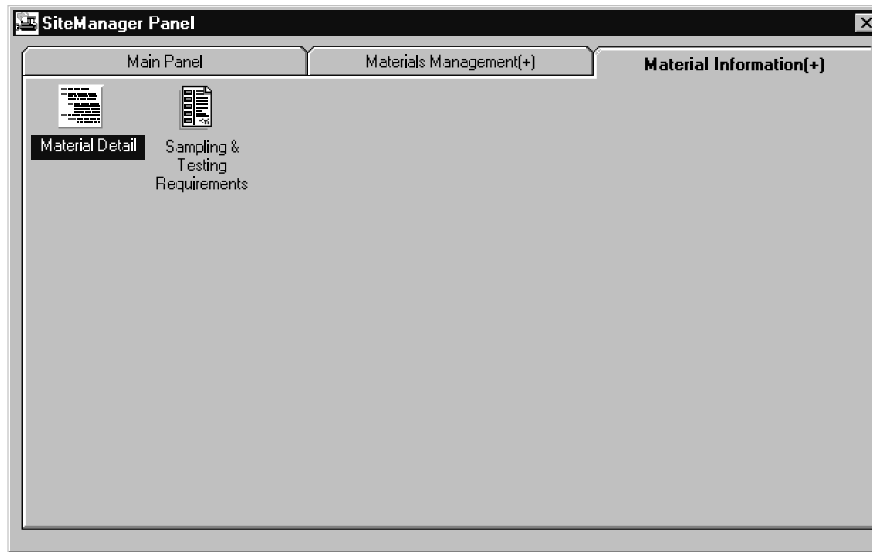
Figure 13-2. The Material Information Panel

13.3.1 Materials Inventory

Material inventory is maintained using the Material Detail icon.

To maintain material inventory:

1. On the **Material Information** panel, double-click the **Material Detail** icon.
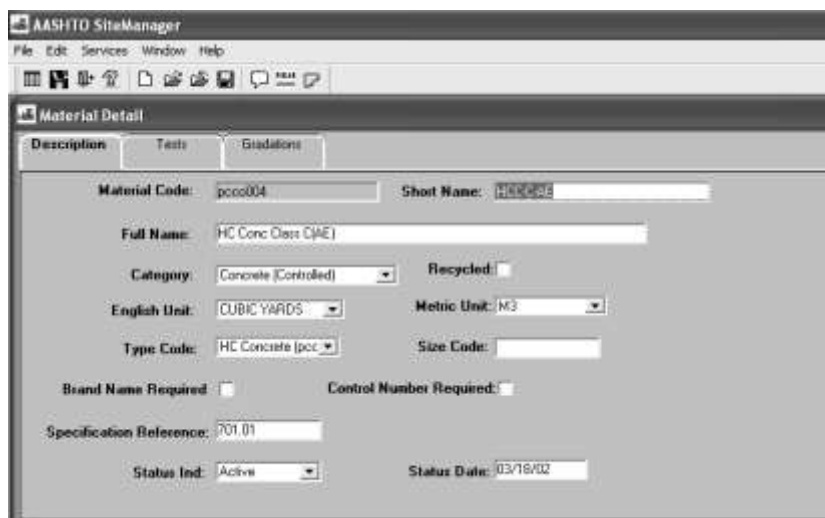
Figure 13-3. The Material Detail Window - Description Folder Tab

Material Description Folder Tab

The Material Description tab allows for the addition and modification of standard material inventory information. It captures all of the base material information. The information on this tab is used for material validations throughout other portions of SiteManager, including approved lists, mix designs, and sampling and testing.

> 📄 **Note:** The Default Unit and Optional Unit on the Material table to correspond to the name changes done during the AASHTOWare Project SiteManager Sampling and Testing Requirement Enhancement project (English Unit and Metric Unit correspondingly).

> 📄 **Note:** The Attachments functionality is available on the Description and Tests tab in the Material Detail window.

The Attachment icon will appear with a paperclip if attachments are associated with the record in the currently opened window.

The Attachment icon will appear without a paperclip if there are no attachments associated with the record in the currently opened window.

Field Name	Description
Material Code	The material's unique identifier. This field is required.
Short Name	Abbreviated description of a material. This field is required.
Full Name	Full description of a material. This field is required.
Category	Classification type of the material (e.g., Aggregates, Admixtures, Reinforcing Steel, etc.). This field is required.
Recycled	Indicates if the material is recycled.
English Unit	The default unit of measure for the material (e.g., feet, inches, or yards). This field is required.
Metric Unit	The optional unit of measure for the material (e.g., feet, inches, or yards).
Type Code	Freeform field for the further definition of the material.
Size Code	Freeform field for the further definition of the material.

Field Name	Description
Brand Name Required	Indicates if a brand name must be supplied when sampling the material.
Control Number Required	Indicates if a control number must be supplied when sampling the material.
Specification Reference	The material test specification number.
Status Ind	Indicates if the material is active or inactive. Inactive indicates the material is no longer in use. Defaults to Active.
Status Date	System captured date when the status was last changed. Defaults to current date for new records.

Table 13-1. The Material Description Fields Table

To add a new material description:

On the **Material Information** panel, double-click the **Material Detail** icon.

On the **Description** folder tab in the **Material Code** field, type the unique identifier for the material.

Press the **Tab** key.

In the **Short Name** field, type the short name for the material.

Press the **Tab** key.

In the **Full Name** field, type the full name for the material.

Press the **Tab** key.

In the **Category** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

Press the **Tab** key.

If recycled, click the **Recycled** check box (ON).

In the **English Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

In the **Metric Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

In the **Type Code** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

Press the **Tab** key.

In the **Size Code** field, type the size code.

Press the **Tab** key.

If brand name is required, click the **Brand Name Required** check box (ON).

If a control number is required, click the **Control Number Required** check box (ON).

Press the **Tab** key.

In the **Specification Reference** field, type the material test specification number, if applicable.

In the **Status Ind** drop-down list, click the expand arrow to the right of the current selection and click the **Active** or **Inactive**.

Press the **Tab** key.

In the **Status Date** field, type the date the material becomes effective.

When complete, click the **Save** button.

To modify a material description:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired material code.

4. Click **OK.**

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired changes.

7. When complete, click the **Save** button.

Material Tests Folder Tab

The Materials Test tab allows the user to add, modify, and delete specific tests that can be performed on a material. Identification of the tests is completed by selecting from a list of tests defined by the department. This information is used to provide a list of valid tests for a material when performing the Sampling and Testing processes.
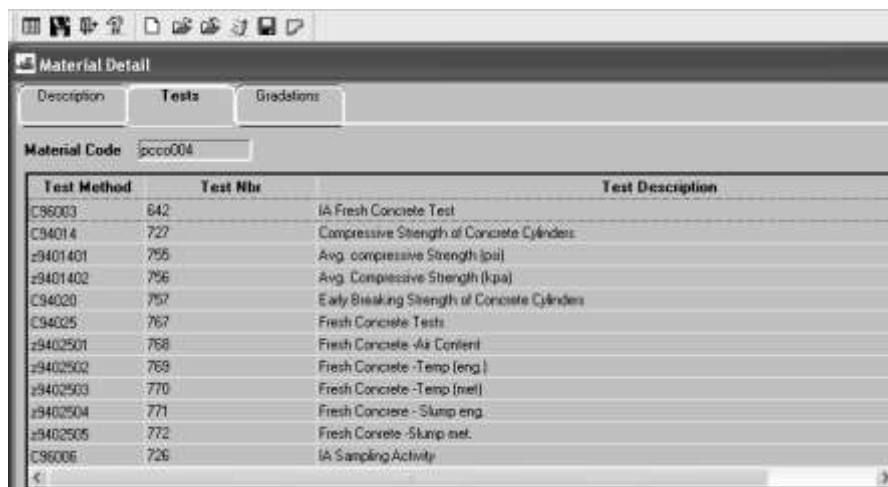
Figure 13-4. The Material Detail Window - Test Folder Tab

Field Name	Description
Test Method	The AASHTO unique ID of a test. This field is required.
Test Number	The SiteManager number used to identify the test window on which the test result information is recorded.
Test Description	The AASHTO description of the test.

Table 13-2. The Tests Folder Tab Fields Table

To add a new material test:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Add a material description.

3. Click the **Tests** folder tab.

4. Click the **New** button.

5. In the list box, scroll to and click the desired material test.

6. Click **OK.**

7. Repeat steps 2-4 until all tests are added

8. When complete, click the **Save** button.

To delete a material test:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a **material** description.

3. Click the **Tests** folder tab.

4. Click the desired **material test**.

5. Click the **Delete** button.

6. Click the **Yes** button.

7. Click the **Save** button.

If a user attempts to delete a test that has material specifications, the user will receive a delete confirmation message. If the deletion is confirmed, the specifications will be deleted with the test method.
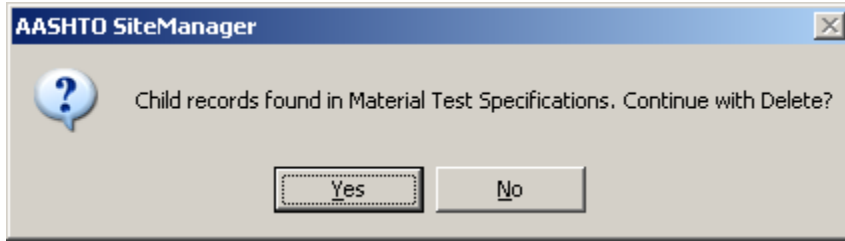
Figure 13-5. The Test Method Delete Confirmation Message

If a user attempts to delete a test that has sampling and testing requirements and/or contract sampling and testing requirements, the test cannot be deleted until all the associated requirements are deleted.
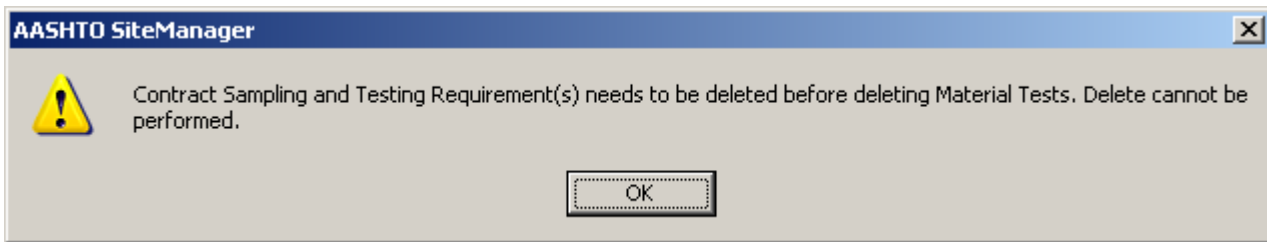
Figure 13-6. The Test Method Delete Warning Message
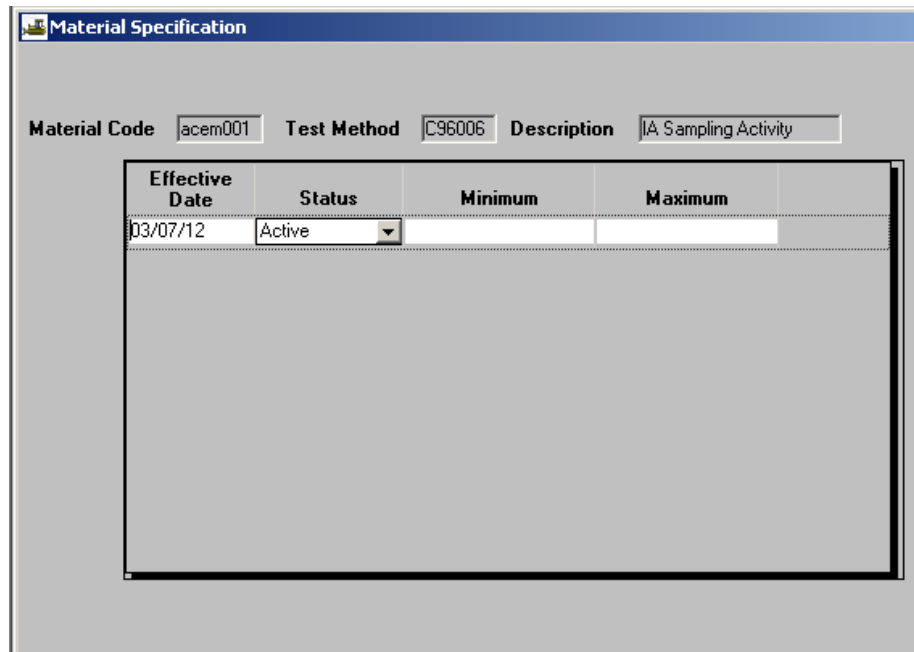
Figure 13-7. The Generic Material Test Specification Window

Material Test Specifications

The Material Test Specifications window allows for the addition and modification of material test specifications. These specifications may be either numeric or alphanumeric and have no validation performed against them. This information gives detail limits to values acceptable by the individual tests specified for a material. Since this material specification can change over time, the specification is maintained by effective date. The data from this window is used during the sampling and testing processes to compare tests results. A material can have one set of test specifications per effective date. However, a separate material code could be created for a different mix. There are thirty standardized test specifications and one free form described in the following table. All test methods may have specifications except for the Free Form Test.

The SiteManager System Administrator has a material template that can be used to define test specifications unique to your transportation agency. If you find a test method not listed in this table, it has probably been defined by the SiteManager System Administrator for your transportation agency.

Field Name	Description
Test Method	Method used for testing the material.
Test Description	Text description of the test.
Effective Date	The date the test specification becomes effective.
Minimum	Beginning value for the specification limit.
Maximum	Ending value for the specification limit.
Status	Indicates if the material or source is active or inactive. Indicates if the material is active or inactive. Defaults to Active.

Table 13-3. The Generic Material Test Specification Table

Test Method(s)	Test Number	Test Name
T11, T27	1	Sieve Analysis of Aggregates
T84, T85	2	Specific Gravity of Coarse and Fine Aggregates
T22, T119, T121, T152, T196	3	Portland Cement Concrete Tests

Test Method(s)	Test Number	Test Name
T269, T287, T164, T283, T246, T245	4	HBP Mix Testing
T88	5	Particle Size Analysis of Soils
T100	6	Specific Gravity of Soils
T96	7	Los Angeles Machine Testing
T99, T180	8	Moisture-Density Relations of Soils
T104	9	Sodium or Magnesium Sulfate Soundness
T44, T48, T49, T49A, T179, T201, T202, T228, T304	10	AASHTO M226 Binder Specification
T176, D4791, D5821	11	Sand Equivalent
T255	12	Total Moisture Content of Aggregate by Drying
T265	13	Moisture Content
T19	14	Unit Weight and Voids
T59, T59H	15	Testing Emulsified Asphalt
T208	16	Unconfined Compression Strength
D2487, T89, T90, M145	17	ASTM Soil Classification
T106, T137, T153	18	Portland Cement Physical Tests
D4867	19	Moisture Damage to Bituminous Mixes
T112	20	Clay Lumps and Friable Particles in Aggregate
T155	21	Water Retention by Concrete Curing Materials

Test Method(s)	Test Number	Test Name
T51	22	Ductility of Bituminous Materials
T238, T239	23	Nuclear Density Test
T267	24	Organic Content in Soils
T78	25	Distillation of Cutback Asphalt Products
T244	26	Reinforcing Steel
T161	27	PCC Freeze-Thaw Cycling
T190	28	R-Value and Expansion Pressure of Compacted Soils
T107, T129, T154	29	Hydraulic Cement Test
N/A	30	Free Form Test
T166, T209, T269A	31	Core Density
T30	32	Mechanical Analysis of Extracted Aggregate
T228PG, T240, T48PG, TP1, TP5, TP48	33	Performance Grade Asphalt

Table 13-4. The Standardized Material Test Specifications Table

To add a new material test specification using the generic specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Add or open a **material description**.

3. Click the **Tests** folder tab.

4. Click the **New** button.

5. In the list box, scroll to and click the desired **material test**.

6. Click **OK**.

7. Click the **Save** button.

8. Click the **Services** menu and click the **Material Specifications** choice.

9. Click the **New** button.

10. In the **Effective Date** field, type the effective date of the test specification if different than the current date.

11. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click **Active** or **Inactive**.

12. Press the **Tab** key.

13. In the **Minimum** field, type the minimum value.

14. Press the **Tab** key.

15. In the **Maximum** field, type the **maximum value**.

16. When complete, click the **Save** button.

To modify a material test specification that used the generic specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a **material description**.

3. Click the **Tests** folder tab.

4. Click the desired test (except one of the standardized tests).

5. Click the **Services** menu and click the **Material Specifications** choice.

6. Press the **Tab** key to advance to the field to be modified.

7. Enter the desired change.

8. When complete, click the **Save** button.

▤   **Note:** If a user attempts to delete a material's test method that has specifications, the user will receive a delete confirmation message. If the deletion is confirmed, the specifications will be deleted with the test method.

Figure 13-8. The Steel Reinforcement Specification

Steel Reinforcement Test Specification

The Steel Reinforcement Specification window allows the attachment of Steel Reinforcement test specifications to a material and the entry of acceptable values for a material.

Field Name	Description
Size	The size of the reinforcing steel.
Effective Date	The date the test specification becomes effective.
Status	Indicates if the test is active or inactive. Indicates if the material is active or inactive. Status defaults to active.
Grade	Indicates the current grade of the reinforcing steel
Phosphorus Content, % Maximum	Maximum value for the specification limit of Phosphorus Content Percent.
Tensile Strength Minimum	Minimum value for the specification limit of Tensile Strength.

Field Name	Description
Tensile Strength Unit Type	The units in which Tensile Strength is measured (e.g., min, PSI, or min, Mpa).
Yield Strength - Minimum	Minimum value for the specification limit of Yield Strength.
Yield Strength Unit Type	The units in which Yield Strength is measured (e.g., min, PSI, or min, Mpa).
Elongation in 200mm, % - Minimum	Minimum value for the specification limit of Elongation Percent.
Elongation Unit Type	The units in which Elongation is measured (e.g., 8 inches, min, % or 200 mm, min, %).
Permissible variation in mass (underweight) % - Maximum	Maximum value for the specification limit of Actual Weight

Table 13-5. The Steel Reinforcement Specification Fields Table

To add a new test specification using the steel reinforcement specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Add or open a **material description**.

3. Click the **Tests** folder tab.

4. Click the **New** button.

5. In the list box, scroll to and click the **T244** test method.

6. Click **OK**.

7. Click the **Save** button.

8. Click the **Services** menu and click the **Material Specifications** choice.

9. Click the **New** button.

10. In the **Size** field, type the size entry.

11. Press the **Tab** key.

12. The **Effective Date** defaults to the current date.

13. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click **Active** or **Inactive**.

14. Press the **Tab** key.

15. In the **Grade** field, type the grade entry.

16. Press the **Tab** key.

17. In the **Phosphorus Content, % Maximum** field, type the maximum value.

18. Press the **Tab** key.

19. In the **Tensile Strength Minimum** field, type the minimum value.

20. In the **Unit Type** drop-down list, click the expand arrow to the right of the current selection and click the desired entry.

21. Press the **Tab** key.

22. In the **Yield Strength - Minimum** field, type the minimum value.

23. Press the **Tab** key.

24. In the **Unit Type** drop-down list, click the expand arrow to the right of the current selection and click the desired entry.

25. Press the **Tab** key.

26. In the **Elongation in 200mm, % - Minimum** field, type the minimum value.

27. In the **Unit Type** drop-down list, click the expand arrow to the right of the current selection and click the desired entry.

28. Press the **Tab** key.

29. In the **Permissible variation in mass (underweight) % - Maximum** field, type the maximum value.

30. Click the **Save** button.

To modify a test specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a material description.

3. Click the **Tests** folder tab.

4. Click the **T244** test.

5. Click the **Services** menu and click the **Material Specifications** choice.

6. Press the **Tab** key to advance to the field to be modified.

7. Enter the desired change.

8. When complete, click the **Save** button.

Portland Cement Physical Test Specifications

The test specifications for Portland Cement, Test T106, T137, and T153, have three folder tabs for the entry of the test specifications. The three folder tabs allows for attachment of Portland Cement specification to a material and the entry of acceptable values. The three folder tabs are:

- Blaine Specific Surface

- Comprehensive Strength

- Air Content
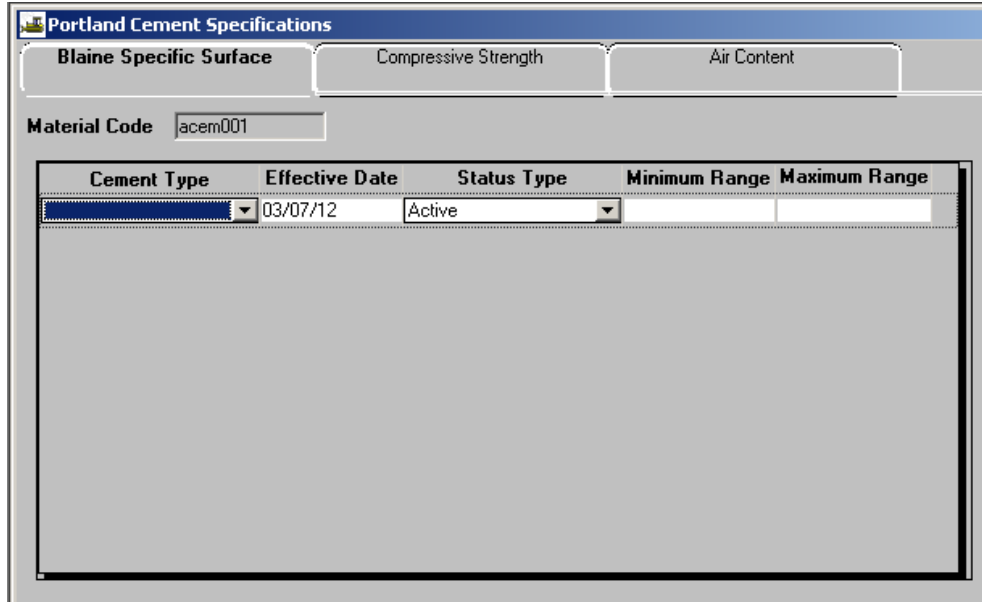
Figure 13-9. The Portland Cement Blaine Specific Surface Specification Folder Tab

Field Name	Description
Cement Type	The type of cement (e.g., Type I, Type II, etc).
Effective Date	The date the test specification becomes effective.
Status	Indicates if the test is active or inactive.
Minimum	Beginning value for the specification limit. Enter **N/A** if not applicable.
Maximum	Ending value for the specification limit. Enter **N/A** if not applicable.

Table 13-6. The Portland Cement Blaine Specific Surface Specification Fields Table

Figure 13-10. The Portland Cement Compressive Strength Specification Folder Tab

Field Name	Description
Cement Type	The type of cement (e.g., Type I, Type II, etc.).
Effective Date	The date the test specification becomes effective.
Status	Indicates if the specification is active or inactive.
1 Day	Specification basis for the 1 day test value.
3 Day	Specification basis for the 3 day test value.
7 Day	Specification basis for the 7 day test value.
28 Day	Specification basis for the 28 day test value.
Day	Additional day test value entered by the user.
	Specification basis for the additional day test value entered by the user.
Day	Additional day test value entered by the user.
	Specification basis for the additional day test value entered by the user.

Table 13-7. The Portland Cement Compressive Strength Specification Fields Table
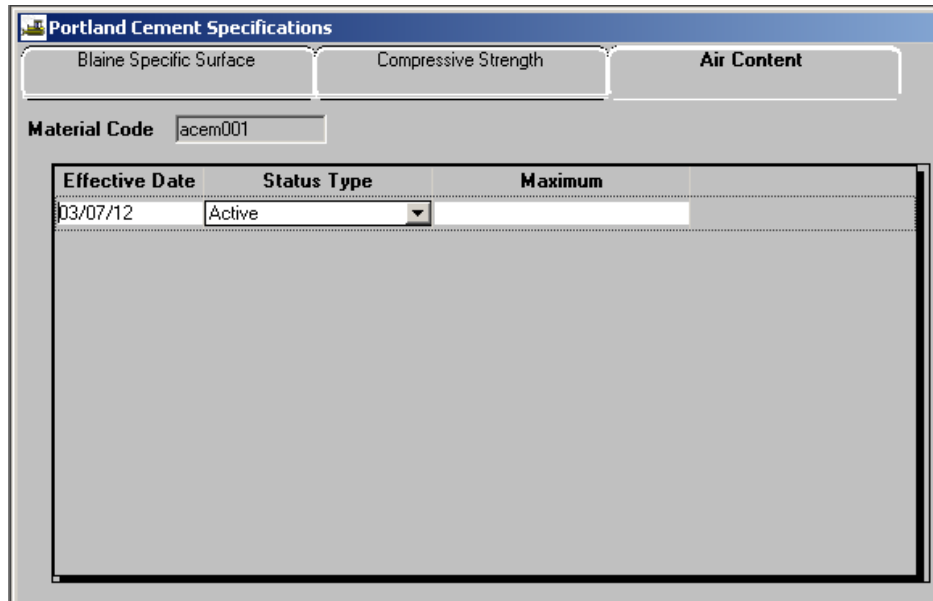
Figure 13-11. The Portland Cement Air Content Specification Window

Field Name	Description
Effective Date	The date the test specification becomes effective.
Status	Indicates if the test is active or inactive. Indicates if the material is active or inactive.
Maximum	The maximum allowable percentage for this test.

Table 13-8. The Portland Cement Air Content Specification Fields Table

To add a new test specification using the Portland Cement Physical test specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Add or open a **material** description.

3. Click the **Tests** folder tab.

4. Click the **New** button.

5. In the list box, scroll to and click the **T153**, **T137**, or **T106** test.

6. Click **OK**.

7. Click the **Save** button.

8. Click the **Services** menu and click the **Material Specifications** choice.

9. On the **Blaine Specific Surface** folder tab, click the **New** button.

10. In the **Cement Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. Press the **Tab** key.

12. In the **Effective Dat**e field, type the effective date if appropriate.

13. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click **Active** or **Inactive**.

14. Press the **Tab** key.

15. In the **Minimum** field, type the **minimum** value or **N/A**.

16. Press the **Tab** key.

17. In the **Maximum** field, type the **maximum** value or **N/A**.

18. Click the **Save** button.

19. Click the **Compressive Strength** folder tab.

20. Click the **New** button.

21. In the **Cement Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

22. Press the **Tab** key.

23. The **Effective Date** defaults to the current date. Change the value if applicable.

24. Press the **Tab** key.

25. In the **Status** drop down list, click the expand arrow to the right of the current selection and click **Active** or **Inactive**.

26. Press the **Tab** key.

27. In the **1 Day** field, type the value.

28. Press the **Tab** key.

29. In the **3 Day** field, type the value.

30. Press the **Tab** key.

31. In the **7 Day** field, type the value.

32. Press the **Tab** key.

33. In the **28 Day** field, type the value.

34. Press the **Tab** key.

35. In the **Day** field, type an additional day value.

36. Press the **Tab** key.

37. In the **value** field, type value for the preceding additional.

38. Press the **Tab** key.

39. In the **Day** field, type an additional day value.

40. Press the **Tab** key.

41. In the **value** field, type value for the preceding additional.

42. Press the **Tab** key.

43. Click the **Save** button.

44. Click the **Air Content** folder tab.

45. Click the **New** button.

46. The **Effective Date** defaults to the current date. Change the value if applicable.

47. Press the **Tab** key.

48. In the **Status** drop down list, click the expand arrow to the right of the current selection and click **Active** or **Inactive**.

49. Press the **Tab** key.

50. In the **Maximum** field, type the **maximum** value.

51. Click the **Save** button.

To modify a test specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a **material** description.

3. Click the **Tests** folder tab.

4. Click the **T153**, **T137**, or **T106** test.

5. Click the **Services** menu and click the **Material Specifications** choice.

6. Click the appropriate folder tab.

7. Press the **Tab** key to advance to the field to be modified.

8. Enter the desired change.

9. When complete, click the **Save** button.

Figure 13-12. The Distillation Cutback Asphalt Products Window

Distillation Cutback Asphalt Products Specification

The Distillation Cutback Asphalt Products allows for attachment of new Distillation of Cutback Asphalt Products specification to a material and entry of acceptable values.

Field Name	Description
Grade	The Grade classification.
Effective Date	The date the specification becomes effective.
Status	Identifies the current status of this contract item record (e.g., active or inactive). Status defaults to active.
Distillate, percentage by volume of total distillate to 360*C (680*F) - to 190*C (374*F) Minimum	Beginning value for the specification limit of Distillate Percentage, by volume of total distillate to 360*C -- to 190*C minimum range.
Distillate, percentage by volume of total distillate to 360*C (680*F) - to 225*C (437*F) Minimum	Beginning value for the specification limit of Distillate Percentage, by volume of total distillate to 360*C -- to 225*C minimum range.

Field Name	Description
Distillate, percentage by volume of total distillate to 360*C (680*F) - to 225*C (437*F) Maximum	Ending value for the specification limit of Distillate Percentage, by volume of total distillate to 360*C -- to 225*C maximum range.
Distillate, percentage by volume of total distillate to 360*C (680*F) - to 260*C (500*F) Minimum	Beginning value for the specification limit of Distillate Percentage, by volume of total distillate to 360*C -- to 260*C minimum range.
Distillate, percentage by volume of total distillate to 360*C (680*F) - to 260*C (500*F) Maximum	Ending value for the specification limit of Distillate Percentage, by volume of total distillate to 360*C -- to 260*C maximum range.
Distillate, percentage by volume of total distillate to 360*C (680*F) - to 315*C (600*F) Minimum	Beginning value for the specification limit of Distillate Percentage, by volume of total distillate to 360*C -- to 315*C minimum range.
Distillate, percentage by volume of total distillate to 360*C (680*F) - to 315*C (600*F) Maximum	Ending value for the specification limit of Distillate Percentage, by volume of total distillate to 360*C -- to 315*C maximum range.
Residue from distillation to 360*C(680*F) volume percentage of sample by difference - Minimum	Beginning value for the specification limit of Residue from distillation to 360*C volume percentage of sample by difference minimum range.
Tests on residue from distillation - Absolute viscosity at 60*C (140*F) Minimum	Beginning value for the specification limit of test on residue from distillation Absolute viscosity at 60*C minimum range.
Tests on residue from distillation - Absolute viscosity at 60*C (140*F) Maximum	Ending value for the specification limit of test on residue from distillation Absolute viscosity at 60*C maximum range.
Tests on residue from distillation - Penetration, 25*C (77*F), 100gm, 5sec Minimum	Beginning value for the specification limit of test on residue from distillation Penetration, 25*C (77*F), 100gm, 5sec minimum range.
Tests on residue from distillation - Penetration, 25*C (77*F), 100gm,5sec Maximum	Ending value for the specification limit of test on residue from distillation Penetration, 25*C (77*F), 100gm, 5sec maximum range.
Tests on residue from distillation - Ductility, 5cm/min at 25*C (77*F) Minimum	Beginning value for the specification limit of test on residue from distillation Ductility at 25* minimum range.

Field Name	Description
Solubility in Trichloroethylene, percent - Minimum	Beginning value for the specification limit of test on residue from distillation Solubility in Trichloroethylene minimum range.

Table 13-9. The Distillation Cutback Asphalt Products Specification Fields Table

To add a new test specification using the Distillation of Cutback Asphalt Products specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Add or open a material description.

3. Click the **Tests** folder tab.

4. Click the **New** button.

5. In the list box, scroll to and click the **T78** test.

6. Click **OK.**

7. Click the **Save** button.

8. Click the **Services** menu and click the **Material Specifications** choice.

9. Click the **New** button.

10. In the **Grade** field, type grade classification.

11. Press the **Tab** key.

12. The **Effective Date** field defaults to the current date. Change the date, if applicable.

13. Press the **Tab** key.

14. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the **Active** or **Inactive**.

15. Press the **Tab** key.

16. In the minimum or maximum field, type appropriate value.

17. Press the **Tab** key.

18. Repeat steps 10 and 11 until all specification values are complete.

19. When complete, click the **Save** button.

To modify a test specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a material description.

3. Click the **Tests** folder tab.

4. Click the **T78** test.

5. Click the **Services** menu and click the **Material Specifications** choice.

6. Press the **Tab** key to advance to the field to be modified.

7. Enter the desired change.

8. When complete, click the **Save** button.

Emulsified Asphalt Specification

This three folder tabs of this window allow a new Emulsified Asphalt specification to be attached to a material and the entry of acceptable values. The three folder tabs are:

- Emulsions

- Residue

- Coating

Figure 13-13. The Emulsions Folder Tab of the Emulsified Asphalt Test Specification Window

Figure 13-14. The Residue Folder Tab

Figure 13-15. The Coating Folder Tab

Field Name	Description
Type	The type of cement.
Grade	The Grade Classification.
Effective Date	The date the specification becomes effective.
Status	Identifies the current status of this contract item record (e.g., active or inactive). Status defaults to active.
Viscosity, Saybolt Furol at 25*C (77*F), s. Minimum	Beginning value for the specification limit of Viscosity, Saybolt Furol at 25*C (77*F), s.
Viscosity, Saybolt Furol at 25*C (77*F), s. Maximum	Ending value for the specification limit of Viscosity, Saybolt Furol at 25*C (77*F), s.
Viscosity, Saybolt Furol at 50*C (122*F), s. Minimum	Beginning value for the specification limit of Viscosity, Saybolt Furol at 50*C (122*F), s.
Viscosity, Saybolt Furol at 50*C (122*F), s. Maximum	Ending value for the specification limit of Viscosity, Saybolt Furol at 50*C (122*F), s.
Sieve test, % Maximum	Ending value for the specification limit of Sieve test
Storage stability test, 24 h %. Maximum	Ending value for the specification limit of Storage stability test, 24 h, %.

Field Name	Description
Cement mixing test, % Maximum	Ending value for the specification limit of Cement mixing test.
Demulsibility, 35mL, 0.02 N Cacl$_2$, % Minimum	Beginning value for the specification limit of Demulsibility, 35mL, 0.02 N Cacl$_2$.
Demulsibility, 35mL, 0.8% sodium dioctyl sulfosuccinate, % Minimum	Beginning value for the specification limit of Demulsibility, 35mL, 0.8% sodium dioctyl sulfosuccinate.
Oil distillate, by volume of emulsion, % Maximum	Ending value for the specification limit of Oil distillate, by volume of emulsion.
Residue by distillation, % Minimum	Beginning value for the specification limit of Residue by distillation.
Tests on residue from distillation tests - Penetration, 25*C (77*F), 100 g, 5 s Minimum	Beginning value for the specification limit of distillation residue penetration, 25*C (77*F), 100 g, 5 s.
Tests on residue from distillation tests - Penetration, 25*C (77*F), 100 g, 5 s Maximum	Ending value for the specification limit of distillation residue penetration, 25*C (77*F), 100 g, 5 s.
Tests on residue from distillation tests - Ductility, 25*C (77*F), 50 mm/min, mm Minimum	This is the minimum allowable value of the ductility residue from distillation, 25*C, 50 mm/min, mm.
Tests on residue from distillation tests - Solubility in trichlorethylene, % Minimum	Beginning value for the specification limit of distillation residue Solubility in Trichlorethylene.
Float Test, 60*C (140*F), s Minimum	Beginning value for the specification limit of Float Test 60*C (140*F).
Float Test, 60*C (140*F), s Maximum	Beginning value for the specification limit of Float Test 60*C (140*F).
Coating ability and water resistance - coating, dry aggregate	Value for the specification limit of Coating ability and water resistance, coating, dry aggregate.
Coating ability and water resistance - coating, after spraying	Value for the specification limit of Coating ability and water resistance, coating, dry aggregate after spraying.
Coating ability and water resistance - coating, wet aggregate	Value for the specification limit of Coating ability and water resistance, coating, wet aggregate.

Field Name	Description
Coating ability and water resistance - coating, after spraying	Value for the specification limit of Coating ability and water resistance, coating, wet aggregate after spraying.
Particle charge test	The kind of charge is present.

Table 13-10. The Emulsified Asphalt Specification Fields Table

To add a new test specification using the Emulsified Asphalt specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Add or open a material description.

3. Click the **Tests** folder tab.

4. Click the **New** button.

5. In the list box, scroll to and click the **T59** test.

6. Click **OK**.

7. Click the **Save** button.

8. Click the **Services** menu and click the **Material Specifications** choice.

9. Click the **New** button.

10. In the **Grade** field, type **grade classification**.

11. Press the **Tab** key.

12. The **Effective Date** field defaults to the current date. Change the value, if applicable.

13. Press the **Tab** key.

14. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the **Active** or **Inactive**.

15. Press the **Tab** key.

16. In the **minimum** or **maximum** field, type the appropriate value.

17. Press the **Tab** key.

18. Repeat steps 14-15 until all specification values are complete.

19. Click the **Save** button.

> 🗋   **Note:** Unlike many folder tabs that require the tab's information to be saved before navigating to the next tab, each tab does not require that the information to be saved, but it is a good habit to do so anyway.

20. Click the **Residue** folder tab.

21. In the **minimum** or **maximum** field, type the appropriate value.

22. Press the **Tab** key.

23. Repeat steps 18-19 until all specification values are complete.

24. Click the **Save** button.

25. Click the **Coating** folder tab.

26. In the drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

27. Repeat steps 23 until all specification values are complete.

28. Click the **Save** button.

To modify a test specification:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a material description.

3. Click the **Tests** folder tab.

4. On the **Test** folder tab, click the **T59** test.

5. Click the **Services** menu and click the **Material Specifications** choice.

6. Click the correct test specification.

7. Click **OK.**

8. Press the **Tab** key to advance to the field to be modified.

9. Enter the desired change.

10. When complete, click the **Save** button.

Material Gradations Folder Tab

The Material Gradations window is used to add, copy, or modify material gradations. Since the material gradations can change over time, the gradations are maintained by effective date. This window details the gradations limits of passing percentages for a material through a sieve window. The gradations may be either numeric or alphanumeric. This data from this window is used for validation and information by the Mix Design and Sampling and Testing functions of SiteManager.
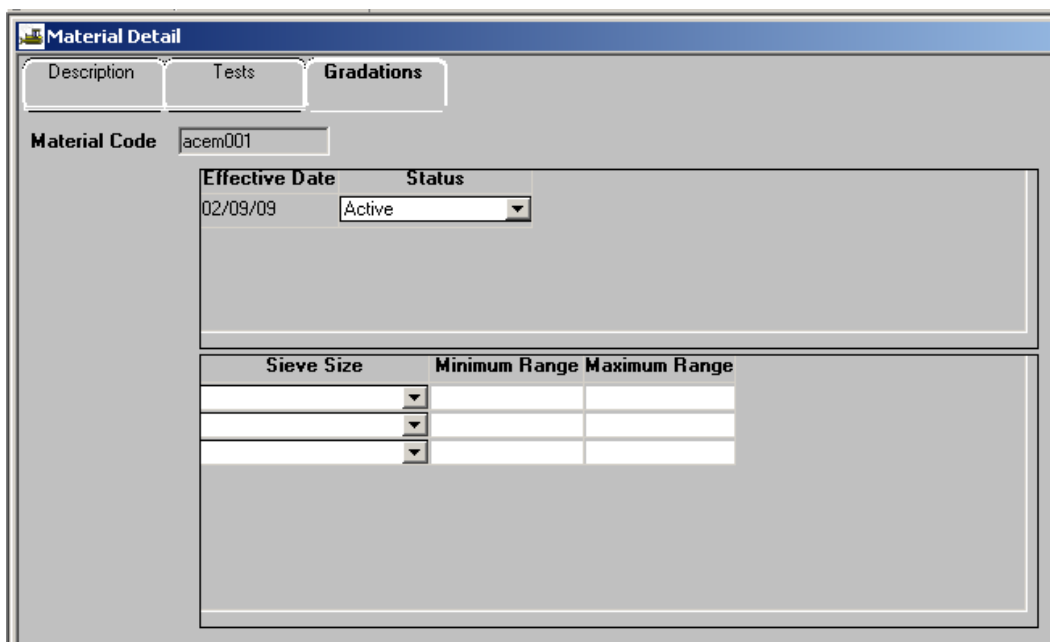
Figure 13-16. The Materials Gradations Folder Tab

Field Name	Description
Effective Date	The date the gradation becomes effective. Defaults to current date when a new set of material gradations are created or

Field Name	Description
	copied
Status	Identifies the current status of this contract item record (e.g., active or inactive). Status defaults to active.
Sieve Size	AASHTO and ASTM standard sieve sizes (i.e., 1/2, # 4, etc.) Sieve size required when Minimum or Maximum entered.
Minimum Range	Beginning value for the gradation limit.
Maximum Range	Ending value for the gradation limit (must be greater than minimum range value).

Table 13-11. The Material Gradations Fields Table

For material gradations:

- A maximum of 25 sieve sizes can exist for a material.

- At least one sieve size row must exist for an effective date.

- More than one set of material gradations can have an active status.

- Sieve sizes will be displayed in the order in which they are entered. For each sieve size row, MATL_GRDN_SN will correspond to the line number on the window.

- An entire set of material gradations cannot be deleted. The status of the gradation should be changed to Inactive to reflect that the gradation is not longer being used.

To add a new set of material gradations:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Add a material description.

3. Click the **Gradations** folder tab.

4. Click the upper data window.

5. Click the **New** button.

6. The **Effective Date** field defaults to the current date.

7. The **Status** field defaults to Active.

8. Click the lower data window.

9. Click the **New** button.

10. In the **Sieve Size** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. Press the **Tab** key.

12. In the **Minimum Range** field, type appropriate value.

13. Press the **Tab** key.

14. In the **Maximum Range** field, type appropriate value.

15. Click the **Save** button.

16. Repeat steps 6-13 until all gradations are defined.

To modify a material gradation:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a material description.

3. Click the **Gradations** folder tab.

4. In the upper data window, click the correct material gradation effective date.

5. Click a sieve size row.

6. Enter the desired changes.

7. Click the **Save** button.

To add a sieve size:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a material description.

3. Click the **Gradations** folder tab.

4. Select the correct material gradation effective date.

5. Click on the sieve sizes portion of the record.

6. Click the **New** button.

7. In the **Sieve Size** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. Press the **Tab** key.

9. In the **Minimum Range** field, type appropriate value.

10. Press the **Tab** key.

11. In the **Maximum Range** field, type appropriate value.

12. Click the **Save** button.

To delete a sieve size:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a material description.

3. Click the **Gradations** folder tab.

4. In the upper data window, click the correct material gradation effective date.

5. Click a sieve size row.

6. Click the **Delete** button.

7. Click the **Yes** button.

8. When complete, click the **Save** button.

To copy a material gradation:

1. On the **Material Information** panel, double-click the **Material Detail** icon.

2. Open a material description.

3. Click the **Gradations** folder tab.

4. Select the correct material gradation effective date to copy from.

5. Click the **Services** menu and click the **Copy Gradations** choice.

6. The **Effective Date** field defaults to the current date.

7. The **Status** field defaults to Active.

8. Modify any of the fields appropriately.

9. When complete, click the **Save** button.

13.3.2 Sampling and Testing Requirements

The Sampling and Testing Requirements window can be accessed from two panels:

▪   Material Information or

▪   Sampling and Testing.

The Sampling and Testing Requirements window allows the identification of materials for a bid item and the specification of a minimum sampling and testing requirements guide. It is used to identify the minimum frequency, responsibilities, sample size, and/or unit for the sampling and testing of a material for a bid item. SiteManager uses this data as a guideline for the entry of new contracts.

Materials Folder Tab

The Materials Folder tab has three data windows. The top data window allows the user to select a Bid Item. The second data window displays all materials associated to the Bid Item. The third data window displays the material detail for the row highlighted in the second data window. The Materials folder tab allows the specification of the conversion factor and approved source required indicator for all associated materials on a bid item. If necessary, the Material can also be viewed from this window.

Field Name	Description
Item	Code for the bid item (from the Item Master).
Spec Year	Spec Year for the bid item.
Item System Unit	This field indicates whether the units of measure are English or Metric.
Item Unit	The item's units of measure.
Material Code	The ID for a material.
Conversion Factor	This is used by the required samples calculation to convert current quantity to required quantity.
Approved Source Indicator	This indicates whether or not an approved source must be used here.
Special Instructions	This is the special instruction for the material on the contract. The value, if any, will be passed from the Material Sampling and Testing Requirements window.

Table 13-12. The Materials Window Fields Table
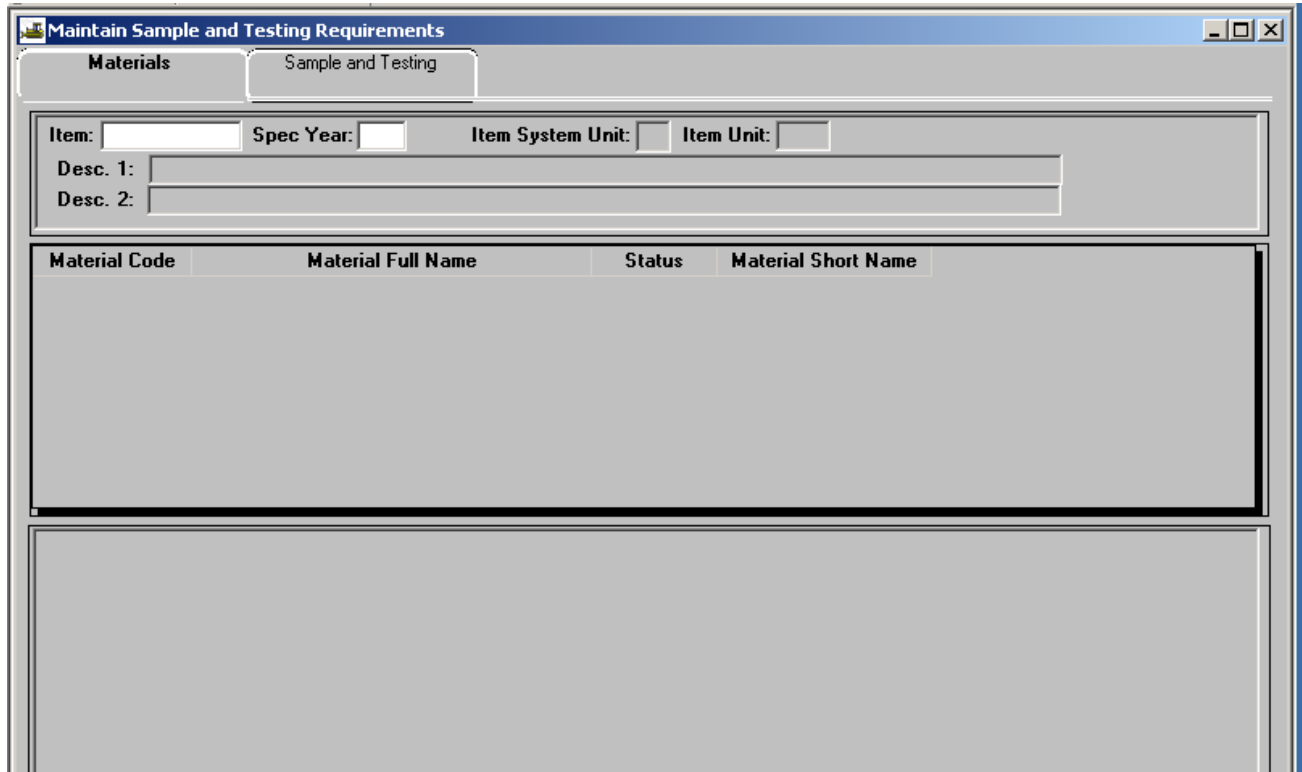
Figure 13-17. The Material Folder Tab

To add material code for a bid item:

1. On the **Materials Information** or **Sampling and Testing** panel, double-click the **Sampling and Testing Requirements** icon.

2. Click the **Item** field and perform a **Search**.

3. Scroll to and click the desired item and spec year combination.

4. Click **OK**.

5. Change focus to the lower data window by clicking anywhere in the lower data window.

6. Click the **New** icon. This action opens the third data window in input mode.

7. Using the right mouse button, click the **Material Code** field.

8. Perform a **Search** using the object menu (referenced in the Getting Started section).

9. Click **OK**.

10. Press the **Tab** key.

11. In the **Conversion Factor** field, enter desired value.

12. If desired, click the **Approved Source Require** check box (ON).

13. If desired, click the **Special Instruction** field and enter desired data.

14. Click the **Save** button.

To modify a material code for a bid item:

1. On the **Materials Information** or **Sampling and Testing** panel, double-click the Sampling and Testing Requirements icon.

2. Click the **Open** button.

3. In the **Item** list box, scroll to and double-click the desired choice.

4. Click **OK**.

5. Change focus to the second data window and highlight the desired Material. The third data window is open for modifications.

6. In the **Conversion Factor** field, type desired value.

7. If desired, click the **Approved Source Require** check box (ON).

8. If desired, click the **Special Instruction** field and enter desired data.

9. Click the **Save** button.

To view the material:

1. On the **Materials Information** or **Sampling and Testing** panel, double-click the **Sampling and Testing Requirements** icon.

2. Highlight a material in the second data window.

3. Click the **Services** menu and click the **View Material** choice.

4. When complete, click the **Close** button.

Materials Copy Capabilities

The Materials folder tab has two unusual copy capabilities. The Service menu's Copy Records choice allows the user to copy the sampling and testing requirements of an item's material to a new material for the same item, but only if the sampling and testing requirements are applicable for the material. Also, the sampling and testing requirements of an item's material cannot be copied to another material that is already associated to the bid item.

The Service menu's Copy Item Records capability allows the user to copy the materials of an item (and their sampling and testing requirements) to another item.

To copy the material records:

1. On the **Materials Information** or **Sampling and Testing** panel, double-click the **Sampling and Testing Requirements** icon.

2. Highlight the item's material.

3. Click the **Services** menu and click the **Copy Records** choice.

4. Using the right mouse button, click the **Material** field.

5. In the list box, scroll to and click the desired material

6. Click **OK**.

To copy the material item records:

1. On the **Materials Information** or **Sampling and Testing** panel, double-click the **Sampling and Testing Requirements** icon.

2. Highlight a material.

3. Click the **Services** menu and click the **Copy Item Records** choice.

4. In the list box, scroll to and click the item choice.

5. Click **OK**.

Figure **13-18**. The Sampling and Testing Folder Tab

Sampling and Testing Folder Tab

The Sampling and Testing tab allows the modification of a materials sample and testing information for a given bid item.

Field Name	Description
Producer/Supplier Name	The name of the producer/supplier.
Sample Type	Identifies the type of the test begin performed (e.g., acceptance, job control, manufacturers, certification, visual, etc.) This field may be optional, based on System Operational Parameters.
Acceptance Method	Identifies how the material will be accepted on the contract (e.g., manufacturer certification, brand name, etc.) This field may be optional, based on System Operational Parameters.

Field Name	Description
Test Method	Method used for testing the material (e.g., T11, T27, T84, etc.) This field may be optional, based on System Operational Parameters.
Producer/Supplier Code	The Producer/Supplier ID
Sample Location	The area where the sample is collected (e.g., roadside, plant, truck, stockpile, etc.)
Sample Frequency	The rate at which a sample must be collected.
Sample Size	The size of the sample.
Sample Unit	The unit of measure for a sample (e.g., mm, feet, yards, inches)
Sample Responsibility	A Transportation agency-defined value identifying the level responsible for taking the sample (e.g., project engineer, inspector, central test lab, etc.)
Test Responsibility	A Transportation agency-defined value identifying the entity responsible for processing the test (e.g., local test lab, central test lab, etc.)

Table 13-13. The Sampling and Testing Fields Table

To add sampling and testing requirements to the material for a bid item:

1. On the **Materials Information** or **Sampling and Testing** panel, double-click the **Sampling and Testing Requirements** icon.

2. On the **Material** folder tab, add a material for a bid item.

3. Click the **Sample and Testing** folder tab.

4. In the **Sample Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

5. In the **Acceptance Method** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

6. Using the right mouse button, click the **Test Method** item.

7. From the **object** menu, click the **Search** choice.

8. In the list box, scroll to and click the desired test method.

9. Click **OK**.

10. In the **Sample Location** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. Press the **Tab** key.

12. In the **Sample Frequency** field, type the desired value.

13. Press the **Tab** key.

14. In the **Samples** per field, type the desired value.

15. In the **Sample Units** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

16. Press the **Tab** key.

17. In the **Sample Size** field, type the desired value.

18. In the **Sample Responsibility** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. In the **Test Responsibility** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

20. Click the **Save** button.

To modify sampling and testing requirements of the material for a bid item:

1. On the **Materials Information** or **Sampling and Testing** panel, double-click the **Sampling and Testing Requirements** icon.

2. On the **Material** folder tab, highlight or add a material for a bid item.

3. Click the **Sample and Testing** folder tab.

4. In the select list at the top, click the sampling and testing requirement record.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

13.4 Approved Lists

The Approved Lists icon, the closet equivalent to Reference Tables for Materials Management, allows access to all approved list related windows. These include:

- Approved Materials,

- Producer/Supplier,

- Producer/Supplier Materials,

- Sampler Qualifications,

- Qualified Labs,

- Welders,

- Tester Qualifications,

- Material User,

- Calibrated Equipment, and

- Tests and Fees Schedule.

The Calibrated Equipment, Qualified Labs, Welders and Test and Fee Schedule windows have a parallel report.
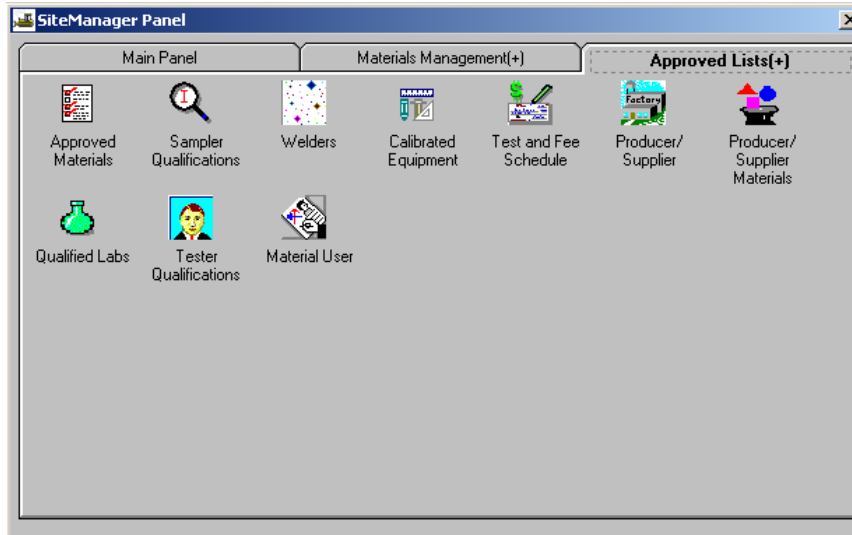
Figure 13-19. The Approved Lists Panel

A separate icon, the Approved List Reports icon, allows access to the related reports. See Section 13.2, Material Management Reports, for more information.

To access the Approved Lists panel:

1. On the **Materials Management** panel, double-click the **Approved Lists** icon.

13.4.1 Approved Materials

The Approved Materials window is used to add and modify the transportation agency-defined list of materials. The approved materials information is used for validation when sample data is entered. A selected material code will display all approved products. An approved product can also have Remarks attached to it.

The Approved Materials window can be accessed from Approved List navigation panel.

The Filter-Search lens capability added to the Manufacturer Name field and allows selection of the producer/supplier from the Producer/Supplier Material table. The search lens will only show producer/suppliers whose status is active in the Producer/Supplier table. The search will be performed based on the producer/supplier name field (not the code). The producer/supplier code selected will be displayed adjacent to the Manufacturer Name field.

The Manufacturer Name is a required field. The only producer/supplier displayed for selection must be actively producing the approved material.

The Approved Materials window has multiple remarks types defined in the code table. The Approved Materials Remark Type – APMTRMKT will display multiple choices in the remarks display and modify function.

📄 **Note:** If only one remark type is entered in the APMTRMKT table, a single remark type may be entered.
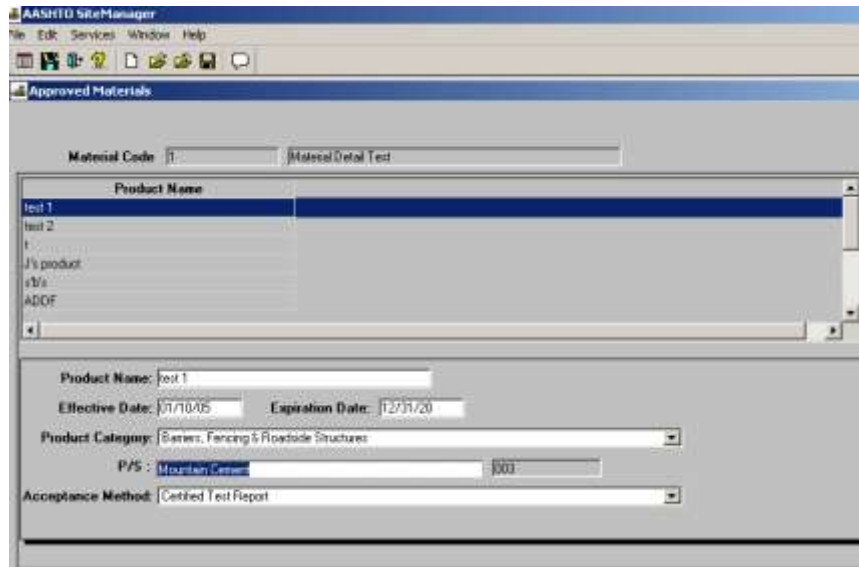
Figure 13-20. The Approved Materials Window
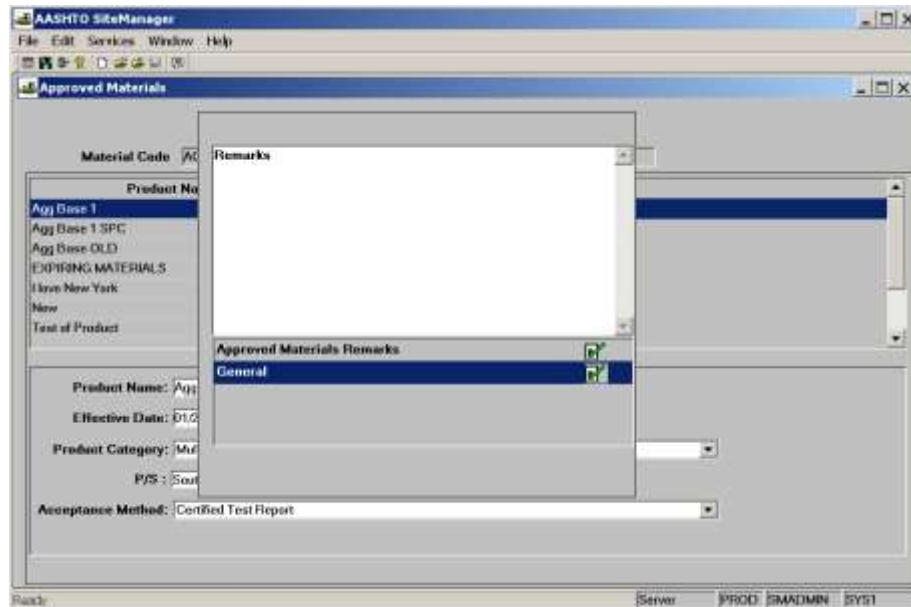
Figure 13-21. The Approved Materials Window – Remark Types

Field Name	Description
Material Code	The ID for a material. Material Code is required and must have an active status.

Field Name	Description
Full Name	Full description of material.
Product Name	Identifies the product brand of the material. Product Name is required and must be unique for Material Code.
Effective Date	Effective date the material became approved. Effective Date must be less than Expiration Date (if entered). Default to current date when a new product is added.
Expiration Date	Expiration date of the approved product. Expiration Date must be greater than the Effective Date.
Product Category Type	Identifies the category of the product (e.g., steel, admixtures, etc.)
Producer/Supplier	The Manufacturer Name will be a required field. If Manufacturer field is empty then error message will be displayed. The standard search lens will display the Producer/Supplier Name for the selected material. Only active producer/suppliers from the Producer/Supplier table will be shown.
Producer/Supplier Code	The producer/supplier code selected will be displayed adjacent to the P/S field on the window without label.
	This field will be protected.
Acceptance Method Type	The method by which the product is being accepted (e.g. visual, manufacturer's certification, etc.)

Table 13-14. The Approved Materials Fields Table

To modify an existing approved product:

1. On the **Approved List** panel, double-click the **Approved Materials** icon.

2. Click the desired material.

3. Click **OK**.

4. In the select list at the top, click the desired approved material.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

To add a new approved product:

1. On the **Approved List** panel, click the **Approved Materials** icon.

2. Click a material.

3. Click **OK**.

4. Click the **New** button.

5. In the **Product** field, type the name of the product.

6. Press the **Tab** key.

7. The **Effective Date** field defaults to the current date. Change the effective date of the product, if necessary.

8. Press the **Tab** key.

9. In the **Expiration Date** field, type the expiration date of the product.

10. In the **Product Category Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. Press the **Tab** key.

12. Using the right mouse button, click the **P/S** field.

13. From the object menu, click **Search**.

14. In the **Search** window, click the desired **Producer/Supplier**.

15. Click **OK**.

16. In the **Acceptance Method Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

17. Click on the **Remark** icon on the toolbar.

18. Add a remark to the **Approved Materials** type, **APMTRMKT.**

19. Click the **Save** button.

13.4.2 Filter-Search Lens and Open –Search Lens

The Search window feature is available in a data window for data entry fields that have the potential to retrieve a long list. If this feature is available, a magnifying glass displays when the mouse pointer moves to that data entry field. To open the search window, click the right mouse button when the magnifying glass is shown and select a search option from the popup menu.

The Filter-Search menu option and the specific fields display the Filter-Search selection pointer for fields where this is enabled. The Filter-Search lens has the option of opening the Window Key record with search lens facility on specific windows. The current SiteManager standard only allows opening the Window Key record with the File Open menu option or toolbar icon and displays the pick-list for selection.

13.4.3 Material User

The Material User window allows an authorized user to create, update or delete a Material User's information. A Material User can be a Sampler or a Tester. Samplers and Testers are created and maintained in the Material User window. Specific sampler qualifications are created and maintained in the Sampler Qualifications window, while SiteManager Users will continue to be created and maintained in the User Security window. Specific Tester Qualifications, including test methods, are created and maintained in the Tester Qualifications window. A person designated as a Global Tester on this window may be designated as a tester for any test, regardless of the qualifications specified on the Tester Qualifications window.

> ▤ **Note:** A Material User can be **defined** as one or more of three classes: SiteManager
> User (having a User security profile), Sampler/Inspector and/or Testing Personnel.
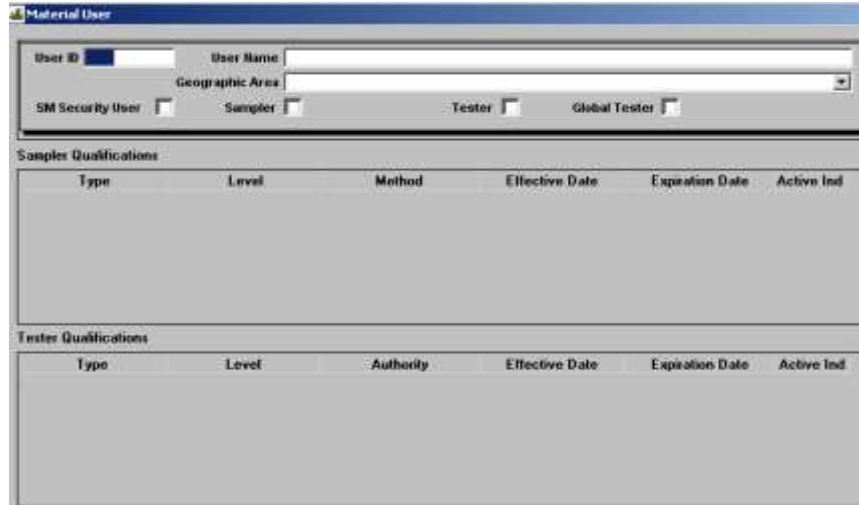
Figure **13-22**. The Material User Window

The File menu, Open option, displays a pick list for selecting a user. The User ID field will also have the search lens functionality to open and display the detailed information of that selected user.

The standard functionality of Remarks, Address and Generic Fields has been added to the Material User window. Any changes made to the Address and Remarks will be propagated to the respective classes.

Deletion of a Material User profile will be allowed if the user has not been defined as SiteManager User and the user does not have any respective (Sampler or Tester) qualifications defined or if the sampler and tester have not been assigned to a sample record.

Field Name	Description
User ID 🔍	This column is editable and standard search lens feature is provided to select from the list of available users. The list will display user ID, Name, SM user indicator, matl user active indicator, Tester indicator and sampler indicator in the data window.
	This column is editable and user can enter the partial user ID and use the search or filter search facility.
	Once the user ID is accepted, the user information is retrieved, the user id field will become protected and populate the global key structure. The field can be cleared for new selection by clicking the new menu icon.
	The user id once opened will be used to reopen the same window upon reentry to the window.

Field Name	Description
Name	Full name of the user ID that was selected by user.
Geographic Area	Transportation agency-defined geographical unit where the material user is located.
SM User	Indicator to specify whether the user is a SiteManager user or not.
	The column will have a default value of N.
Tester	Indicator to specify whether the user is a Tester or not.
	The column will have a default value of N.
Sampler	Indicator to specify whether the user is a Sampler or not.
	The column will have a default value of N.
Global Tester	Indicator to specify whether the user is a Global Tester or not. This global access will give the Material User access to any test and override the Testing Qualifications defined for the individual.
	This column is enabled only if Tester indicator is checked.
	The column will have a default value of N.

Table 13-15. The Material User Field Table

To create a Material User record:

1. On the **Approved Lists** panel, double-click the **Material User** icon.

2. Click the top **datawindow** to change the focus.

3. Click the **New** button.

4. In the **User ID** field, right click to search for the user ID of the material user.

5. Select the **User** and click **OK**.

Or

6. In the **User ID** field, type the user ID of material user.

7. In the **User Name** field, type the name of the material user.

8. In the **Geographic Area** drop-down list, click the expand arrow to the right of the current selection click the desired choice.

9. Click the desired checkbox of the user: SM Security User, Sampler, Tester, and/or Global Tester.

10. Click the **Save** button.
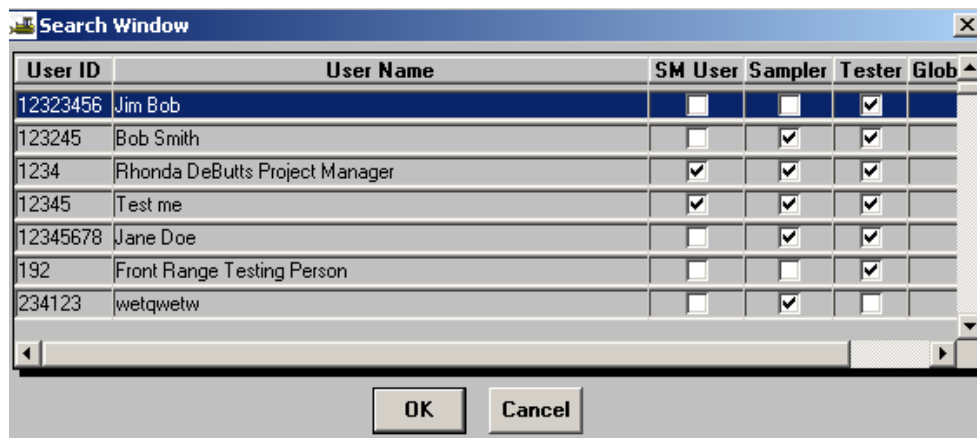
Figure 13-23. Search Window – Material User

To modify an existing material user:

1. On the **Approved List** panel, double-click the **Material User** icon.

2. Right click on the **User ID** field.

3. Click the **Search** choice.

4. In the list box, scroll to and click the desired user.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.
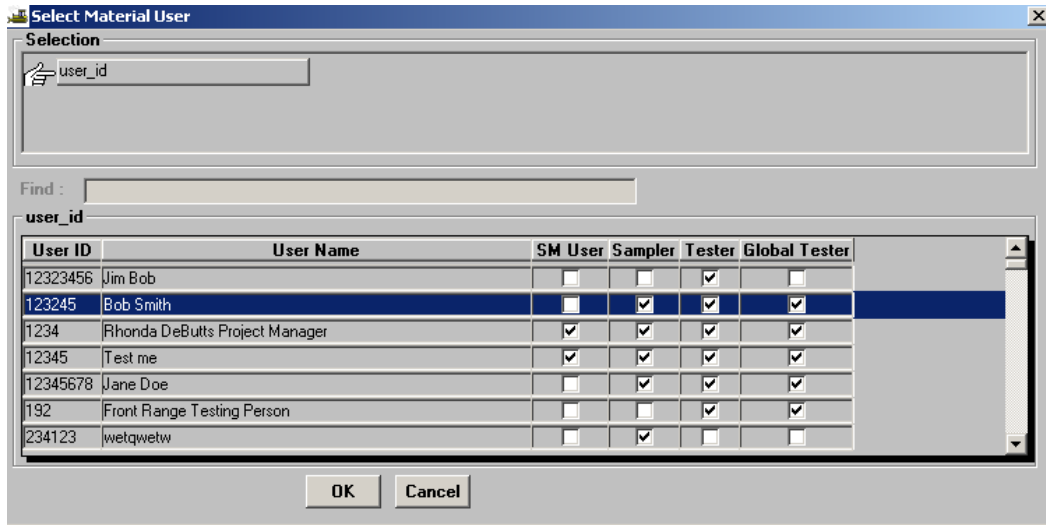
Figure **13-24**. File Open – Material User Pick List

To review the Generic Fields of an existing user:

1. Click the **Services** menu and click the **Generic Fields** choice.
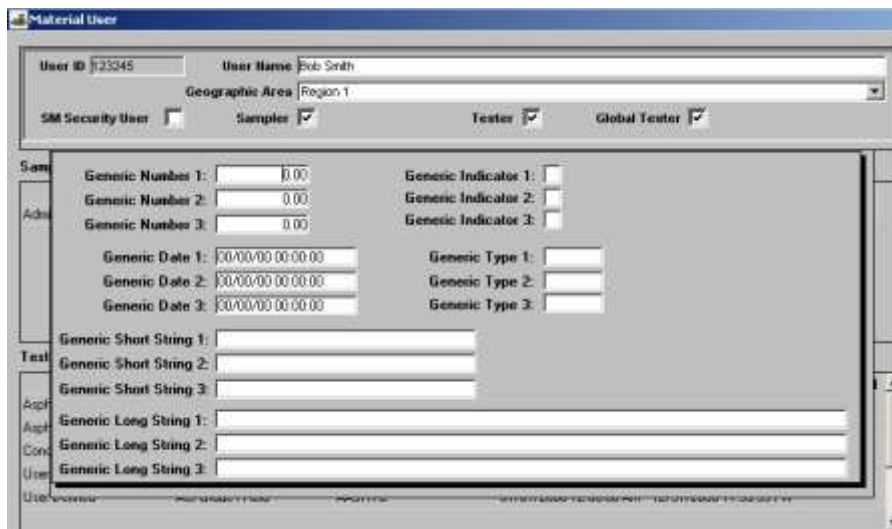
Figure **13-25**. The Material User - Generic Fields

To review the Address of an existing user:

1. Click the **Services** menu and click the **Address** choice.
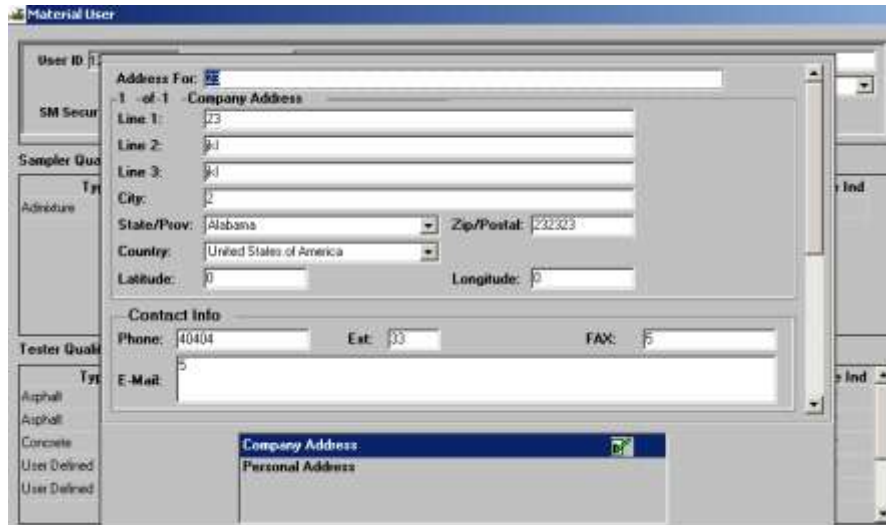
Figure **13-26**. The Material User - Address

To review the Remarks of an existing user:

1. Click the **Services** menu and click the R**emarks** choice.
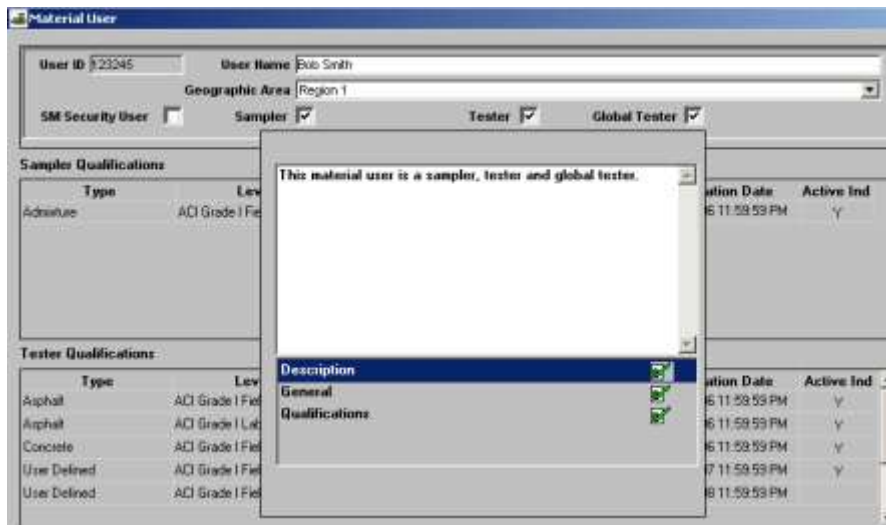
Figure **13-27**. The Material User – Remarks

13.4.4 Sampler Qualifications

The Sampler Qualifications window can be accessed from the Approved List navigation panel.
Inside the window, there is a menu and toolbar item to access Generic Fields, Address and Remarks.

A service menu option and a tool bar icon allow navigation to the Material User window directly
from the Sampler Qualifications window. A new service menu option allows the copy of the
selected qualification record to a new record.

A qualification is considered active when the Expiration Date is greater than or equal to the current system date/time. The Active Indicator field for each qualification record displays whether the qualification is active or not.

To open the Sampler Qualifications window:

1. On the **Approved Lists** panel, double-click the **Sampler Qualifications** icon.
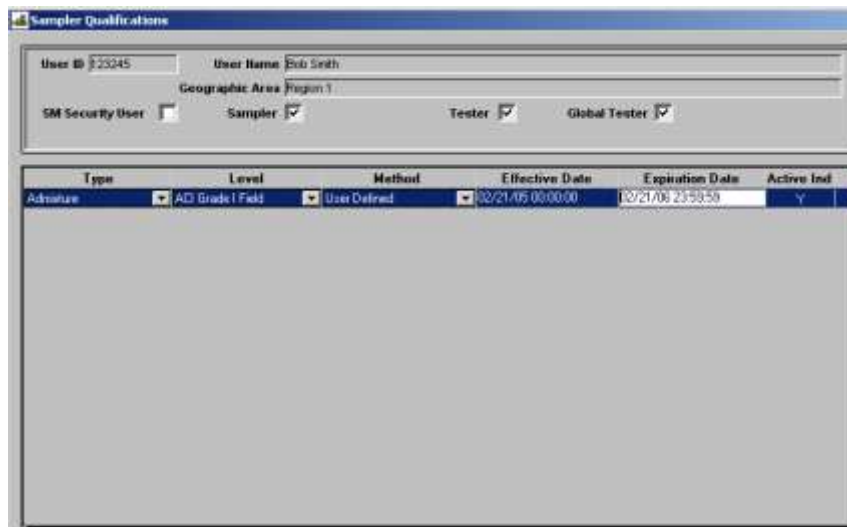
Figure **13-28**. The Sampler Qualifications Window

Field Name	Description
User ID	The Transportation agency–defined ID for the Sampler. The UserID is not editable.
Name	Full name of the user ID that was selected by user. The name is not editable.
Geographic Area	Transportation agency-defined geographical unit where the Sampler is located. This column is not editable.
SM User	Indicator to specify whether the user is a SiteManager user or not.
Tester	Indicator to specify whether the user is a Tester or not.
Sampler	Indicator to specify whether the user is a Sampler or not.
Global Tester	Indicator to specify whether the user is a Global Tester or not
Active Indicator	Indicator to specify whether a qualification is active or not. This is a display only field. The value is not stored in the database.

Field Name	Description
	An empty space (' ') will be used for a pending active qualification, which means the effective date is in the future.
Effective Date	Effective date for the qualification. On a new qualification row, the date will default to the current date.
Expiration Date	Expiration date for the qualification. This is a required field.

Table **13-16**. The Sampler Qualification Fields Table

To add a new sampler qualification:

1. On the **Approval List** panel, double-click the **Sampler Qualifications** icon.

2. Click the **New** button.

3. In the **Qualification Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

4. In the **Qualification Level** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

5. In the **Qualification Method** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

6. Press the **Tab** key.

7. The **Effective Date** field defaults to today's date. Type the effective date of the qualification if appropriate.

8. Press the **Tab** key.

9. In the **Expiration Date** field, type the expiration date of the qualification.

10. Click the **Save** button.

11. If appropriate, repeat steps 6-10 for additional qualifications.

12. Click **OK**.

When the user clicks on menu item or tool bar item File Open, a list of users to choose from is displayed. The users displayed on this list must meet the following criteria: (1) The user is currently

marked as a Sampler on the Material User window, OR (2) If a Sampler Qualification exists for the user, OR (3) If the user has been used ever as a sampler for any sample.

To add sampler qualification for an existing Sampler:

1. On the **Approved List** panel, double-click the **Sampler Qualifications** icon.

2. Click the **Open** button.

3. Click the desired inspector record.

4. Click **OK**.

5. In the lower half of the window, click to change the focus.

6. Click the **New** button.

7. In the **Qualification Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. In the **Qualification Level** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

9. In the **Qualification Method** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. The **Effective Date** field defaults to today's date. Type the effective date of the qualification if appropriate.

12. Press the **Tab** key.

13. In the **Expiration Date** field, type the expiration date of the qualification.

14. If appropriate, repeat steps 6-13 for additional qualifications.

15. Click the **Save** button.

A new service menu option allows the copy of the selected qualification record to a new record. The Effective Date of the copied record defaults to the current system date-time unless the row it originated from is active, in which case it will default to the originating record's Expiration date-time.

To copy a qualification record to a new record:

1. On the **Approved List** panel, double-click the **Sampler Qualifications** icon.

2. Click the **Open** button.

3. Click the desired inspector record.

4. Click **OK**.

5. Click the **Services** menu and click the **Copy Record**.

To review Generic Fields for Sampler Qualifications:

1. Click the **Services** menu and click the **Generic Fields** choice.

Figure **13-29**. Sampler Qualifications – Generic Fields

To review Address from Sampler Qualifications:

1.   Click the **Services** menu and click the **Address** choice.
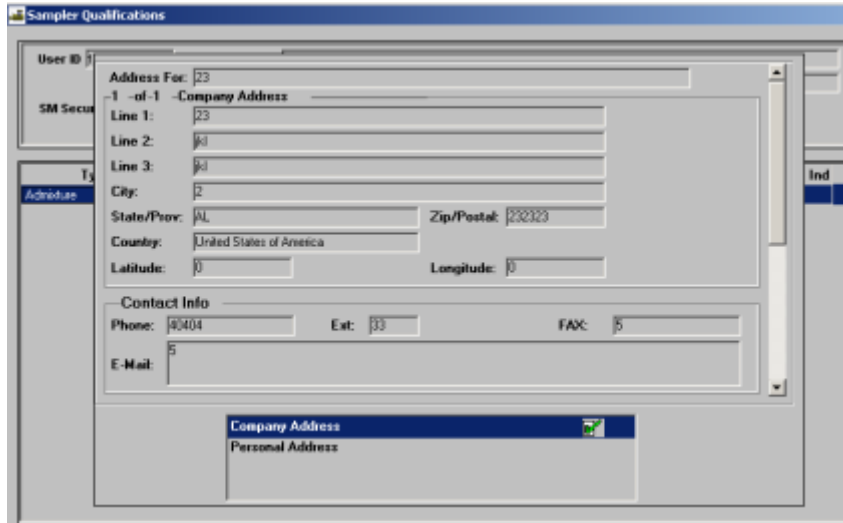
Figure **13-30**. Sampler Qualifications – Address

To review **Remarks** for Sampler Qualifications:

1.   Click the **Services** menu and click the **Remarks** choice.
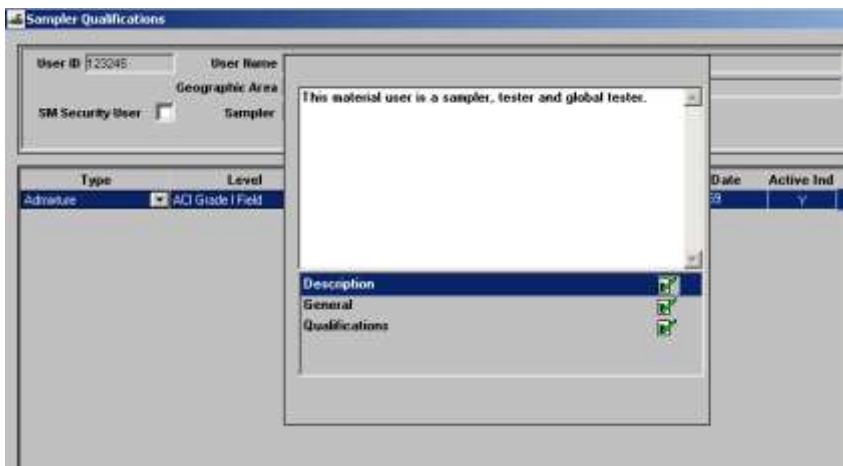
Figure 13-31. Sampler Qualifications – Remarks

13.4.5 Welders

The Welders window allows the addition and modification of welder personnel and their qualifications.
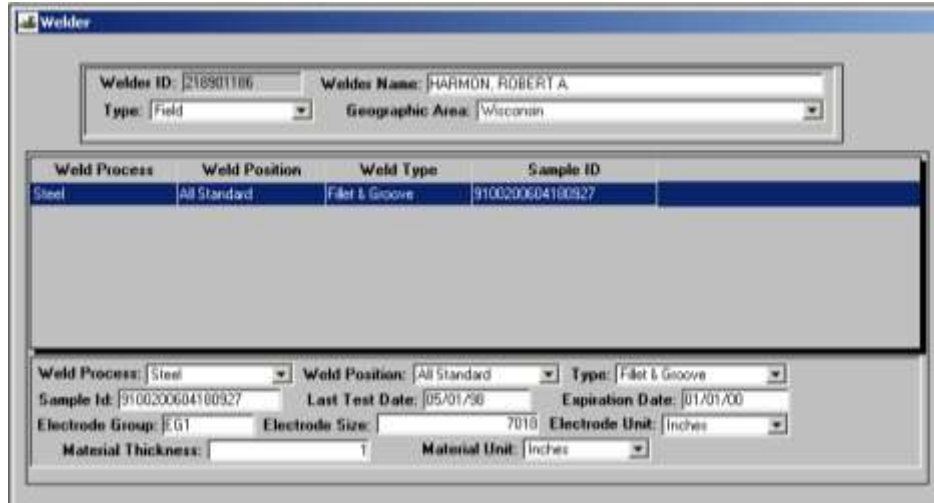
Figure 13-32. The Welders Window

Field Name	Description
Welder ID	The Transportation agency-defined ID of the welder.
Welder Name	The name of the Welder.
Type	The type of welder (e.g., Field, Shop, etc.)
Geographic Area	Transportation agency-defined geographical unit where the welder is located.
Weld Process	The process that the welder is qualified to perform.
Weld Position	The position the welder is qualified to perform on the given process.
Weld Type	The type of welding the welder is qualified to perform.
Last Test Date	The date when the Welder was last tested.
Sample ID	The sample on which the welder qualified.
Expiration Date	The date that the qualification expires.
Electrode Group	The group of electrodes upon which the qualification was done.
Electrode Size	The size of the electrode used for qualification
Electrode Size (Unit)	The unit of measure of the electrode.

Field Name	Description
Matl Thickness	The Thickness of the material on which qualification was done.
Matl Thickness (Unit)	The unit of measure of the Matl Thickness.

Table 13-17. The Welder Fields Table

To add a new welder:

1. On the **Approved List** panel, double-click the **Welder** icon.

2. In the **Welder ID** field, type the welder's ID.

3. Press the **Tab** key.

4. In the **Name** field, type the welder's name.

5. In the **Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

6. In the **Geographic Area** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. In the lower half of the window, click to change the focus.

8. Click the **New** button.

9. In the **Process** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. In the **Position** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. In the **Weld Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

12. Press the **Tab** key.

13. Using the right mouse button, click the **Sample ID** field.

14. From the object menu, click the **Search** choice.

15. In the list box, scroll to and click the desired sample.

16. Click **OK**.

17. Press the **Tab** key.

18. In the **Last Test Date** field, type the date of the last test.

19. Press the **Tab** key.

20. In the **Expiration Date** field, type the expiration date of the qualification.

21. Press the **Tab** key.

22. In the **Electrode Group** field, type the electrode group.

23. Press the **Tab** key.

24. In the **Electrode Size** field, type the electrode size.

25. In the **Electrode Size Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

26. Press the **Tab** key.

27. In the **Material Thickness** field, type the thickness of the material.

28. In the **Material Thickness Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

29. Repeat steps 8-28 for additional qualifications.

30. Click the **Save** button.

To modify an existing welder:

1. On the **Approved List** panel, double-click the **Welder** icon.

2. Click the **Open** button.

3. Click the desired welder record.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

To add a new qualification for an existing welder:

1. On the **Approved List** panel, double-click the **Welder** icon.

2. Click the **Open** button.

3. Click the desired welder record.

4. Click **OK**.

5. In the lower half of the window, click to change the focus.

6. Click the **New** button.

7. In the **Process** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. In the **Position** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

9. In the **Weld Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. Using the right mouse button, click the **Sample ID** field.

12. From the object menu, click the **Search** choice.

13. In the list box, scroll to and click the desired sample.

14. Click **OK**.

15. Press the **Tab** key.

16. In the **Last Test Date** field, type the date of the last test.

17. Press the **Tab** key.

18. In the **Expiration Date** field, type the expiration date of the qualification.

19. Press the **Tab** key.

20. In the **Electrode Group** field, type the electrode group.

21. Press the **Tab** key.

22. In the **Electrode Size** field, type the electrode size.

23. In the **Electrode Size Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

24. Press the **Tab** key.

25. In the **Material Thickness** field, type the thickness of the material.

26. In the **Material Thickness Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

27. Repeat steps 6-26 for additional qualifications.

28. Click the **Save** button.

To delete a qualification for a welder:

1. On the **Approved List** panel, double-click the **Welder** icon.

2. Click the **Open** button.

3. Select the welders ID.

4. Click **OK**.

5. Click the qualification to be deleted.

6. Click the **Delete** button.

7. Click the **Yes** button.

8. Click the **Save** button.

13.4.6 Calibrated Equipment

The Calibrated Equipment window allows the addition and modification of calibration information for laboratory equipment.
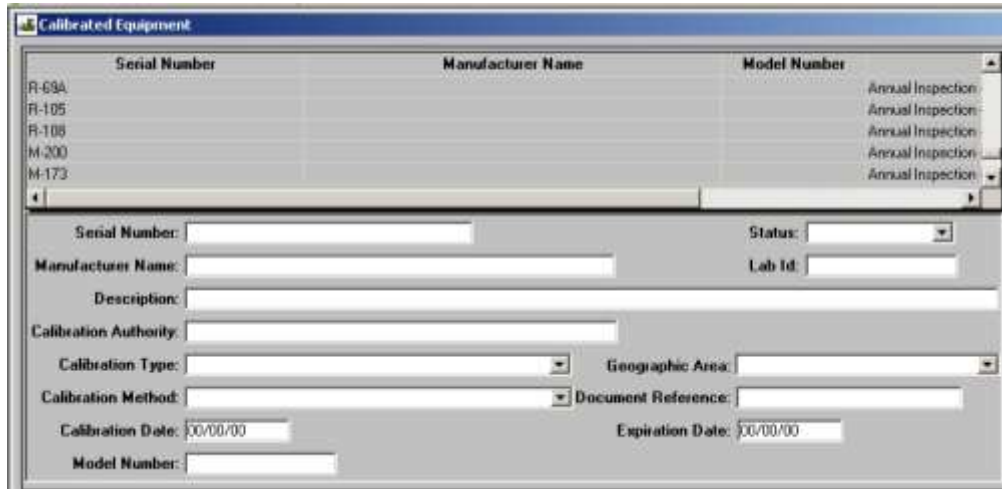
Figure 13-33. The Calibrated Equipment Window

Field Name	Description
Serial Number	Serial Number ID for the calibrated equipment.
Status	Indicates the status of the calibrated equipment (e.g., in use, available, surplus, etc.)
Manufacturer Name	Manufacturer of the equipment.
Lab ID	Transportation agency-defined ID the testing laboratory of the equipment.
Description	Description of the calibrated equipment.
Calibration Authority	This calibrating authority of the equipment.
Calibration Type	Identifies the type of calibration.
Geographic Area	Transportation agency-defined geographical unit where the lab is located.

Field Name	Description
Calibration Method	Method of calibration.
Document Reference	Identifies the document containing detail information.
Calibration Date	The date the equipment was calibrated.
Expiration Date	Expiration date of the equipment calibration.
Model Number	Model of the equipment.

Table 13-18. The Calibration Equipment Fields Table

To modify existing calibrated equipment:

1. On the **Approved List** panel, double-click the **Calibrated Equipment** icon.

2. In the select list at the top, scroll to and click the desired calibrated equipment.

3. Press the **Tab** key to advance to the field to be modified.

4. Enter the desired change.

5. Click the **Save** button.

To add new calibrated equipment:

1. On the **Approved List** panel, double-click the **Calibrated Equipment** icon.

2. Click the **New** button.

3. In the **Serial Number** field, type the serial number.

4. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

5. Press the **Tab** key.

6. In the **Manufacturer Name** field, type the name of the company that built the equipment.

7. Press the **Tab** key.

8. In the **Lab ID** field, type the ID of the lab where the equipment is located.

9. Press the **Tab** key.

10. In the **Description** field, type a description of the equipment.

11. Press the **Tab** key.

12. In the **Calibration Authority** field, type the description of the calibration authority.

13. In the **Calibration Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

14. In the **Geographic Area** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

15. In the **Calibration Method** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

16. Press the **Tab** key.

17. In the **Reference Document** field, type the reference document.

18. Press the **Tab** key.

19. In the **Calibration Date** field, type the date of the equipment calibration.

20. Press the **Tab** key.

21. In the **Expiration Date** field, type the expiration date of the calibration.

22. Press the **Tab** key.

23. In the **Model Number** field, type the model number of the equipment.

24. Click the **Save** button.

13.4.7 Test and Fee Schedule

The Test and Fee Schedule window allows the maintenance of testing fee information.

Figure 13-34. The Testing and Fee Schedule Window

Field Name	Description
Test Method	The Transportation agency-defined ID for a test.
Test Description	The description of the test.
Charge Amount	The amount (positive number) charged to perform the test
Billing Code	The Transportation agency-defined billing code.

Table 13-19. The Testing and Fee Schedule Fields Table

To modify testing fee information:

1. On the **Approved List** panel, double-click the **Test and Fee Schedule** icon.

2. In the list box, scroll to and click the desired record.

3. Click the field to be modified.

4. Enter the desired change.

5. Click the **Save** button.

13.4.8 Producer/Supplier, Plants, and Materials

The Producer/Supplier icon allows the addition and modification of information on any organization that produces or supplies materials used by a transportation agency. This data is used for validation when entering sample data and material sources. Also, a producer/supplier is necessary for a material's sampling and testing requirements to be successfully added to a contract. Therefore, each material should have at least one producer/supplier identified.

> 📄 **Note:** Attachments can be accessed from the description tab on the Producer/Supplier window.

For a Producer/Supplier, SiteManager allows the tracking of data for the:

- Producer/Supplier,

- Producer/Supplier Plants, and

- Producer/Supplier Approved Materials.
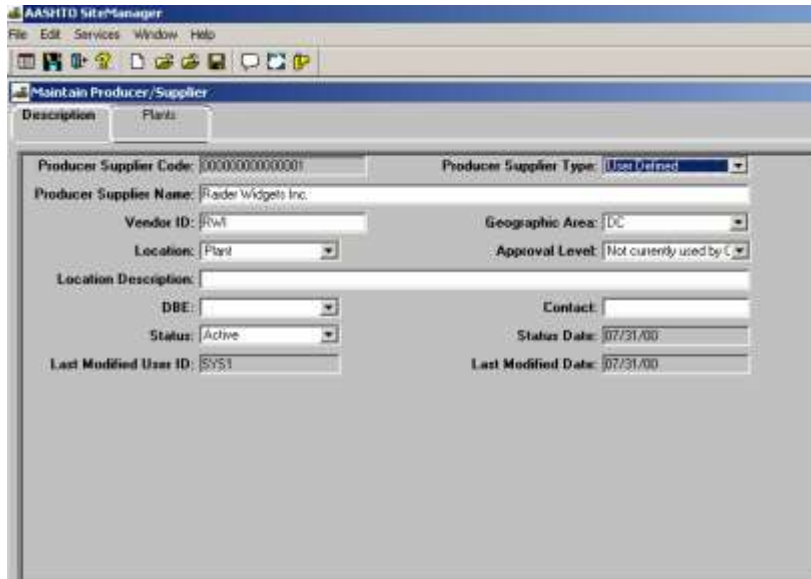
Figure 13-35. The Maintain Producer/Supplier Window

Producer/Supplier

The Producer/Supplier window allows the addition and modification of information on any organization that produces or supplies materials used by a transportation agency. This data is used for validation when entering sample data and material sources. This data will also allow verification, documentation, analysis and reporting for Quality Control/Quality Assurance (QC/QA) programs.

The Producer/Supplier window has multiple remarks types defined in the code table. The Producer/Supplier Remark Type – PRSPRMKT will display multiple choices in the remarks display and modify function.

> 🗎 **Note:** If only one remark type is entered in the PRSPRMKT table, a single remark type may be entered.
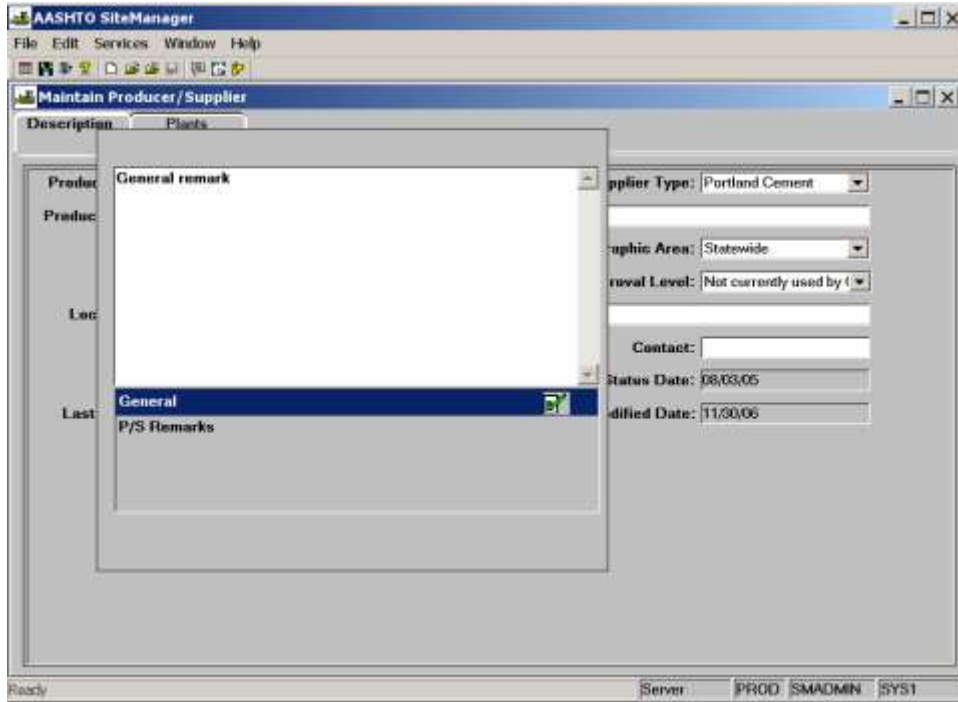
Figure 13-36. The Maintain Producer/Supplier Remark Types

Field Name	Description
Producer Supplier Code	Transportation Agency-defined ID for a source/location of the material.
Producer Supplier Type	Identifies the type of source (e.g., producer, supplier, etc.)
Producer Supplier Name	The name of the source.
Vendor ID	Unique ID for a vendor. Generally, the company's Federal Tax ID.
Geographic Area	Transportation Agency-defined geographical region where the producer supplier is located.
Location	Source type of location (e.g., GIS, point, geodetic coordinates, etc.)
Approval Level	Source level of approval.
Location Description	The physical location.

AASHTOWare Project SiteManager™

13.4 Approved Lists   13. **Materials Management**

Field Name	Description
DBE	Transportation Agency-defined code to indicate that the company has certification as a disadvantaged business enterprise or as some other historically disadvantaged group (e.g., DBE, MBE, WBE, etc.)
Contact	The name of the contact person.
Status	Indicates if the source is active or inactive.
Status Date	System captured date of when the status was changed.
Last Modified User ID	System captured user ID of last user to update record.
Last Modified Date	System captured date of when the last change was made.

Table 13-20. The Producer/Supplier Fields Table

To add a new producer/supplier:

1. On the **Approved List** panel, double-click the **Producer Supplier** icon.

2. In the **Producer/Supplier Code** field, type the code for the producer supplier.

3. In the **Producer Supplier Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

4. Press the **Tab** key.

5. In the **Producer/Supplier Name** field, type the vendor's name.

6. Press the **Tab** key.

7. In the **Vendor ID** field, type the vendor ID.

8. In the **Geographic Area** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

9. In the **Location** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. In the **Approval Level** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

13-73

11. Press the **Tab** key.

12. In the **Location Description** field, type the location description.

13. In the **DBE** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

14. Press the **Tab** key.

15. In the **Contact** field, type the contact person's name.

16. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

17. Click the **Remarks** icon on the toolbar.

18. Add a remark to the Producer/Supplier remark type **PRSPRMKT**.

19. Click the **Save** button.

To modify an existing producer/supplier:

1. On the **Approved List** panel, double-click the **Producer Supplier** icon.

2. Click the **Open** button.

3. In the **Select Producer/Supplier** list, scroll to and click the desired producer supplier.

4. Click **OK**.

5. In the **Producer Supplier Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

6. Press the **Tab** key.

7. In the **Producer/Supplier Name** field, type the vendor's name.

8. Press the **Tab** key.

9. In the **Vendor ID** field, type the vendor ID.

10. In the **Geographic Area** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. In the **Location** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

12. In the **Approved** level drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

13. Press the **Tab** key.

14. In the **Location Description** field, type the location description.

15. In the **DBE** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

16. Press the **Tab** key.

17. In the **Contact** field, type the contact person's name.

18. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. Click the **Save** button.

Producer/Supplier Plants

The Producer/Supplier Plant window is used to add and update producer/supplier plants, pits and/or quarries provide materials to a transportation agency.   The plant type field is used to distinguish between plants, pits, quarries, or other plants. This data is used for validation when entering sample data. It can also be used to determine when the last inspection of the plant was done.
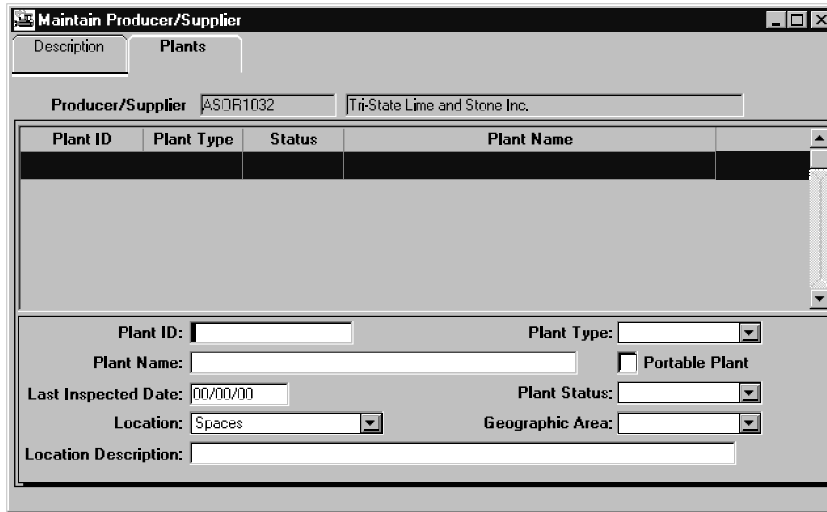
Figure 13-37. The Producer/Supplier Plant Folder Tab

Field Name	Description
Plant ID	Transportation agency-defined ID for a plant.
Plant Type	Identifies the type of plant, e.g., plant, pit, quarry, etc.
Plant Name	Name of the plant, pit or quarry.
Portable Plant	Indicates if the plant is portable.
Last Inspected Date	Date the plant was last inspected.
Plant Status	Identifies if the plant is active or inactive.
Location	Source type of location (e.g., GIS, point, geodetic coordinates, etc.)
Geographic Area	Transportation agency-defined geographical unit where the plant is located.
Location Description	Description of the physical location.

Table 13-21. The Producer/Supplier Plant Fields Table

To add a producer/supplier plant:

1. On the **Approved List** panel, double-click the **Producer Supplier** icon.

2. Add a producer supplier.

3. Click the **Plants** folder tab.

4. In the **Plant ID** field, type the identification code for the plant.

5. Press the **Tab** key.

6. In the **Plant Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. In the **Plant Name** field, type the plant's name.

8. Press the **Tab** key.

9. Click the **Portable Plant** check box (ON), if applicable.

10. Press the **Tab** key.

11. In the **Last Inspected Date** field, type the date of the last inspection.

12. In the **Plant Status** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

13. In the **Location Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

14. In the **Geographic Area** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

15. Press the **Tab** key.

16. In the **Location Description** field, type the description location.

17. Click the **Save** button.

To modify an existing producer/supplier plant:

1. On the **Approved List** panel, double-click the **Producer Supplier** icon.

2. Click the **Open** button.

3. Select the desired producer supplier record.

4. Click **OK**.

5. Click the **Plants** folder tab.

6. In the select list at the top, scroll to and click the desired producer/supplier plant.

7. Press the **Tab** key to advance to the field to be modified.

8. Enter the desired change.

9. Click the **Save** button.

Producer/Supplier Materials

The Producer/Supplier Materials window allows the addition and modification of approved materials for a specified producer/supplier. The producer/supplier materials data is used for validation when entering sample data and during the Materials Generation process. An approved product can also have Remarks attached to it.

The Producer/Supplier Materials window also tracks expiration dates/times for materials and makes the material active or inactive for a given Producer/Supplier.

For a material's sampling and testing requirements to be monitored, it must have a producer/supplier identified. However, a producer/supplier does not have to be identified for a material's sampling and testing requirements to be successfully added to a contract during the Materials Generation process. The producer/suppliers may be identified for the testing requirements after the Generation.
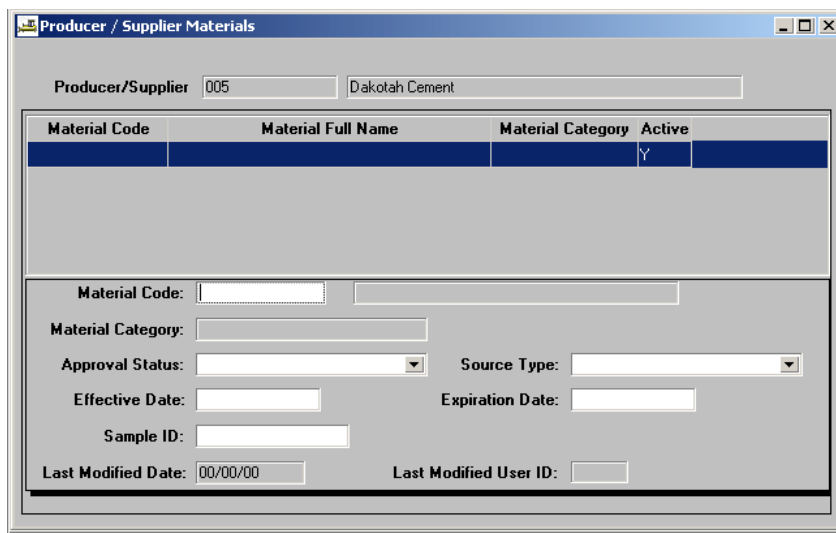
Figure 13-38. The Producer/Supplier Materials Window

Field Name	Description
Active	This indicator designates all Active materials, based on expiration date.
Material Code	Transportation Agency-defined ID for a material. The material Code must have an active status
Material Full Name	Full description of material.
Material Category Type	The category into which the material is logically grouped in a Transportation Agency-defined list (e.g., aggregates, admixtures, reinforcing steel, pipe, etc.)
Approval Status Type	Identifies the approval status. Values come from a Transportation Agency-defined list (e.g., approved, acceptable, pending, etc.)
Source Type	Identifies the source type (e.g., concrete plant, asphalt plant, etc.)
Effective Date	Effective date the material became active for the Producer/Supplier. Defaults to current date when a new material is added and must be less than Expiration Date. The Effective Date may be greater than the expiration date of a previous inactive row of the same material, if present.
Expiration Date	Expiration date of the approved material for Producer/Supplier. Expiration Date must be greater than the Effective Date, when entered.
Sample ID	ID for the sample used to approve the material.
Last Modified User ID	System captured user ID of last user to update record.
Last Modified Date	System captured date of when the last change was made.

Table 13-22. The Producer/Supplier Materials Fields Table

To add a new producer/supplier material:

1. On the **Approved List** panel, double-click the **Producer Supplier Material** icon.

2. Click the desired producer/supplier record.

3. Click **OK**.

4. Click the **New** button.

5. Using the right mouse button, click the **Material Code** field.

6. From the object menu, click the **Search** choice.

7. Click the desired material record.

8. Click **OK**.

9. In the **Approved Status Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. In the **Source Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. Press the **Tab** key.

12. In the **Effective Date** field, type the effective date of the material, if appropriate.

13. Press the **Tab** key.

14. In the **Expiration Date** field, type the expiration date of the material, if applicable.

15. Using the right mouse button, click the **Sample ID** field.

16. From the object menu, click the **Search** choice.

17. Click the desired sample ID record.

18. Click **OK**.

19. Click the **Save** button.

To modify an existing producer/supplier material:

1. On the **Approved List** panel, double-click the **Producer Supplier Material** icon.

2. Click the desired producer/supplier record.

3. Click **OK**.

4. In the select list at the top, scroll to and click the desired producer/supplier material.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

13.4.9 Qualified Labs

The Qualified Labs window allows the addition and maintenance of the laboratories qualified to test samples, and the tests they are qualified to perform for a transportation agency.
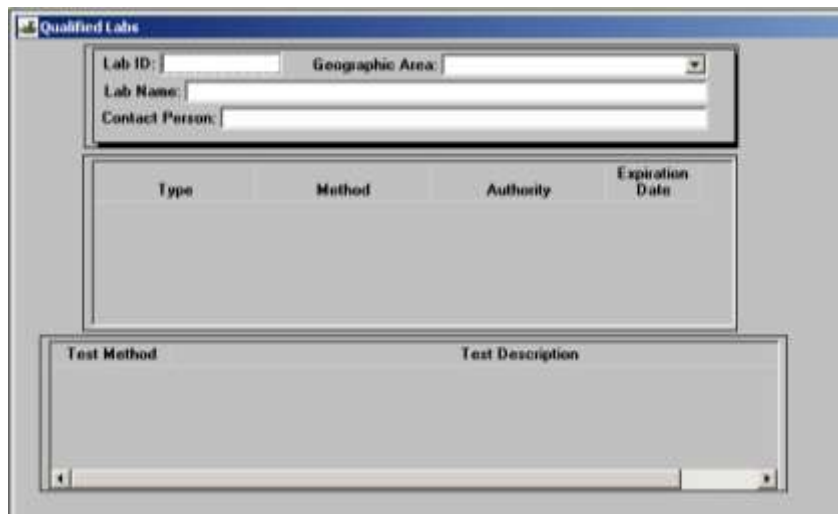
Figure 13-39. The Qualified Labs Window

Field Name	Description
Lab ID	Transportation agency-defined ID for the lab.
Geographic Area	Transportation agency-defined geographical unit where the lab is located.
Name	The name of the lab.
Contact Person	The name of the lab's contact person.
Type	The type of qualification.
Method	The method of qualification used.

Field Name	Description
Authority	The authority by which the qualification was judged.
Expiration Date	The date the qualification expires.
Test Method	The Test Method.
Test Description	The Description of the Test.

Table 13-23. The Qualified Labs Fields Table

To add a new lab:

1. On the **Approved List** panel, double-click the **Qualified Labs** icon.

2. In the **Lab ID** field, type the lab's ID.

3. In the **Geographic Area** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

4. Press the **Tab** key.

5. In the **Lab Name** field, type the lab's name.

6. Press the **Tab** key.

7. In the **Contact Person** field, type the contact person's name.

8. Click the **Save** button.

9. In the middle portion of the window, click to change the focus to the test qualification section.

10. Click the **New** button.

11. In the **Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

12. In the **Method** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

13. In the **Authority** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

14. Press the **Tab** key.

15. In the **Expiration Date** field, type the expiration date of the qualification.

16. Click the **Save** button.

17. In the lower portion of the window, click to change the focus.

18. Click the **New** button.

19. In the list box, scroll to and click the desired test method.

20. Click **OK**.

21. Repeat steps 18-20 until all test methods have been added for this test qualification.

22. Click the **Save** button.

23. Repeat steps 9-22 until all test qualifications and applicable test methods have been added.

To modify an existing lab:

1. On the **Approved List** panel, double-click the **Qualified Labs** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired lab.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

To add a new test qualification (and its methods) for a lab:

1. On the **Approved List** panel, double-click the **Qualified Labs** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired lab.

4. Click **OK**.

5. In the middle portion of the window, click to change the focus to the test qualification section.

6. Click the **New** button.

7. In the **Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. In the **Method** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

9. In the **Authority** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. In the **Expiration Date** field, type the expiration date of the qualification.

12. Click the **Save** button.

13. In the lower portion of the window, click to change the focus to the test method.

14. Click the **New** button.

15. In the list box, scroll to and click the desired test method.

16. Click **OK**.

17. Repeat steps 14-16 until all test methods have been added for this test qualification.

18. Click the **Save** button.

19. Repeat steps 5-18 until all test qualifications and applicable test methods have been added.

To add a new test method to an existing test qualification for a lab:

1. On the **Approved List** panel, double-click the **Qualified Labs** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired lab.

4. Click **OK**.

5. In the middle portion of the window, click to change the focus to the test qualification section.

6. In the select list in the middle portion of the window, scroll to and click the desired test qualification.

7. In the lower portion of the window, click to change the focus.

8. Click the **New** button.

9. In the list box, scroll to and click the desired test method.

10. Click **OK**.

11. Repeat steps 8-10 until all test methods have been added for this test qualification.

12. Click the **Save** button.

To delete a test method for a lab:

1. On the **Approved List** panel, double-click the **Qualified Labs** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired lab.

4. Click **OK**.

5. In the middle portion of the window, click to change the focus to the test qualification section.

6. In the select list in the middle portion of the window, scroll to and click the desired test qualification.

7. In the lower portion of the window, click to change the focus.

8. In the select list in the middle portion of the window, scroll to and click the desired test method.

9. Click the **Delete** button.

10. Click the **Yes** button.

11. Click the **Save** button.

13.4.10 Tester Qualifications

The Tester Qualifications window will be used to maintain Qualifications for a Tester. This also includes the tester's qualifications for Test Methods.

The top data window panel of the window will display information from the new Material User table. All the fields in this data window will be read-only. The user can also use menu options and toolbar icons to access Generic Fields, Address and Remarks information for the Material user. All the information related to the Material user, except the Remarks, will be read-only from this window. A user will be able to enter or modify Remarks from this window.

A qualification is considered active when the Expiration Date is greater than or equal to the current system date/time. A new field called Active Indicator has been added for each qualification record to display whether the qualification is active or not.

A service menu option is available to allow the copy of a selected qualification record to create a new qualification record.
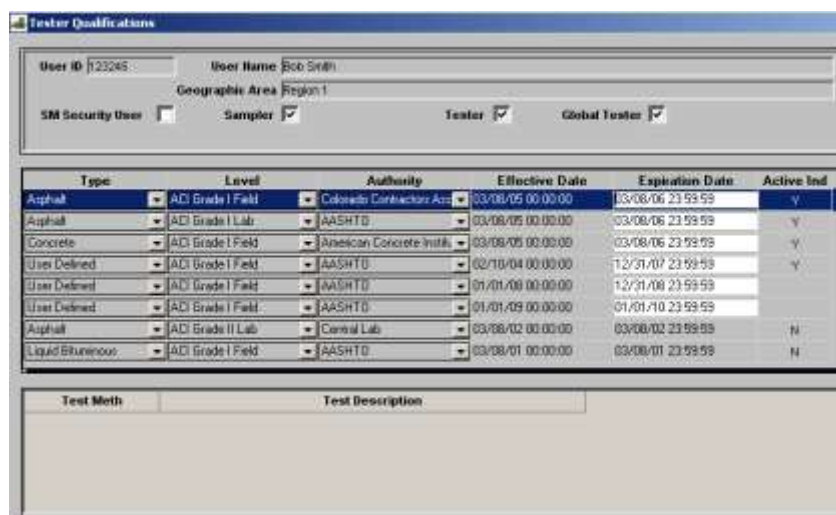
Figure 13-40. The Tester Qualifications Window

Field Name	Description
User ID	The Transportation agency-defined ID of the testing person.
Geographic Area	This is the geographic area in which the testing person is located.
Name	The name of the testing person.
SM User	Indicator to specify whether the user is a SiteManager user.
Sampler	Indicator to specify whether the user is a Sampler.
Tester	Indicator to specify whether the user is a Tester.
Global Tester	Indicator to specify whether the user is a Global Tester.
Active Indicator	Indicator to specify if a qualification is active. This is a display only field. The value is not stored in the database. An empty space (' ') will be used for a pending active qualification, which means the effective date is in the future.
Type	The type of qualification.
Level	The level of qualification.
Authority	The authority by which qualification was judged.
Effective Date	The date when the qualification became effective. On a new qualification row, the date will default to the current date.
Expiration Date	The date when the qualification expires. This is a required field.
Test Method	The Test Method.
Test Description	The Description of the Test.

Table 13-24. The Tester Qualifications Table

To add a new test qualification for an existing Material User:

1. On the **Approved List** panel, double-click the **Tester Qualifications** icon.

2. Click the **Open** button.

3. In the **Select Tester** list, scroll to and click the desired tester.

4. Click **OK**.

5. In the middle portion of the window, click to change the focus to the test qualification section.

6. Click the **New** button.

7. In the **Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. In the **Level** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

9. In the **Authority** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. In the **Effective Date** field, type the date of the qualification became effective.

12. Press the **Tab** key.

13. In the **Expiration Date** field, type the expiration date of the qualification.

14. Click the **Save** button.

To add a new test method to a qualification for an existing tester:

1. On the **Approved List** panel, double-click the **Testing Qualification** icon.

2. Click the **Open** button.

3. In the **Select Tester** list, scroll to and click the desired tester.

4. Click **OK**.

5. In the middle portion of the window, click to change the focus to the test qualification section.

6. In the select list in the middle portion of the window, scroll to and click the desired test qualification.

7. Click the **New** button.

8. In the **Select Test** list, scroll to and click the desired test method.

9. Click **OK**.

10. Repeat steps 7-9 until all test methods have been added for this test qualification.

11. Click the **Save** button.

To delete a test method for a tester qualification:

1. On the **Approved List** panel, double-click the **Tester Qualifications** icon.

2. Click the **Open** button.

3. In the **Select Test** list, scroll to and click the desired test method.

4. Click **OK**.

5. In the middle portion of the window, click to change the focus to the test qualification section.

6. In the select list in the middle portion of the window, scroll to and click the desired test qualification.

7. In the **Select Test** list, scroll to and click the desired test method.

8. Click the **Delete** button.

9. Click the **Yes** button.

10. Click the **Save** button.

To review Generic Fields for Tester Qualifications:

1. Click the **Services** menu and click the **Generic Fields** choice.
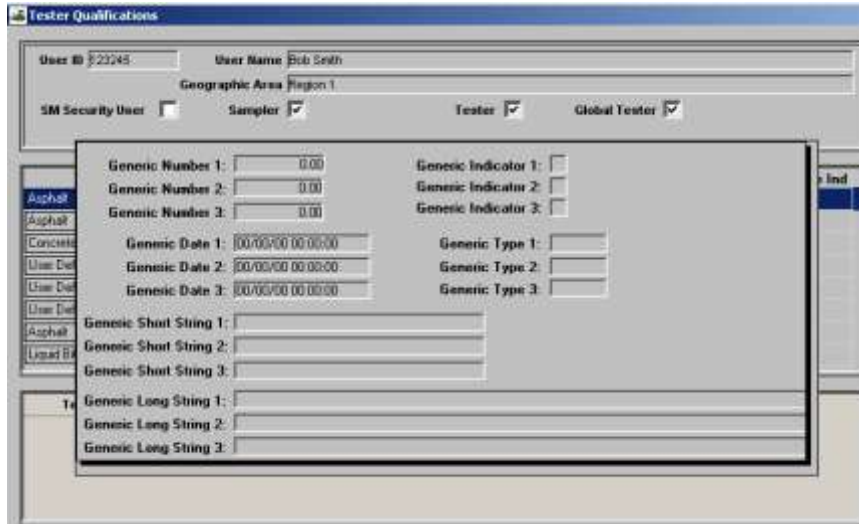
Figure **13-41**. Tester Qualifications – Generic Fields

To review Address from Tester Qualifications:

1. Click the **Services** menu and click the **Address** choice.
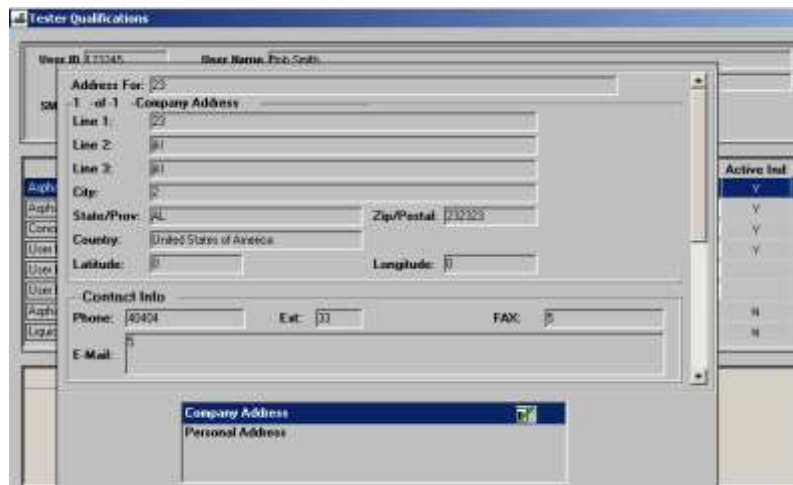
Figure **13-42**. Tester Qualifications – Address

To review Remarks for Tester Qualifications:

1. Click the **Services** menu and click the **Remarks** choice.
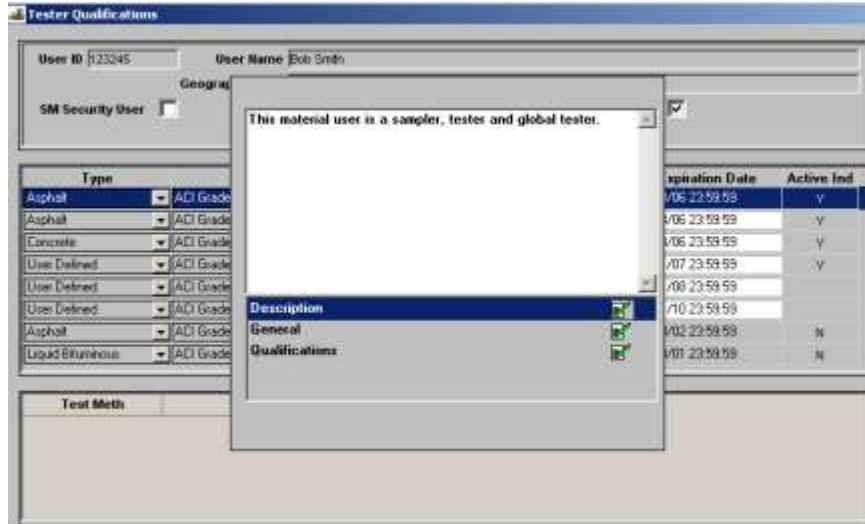
Figure **13-43**. Sampler Qualifications – Remarks

13.5 Approved Lists Reports

The Approved Lists Reports panel generates commonly used Approved List reports. See Section 13.2, Material Management Reports, for more information.
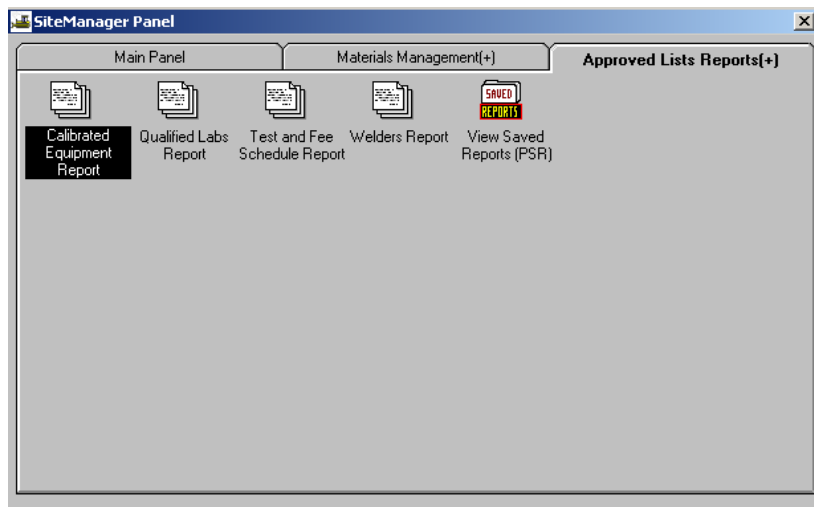
Figure 13-44. The Materials Management Approved List Reports Panel

The following report topics are available on this panel:

- Qualified Labs Report,

- Calibrated Equipment Report,

- Tests and Fee Schedule Report,

- ▪ Welders Report and,

- ▪ View Saved Report (PSR).

13.6 Contract Materials

After a contract has been initialized in SiteManager, the Contract Materials component allows the creation of Sampling and Testing Requirements, creation of Sampling and Testing Requirement Materials, or generation of an Outstanding Item List for a selected contract. SiteManager can identify the items on the contract that do not have defined Sampling and Testing Requirements. Through a background process, SiteManager generates Contract Sampling and Testing Requirements and Contract Sampling and Testing Requirement Materials records for the items that have materials for the specified contract. A notice of the generation is sent via an In-Box Message. After the process is complete, sampling and testing requirements may be modified through the Contract Sampling and Testing Requirements component of SiteManager. The Contract Change Order component handles changes in material.
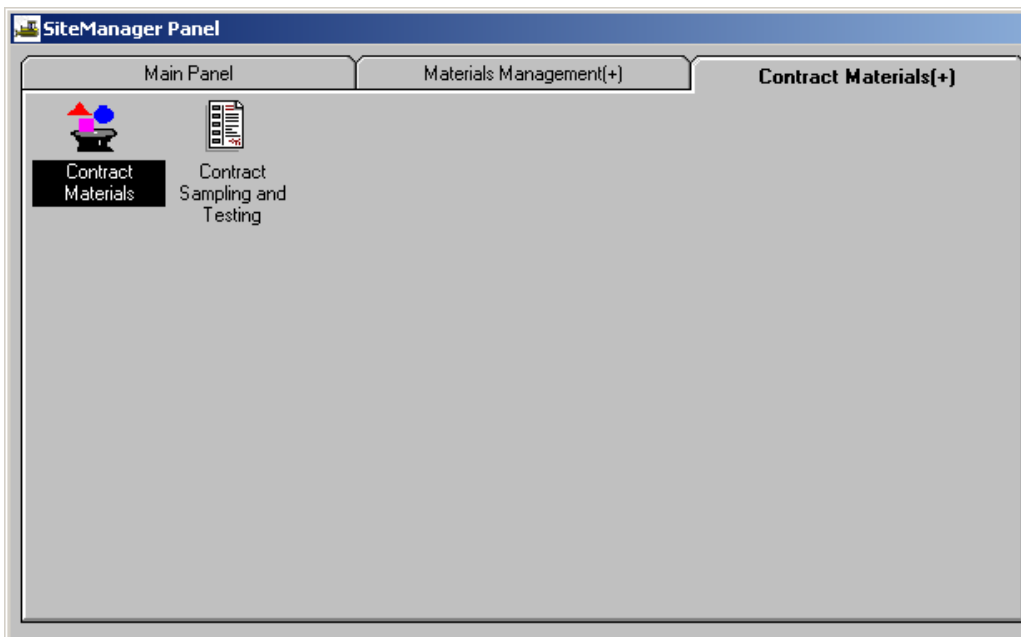
Figure 13-45. The Contract Materials Panel

A separate icon, the Approved List Reports icon, allows access to the related reports. See Section 13.2, Material Management Reports, for more information.

1. On the **Materials Management** panel, double-click the **Contract Materials** icon.

13.6.1 Building the Contract Materials List

After a contract has been initialized in SiteManager, the Contract Materials window allows the creation of Sampling and Testing Requirements for the Contract, creation of Sampling and Testing Requirement Materials, or generation of an Outstanding Item List for a selected contract. By selecting the Outstanding Items List button, the items on the contract that do not have defined Sampling and Testing Requirements can be identified. When the Generate button is selected, the Generate Contract Requirements background process is initiated. Contract Sampling and Testing Requirements and Contract Sampling and Testing Requirement Materials records are created for the items that have materials for the specified contract. Upon completion of the generation of contract sampling and testing requirements background process, a notice is sent via an In-Box.

Figure 13-46. The Contract Materials Window

Once the generation is complete a contract's sampling and testing requirements may be modified through the Contract Sampling and Testing Requirements component during the life of the contract. An essential step that must be taken after generation is the selection of a producer/supplier for each requirement. A producer/supplier is necessary for each material's contract sampling and testing requirement so that it may be monitored on the contract.

Between Contract Award and Notice to Proceed, not all Sampling & Testing Requirements are known or have been entered into SiteManager. This is especially true of items related to special provisions or where the item is new to Item Master. Services Menu option called Regenerate will all users to generate new testing requirements for a contract where the global sampling and testing requirements have been modified for a given item.

When a new item is added to the Contract by the Change Order process, Contract Sampling and Testing Requirements records will automatically be generated for each material of the Item when the Change Order is approved. If the Contract Materials generation process for the contract has not yet

occurred, the new items added to the contract via change orders will acquire Contract and Sampling Requirements during the generation process.

Field Name	Description
Prim District	The district with primary responsibility to administer the contract.
Contract ID	The contract ID.
Fed St/Prov Prj Nbr	The federal state/province project number that identifies the contract.
Status	The current status of the contract.
County	The contract's primary county.
Location	The description of the contract's work location.

Table 13-25. The Contract Material Fields Table

To generate the Contract Sampling and Testing Requirements:

1. On the **Contract Materials** panel, double-click the **Contract Materials** icon.

2. In the **Contracts** list box, scroll to and click the desired contract.

3. Click **OK**.

4. Click the **Generate** button.

5. Click the **Close** button.

To regenerate the Contract Sampling and Testing Requirements:

1. On the **Contract Materials** panel, double-click the **Contract Materials** icon.

2. Click the **Services** menu and click **Regenerate**.

3. In the Contract ID field, use the Search Lens to find and select a Contract ID.

4. Click **OK.**

5. In the **Regenerate Contract Item** list box, scroll to and click the desired contract.

6. Click **OK**.

7. Scroll the Item list for items where the global sampling and testing requirements have been modified and new requirements need to be generated. Deselect the items that do not require regeneration.

8. Click the **OK** button.

9. Click the **Yes** button to agree to the regeneration.

To generate the Sampling and Testing Requirements Materials:

1. On the **Contract Materials** panel, double-click the **Contract Materials** icon.

2. In the **Contracts** list box, scroll to and click the desired contract.

3. Click **OK**.

4. Click the **Outstanding Item** button.

5. Click the **Close** button.

13.6.2 Maintaining Contract Materials List

The Contract Change Order component of SiteManager handles changes in materials. When a new item is added to the Contract by the Change Order process, Contract Sampling and Testing Requirements records will automatically be generated for each material of the Item when the Change Order is approved.

For more information, refer to Section 11, Change Orders.

13.6.3 Contract Sample and Testing Requirements

After the Contract Materials List generation is complete, sampling and testing requirements may be modified through the Contract Sampling and Testing Requirements icon. The main purpose of this process is to provide the ability to make changes to materials contained within a contract line item and the contract sampling and testing requirements for that material. This includes adding the producer/supplier of a material, material substitutions, conversion factor changes and testing requirement changes. Sample and Testing Requirements may change throughout the life of the contract.

To access Contract Sampling and Testing Requirements:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** icon.

13.6.4 Materials Folder Tab

The Material folder tab allows the specification of the conversion factor and approved source required indicator for a selected material on a bid item. If necessary, the Material can also be viewed from this window.
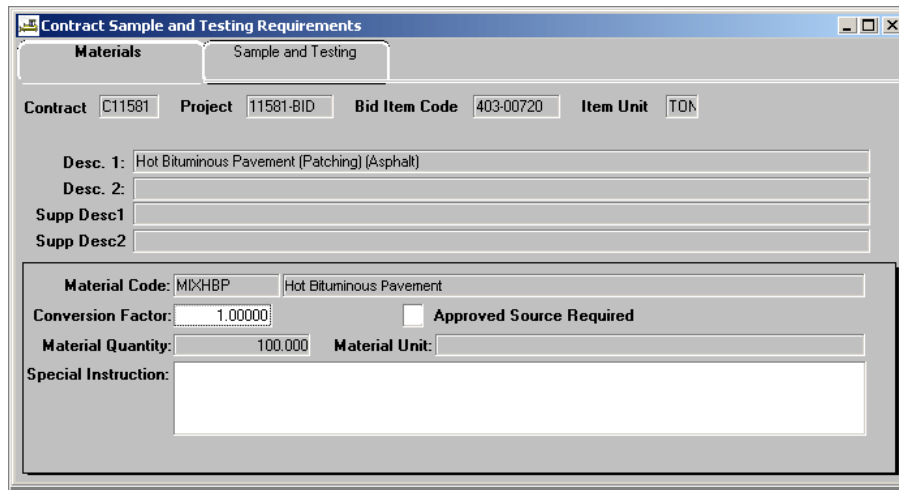
Figure 13-47. The Material Folder Tab

Field Name	Description
Material Code	The ID for a material.
Conversion Factor	This is used by the required samples calculation to convert current quantity to required quantity.
Approved Source Required Indicator	This indicates whether or not an approved source must be used here. Depending upon the System Operational Parameters settings, this field may be hidden.
Material Unit	The description of the material's unit of measure. Depending upon the System Operational Parameters settings, the field will either be protected or the user will be allowed to pick from a drop down list of units.
Special Instructions	This is the special instruction for the material on the contract. This will be passed from the Material Sampling and Testing Requirements window.

Table 13-26. The Materials Window Fields Table

To modify a material code for a bid item:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** icon.

2. In the list box, scroll to and double-click the desired **Contract**.

3. In the list box, scroll to and double-click the desired **Project/Line Item**.

4. In the list box, scroll to and click the desired **Material**.

5. Click **OK**.

6. In the **Conversion Factor** field, type desired value.

7. If desired, click the **Approved Source Require** check box (ON).

8. Click the **Save** button.

To add material code for a bid item:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** icon.

2. In the **Item** list box, scroll to and click the desired item.

3. Click **OK**.

4. Using the right mouse button, click the **Material Code** field.

5. Perform a **Search** using the object menu (referenced in the Getting Started section).

6. Click **OK**.

7. Press the **Tab** key.

8. In the **Conversion Factor** field, type desired value.

9. If desired, click the **Approved Source Require** check box (ON).

10. Click the **Save** button.

To view the material:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** icon.

2. Open or select the material.

3. Click the **Services** menu and click the **View Material** choice.

4. When complete, click the **Close** button.

Materials Copy Capabilities

Like the Sampling and Testing Requirements window, the Materials folder tab of the Contract Sampling and Testing Requirements window has an unusual copy capability. The Service menu's Copy Records choice allows the user to copy the sampling and testing requirements of a contract item's material to a new material for the same item, but only if the sampling and testing requirements are applicable for the material. Also, the sampling and testing requirements of a contract item's material cannot be copied to another material that is already associated to the contract item.

The Service menu's Copy Item Records capability allows the user to copy the materials of an item (and their sampling and testing requirements) to another item on the same contract.

To copy the material records:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** Requirements icon.

2. Open the **Contract** item's material.

3. Click the **Services** menu and click the **Copy Records** choice.

4. Using the right mouse button, click the **Material** field.

5. In the list box, scroll to and click the desired material

6. Click **OK**.

To copy the material item records:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** Requirements icon.

2. Open a **Contract** item's material.

3. Click the **Services** menu and click the **Copy Item Records** choice.

4. In the list box, scroll to and click the item choice.

5. Click **OK**.

> 📄 **Note**: On the Contract Sampling and Testing Requirements window, the materials of an item (and their sampling and testing requirements) cannot be copied to an item on a different contract.

Sampling and Testing Folder Tab

The Sampling and Testing tab allows the modification of a materials sample and testing information for a given bid item. The top portion of the tab allows the user to pick which of the sets of detail needs to be edited. The bottom portion allows the user to edit the information.

Figure 13-48. The Sampling and Testing Folder Tab

Field Name	Description

Field Name	Description
Producer/Supplier Code	The name of the producer/supplier. This field may be optional, dependent upon the System Operational Parameter settings.
Sample Type	Identifies the type of the test begin performed (e.g., acceptance, job control, manufacturers, certification, visual, etc.) This field may be optional, dependent upon the System Operational Parameter settings.
Acceptance Method	Identifies how the material will be accepted on the contract (e.g., manufacturer certification, brand name, etc.) This field may be optional, dependent upon the System Operational Parameter settings.
Test Method	Method used for testing the material (e.g., T11, T27, T84, etc.) This field may be optional, dependent upon the System Operational Parameter settings.
Producer/Supplier Code	The Producer/Supplier ID
Sample Location	The area from which to collect the sample (e.g., roadside, plant, truck, stockpile, etc.)
Sample Frequency	The rate at which a sample must be collected.
Sample Size	The size of the sample.
Sample Unit	The unit of measure for a sample (e.g., mm, feet, yards, inches)
Sample Responsibility	A Transportation agency-defined value identifying the level responsible for taking the sample (e.g., project engineer, inspector, central test lab, etc.)
Test Responsibility	A Transportation agency-defined value identifying the entity responsible for processing the test (e.g., local test lab, central test lab, etc.)

Table 13-27. The Sampling and Testing Folder Tab Fields Table

To add sampling and testing requirements to the material for a bid item:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** icon.

2. Open or add a material for a bid item.

3. Click the **Sample and Testing** folder tab.

4. If necessary, click the **New** button.

5. In the **Producer Supplier Code** field, use the right mouse button to perform a **Search** using the object menu.

6. Click the desired choice and click **OK**.

7. In the **Sample Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. In the **Acceptance Method** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

9. In the **Test Method** field, use the right mouse button to perform a Search using the object menu. Click the desired choice and click OK.

10. Press the **Tab** key.

11. Type the number of **Samples** that should be taken per a specific quantity of Items installed

12. In the **Sample Location** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

13. Press the **Tab** key.

14. In the **Sample Frequency** field, type the desired value.

15. In the **Sample Units** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

16. Press the **Tab** key.

17. In the **Sample Size** field, type the desired value.

18. In the **Sample Responsibility** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. In the **Test Responsibility** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

20. Click the **Save** button.

To modify sampling and testing requirements of the material for a bid item:

1. On the **Contract Materials** panel, double-click the **Contract Sampling and Testing** icon.

2. Open a material for a bid item.

3. Click the **Sample and Testing** folder tab.

4. In the list at the top of the window, click the desired sampling and testing requirement record.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

13.7 Mix Design

Mix Designs and Contract Mix Designs are defined and maintained using the Mix Designs panels.
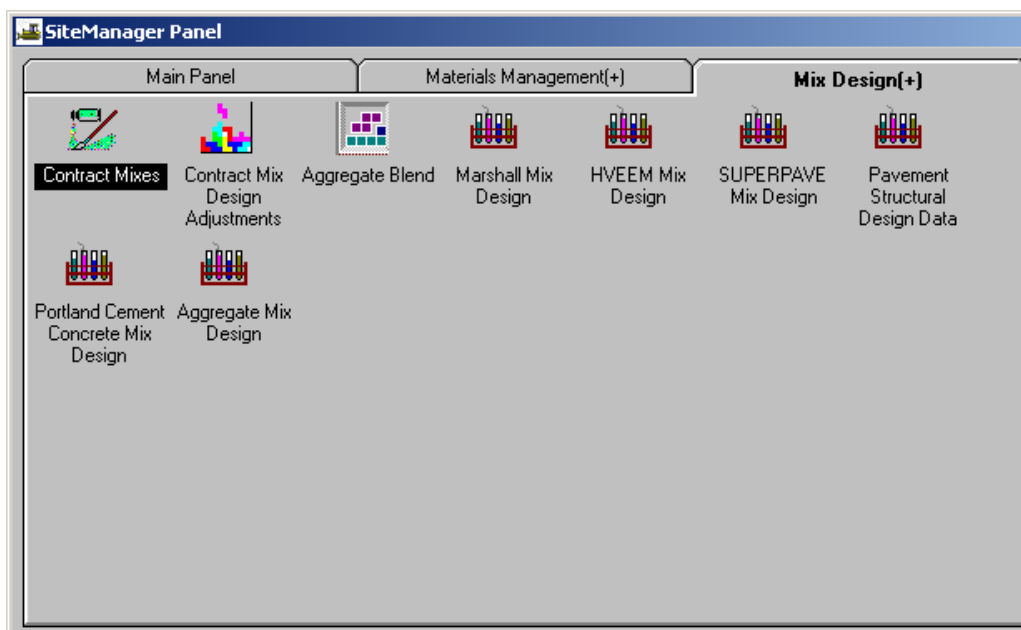
Figure 13-49. The Mix Design Panel

A separate icon, the Mix Design Reports icon, allows access to the related reports. See Section 13.2, Material Management Reports, for more information.

To access the Mix Design panel:

1. On the **Materials Management** panel, double-click the **Mix Designs** icon.

13.7.1 Bituminous Concrete Mix Designs

SiteManager provides three Bituminous Concrete Mix Designs:

- HVEEM,

- Marshall Mix, and

- SUPERPAVE.

Each Bituminous Concrete Mix Designs is represented by an icon on the Mix Designs panel. When you open any of the Bituminous Concrete Mix Designs, by double-clicking its icon, the window that initially appears (as illustrated in Figure 1-39) has four folder tabs:

- Description,

- Properties,

- Materials, and

- Gradations.

The windows that will display for the Description and Properties folder tab of each Bituminous Concrete Mix Design will be similar, but different. In the following documentation, these windows are documented uniquely.

The windows that will display for the Materials and Gradation folder tab of each Bituminous Concrete Mix Designs are IDENTICAL. In the following documentation, these windows are documented one time. A cross reference at the end of each Bituminous Concrete Mix Design section will refer to the common procedure covered in the Bituminous Concrete Mix Designs Materials and Gradation Folder Tabs topic.

Figure 13-50. The Bituminous Concrete Mix Design Description Folder Tab

HVEEM Mix Designs

HVEEM Mix Design window allows for the addition, modification, and approval of HVEEM Mix Designs. An HVEEM Mix Design may not be changed if it is approved. The test results on this window are used by SiteManager for comparison. An HVEEM Mix Design may also be downloaded for a specific contract.

Figure 13-51. The HVEEM Mix Design Description Folder Tab

The search lens on the Materials Tab - Sample ID field will display all the samples if the current user group is the same as assigned to the Limited Access Sample Group or Limited Access Standalone

Group System Operational Parameter. The samples locked in Limited Access will be excluded from all other user groups.

Field Name	Description
Mix ID	The ID for the HVEEM mix.
Material Code	The transportation agency-defined ID for a material. This is the material code for the HVEEM mix.
Full Name	Full description of material.
Producer/Supplier Code	The transportation agency-defined ID for a source/location of the material. Producer/Supplier Code must have an active status on the Producer Supplier table, when entered.
Producer Supplier Name	Source name.
Designer Nm	The name of the designer responsible for the HVEEM mix.
AC Type	Identifies the type of asphalt cement.
Mix Type	This describes the type of mix design (e.g., A, D, etc.)
Effective Date	Effective date for the HVEEM mix. Defaults to current date when a new HVEEM mix is entered.
Termination Date	Date the HVEEM mix is no longer available for use. Must be greater than Effective Date.
Approved Date	A system generated date to identify when the HVEEM mix was approved. Defaults to current date when a HVEEM mix is approved.
Approved By User ID	A system generated value containing the user ID of the person approving the HVEEM mix.

Table 13-28. The HVEEM Mix Design Description Tab Fields Table

To modify an existing unapproved HVEEM Mix Design:

1. On the **Mix Design** panel, double-click the **HVEEM Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired **HVEEM Mix Design**.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

8. Click the **Properties** folder tab.

9. Press the **Tab** key to advance to the field to be modified.

10. Enter the desired change.

11. Click the **Save** button.

12. Click the **Materials** folder tab.

13. Press the **Tab** key to advance to the field to be modified.

14. Enter the desired change.

15. Click the **Save** button.

16. Click the **Gradations** folder tab.

17. Press the **Tab** key to advance to the field to be modified.

18. Enter the desired change.

19. Click the **Save** button.

To add a new HVEEM Mix Design description:

1. On the **Mix Design** panel, double-click the **HVEEM Mix Design** icon.

2. On the **Description** folder tab, type the **mix id**.

3. Press the **Tab** key.

4. Using the right mouse button, click the **Material Code** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired material code

7. Click **OK**.

8. Press the **Tab** key.

9. Using the right mouse button, click the **Producer/Supplier Code** field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired **Producer/Supplier** code.

12. Click **OK**.

13. Press the **Tab** key.

14. Using the right mouse button, click the **Designer Name** field.

15. From the object menu, click the **Search** choice.

16. In the list box, scroll to and click the desired designer name.

17. Click **OK**.

18. In the **AC Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. In the **Mix Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

20. Press the **Tab** key.

21. In the **Effective Date** field, type effective date if different than today.

22. Press the **Tab** key.

23. In the **Termination Date** field, type termination date if appropriate.

24. Click the **Save** button.

HVEEM Mix Designs Properties Folder Tab
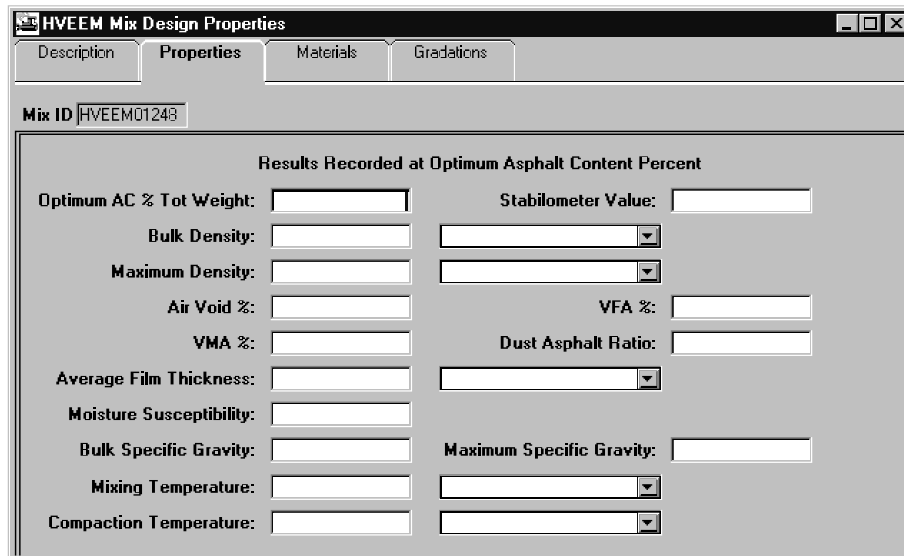
Figure 13-52. The HVEEM Mix Design Properties Window

Field Name	Description
Optimum AC % Tot Weight	Target value asphalt content weight of total mixture.
Stabilometer Value	Stabilometer value at optimum asphalt content.
Bulk Density	Weight per unit volume of mix at optimum asphalt content.
Bulk Dnsty Optm AC Units Type	Unit of measure for bulk density at optimum asphalt content, (e.g., PCF, etc.)
Maximum Density	Unit weight of mix zero air voids at optimum asphalt content.
Max Density Units Type	Unit of measure for Maximum Density (e.g., PCF, etc.)
Air Void %	Percentage of air voids in the compacted HVEEM mix at optimum asphalt content.
VFA %	Percent of VMA filled by the effective asphalt.
VMA %	Percent voids in the mineral aggregate at optimum AC content.

Field Name	Description
Average Film Thickness	Average thickness of asphalt film that surrounds the aggregate.
Dust Asphalt Ratio	Ratio of material passing the #200 sieve to the optimum asphalt content.
Moisture Susceptibility	Ratio of conditional (wet) to dry tensile strength.
Maximum Specific Gravity	Maximum specific gravity of the mix at zero air voids.
Bulk Specific Gravity	Bulk specific gravity of the mix at optimum AC content.
Mixing Temperature	Mixing temperature.
Mixing Temperature Units Type	Unit of measure for Mixing Temperature (e.g., Fahrenheit, Celsius, etc.)
Compaction Temp	Compaction temperature.
Compaction Temp Units Type	Unit of measure for Compaction Temperature (e.g., Fahrenheit, Celsius, etc.)

Table 13-29. The HVEEM Mix Design Properties Fields Table

To add new HVEEM Mix Design properties:

1. On the **Mix Design** panel, double-click the **HVEEM Mix Design** icon.

2. Add a **HVEEM Mix Design** description.

3. Click the **Properties** folder tab.

4. In the **Optimum AC % Tot Weight** field, type the desired value.

5. Press the **Tab** key.

6. In the **Stabilometer Value** field, type the desired value.

7. Press the **Tab** key.

8. In the **Bulk Density** field, type the desired value.

9. In the **Bulk Dnsty Optm AC Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. In the **Maximum Density** field, type the desired value.

12. In the **Max Density Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

13. Press the **Tab** key.

14. In the **Air Void %** field, type the desired value.

15. Press the **Tab** key.

16. In the **VFA %** field, type the desired value.

17. Press the **Tab** key.

18. In the **VMA %** field, type the desired value.

19. Press the **Tab** key.

20. In the **Dust Asphalt Ratio** field, type the desired value.

21. Press the **Tab** key.

22. In the **Average Film Thickness** field, type the desired value.

23. In the drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

24. Press the **Tab** key.

25. In the **Bulk Specific Gravity** field, type the desired value.

26. Press the **Tab** key.

27. In the **Maximum Specific Gravity** field, type the desired value.

28. Press the **Tab** key.

29. In the **Mixing Temperature** field, type the desired value.

30. Press the **Tab** key.

31. In the **Mixing Temperature Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

32. In the **Compaction Temp** field, type the desired value.

33. Press the **Tab** key.

34. In the **Compaction Temp Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

35. Click the **Save** button.

HVEEM Mix Designs Material and Gradations Folder Tabs

To complete the creation of an HVEEM Mix Design, the data on the Material and Gradations folder tabs must also be completed. The steps for completing the process are described in the Bituminous Concrete Mix Designs Materials and Gradation Folder Tabs topic.

Marshall Mix Designs

Marshall Mix Design window allows for the addition, modification, and approval of Marshall Mix Designs. A Marshall Mix Design may not be changed if it is approved. The test results on this window can be used by SiteManager for comparison. A Marshall Mix Design may also be downloaded for a specific contract.

The search lens on the Materials Tab - Sample ID field will display all the samples if the current user group is the same as assigned to the Limited Access Sample Group or Limited Access Standalone Group System Operational Parameter. The samples locked in Limited Access will be excluded from all other user groups.

To modify an existing unapproved Marshall Mix Design:

1. Double-click the **Marshall Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

8. Click the **Properties** folder tab.

9. Press the **Tab** key to advance to the field to be modified.

10. Enter the desired change.

11. Click the **Save** button.

12. Click the **Materials** folder tab.

13. Press the **Tab** key to advance to the field to be modified.

14. Enter the desired change.

15. Click the **Save** button.

16. Click the **Gradations** folder tab.

17. Press the **Tab** key to advance to the field to be modified.

18. Enter the desired change.

19. Click the **Save** button.

Marshal Mix Design Description Folder Tab

Figure 13-53. The Marshal Mix Design Description Window

Field Name	Description
Mix ID	The ID for the Marshall mix.
Material Code	The transportation agency-defined ID for a material. This is the material code for the Marshall mix.
Full Name	Full description of material.
Producer/Supplier Code	The transportation agency-defined ID for a source/location of the material. Producer/Supplier Code must have an active status on the Producer Supplier table, when entered.
Producer Supplier Name	Source name.
Designer Nm	The name of the designer responsible for the Marshall mix.
Mix Type	This describes the type of mix design (e.g., A, D, etc.)
Effective Date	Effective date for the Marshall mix. Defaults to current date when a new Marshall mix is entered.
Termination Date	Date the Marshall mix is no longer available for use. Must be greater than Effective Date.

Field Name	Description
Approved Date	A system generated date to identify when the Marshall mix was approved. Defaults to current date when a Marshall mix is approved.
Approved By User ID	A system generated value containing the user ID of the person approving the Marshall mix.

Table 13-30. The Marshall Mix Design Description Fields Table

To add a new Marshall Mix Design description:

1. On the **Mix Design** panel, double-click the **Marshall Mix Design** icon.

2. On the **Description** folder tab, type the **mix id**.

3. Press the **Tab** key.

4. Using the right mouse button, click the **Material Code** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired material code

7. Click **OK**.

8. Press the **Tab** key.

9. Using the right mouse button, click the **Producer/Supplier Code** field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired **Producer/Supplier** code.

12. Click **OK**.

13. Press the **Tab** key.

14. Using the right mouse button, click the **Designer Name** field.

15. From the object menu, click the **Search** choice.

16. In the list box, scroll to and click the desired designer name.

17. Click **OK**.

18. In the **Mix Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. Press the **Tab** key.

20. In the **Effective Date** field, type effective date if different than today.

21. Press the **Tab** key.

22. In the **Termination Date** field, type termination date if appropriate.

23. Click the **Save** button.

Marshall Mix Designs Custom Record

The Marshall Mix Design window includes a Custom Record menu item on the Services menu similar to that on the Contracts window. On selecting this services menu option, Custom Marshall Mix Design Usage Record, will be opened in order to add and/or modify custom Marshall Mix Design usage records. The service menu option is available on all tabs.

If any custom Marshall mix design usage records exist for the selected Marshall mix design, the records will be displayed in a new Custom Records datawindow on the Description tab. The Custom Records datawindow is display only.

> 📄 **Note:** The Custom Record Services menu option will <u>only</u> be displayed depending on the System Operational Parameter Allow Custom SUPERPAVE Mix Design Record Templates setting. The default value will be set to no.

To open the Custom Record datawindow:

1. On the **Mix Design** panel, double-click the **Marshall Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

5. Click on the **Services** and select **Custom Records**.
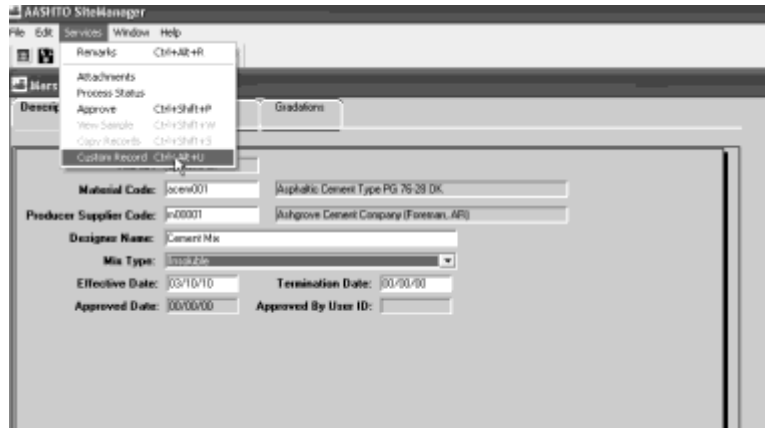
Figure **13**-**54**. The Custom Marshall Mix Design – Custom Record

Field Name	Description
Custom Record Template ID	The template ID of the custom record for this Marshall Mix Design.
	This field is protected.
Custom Record Description	The Description of the custom record for this Marshall Mix Design.
	This field is protected.

Table 13-31. The Custom Marshall Mix Design Record Template Fields Table

Custom Marshall Mix Designs Usage Record

The Custom Marshall Mix Design Usage Record window lets the user add and modify Custom Marshall Mix Design records using existing Custom Marshall Mix Design Record templates. The user selects a Custom Marshall Mix Design Record template on the window, and the window displays the selected template. If data has been entered on this template for the selected Mix Design, the data is displayed. The existing Custom Marshall Mix Design Record templates are created and generated using the Custom Templates (List & Record) window.

The Custom Record Services menu option will be displayed depending on the System Operational Parameter Allow Custom Marshall Mix Design Record Templates setting.

Figure **13**-**55**. Custom Marshall Mix Design Usage Record window
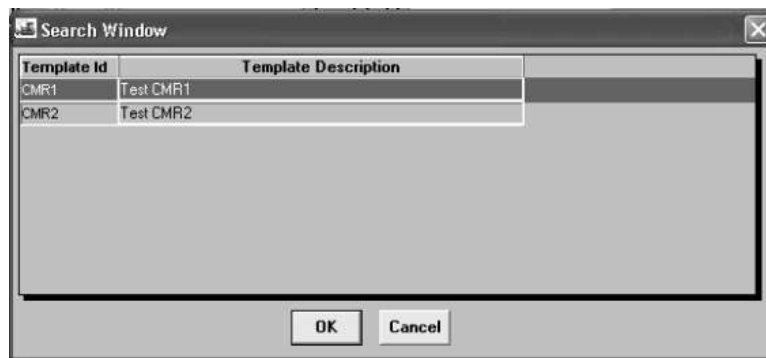
Figure **13**-**56**. Search Window for Custom Marshall Mix Design Record Templates

Field Name	Description
Mix ID	The Mix ID for the current Mix Design.
	This field is protected.
Template ID 🔍	This column is editable and standard search lens feature is provided to select from the list of available custom Marshall Mix Design Record templates. The list will display Template ID and Template Description in the datawindow.
	This column is editable and user can enter the partial Template ID and use the search or filter search facility.
	Once the Template ID is accepted, the Template information is retrieved.
Template name	The description of the template chosen by the user.
	This field is protected.
Template Content	This area will contain the fields that are included in the Template.

Field Name	Description
	The fields will be editable unless the Mix Design is Approved.

Table 13-32. The Custom Marshall Mix Design Record Template Fields Description Table

To add a Custom Marshall Mix Design Record Template:

1. On the **Mix Design** panel, double-click the **Marshall Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

5. Click on the **Services** and select **Custom Records**.

6. Right click on **Template ID** to begin Search.

7. Double-click on desired Template ID.

8. Close the **Custom Records** window.

9. Click the **Save** button.

Marshall Mix Designs Properties Folder Tab

Figure 13-57. The Marshall Mix Design Properties Folder Tab

Field Name	Description
Asphalt Content %	Percentage of asphalt content.
Stability	Stability of the Marshall mix design.
Stability Units Type	Unit of measure for stability value (e.g., newtons, pounds.) Required when Stability entered.
Flow	Flow of the Marshall mix design.
Flow Units Type	Unit of measure for flow value (e.g., millimeters, inches.) Required when Flow entered.
Air Void %	Percentage of air voids in the mix.
VMA %	Percent voids in the mineral aggregate.
Film Thickness	Thickness of asphalt film surrounding aggregates.
Filler/Bitumen Ratio	Ratio of filler/bitumen in the mix.
VFA %	Percent of VMA filled by the effective asphalt.
Brick Height	Height of the brick.

Field Name	Description
Brick Height Units Type	Unit of measure for brick height value (e.g., inches, etc.) Required when Brick Height entered.
Recycling Agent %	The percentage of recycling agent added into the mix.
Anti-Strip Agent %	The percentage of anti-strip agent added into the mix.
Asphalt Absorption %	Percent of asphalt absorbed.
Weighted Bulk Specific Gravity	Weighted bulk specific gravity of aggregates.
Maximum Specific Gravity	Maximum specific gravity of the Marshall mix design.
Bulk Specific Gravity	Bulk specific gravity of the Marshall mix design.
Virtual Specific Gravity	Virtual specific gravity of the Marshall mix design.
Effective Asphalt	Percent of asphalt after absorption by aggregate.
Density/Unit Weight	Density/unit weight of the Marshall mix design.
Density Unit Weight Units Type	Unit of measure for density/unit weight value, e.g. grams/cm3, lb/ft3, etc.) Required when Density/Unit Weight entered.
Number of Blows	The number of times struck.
Mixing Temperature	Design mixing temperature.
Mixing Temperature Units Type	Unit of measure for mixing temperature value (e.g., Centigrade, Fahrenheit, etc.) Required when Mixing Temperature entered.
Compaction Temp	Design compaction temperature.
Compaction Temperature Units Type	Unit of measure for compaction temperature value (e.g., Centigrade, Fahrenheit, etc.) Required when Compaction Temp entered.

Table 13-33. The Marshall Mix Design Properties Fields Table

To add new Marshall Mix Design properties:

1. Add or open the **Marshall Mix Design** description.

2. Click the **Properties** folder tab.

3. In the **Asphalt Content %** field, type the desired value.

4. Press the **Tab** key.

5. In the **Stability** field, type the desired value.

6. In the **Stability Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

7. Press the **Tab** key.

8. In the **Flow** field, type the desired value.

9. In the **Flow Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

10. Press the **Tab** key.

11. In the **Air Void %** field, type the desired value.

12. Press the **Tab** key.

13. In the **VMA %** field, type the desired value.

14. Press the **Tab** key.

15. In the **Film Thickness** field, type the desired value.

16. Press the **Tab** key.

17. In the **Filler/Bitumen Ratio** field, type the desired value.

18. Press the **Tab** key.

19. In the **VFA %** field, type the desired value.

20. Press the **Tab** key.

21. In the **Brick Height** field, type the desired value.

22. In the **Brick Height Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

23. Press the **Tab** key.

24. In the **Recycling Agent %** field, type the desired value.

25. Press the **Tab** key.

26. In the **Anti-Strip Agent %** field, type the desired value.

27. Press the **Tab** key.

28. In the **Weighted Bulk Specific Gravity** field, type the desired value.

29. Press the **Tab** key.

30. In the **Maximum Specific Gravity** field, type the desired value.

31. Press the **Tab** key.

32. In the **Bulk Specific Gravity** field, type the desired value.

33. Press the **Tab** key.

34. In the **Virtual Specific Gravity** field, type the desired value.

35. Press the **Tab** key.

36. In the **Effective Asphalt** field, type the desired value.

37. Press the **Tab** key.

38. In the **Density/Unit Weight** field, type the desired value.

39. In the **Density/Unit Weight Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

40. In the **Mixing Temperature** field, type the desired value.

41. In the **Mixing Temperature Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

42. In the **Compaction Temp** field, type the desired value.

43. Press the **Tab** key.

44. In the **Compaction Temp Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

45. Click the **Save** button.

Marshall Mix Designs Materials and Gradations Folder Tabs

To complete the creation of a Marshall Mix Design, the data on the Materials and Gradations folder tabs must also be completed. The steps for completing the process are described in the Bituminous Concrete Mix Designs Materials and Gradation Folder Tabs topic.

SUPERPAVE Mix Design

The SUPERPAVE Mix Design window allows for the addition, modification, and approval of SUPERPAVE Mix Designs. A SUPERPAVE Mix Design may not be changed if it is approved. The test results on this window are used by SiteManager for comparison. A SUPERPAVE Mix Design may also be downloaded for a specific contract.

The SUPERPAVE Mix Design window has four tabs:

- Description tab

- Properties tab

- Materials tab

- Gradations tab

SUPERPAVE Mix Designs Description Folder Tab

To open the SUPERPAVE Mix Design window, from the Mix Design navigation panel, double-click the SUPERPAVE Mix Design icon.

The SUPERPAVE Mix Design window has a copy function located under Services on the Description folder tab. The user will be able to open up an existing mix design and copy all the details on the existing SUPERPAVE Mix design to a new SUPERPAVE Mix Design and assign a new Mix ID. The copy functionality will copy all the values of the Descriptive tab, Properties tab, Material tab, and Gradation tab data. The copy functionality will assign the Effective Date as the current system date on the new mix design. The Termination Date will be blanked out. The Approved Date and Approved By User ID fields will be cleared even if the original mix design had been approved. The user will have to save the data with the new Mix ID to view or change the data of Material tab or Gradation tab.

Attachments for the SUPERPAVE Mix Design window are accessible from the Services\Attachment menu option or from the attachment icon on the tool bar. For a more full description on the functionality and use of attachments within SiteManager, please refer to the *SiteManager User Reference Manual* and the *SiteManager System Manager's Guide*.

If any custom SUPERPAVE mix design usage records exist for the selected SUPERPAVE mix design, the records will be displayed in a Custom Records datawindow on the Description tab. The Custom Records datawindow is display only.

Whether this Custom Records datawindow is shown will depend on the System Operational Parameter Allow Custom SUPERPAVE Mix Design Record Template setting.

If the SUPERPAVE mix design is approved, no changes will be allowed to the SUPERPAVE mix design usage records.

If the user changes the Material Code on the Description tab and there is Gradation data for that Mix Design ID then a message will be displayed prompting the user that the Gradation data associated to the mix will be deleted and based on users choice the material code will be accepted and the Gradation data will be deleted.

The search lens on the Materials Tab - Sample ID field will display all the samples if the current user group is the same as assigned to the Limited Access Sample Group or Limited Access Standalone Group System Operational Parameter. The samples locked in Limited Access will be excluded from all other user groups.

To modify an existing unapproved SUPERPAVE Mix Design:

1. On the **Mix Design** panel, double-click the **SUPERPAVE Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

8. Click the **Properties** folder tab.

9. Press the **Tab** key to advance to the field to be modified.

10. Enter the desired change.

11. Click the **Materials** folder tab.

12. Press the **Tab** key to advance to the field to be modified.

13. Enter the desired change.

14. Click the **Gradations** folder tab.

15. Press the **Tab** key to advance to the field to be modified.

16. Enter the desired change.

17. Click the **Save** button.

To add a new Custom SUPERPAVE Mix Design description:

1. On the **Mix Design** panel, double-click the **SUPERPAVE Mix Design** icon.

2. On the **Description** folder tab, type the **mix id**.

3. Press the **Tab** key.

4. Using the right mouse button, click the **Material Code** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired material code

7. Click **OK**.

8. Press the **Tab** key.

9. Using the right mouse button, click the **P**roducer/Supplier Code field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired **Producer/Supplier** code.

12. Click **OK**.

13. Press the **Tab** key.

14. Using the right mouse button, click the **Designer Name** field.

15. From the object menu, click the **Search** choice.

16. In the list box, scroll to and click the desired designer name.

17. Click **OK**.

18. In the **AC Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. In the **Mix Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

20. Press the **Tab** key.

21. In the **Effective Date** field, type effective date if different than today.

22. Press the **Tab** key.

23. In the **Termination Date** field, type termination date if appropriate.

24. To add an attachment, click on the attachments icon and select either the Plug-in, URL or Ole attachment type.

25. Click the **Save** button.
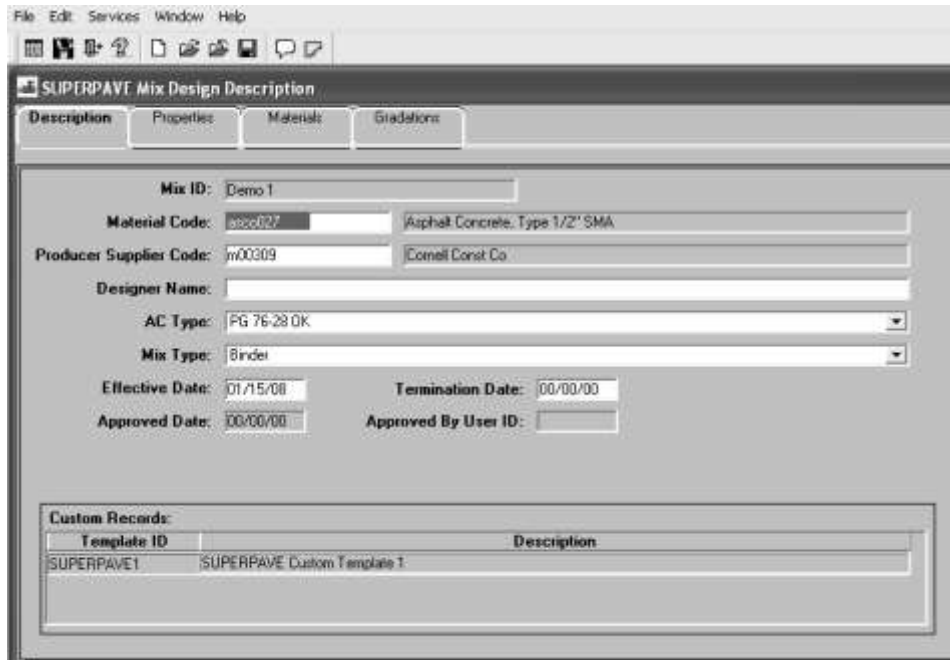
Figure 13-58. The SUPERPAVE Mix Design Description Window
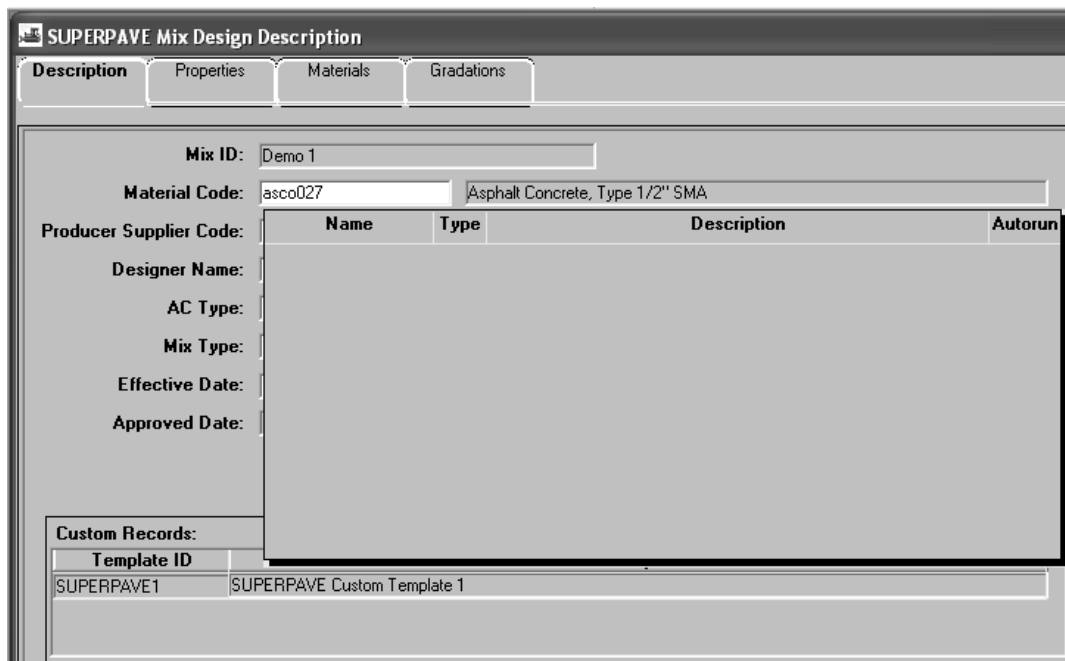
Figure 13-59. The SUPERPAVE Mix Design Description Window - Attachments

Field Name	Description
Mix ID	The ID for the SUPERPAVE mix design.

Field Name	Description
Material Code	The transportation agency-defined ID for a material. This is the material code for the SUPERPAVE mix.
Full Name	Full description of material.
Producer/Supplier Code	The transportation agency-defined ID for a source/ location of the material. Producer/Supplier Code must have an active status on the Producer Supplier table, when entered.
Producer Supplier Name	Source name.
Designer Nm	The name of the designer responsible for the SUPERPAVE mix.
AC Type	Identifies the type of asphalt cement.
Mix Type	This describes the type of mix design (e.g., A, D, etc.)
Effective Date	Effective date for the SUPERPAVE mix. Defaults to current date when a new SUPERPAVE mix is entered.
Termination Date	Date the SUPERPAVE mix is no longer available for use. Must be greater than Effective Date.
Approved Date	A system generated date to identify when the SUPERPAVE mix was approved. Defaults to current date when a SUPERPAVE mix is approved.
Approved By User ID	A system generated value containing the user ID of the person approving the SUPERPAVE mix.

Table 13-34. The SUPERPAVE Mix Design Description Fields Table

SUPERPAVE Mix Designs Custom Record

The SUPERPAVE Mix Design window includes a Custom Record menu item on the Services menu similar to that on the Contracts window. On selecting this services menu option, Custom SUPERPAVE Mix Design Usage Record, will be opened in order to add and/or modify custom SUPERPAVE Mix Design usage records. The service menu option is available on all tabs.

If any custom SUPERPAVE mix design usage records exist for the selected SUPERPAVE mix design, the records will be displayed in a new Custom Records datawindow on the Description tab. The Custom Records datawindow is display only.

> 📄 **Note:** The Custom Record Services menu option will <u>only</u> be displayed depending on the System Operational Parameter Allow Custom SUPERPAVE Mix Design Record Templates setting. The default value will be set to no.

To open the Custom Record datawindow:

6. On the **Mix Design** panel, double-click the **SUPERPAVE Mix Design** icon.

7. On the **Description** folder tab, click the **Open** button.

8. Select the desired mix design.

9. Click **OK**.

10. Click on the **Services** and select **Custom Records**.

Figure **13-60**. The Custom SUPERPAVE Mix Design – Custom Record

Field Name	Description
Custom Record Template ID	The template ID of the custom record for this SUPERPAVE Mix Design.
	This field is protected.

Field Name	Description
Custom Record Description	The Description of the custom record for this SUPERPAVE Mix Design.
	This field is protected.

Table 13-35. The Custom SUPERPAVE Mix Design Record Template Fields Table

Custom SUPERPAVE Mix Designs Usage Record

The Custom SUPERPAVE Mix Design Usage Record window lets the user add and modify Custom SUPERPAVE Mix Design records using existing Custom SUPERPAVE Mix Design Record templates. The user selects a Custom SUPERPAVE Mix Design Record template on the window, and the window displays the selected template. If data has been entered on this template for the selected Mix Design, the data is displayed. The existing Custom SUPERPAVE Mix Design Record templates are created and generated using the Custom Templates (List & Record) window.

The Custom Record Services menu option will be displayed depending on the System Operational Parameter Allow Custom SUPERPAVE Mix Design Record Templates setting.
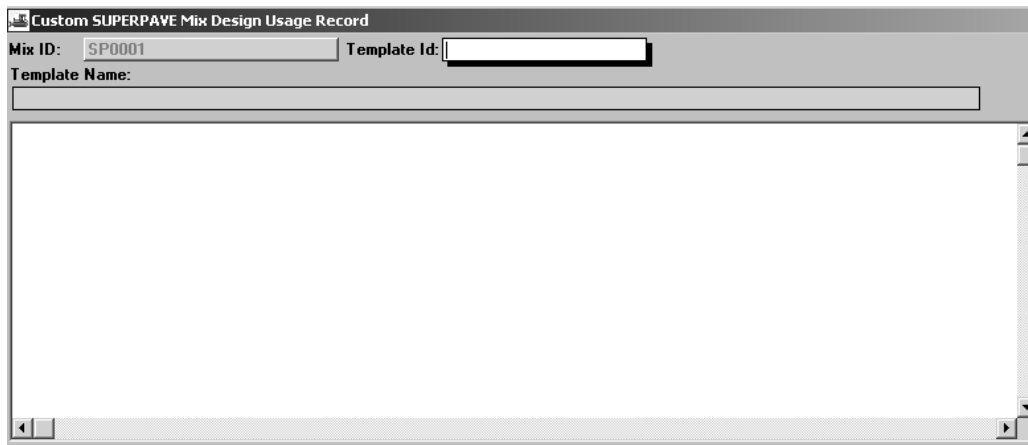
Figure **13-61**. Custom SUPERPAVE Mix Design Usage Record window
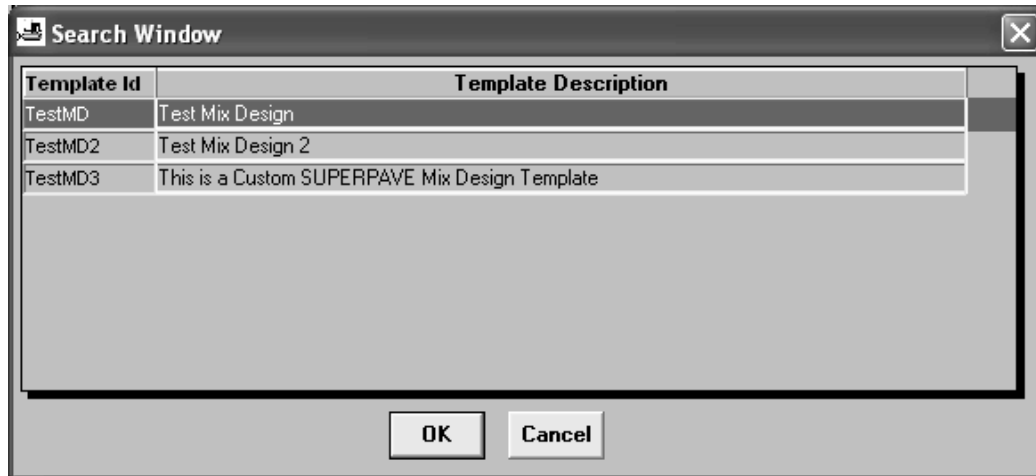
Figure **13-62**. Search Window for Custom SUPERPAVE Mix Design Record Templates

Field Name	Description
Mix ID	The Mix ID for the current Mix Design.
	This field is protected.
Template ID 🔍	This column is editable and standard search lens feature is provided to select from the list of available custom SUPERPAVE Mix Design Record templates. The list will display Template ID and Template Description in the datawindow.
	This column is editable and user can enter the partial Template ID and use the search or filter search facility.
	Once the Template ID is accepted, the Template information is retrieved.
Template name	The description of the template chosen by the user.
	This field is protected.
Template Content	This area will contain the fields that are included in the Template.
	The fields will be editable unless the Mix Design is Approved.

Table 13-36. The Custom SUPERPAVE Mix Design Record Template Fields Description Table

To add a Custom SUPERPAVE Mix Design Record Template:

10. On the **Mix Design** panel, double-click the **SUPERPAVE Mix Design** icon.

11. On the **Description** folder tab, click the **Open** button.

12. Select the desired mix design.

13. Click **OK**.

14. Click on the **Services** and select **Custom Records**.

15. Right click on **Template ID** to begin Search.

16. Double-click on desired Template ID.

17. Close the **Custom Records** window.

18. Click the **Save** button.

SUPERPAVE Mix Designs Properties Folder Tab

Figure 13-63. The SUPERPAVE Mix Design Properties Folder Tab

Field Name	Description
N (Initial)	Initial compaction gyrations.
N (Max)	Maximum compaction gyrations.
N (Design)	Design compaction gyrations.

Field Name	Description
% Gmm @ N (Init)	Percent of solids by volume @ initial compaction gyrations.
% Gmm @ N (Max)	Percent of solids by volume @ maximum compaction gyrations.
Equiv Single Axle Loads	Number of load axle equivalent weight that pavement can endure before damage occurs.
Optimum AC % by Tot Weight	Asphalt content that mix will be produced in the field
Dust Proportion	Percent of material passing 0.075 mm sieve divided by the effective asphalt binder content.
VMA %	Percent voids in the mineral aggregate.
VFA %	Percent of VMA filled by the effective asphalt.
Lottman TSR	Tensile strength ratio.
Sand Equivalent	Percent of fines in the aggregate.
Maximum Specific Gravity	Maximum specific gravity of the SUPERPAVE mix design @ optimum AC %.
Bulk Specific Gravity	Bulk specific gravity of the SUPERPAVE mix design @ optimum AC %.
Mixing Temperature	Design mixing temperature.
Mixing Temperature Units Type	Unit of measure for mixing temperature. Required when Mixing Temperature entered.
Compaction Temp	Design compaction temperature.
Compaction Temp Units Type	Unit of measure for compaction temperature. Required when Compaction Temp entered.
High Air Temperature	Average high air temperature.
High Air Temperature Units Type	Unit of measure for high air temperature. Required when high air temperature entered.

Table 13-37. The SUPERPAVE Mix Design Properties Fields Table

To add a new SUPERPAVE Mix Design properties:

1. On the **Mix Design** panel, double-click the **SUPERPAVE Mix Design** icon.

2. Click the **Properties** folder tab.

3. In the **N (Initial)** field, type the desired value.

4. Press the **Tab** key.

5. In the **N (Maximum)** field, type the desired value.

6. Press the **Tab** key.

7. In the **N (Design)** field, type the desired value.

8. Press the **Tab** key.

9. In the **% Gmm @ N (Initial)** field, type the desired value.

10. Press the **Tab** key.

11. In the **% Gmm @ N (Maximum)** field, type the desired value.

12. Press the **Tab** key.

13. In the **Equiv Single Axle Loads** field, type the desired value.

14. Press the **Tab** key.

15. In the **Dust Proportion** field, type the desired value.

16. Press the **Tab** key.

17. In the **VMA %** field, type the desired value.

18. Press the **Tab** key.

19. In the **VFA %** field, type the desired value.

20. Press the **Tab** key.

21. In the **Lottman TSR** field, type the desired value.

22. Press the **Tab** key.

23. In the **Sand Equivalent** field, type the desired value.

24. Press the **Tab** key.

25. In the **Maximum Specific Gravity** field, type the desired value.

26. Press the **Tab** key.

27. In the **Bulk Specific Gravity** field, type the desired value.

28. Press the **Tab** key.

29. In the **Mixing Temperature** field, type the desired value.

30. In the **Mixing Temperature Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

31. Press the **Tab** key.

32. In the **Compaction Temp** field, type the desired value.

33. Press the **Tab** key.

34. In the **Compaction Temp Units Typ**e drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

35. In the **High Air Temperature** field, type the desired value.

36. Press the **Tab** key.

37. In the **High Air Temperature Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

38. Click the **Save** button.

SUPERPAVE Mix Designs Materials and Gradations Folder Tabs

To complete the creation of a SUPERPAVE Mix Design, the data on the Materials and Gradations folder tabs must also be completed. The steps for completing the process are described in the Bituminous Concrete Mix Designs Materials and Gradation Folder Tabs topic.

Bituminous Concrete Mix Designs Materials and Gradation Folder Tabs

The windows that will display for the Materials and Gradation folder tab of each Bituminous Concrete Mix Designs are IDENTICAL. The common procedures for these windows are documented in the following.
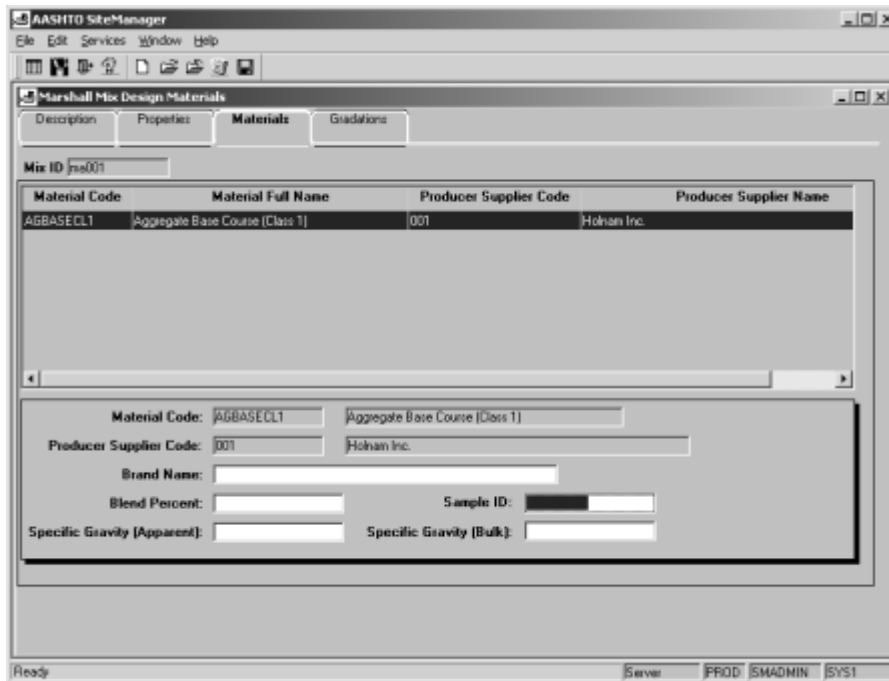
Figure 13-64. A Bituminous Concrete Mix Design Materials Window

Bituminous Concrete Mix Designs Materials Folder Tab (Common)

Field Name	Description
Material Code	The transportation agency-defined ID for a material. This is the material code for the mix.
Full Name	Full description of material.
Brand Name	Identifies the brand of the material contained within the bituminous concrete mix design.
Producer/Supplier Code	The transportation agency-defined ID for a source/location of the material. Producer/Supplier Code must have an active status on the Producer Supplier table, when entered.
Producer Supplier Name	Source name.

Field Name	Description
%	The percentage of material contained within the bituminous concrete mix design.
Sample ID	The sample ID. Identifies the sample used to approve the material contained within the bituminous concrete mix design. Sample ID must exist on the Sample Table.
Spc Gr (Apparent)	Apparent specific gravity of the material contained within the bituminous concrete mix design.
Spc Gr (Bulk)	Bulk specific gravity of the material contained within the bituminous concrete mix design.

Table 13-38. A Bituminous Concrete Mix Design Materials Fields Table

To add a new Bituminous Concrete mix Design materials:

1. On the **Mix Design** panel, double-click the desired bituminous concrete mix design icon.

2. Add or open the **Mix Design** description.

3. Click the **Materials** folder tab.

4. If necessary, click the **New** button.

5. Using the right mouse button, click the **Material Code** field.

6. From the object menu, click the **Search** choice.

7. In the list box, scroll to and click the desired material code.

8. Click **OK**.

9. Press the **Tab** key.

10. Using the right mouse button, click the **Producer/Supplier Code** field.

11. From the object menu, click the **Search** choice.

12. In the list box, scroll to and click the desired producer/supplier.

13. Click **OK**.

14. Press the **Tab** key.

15. In the **Brand Name** field, type the brand name.

16. Press the **Tab** key.

17. In the **Blend Percent** field, type the desired value.

18. Press the **Tab** key.

19. Using the right mouse button, click the **Sample ID** field.

20. From the object menu, click the **Search** choice.

21. In the list box, scroll to and click the desired sample id.

22. Click **OK**.

23. Press the **Tab** key.

24. In the **Specific Gravity (Apparent)** field, type the desired value.

25. Press the **Tab** key.

26. In the **Specific Gravity (Bulk)** field, type the desired value.

27. Click the **Save** button.
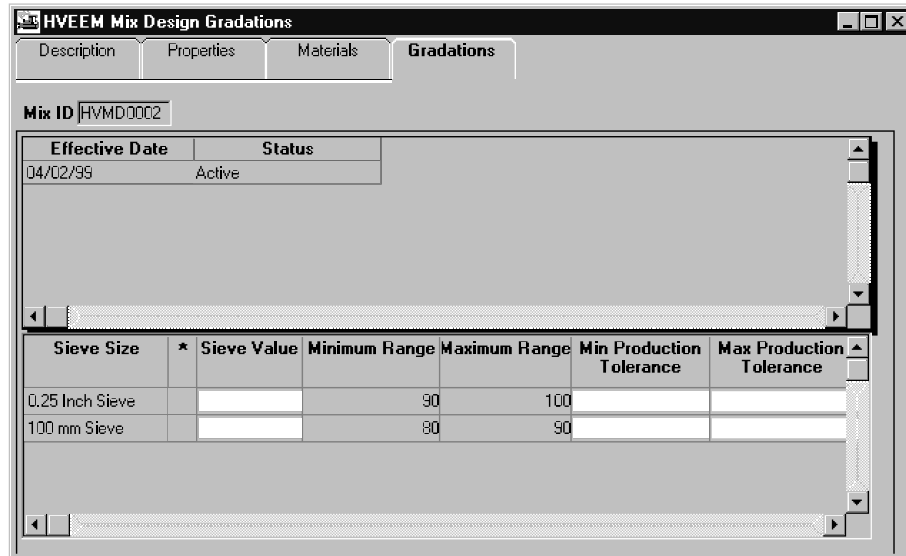
Figure 13-65. A Bituminous Concrete Mix Design Materials Gradations Window

Bituminous Concrete Mix Designs Gradations Folder Tab (Common)

Field Name	Description
Effective Date	Material gradation effective date. This list will contain all specification dates for the material.
Sieve Size	Size of sieve window.
Sieve Value	Percentage of material passing through sieve window.
Master Gradation Limits Minimum	Beginning value for the master gradation specification limit.
Master Gradation Limits Maximum	Ending value for the master gradation specification limit.
Production Tolerance Minimum	The minimum production tolerance value specification. This field is required when a Sieve Value is entered.
Production Tolerance Maximum	The maximum production tolerance value specification. This field is required when a Sieve Value is entered.

Table 13-39. A Bituminous Concrete Mix Design Materials Gradation Fields Table

To add new Bituminous Concrete Mix Design gradations:

1. On the **Mix Design** panel, double-click the desired bituminous concrete mix design icon.

2. Add or open the **Mix Design** description.

3. Click the **Gradations** folder tab.

4. In the **Sieve Value** field, type the desired value.

5. Press the **Tab** key.

6. In the **Minimum Production Tolerance** field, type the desired value.

7. Press the **Tab** key.

8. In the **Maximum Production Tolerance** field, type the desired value.

9. Press the **Tab** key.

10. Repeat steps 3-8 for all **Sieve Values**.

11. When complete, click the **Save** button.

13.7.2 Portland Cement Concrete Mix Designs

The Portland Cement Concrete Mix Design window allows for the addition, modification, and approval of Portland Cement Concrete Mix Designs. A Portland Cement Concrete Mix Design may not be changed if it is approved. The test results on this window are used by SiteManager for comparison. A Portland Cement Concrete Mix Design may also be downloaded for a specific contract.

The Portland Cement Concrete Mix Design window has four tabs:

- Description tab

- Properties tab

- Materials tab

- Gradations tab

Portland Cement Concrete Mix Design Description Folder Tab

The Portland Cement Concrete Mix Design window has a copy function located under Services on the Description folder tab. The user will be able to open up an existing mix design and copy all the details on the existing Portland Concrete Mix design to a new Portland Cement Concrete Mix Design and assign a new Mix ID. The copy functionality will copy all the values of the Descriptive tab, Properties tab, Material tab, and Gradation tab data. The copy functionality will assign the Effective Date as the current system date on the new mix design. The Termination Date will be blanked out. The Approved Date and Approved By User ID fields will be cleared even if the original mix design had been approved. The user will have to save the data with the new Mix ID to view or change the data of Material tab or Gradation tab.

When Custom Record is chosen from the Services menu, the new Custom Portland Cement Concrete Mix Design Usage Record selection window will be opened. Multiple detail records can be associated with each individual Usage Record. The Custom Record Services menu option will only be displayed if the System Operational Parameter is set to Allow Custom Portland Cement Concrete Mix Design Record Templates setting.

> 📄 **Note:** The Custom Record Services menu option will <u>only</u> be displayed depending on the System Operational Parameter Allow Custom Portland Cement Concrete Mix Design Record Templates setting. The default value will be set to no.

Attachments for the Portland Cement Concrete Mix Design window are accessible from the Services\Attachment menu option or from the attachment icon on the tool bar. For a full description on the functionality and use of attachments are within the *SiteManager User Reference Manual* and the *SiteManager System Manager's Guide*.

If the user changes the Material Code on the Description tab and there is Gradation data for that Mix Design ID then a message will be displayed prompting the user that the Gradation data associated to the mix will be deleted and based on users choice the new material code will be accepted and the Gradation data will be deleted.

The search lens on the Materials Tab - Sample ID field will display all the samples if the current user group is the same as assigned to the Limited Access Sample Group or Limited Access Standalone Group System Operational Parameter. The samples locked in Limited Access will be excluded from all other user groups.

To modify an existing unapproved Portland Cement Concrete Mix Design:

1. Double-click the **Portland Cement Concrete Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

8. Click the **Properties** folder tab.

9. Press the **Tab** key to advance to the field to be modified.

10. Enter the desired change.

11. Click the **Materials** folder tab.

12. Press the **Tab** key to advance to the field to be modified.

13. Enter the desired change.

14. Click the **Gradations** folder tab.

15. Press the **Tab** key to advance to the field to be modified.

16. Enter the desired change.

17. Click the **Save** button.

To add a new Portland Concrete Mix Design description:

1. On the **Mix Design** panel, double-click the **Portland Concrete Mix Design** icon.

2. On the **Description** folder tab, type the **mix id**.

3. Press the **Tab** key.

4. Using the right mouse button, click the **Material Code** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired material code

7. Click **OK**.

8.   Press the **Tab** key.

9.   Using the right mouse button, click the **Producer/Supplier Code** field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired **Producer/Supplier Code**.

12. Click **OK**.

13. Press the **Tab** key.

14. Using the right mouse button, click the **Designer Name** field.

15. From the object menu, click the **Search** choice.

16. In the list box, scroll to and click the desired **Designer Name**.

17. Click **OK**.

18. In the **Concrete Class Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. Press the **Tab** key.

20. In the **Effective Date** field, type effective date if different than today.

21. Press the **Tab** key.

22. In the **Termination Date** field, type termination date if appropriate.

23. To add an attachment, click on the attachments icon and select either the Plug-in, URL or Ole attachment type.

24. Click the **Save** button.

Figure 13-66. The Portland Concrete Mix Design Window

Figure 13-67. The Portland Concrete Mix Design Window- Attachments

Field Name	Description

Field Name	Description
Mix ID	The ID for the Portland Cement Concrete mix design.
Material Code	The transportation agency-defined identifier for a material. This is the material code for the Portland Cement Concrete mix design. Material Code must have an active status.
Full Name	The description of the material.
Producer Supplier Code	The transportation agency-defined ID for a source/location of the material. Producer/Supplier Code must have an active status.
Producer Supplier Name	Source name.
Designer Nm	The name of the designer responsible for the Portland Cement Concrete mix design. The designer name must exist on the Testing Personnel table, when entered.
Concrete Class Type	Type of concrete (e.g., Type 1, Type 1A, Type II, etc.)
Effective Date	Effective date for the Portland Cement Concrete mix design. Defaults to current date when a new Portland Cement Concrete mix design is entered.
Termination Date	Date the Portland Cement Concrete mix design is no longer available for use. Must be greater than Effective Date.
Approved Date	A system generated date to identify when the Portland Cement Concrete mix design was approved. Defaults to current date when a Portland Cement Concrete mix design is approved.
Approved By User ID	A system generated value containing the user ID of the person approving the Portland Cement Concrete mix design. Defaults to user ID of user approving the Portland Cement Concrete mix design.

Table 13-40. The Portland Concrete Design Mix Description Fields Table

Portland Cement Concrete Mix Design Custom Record

The Portland Cement Concrete Mix Design window includes a Custom Record menu item on the Services menu similar to that on the Contracts window. On selecting this services menu option,

Custom Portland Cement Concrete Mix Design Usage Record, will be opened in order to add and/or modify Custom Portland Cement Concrete Mix Design usage records. Multiple detail records can be associated with each usage record. The service menu option is available on all tabs.

If any Custom Portland Cement Concrete Mix Design Usage Records exists for the selected Portland Cement Concrete Mix Design, the records will be displayed in a new Custom Records datawindow on the Description tab. The Custom Records data window is display only.

> 📰 **Note**: The Custom Record Services menu option will only be displayed depending on the System Operational Parameter Allow Custom Portland Cement Concrete Mix Design Record Templates setting. The default parameter value will be set to no.

To open the Custom Record datawindow:

1. On the **Mix Design** panel, double-click the **PCC Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

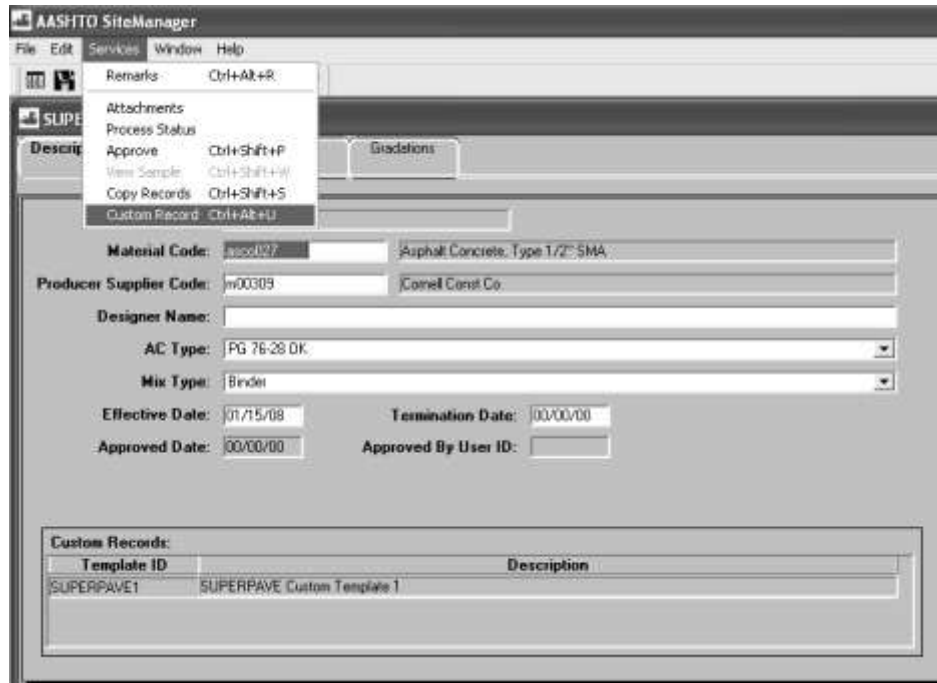5. Click on the **Services** and select **Custom Records**.
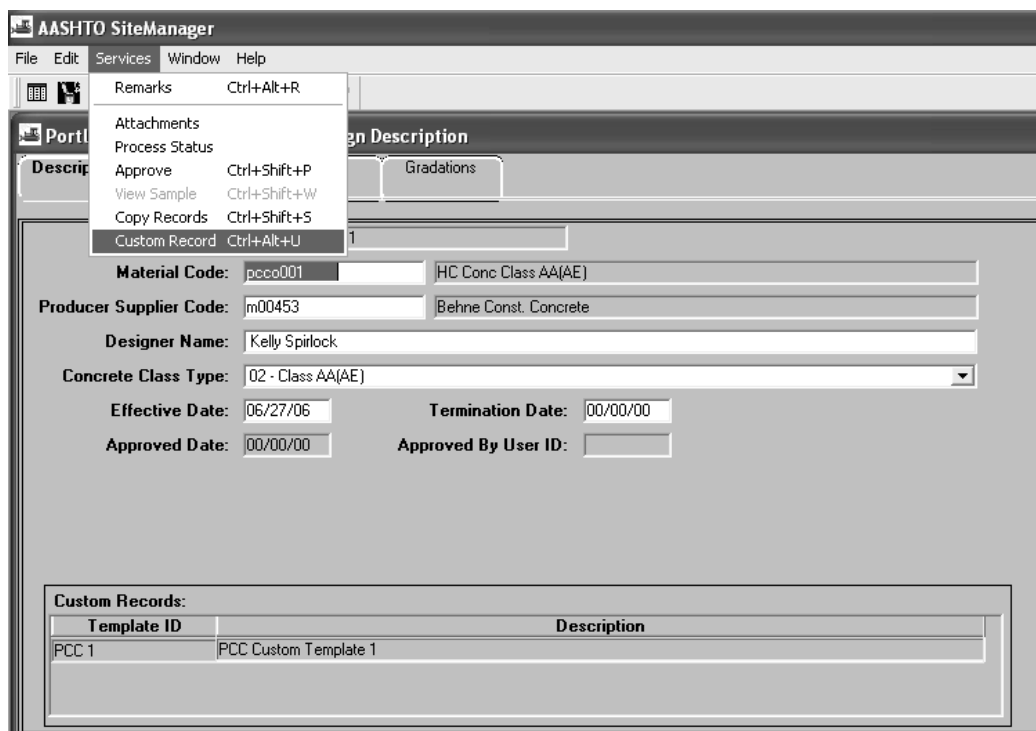
Figure **13-68**. The Custom Portland Cement Concrete Mix Design – Custom Record

Field Name	Description
Custom Record Template ID	The template ID of the custom record for this Portland Cement Concrete Mix Design. This field is protected.
Custom Record Description	The Description of the custom record for this Portland Cement Concrete Mix Design. This field is protected.

Table 13-41. The Custom Portland Cement Concrete Mix Design Record Template Fields Table

Custom Portland Cement Concrete Mix Design Usage Record

The Custom Portland Cement Concrete Mix Design Usage Record window lets the user add and modify Custom Portland Cement Concrete Mix Design records using existing Custom Portland Cement Concrete Mix Design Record templates. The user selects a Custom Portland Cement Concrete Mix Design Record template on the window, and the window displays the selected template. If data has been entered on this template for the selected Mix Design, the data is displayed. The existing Custom Portland Cement Concrete Mix Design Record templates are created and generated using the Custom Templates (List & Record) window.

The custom Record Services menu option will be displayed depending on the System Operational Parameter Allow Custom PCC Mix Design Record Templates setting.


Figure **13-69**. Custom Portland Cement Concrete Mix Design Usage Record **W**indow
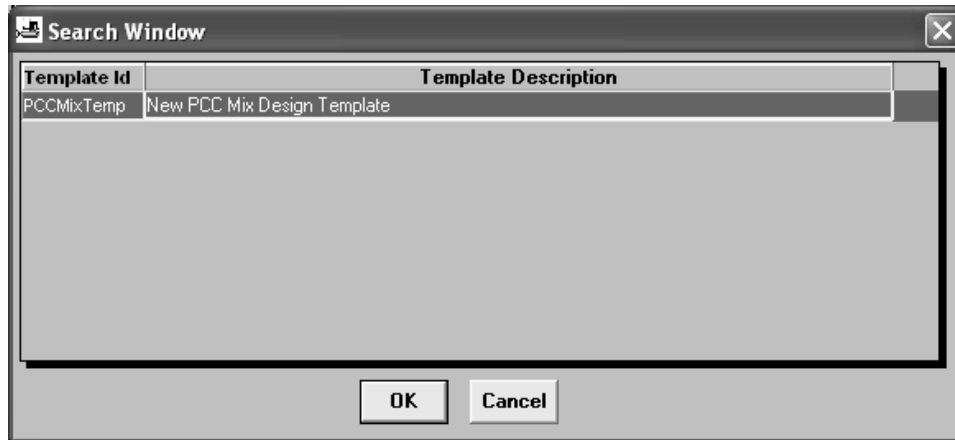
Figure **13**-**70**. Search Window for Custom Portland Cement Concrete Mix Design Record Templates

Field Name	Description
Mix ID	The Mix ID for the current Mix Design.
	This field is protected.
Template ID 🔍	This column is editable and standard search lens feature is provided to select from the list of available custom Portland Cement Concrete Mix Design Record templates. The list will display Template ID and Template Description in the datawindow.
	This column is editable and user can enter the partial Template ID and use the search or filter search facility. Once the Template ID is accepted, the Template information is retrieved.
Template name	The description of the template chosen by the user.
	This field is protected.
Template Content	This area will contain the fields that are included in the Template.
	The fields will be editable unless the Mix Design is Approved.

Table 13-42. The Custom Portland Cement Concrete Mix Design Record Template Fields - Description Table

To add a Custom Portland Cement Concrete Mix Design Record Template:

1. On the **Mix Design** panel, double-click the **Portland Cement Concrete Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

5. Click on the **Services** and select **Custom Records**.

6. Right click on **Template ID** to begin **Search**.

7. Double-click on desired **Template ID**.

8. Close the **Custom Records** window.

9. Click the **Save** button.

Portland Cement Concrete Mix Designs Properties Folder Tab
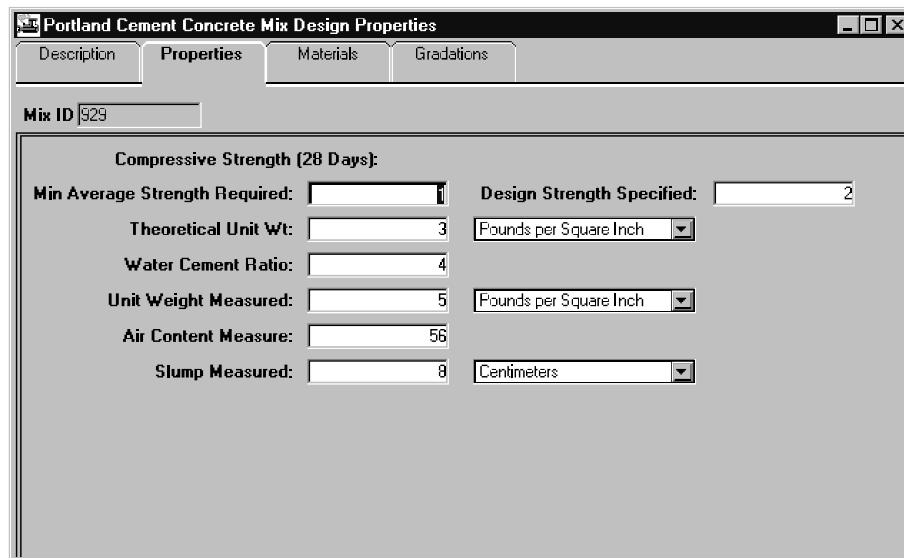
Figure 13-71. The Portland Concrete Mix Design Properties Folder Tab

Field Name	Description
Min Average Strength Required	Minimum strength of concrete required.

Field Name	Description
Design Strength Specified	Specified concrete strength.
Water Cement Ratio	Ratio of total water content to total cement material per given volume of concrete.
Theoretical Unit Wt	Unit weight of mix as calculated from the concrete proportioning.
Theoretical Unit Wt Units Type	Unit of measure for theoretical unit weight. Required when Theoretical Unit Wt entered.
Unit Weight Measured	Unit weight of mix as calculated from the concrete proportioning.
Unit Weight Measured Units Type	Unit of measure for measured unit weight. Required when Unit Weight Measured entered.
Air Content Measure	Air content of freshly mixed concrete.
Slump Measured	Slump of concrete after trail batch.
Slump Measured Units Type	Unit of measure for measured slump. Required when Slump Measured entered.

Table 13-43. The Portland Concrete Mix Design Properties Folder Tab Fields Table

To add new Portland Concrete Mix Design properties:

1. On the **Mix Design** panel, double-click the **Portland Concrete Mix Design** icon.

2. Add or open the **Portland Concrete Mix Design** description.

3. Click the **Properties** folder tab.

4. In the **Min Average Strength Required** field, type the desired value.

5. Press the **Tab** key.

6. In the **Design Strength Specified** field, type the desired value.

7. Press the **Tab** key.

8. In the **Water Cement Ratio** field, type the desired value.

9. Press the **Tab** key.

10. In the **Theoretical Unit Wt** field, type the desired value.

11. In the **Theoretical Unit Wt Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

12. Press the **Tab** key.

13. In the **Unit Weight Measured** field, type the desired value.

14. In the **Unit Weight Measured Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

15. Press the **Tab** key.

16. In the **Air Content Measure** field, type the desired value.

17. Press the **Tab** key.

18. In the **Slump Measured** field, type the desired value.

19. In the **Slump Measured Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

20. Click the **Save** button.

Portland Concrete Mix Design Materials Folder Tab
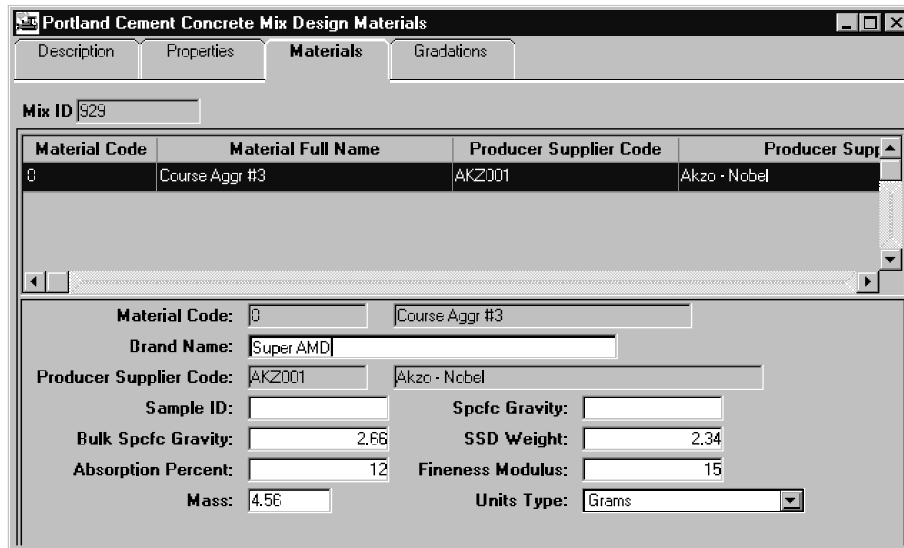
Figure 13-72. The Portland Concrete Mix Design Materials Folder Tab

Field Name	Description
Material Code	The transportation agency-defined ID for a material. The Material Code must have an active status on the Material table.
Brand Name	Identifies the brand of the material contained within the Portland Cement Concrete mix design.
Producer Supplier Code	The transportation agency-defined ID for a source/location of the material. P/S Code must have an active status on the Producer Supplier table, when entered.
%	The percentage of material contained within the Portland Cement Concrete mix design.
Sample ID	The ID for a sample. Identifies the sample used to approve the material contained within the Portland Cement Concrete mix design.
Spcfc Gravity	Specific gravity of the material within the Portland Cement Concrete mix design.
Bulk Spcfc Gravity	Bulk specific gravity of the material within the Portland Cement Concrete mix design.

Field Name	Description
SSD Weight	Weight of the material within the Portland Cement Concrete mix design needed to make one cubic yard total.
Absorption %	Percent of water the aggregate can absorb.
Fineness Modulus	Function of the grading of the fine aggregate.
Mass	The quantity of the material within the Portland Cement Concrete mix design.
Unit Type	The unit of measure for the quantity of material within the Portland Cement Concrete mix design. Required when Mass entered

Table 13-44. The Portland Concrete Mix Design Materials Fields Table

To add new Portland Concrete Mix materials:

1. On the **Mix Design** panel, double-click the **Portland Concrete Mix Design** icon.

2. Add or open the **Mix Design** description.

3. Click the **Materials** folder tab.

4. Using the right mouse button, click the **Material Code** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired material code

7. Click **OK**.

8. Press the **Tab** key.

9. In the **Brand Name** field, type the brand name.

10. Press the **Tab** key.

11. Using the right mouse button, click the **Producer/Supplier Code** field.

12. From the object menu, click the **Search** choice.

13. In the list box, scroll to and click the desired **Producer/Supplier** code.

14. Click **OK**.

15. Press the **Tab** key.

16. Using the right mouse button, click the **Sample ID** field.

17. From the object menu, click the **Search** choice.

18. In the list box, scroll to and click the desired **sample id**.

19. Click **OK**.

20. Press the **Tab** key.

21. In the **Spcfc Gravity** field, type the desired value.

22. Press the **Tab** key.

23. In the **Bulk Spcfc Gravity** field, type the desired value.

24. Press the **Tab** key.

25. In the **SSD Weight** field, type the desired value.

26. Press the **Tab** key.

27. In the **Absorption Percent** field, type the desired value.

28. Press the **Tab** key.

29. In the **Fineness Modules** field, type the desired value.

30. Press the **Tab** key.

31. In the **Mass** field, type the desired value.

32. Press the **Tab** key.

33. In the **Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

34. Click the **Save** button.

Portland Concrete Mix Designs Gradations Folder Tab
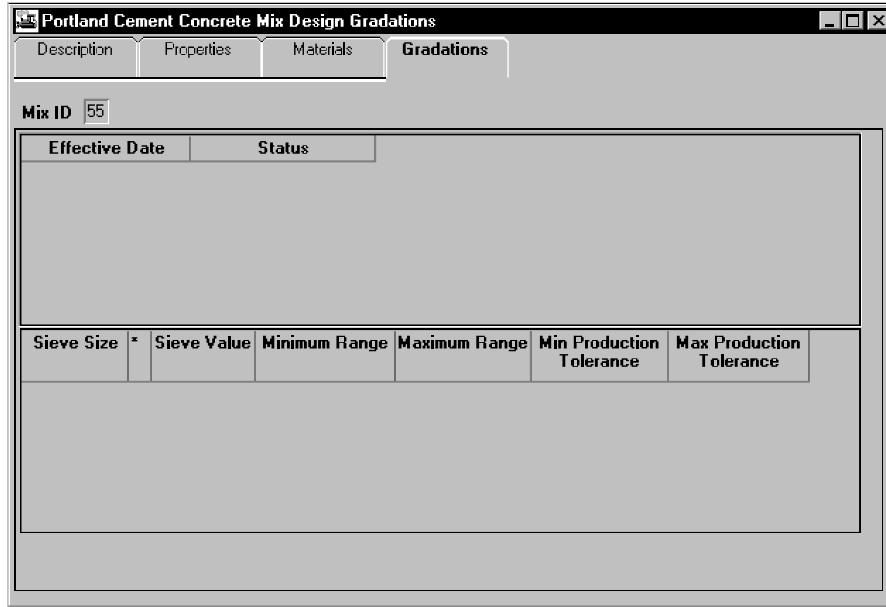
Figure 13-73. The Portland Concrete Mix Designs Gradations Folder Tab

Field Name	Description
Effective Date	Material gradation effective date. This list will contain all specification dates for the material.
Sieve Size	Size of sieve window.
Sieve Value	Percentage of material passing through sieve window.
Master Gradation Limits **Minimum**	Beginning value for the master gradation specification limit.
Master Gradation Limits **Maximum**	Ending value for the master gradation specification limit.
Production Tolerance **Minimum**	The minimum production tolerance value specification. This field is required when a Sieve Value is entered.
Production Tolerance **Maximum**	The maximum production tolerance value specification. This field is required when a Sieve Value is entered.

Table 13-45. The Portland Concrete Mix Designs Gradations Fields Table

To add new Portland Concrete Mix Design gradations:

1. Add or open the **Mix Design** description.

2. Click the **Gradations** folder tab.

3. In the **Sieve Value** field, type the desired value.

4. Press the **Tab** key.

5. In the **Minimum Production Tolerance** field, type the desired value.

6. Press the **Tab** key.

7. In the **Maximum Production Tolerance** field, type the desired value.

8. Press the **Tab** key.

9. Repeat steps 3-8 for all Sieve Values.

10. When complete, click the **Save** button.

13.7.3 Aggregate Mix Designs

Aggregate Mix Design window allows for the addition, modification, and approval of Aggregate Mix Designs. An Aggregate Mix Design may not be changed if it is approved. The test results on this window are used by SiteManager for comparison. An Aggregate Mix Design may also be downloaded for a specific contract.

The search lens on the Materials Tab - Sample ID field will display all the samples if the current user group is the same as assigned to the Limited Access Sample Group or Limited Access Standalone Group System Operational Parameter. The samples locked in Limited Access will be excluded from all other user groups.

To modify an existing unapproved Aggregate Mix Design:

1. On the **Mix Design** panel, double-click the **Aggregate Mix Design** icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired **Aggregate Mix Design**.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

8. Press the **Tab** key to advance to the field to be modified.

9. Enter the desired change.

10. Click the **Save** button.

11. Click the **Materials** folder tab.

12. Press the **Tab** key to advance to the field to be modified.

13. Enter the desired change.

14. Click the **Save** button.

15. Click the **Gradations** folder tab.

16. Press the **Tab** key to advance to the field to be modified.

17. Enter the desired change.

18. Click the **Save** button.

Aggregate Mix Designs Description Folder Tab
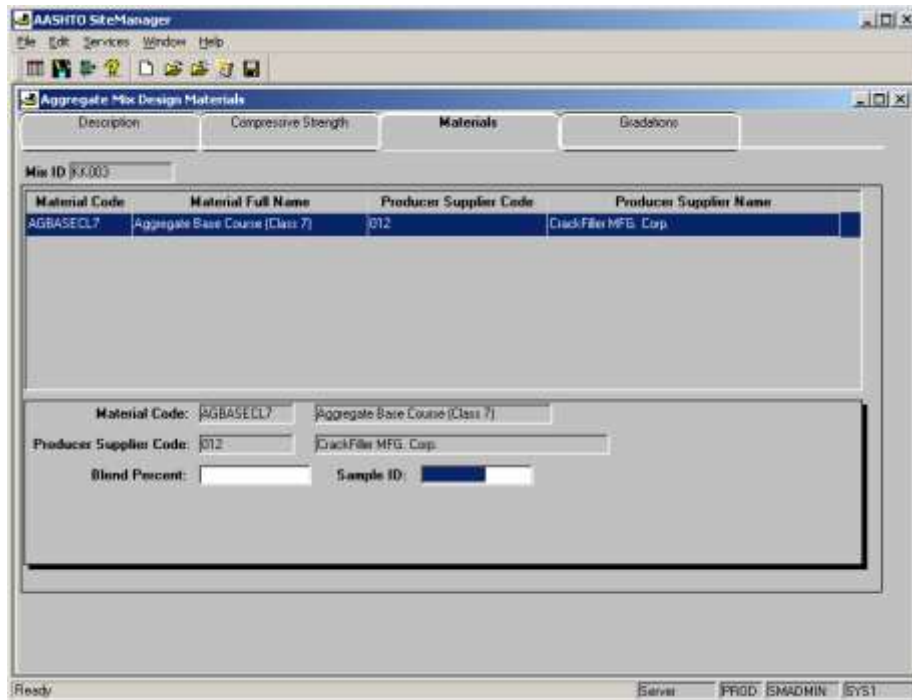
Figure 13-74. The Aggregate Mix Design Description Folder Tab

Field Name	Description
Mix ID	The ID for the Aggregate mix design.
Material Code	The transportation agency-defined identifier for a material. This is the material code for the Aggregate mix design. Material Code must have an active status.
Full Name	The description of the material.
Producer Supplier Code	The transportation agency-defined ID for a source/location of the material. Producer/Supplier Code must have an active status.
Producer Supplier Name	Source name.
Designer Nm	The name of the designer responsible for the Aggregate mix design. The designer name must exist on the Testing Personnel table, when entered.
Concrete Class Type	Type of concrete (e.g., Type 1, Type 1A, Type II, etc.)

Field Name	Description
Effective Date	Effective date for the Aggregate mix design. Defaults to current date when a new Aggregate mix design is entered.
Termination Date	Date the Aggregate mix design is no longer available for use. Must be greater than Effective Date.
Approved Date	A system generated date to identify when the Aggregate mix design was approved. Defaults to current date when an Aggregate mix design is approved.
Approved By User ID	A system generated value containing the user ID of the person approving the Aggregate mix design. Defaults to user ID of user approving the Aggregate mix design.
Raw Soil Maximum Density	The oven-dry density of the soil at optimum moisture content.
Units (Soil Maximum Density Units Typ)	The unit of measure for Raw Soil Maximum Density. Required when Raw Soil Maximum Density entered.
Raw Soil Optimum Moisture %	The moisture content corresponding to the peak of the curve produced by plotting the densities and corresponding moisture contents for the soil.
Raw Soil Plus Cement Percent	Percentage of cement content in soil-cement mixture. Required when Soil Cement Maximum Density and Soil Cement Optimum Moisture % are entered.
Soil Cement Maximum Density	The oven-dry mass of the soil cement mixture at optimum moisture content.
Units (Soil Cement Max Density Units)	The unit of measure for Soil Cement Maximum Density. Required when Soil Cement Maximum Density entered.
Soil Cement Optimum Moisture %	The moisture content corresponding to the peak of the curve produced by plotting the densities and corresponding moisture contents for the soil-cement mixture.
Recommended Cement Content by Volume	Recommended percentage of cement content in mixtures of cement with soil by volume of soil.
Recommended Cement Content by Weight	Recommended percentage of cement content in mixtures of cement with soil by weight of soil.

Field Name	Description
Maximum Volume Change %	This is the difference between the volume of the specimen at the time of molding and subsequent volume as a percent of original volume.

Table 13-46. The Aggregate Design Mix Description Folder Tab Fields Table

To add a new Aggregate Mix Design description:

1. On the **Mix Design** panel, double-click the **Aggregate Mix Design** icon.

2. On the **Description** folder tab, type the **mix id**.

3. Press the **Tab** key.

4. Using the right mouse button, click the **Material Code** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired material code

7. Click **OK**.

8. Press the **Tab** key.

9. Using the right mouse button, click the **Producer/Supplier Code** field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired **Producer/Supplier** code.

12. Click **OK**.

13. Press the **Tab** key.

14. Using the right mouse button, click the **Designer Name** field.

15. From the object menu, click the **Search** choice.

16. In the list box, scroll to and click the desired designer name.

17. Click **OK**.

18. In the **Concrete Class Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. Press the **Tab** key.

20. In the **Effective Date** field, type effective date if different than today.

21. Press the **Tab** key.

22. In the **Termination Date** field, type termination date if appropriate.

23. Press the **Tab** key.

24. In the **Raw Soil Maximum Density** field, type the desired value.

25. In the **Raw Soil Maximum Density Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

26. Press the **Tab** key.

27. In the **Raw Soil Optimum Moisture %** field, type the desired value.

28. Press the **Tab** key.

29. In the **Raw Soil Plus Cement Percent** field, type the desired value.

30. Press the **Tab** key.

31. In the **Soil Cement Maximum Density** field, type the desired value.

32. In the **Soil Cement Maximum Density Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

33. Press the **Tab** key.

34. In the **Soil Cement Optimum Moisture %** field, type the desired value.

35. Press the **Tab** key.

36. In the **Recommended Cement Content by Volume** field, type the desired value.

37. Press the **Tab** key.

38. In the **Recommended Cement Content by Weight** field, type the desired value.

39. Press the **Tab** key.

40. In the **Maximum Volume Change %** field, type the desired value.

41. Press the **Tab** key.

42. Click the **Save** button.

Aggregate Mix Designs Compression Strength Folder Tab
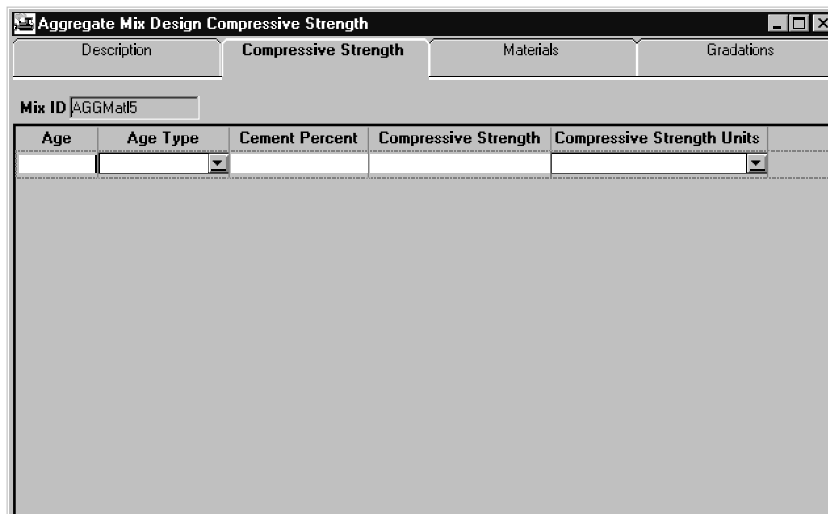
Figure 13-75. The Aggregate Mix Designs Compression Strength Folder Tab

Field Name	Description
Age	The age of the specimen break.
Age Type	Specifies the type of age (e.g., days, hours, minutes.)
Cement Percent	Percent of cement in mixture.
Compressive Strength	Compressive strength of the mixture.
Compressive Strength Units Type	Unit of measure for compressive strength value (e.g., PSI.) Required when Compressive Strength entered.

Table 13-47. The Aggregate Mix Designs Gradations Fields Table

To add a new Aggregate Mix Design compression strength:

1. On the **Mix Design** panel, double-click the **Aggregate Mix Design** icon.

2. Add or open the **Mix Design** description.

3. Click the **Compression Strength** folder tab.

4. In the **Age** field, type the desired value.

5. In the **Age Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

6. Press the **Tab** key.

7. In the **Cement Percent** field, type the desired value.

8. Press the **Tab** key.

9. In the **Compression Strength** field, type the desired value.

10. In the **Compression Strength Units Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. When complete, click the **Save** button.

Aggregate Mix Designs Materials Folder Tab
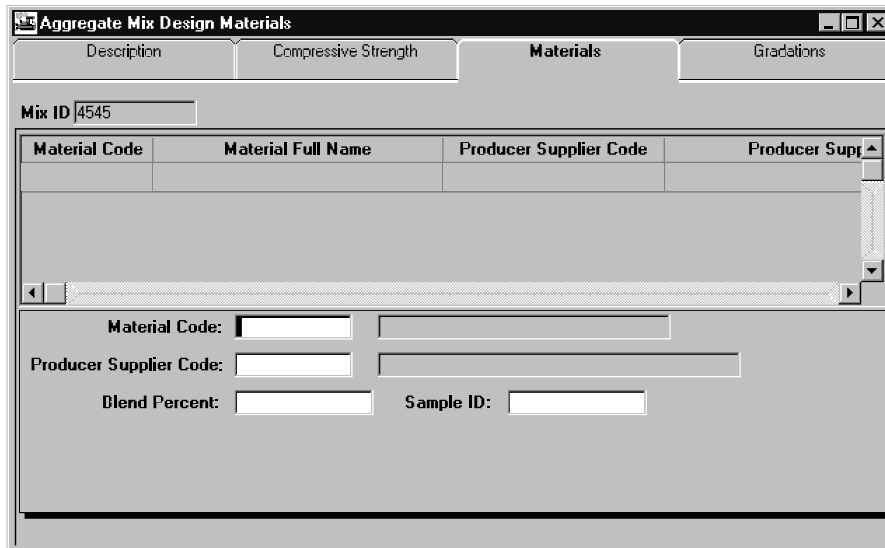
Figure 13-76. The Aggregate Mix Design Materials Folder Tab

Field Name	Description
Material Code	The transportation agency-defined ID for a material. The Material Code must have an active status on the Material table.
Material Name	Identifies the brand of the material contained within the Aggregate mix design.
Producer Supplier Code	The transportation agency-defined ID for a source/location of the material. P/S Code must have an active status on the Producer Supplier table, when entered.
Blend Percent	The percentage of material contained within the Aggregate mix design.
Sample ID	The ID for a sample. Identifies the sample used to approve the material contained within the Aggregate mix design.

Table 13-48. The Aggregate Mix Design Materials Fields Table

To add new Aggregate Mix materials:

1. On the **Mix Design** panel, double-click the **Aggregate Mix Design** icon.

2. Add or open the **Mix Design** description.

3. Click the **Materials** folder tab.

4. Using the right mouse button, click the **Material Code** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired material code

7. Click **OK**.

8. Press the **Tab** key.

9. Using the right mouse button, click the **Producer/Supplier Code** field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired **Producer/Supplier** code.

12. Click **OK**.

13. Press the **Tab** key.

14. In the **%** field, type the desired value.

15. Press the **Tab** key.

16. Using the right mouse button, click the **Sample ID** field.

17. From the object menu, click the **Search** choice.

18. In the list box, scroll to and click the desired **sample id**.

19. Click **OK**.

20. Click the **Save** button.

Aggregate Mix Designs Gradations Folder Tab
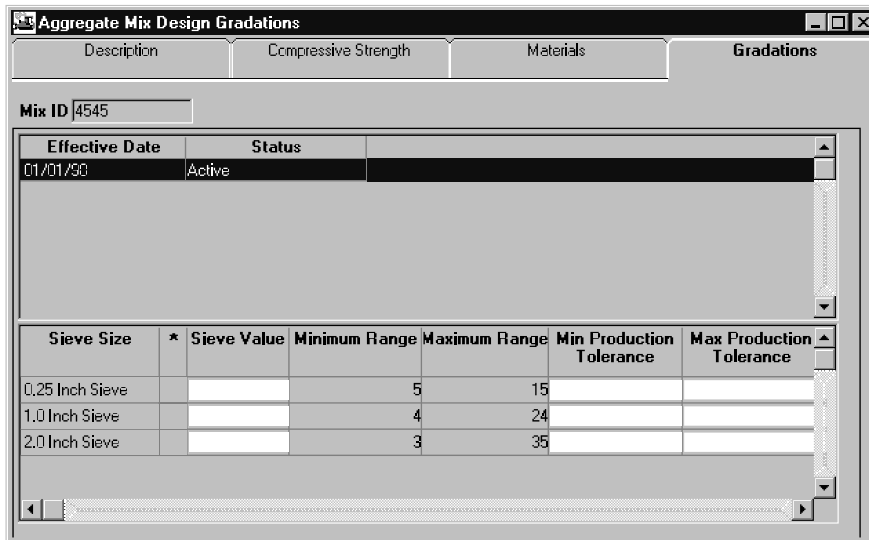
Figure 13-77. The Aggregate Mix Designs Gradations Folder Tab

Field Name	Description
Effective Date	Material gradation effective date. This list will contain all specification dates for the material.
Sieve Size	Size of sieve window.
Sieve Value	Percentage of material passing through sieve window.
Master Gradation Limits Minimum	Beginning value for the master gradation specification limit.
Master Gradation Limits Maximum	Ending value for the master gradation specification limit.
Production Tolerance Minimum	The minimum production tolerance value specification. This field is required when a Sieve Value is entered.
Production Tolerance Maximum	The maximum production tolerance value specification. This field is required when a Sieve Value is entered.

Table 13-49. The Aggregate Mix Designs Gradations Fields Table

To add new Aggregate Mix Design gradations:

1. Add or open the **Mix Design** description.

2. Click the **Gradations** folder tab.

3. In the **Sieve Value** field, type the desired value.

4. Press the **Tab** key.

5. In the **Minimum Production Tolerance** field, type the desired value.

6. Press the **Tab** key.

7. In the **Maximum Production Tolerance** field, type the desired value.

8. Press the **Tab** key.

9. Repeat steps 3-8 for all Sieve Values.

10. When complete, click the **Save** button.

13.7.4 Mix Design Approval

Each of the mix designs has an Approval Date field. The person who enters the mix design will not always be the person with authority to approve the mix design. Thus, the mix design process entry and approval process are two distinct steps with one person entering the mix design and another reviewing and approving the mix design. Remember that a mix design may not be changed after it is approved. But, it must be approved before it can be associated with a contract.
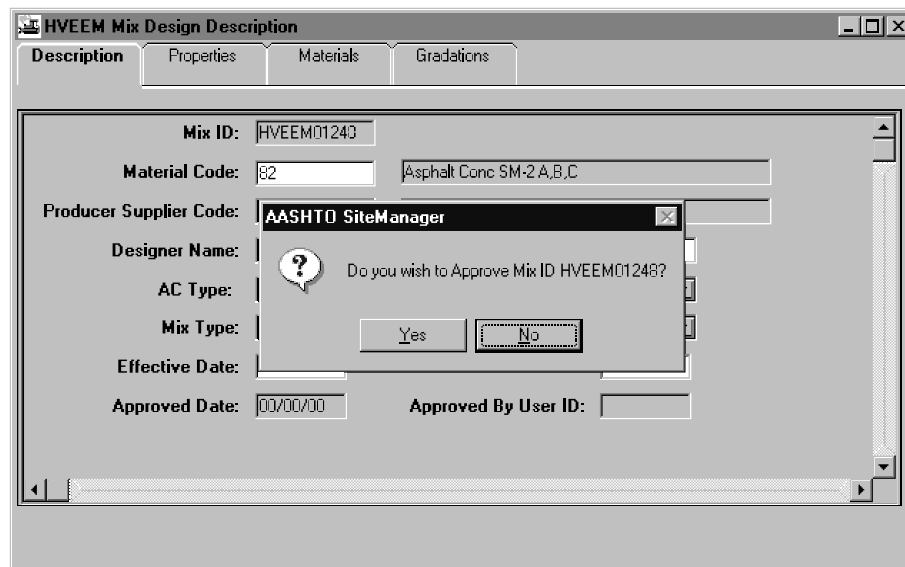
Figure 13-78. The Mix Design Approval Dialog Box

To review and approve a mix design:

1. On the **Mix Design** panel, double-click the desired mixed design icon.

2. On the **Description** folder tab, click the **Open** button.

3. Select the desired mix design.

4. Click **OK**.

5. Click the each folder tab and review the data.

6. When complete, click the **Description** folder tab.

7. Click the **Services** menu and click the **Approve** choice.

8. Click the **Yes** button.

9. Click **OK**.

13.7.5 Pavement Structural Design Data

The Pavement Structural Design Data window is used to add, update or view pavement structural design data. The window provides a means for capturing as-built pavement design data for a contract and project.

Figure 13-79. The Pavement Structural Design Data Window

Field Name	Description
Contract ID	The unique ID for the contract.
Project Number	The unique ID for the project.
Region	The unique ID for the region.
Project Type	Type of project (e.g., New Construction, Reconstruction, etc.)
Project Subaccount #	Subaccount number for the project.
Funding Category	Type of funding (e.g., Major Overlay, Minor Overlay, etc.)
Activity Date	Structural design date.
Route	The route number of project construction
Number of Lanes	The number of lanes involved.
Direction	The direction of the road (e.g., Both, Primary Only, etc.)
Top Surface Layer	The top surface treatment (e.g., Bituminous surface treatment, Mixed bituminous, etc.)
Second Surface Layer	The second surface treatment (e.g., Bituminous surface treatment, Mixed bituminous, etc.)
Third Surface Layer	The third surface treatment (e.g., Bituminous surface treatment, Mixed bituminous, etc.)
Pavement Base	The pavement base of the surface (e.g., Roadbed soil, Granular, Cement stabilized, etc.)
Pavement Subbase	The pavement subbase of the surface (e.g., Roadbed soil, Granular, Cement stabilized, etc.)
Pavement Shoulder	The pavement shoulder of the surface (e.g., Roadbed soil, Granular, Cement stabilized, etc.)
Drainage Condition	The drainage condition of the surface (e.g., Dense base without edge drains, Dense base with edge drains, etc.)
Surface Thickness	Surface Thickness value.

Field Name	Description
Base Thickness	Base Thickness value.
Subbase Thickness	Subbase Thickness value.
Effective Thickness	Effective Thickness value.
Subgrade R-value	Subgrade R-value.
Structural Capacity	Structural Capacity value.
Composite k-value	Composite k-value.
Beginning Reference Point	Beginning Reference Point value.
Ending Reference Point	Ending Reference Point value.
Milled Depth	Milled Depth value.
Inside Shoulder	Inside shoulder of lanes affected
Lane 1	Lane 1 of lanes affected
Lane 2	Lane 2 of lanes affected
Lane 3	Lane 3 of lanes affected
Lane 4	Lane 4 of lanes affected
Lane 5	Lane 5 of lanes affected
Lane 6	Lane 6 of lanes affected
Lane 7	Lane 7 of lanes affected
Lane 8	Lane 8 of lanes affected
Lane 9	Lane 9 of lanes affected
Lane 10	Lane 10 of lanes affected
Outside Shoulder	Outside shoulder of lanes affected

Table 13-50. The Structural Pavement Design Data Fields Table

To add a structural pavement design:

1. On the **Mixed Design** panel, double-click the **Structural Pavement Design Data** icon.

2. Click the **Services** menu and click the **Choose Keys** choice.

3. In the list box, scroll to and double-click the desired **Contract**.

4. In the list box, scroll to and click the desired Project.

5. Click **OK**.

6. In the **Region** field, type the **region ID**.

7. In the **Project Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

8. Press the **Tab** key.

9. In the **Subaccount #** field, type the **subaccount ID**.

10. In the **Funding Category** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

11. Press the **Tab** key.

12. In the **Activity Date** field, type the date of the activity.

13. Press the **Tab** key.

14. In the **Route** field, type the **route ID**.

15. In the **Top Surface Layer** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

16. Press the **Tab** key.

17. In the **Surface Thickness** field, type the desired value.

18. In the **Second Surface Layer** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

19. Press the **Tab** key.

20. In the **Base Thickness** field, type the desired value.

21. In the **Third Surface Layer** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

22. Press the **Tab** key.

23. In the **Subbase Thickness** field, type the desired value.

24. In the **Pavement Base** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

25. Press the **Tab** key.

26. In the **Effective Thickness** field, type the desired value.

27. In the **Pavement Subbase** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

28. Press the **Tab** key.

29. In the **Subgrade R-Value** field, type the desired value.

30. In the **Pavement Shoulder** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

31. Press the **Tab** key.

32. In the **Structural Capacity** field, type the desired value.

33. In the **Drainage Condition** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

34. Press the **Tab** key.

35. In the **Composite K-Value** field, type the desired value.

36. Press the **Tab** key.

37. In the **Beginning Reference Point** field, type the desired value.

38. Press the **Tab** key.

39. In the **Ending Reference Point** field, type the desired value.

40. Press the **Tab** key.

41. In the **Milled Depth** field, type the desired value.

42. Press the **Tab** key.

43. In the **Number of Lanes** field, type the desired value.

44. In the **Direction** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

45. In the **Lanes Affected** check boxes, click the appropriate check box (ON) as applicable.

46. Click the **Save** button.

To modify a structural pavement design:

1. On the **Mixed Design** panel, double-click the **Structural Pavement Design Data** icon.

2. Click the **Open** button.

3. In the list box, scroll to and double-click the desired **Contract**.

4. In the list box, scroll to and double-click the desired **Project**.

5. In the list box, scroll to and click the desired **Project Type/Direction**.

6. Click **OK**.

7. Press the **Tab** key to advance to the field to be modified.

8. Enter the desired change.

9.   Click the **Save** button.

13.7.6 Aggregate Blend

The Aggregate Blend window allows the user to create aggregate blends based on the current aggregate sieve data. This data can be used to develop new mix designs. The user enters the sample ID(s) and the percentage of each one. Using this information, SiteManager retrieves the sieve data. The blend percentage is calculated for each sieve. This is calculated by multiplying the percentage of the sample by the passing percentage of each sieve. The overall blend percentage is calculated by summing the newly calculated passing percents for each sieve. The maximum number of sieves per sample is 25. The blend data is not stored in the SiteManager. However, the user can export the blend result data to a text file in a tab-delimited format. This information can be used by mix design software to develop or graph new mix designs. Each record in the file contains the sieve size and the percentage passing of the sieve.

The search lens on the Sample ID field will display all the samples if the current user group is the same as assigned to the Limited Access Sample Group or Limited Access Standalone Group System Operational Parameter. The samples locked in Limited Access will be excluded from all other user groups.
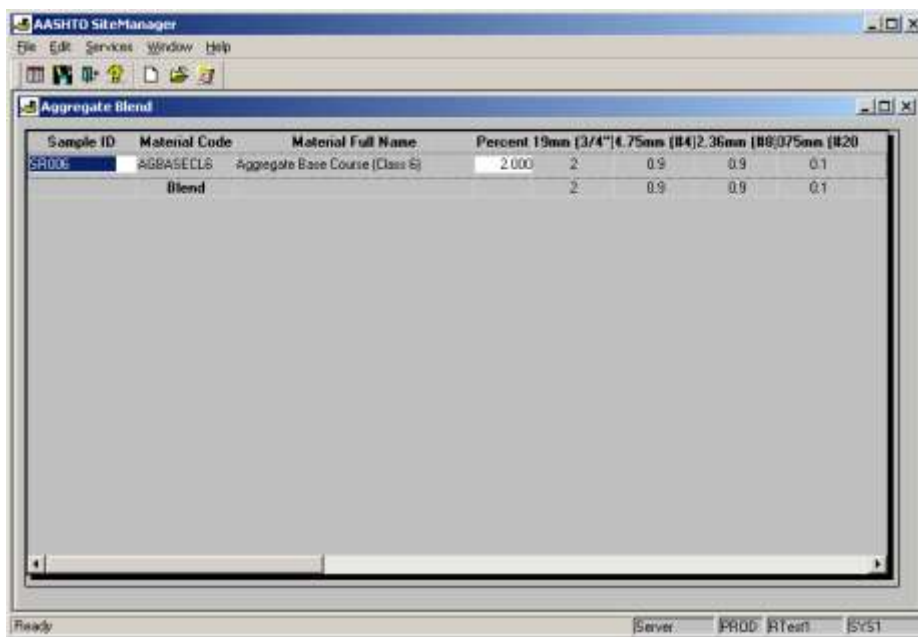
Figure 13-80. The Aggregate Blend Window

Field Name	Description
Sample ID	Identifies the sample related to the sieve analysis of aggregates test.

Field Name	Description
Material Code	The transportation agency defined ID for a material.
Material Name	Full description of material.
Percent	This is the percent of the sample to be used in determining the blend result.
Sieve Size	Size of sieve window.
Percent Passing	Percentage of material passing through sieve window. Percent of Sample * Percent of material passing sieve
Blend Percent Passing	The sum of the percent passing for all samples

Table 13-51. The Aggregate Blend Fields Table

To export a new aggregate blend:

1. Double-click the **Aggregate Blend** icon.

2. Using the right mouse button, click the **Sample ID** field.

3. From the object menu, click the **Search** choice.

4. In the list box, scroll to and click the desired sample.

5. Press the **Tab** key.

6. In the **Percent** field, type the percent of the sample to be using in determining the blend result.

7. Click the **New** button.

8. Repeat steps 2-6 until all samples have been added.

9. When complete, click the **Save** button.

10. Click the **Services** menu and click the **Export** choice.

11. Type the name for the file.

12. Change the drive and directory as desired.

13. Click **OK** twice.
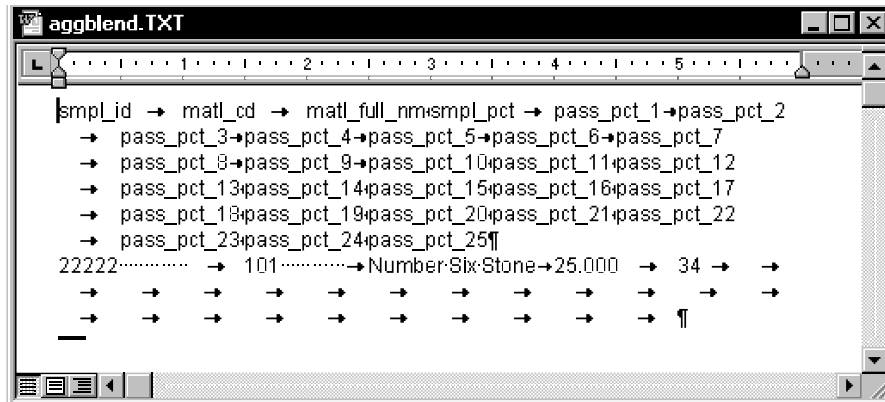
Figure 13-81. The Exported Aggregate Blend's Tab Delimited Format

13.7.7 Contract Mixes
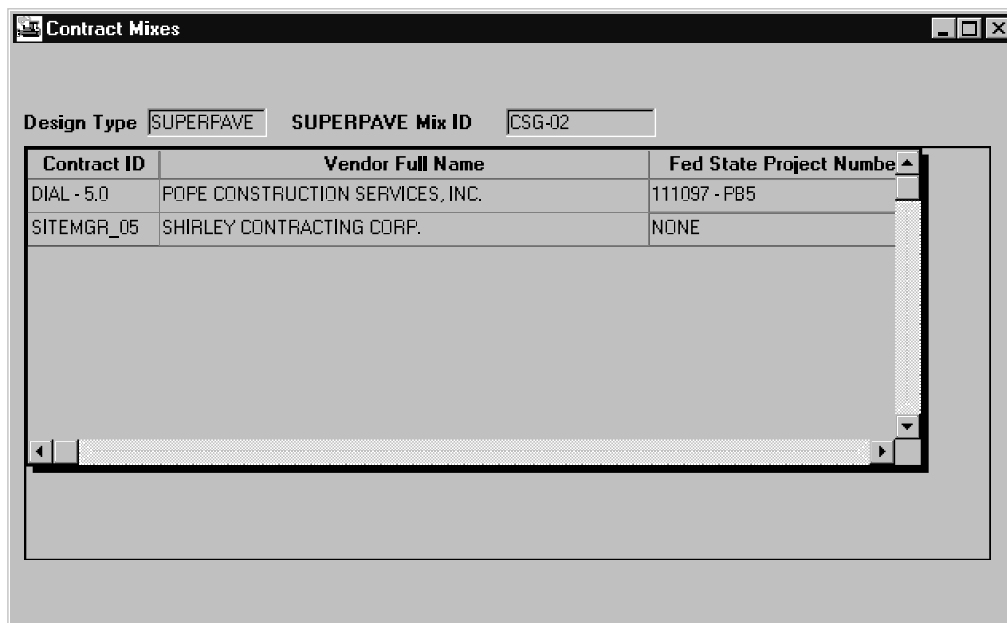
Figure 13-82. The Contract Mixes Window

The Contract Mixes window is used to associate an approved design mix with a contract. Upon entry into the Contract Mixes window, the selection of a Mix ID will list all contracts associated with it, if any. A contract can be associated to the Mix ID and will be added to the list. A contract cannot be deleted from the list.

Field Name	Description
Mix ID	The ID for the mix design.
Contract ID	The ID for the contract.
Prime Contr	The full name of the primary contractor.
Fed St/Prov Prj Nbr	The federal state/province project number that identifies the contract.
County	The primary county of construction work.

Table 13-52. The Contract Mixes Window Fields Table

To associate a contract with a mix design:

1. On the **Mix Design** panel, double-click the **Contract Mixes** icon.

2. In the **Design Type** list box, scroll to and double-click the desired design mix type.

3. In the **Mix ID** list box, scroll to and click the desired design mix.

4. Click **OK**.

5. Click the **New** button.

6. In the **Contract ID** list box, scroll to and click the desired choice.

7. Click **OK**.

8. Click the **Yes** button.

9. Click the **Save** button.

10. Repeat step 2-8 until all contracts have been associated with the mix design.

13.7.8 Contract Mix Design Adjustment

The Contract Mix Design Adjustments window is used to record minor adjustments to bituminous concrete mix designs.
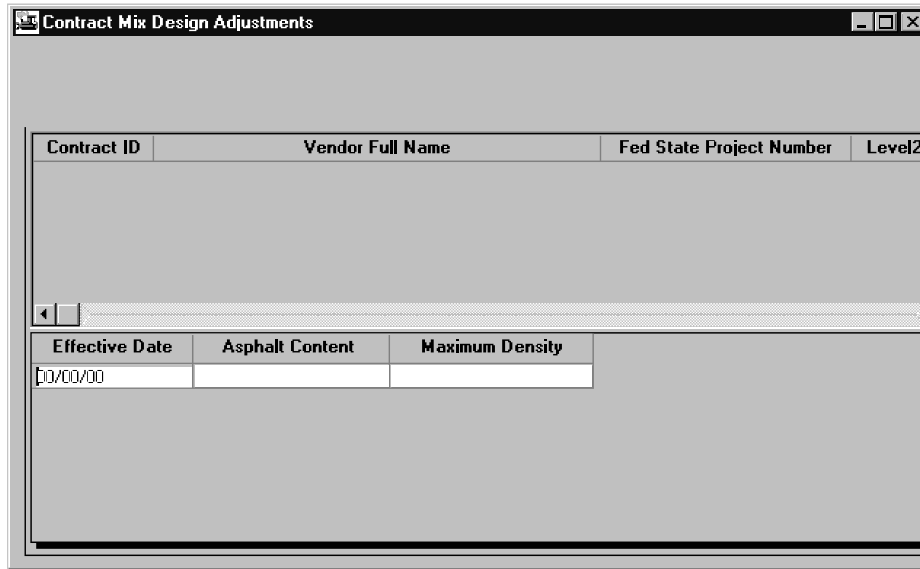
Figure 13-83. The Contract Mix Design Adjustment

Field Name	Description
Mix ID	The ID for the mix design.
Contract ID	The ID for the contract.
Prime Contractor	The full name of the primary contractor.
Fed St/Prov Prj Nbr	The federal state/province project number that identifies the contract.
Prime County	The primary county of construction work.
Effective Date	Date the adjustment was effective. Effective Date must be unique for Mix ID or Contract ID. Defaults to current date when a new adjustment is made.
Asphalt Content	Percentage of asphalt content.
Maximum Density	Maximum density of the mix.

To add a contract mix design adjustment:

1. On the **Mix Design** panel, double-click the **Contract Mix Design Adjustment** icon.

2. In the **Design Type** list box, scroll to and click the desired design type.

3. In the **Mix ID** list box, scroll to and click the desired design mix.

4. Click **OK**.

5. In the select list at the bottom, click the select list to change the focus.

6. Click the **New** button.

7. In the **Effective Date** field, type the desired value.

8. Press the **Tab** key.

9. In the **Asphalt Content** field, type the desired value.

10. Press the **Tab** key.

11. In the **Maximum Density** field, type the desired value.

12. Click the **Save** button.

13.7.9 Mix Design Reports

The Mix Design Reports panel generates commonly used Mix Design reports. The following report topics are available on this panel:

- HVEEM Mix Design List,

- Marshall Mix Design List,

- SUPERPAVE Mix Design List,

- PCC Mix Design List,

- Aggregate Mix Design List,

- Mix Design for Contract List,

- Samples Using Mix Design Report,

- Contract for Mix Design Report, and

- View Saved Reports (PSR)
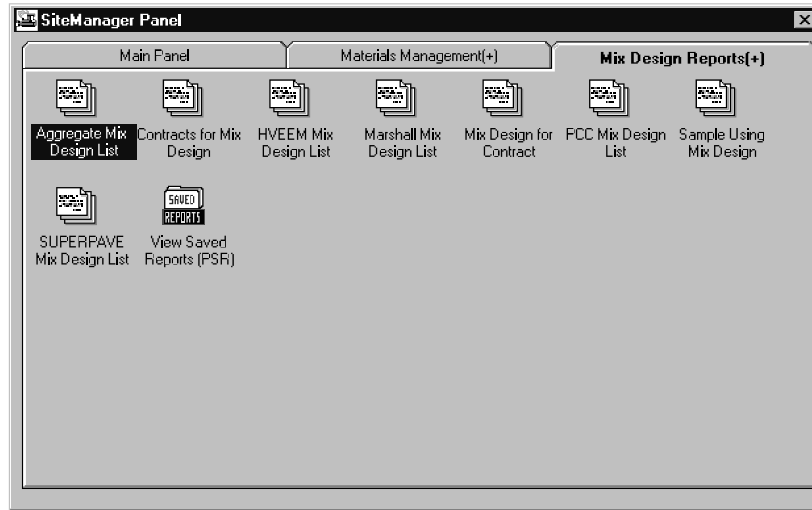
Figure 13-84. The Materials Management Mix Design Reports Panel

See Section 13.2, Material Management Reports, for more information on generating reports and the report content.

13.8 Sampling and Testing

Sampling and Testing are maintained using the components of the Sampling and Testing panel.
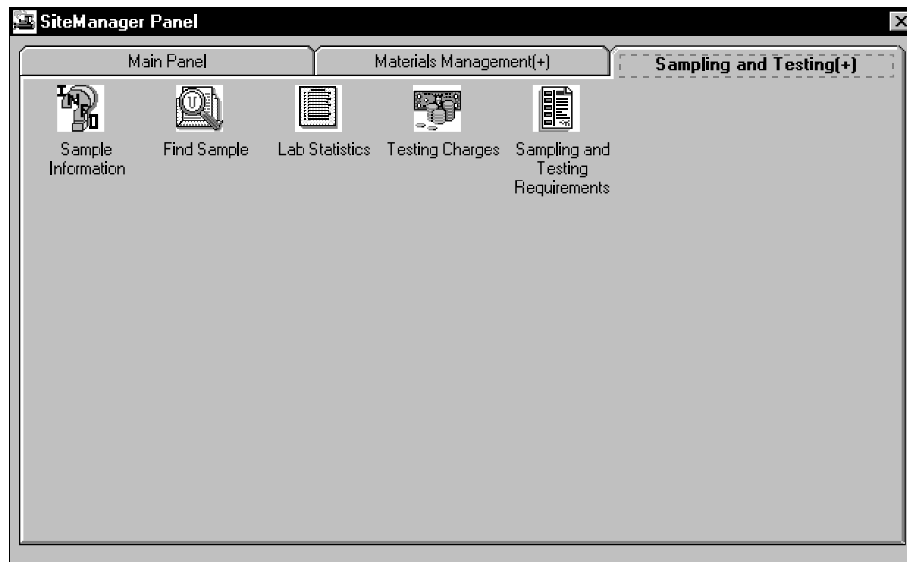
Figure 13-85. The Sampling and Testing Panel

To access the Sampling and Testing panel:

1. On the **Materials Management** panel, double-click the **Sampling and Testing** icon.

13.8.1 Maintain Sample Information

The Sample Information provides a record as to why a material from a designated source is being tested and/or accepted for a contract (or multiple contracts or multiple line items in a contract) or other entity (for example, purchase order, research, preliminary survey, and so on). The Material Sample area in SiteManager can be used to record sample and testing information as well as provide a source record for accepting material for reasons such as manufacturers certification, visual acceptance, approved source, and so on where testing is not required.

The Maintain Sample window has five tabs:

- Basic Sample Data tab

- Addtl Sample Data tab

- Contract tab

- Other tab

- Tests tab

To open the Sample Information window, from the Sampling and Testing navigation panel, double-click the Sample Information icon.

Sample Information

The Sample Information icon allows for the addition of base sample data. Up until a sample is authorized, it can be modified. An authorized sample cannot be modified or deleted, but it can be voided by revising it. However, an authorized or voided sample can have Disposition Remarks (as opposed to standard Remarks) attached.

To open the Sample Information window:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

Basic Sample Data Folder Tab

The Basic Sample Data tab allows creating and maintaining the Sample information.

When a Producer/Supplier code is entered, the expiration date of the Material is verified. If the Producer/Supplier's expiration date for that material occurs before the current date, a warning message will be displayed.

The Repr Qty field on the Basic Sample Data tab may be required, depending upon the System Operational Parameter Require Smpl Basic Data Represented Qty setting.

The Repr Qty field on the Basic Sample Data tab may be compared to the total Repr Qty for all contract items on the Contract tab, depending upon the System Operational Parameter Require Smpl

Basic Data Represented Qty setting. If the setting is Yes, then the total Repr Qty for all contract items on the Contract tab will not be allowed to be greater than the Repr Qty on the Basic Sample Data tab when saving an un-authorized sample. The Repr Qty on the Basic Sample Data tab must be greater than zero.

There will be no attempt to convert the representative quantity amounts if the units of measurement differ between the sample unit and the associated contract line item unit.
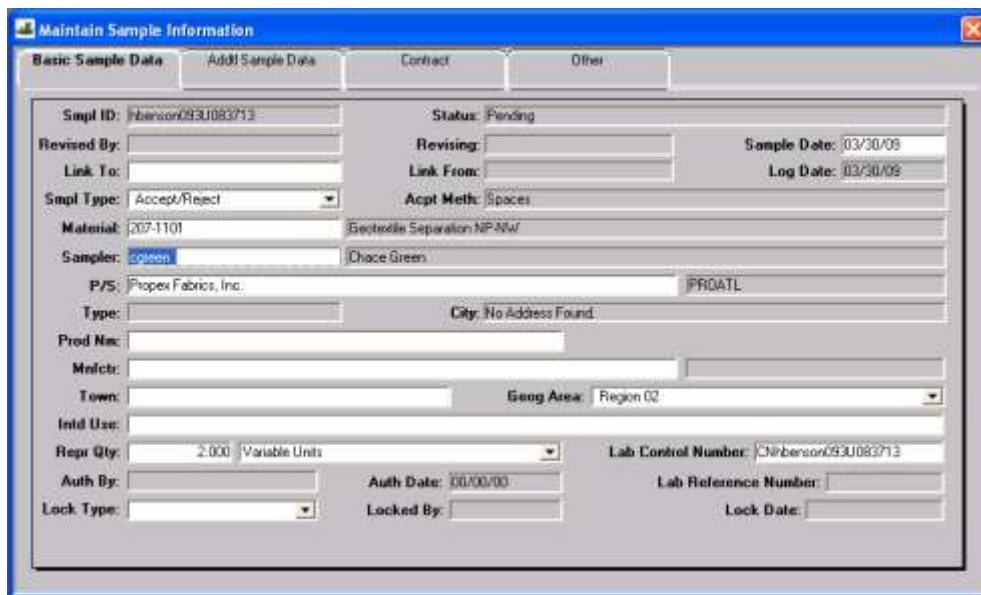
Figure 13-86. The Basic Sample Data Folder Tab

Field Name	Description
Sample ID 🔍	The sample ID of the material being tested and/or accepted for a contract. The unique identifier of a sample. The Open-Search lens feature to select from the list of available sample in the system. The list will display Sample ID and Material code from the sample list data window.
	This column is editable and user can enter the partial sample ID and use the search lens facility.
	If the member of Limited Access Sample Group or Limited Access Standalone Group locks the sample then it will be available only to the member of this group to link to another sample.
Sample Status	Display the current status description of the sample record.
	The sample status is a drop down list from the code table

Field Name	Description
	SMPLSTAT.
Revised By	Used when the current sample has been authorized and a revision is being made. The original sample is referred to as the new sample.
Revising	This field is automatically filled in by the system when the revise function is used.
Sample Date	The date the sample was taken. If a future date is entered then a message will display, and on confirmation the value will be accepted. If sample date is changed then following fields will be unavailable: Producer/Supplier, Product Name, Manufacturer and Inspector.
	This column is editable and defaults to current system date time.
Link To	This sample ID reflects another sample to which this one is-linked. This link reflects the tie from this sample to the next in the chain of samples. It is used in part, to group samples together.
	If the member of Limited Access Sample Group or Limited Access Standalone Group locks the sample then it will be available only to the member of this group to link to another sample.
Link From	This reflects the opposite relationship as the Linked To. This will display the ID of the sample that contains this sample in its Linked To field. This field is meant to allow the user the ability to travel up the linked chain.
Log Date	The date the sample was received at the lab or date the dispute or claim was entered into SiteManager.
Sample Type	Identifies the type of Sample taken (e.g., acceptance, job control, etc.).
Acceptance Method	The method by which the sample is being accepted (e.g., visual, manufacturer certification, etc.)
Material 🔍	The material code for the sample. The standard search lens will display the Material information.
	This field will be editable and once a material is selected then

Field Name	Description
	Producer/Supplier, Manufacturer, Product name, Repr Qty, Repr Unit and Sampler will be unavailable. The English and Metric units of the selected material will be populated on the Sample Unit drop down list.
	If the selected material has the Brand Name Required field checked, the Product Name will be enabled and will be required. The Manufacturer field will remain protected and will be populated based on Product Name. Otherwise, if the Brand Name Required field on the selected material is unchecked, the Product Name will remain protected and Manufacturer will be enabled.
Sampler	The ID of the inspector that took the sample. If the selected material has been defined in the new table Controlled Material Categories, then the Sampler field will be restricted to those inspectors who are active, and have active qualification with the same material category, and where the Sample Date falls within the active qualification's date range.
Producer/Supplier Name	The Producer Supplier Name of the selected material. The Filter-Search lens will display the Producer/Supplier Name for the selected material where the Sample Date falls between the producer/supplier material Effective and Expiration date or the Sample Date is greater than Effective date and Expiration date is 0. On selection, the P/S Code will be populated.
	This field will be editable.
Producer/Supplier Code	The Producer Supplier Code of the selected material.
	This field will be protected. On selection, the Producer Supplier Name the Code will be populated.
Type	The Producer/Supplier Type identifies the type of source. (e.g., prod/supplier, plant, pit, or quarry)
City	The City identifies where the producer/supplier is located.
Product Name	The brand of the material. The standard search lens will display Product name that match both the material selected and the sample date falls between the effective date and expiration date of the approved material. Once the name is selected the Manufacturer name and code will be populated.
	Initially this field will be disabled until the material is selected.

Field Name	Description
	If the selected material has brand name required field checked than this field will be editable and Manufacturer field will be disabled.
Manufacturer ⊙⁺	The manufacturer of the material. The Filter-Search lens will display the Manufacturer name and code from producer/supplier table. Once the name is selected the code will be populated. The Manufacturer name from producer/supplier material table with sample date between effective and expiration date will be allowed.
	Initially this field will be disabled until the material is selected. If the selected material has brand name required field unchecked then this field will be editable.
Manufacturer Code	The Manufacturer Code of the selected material.
	This field will be protected. On selection, the Manufacturer Name and Code will be populated.
Intd Use	Description of the intended use of the material
	This column is editable.
Town	The name of the town where the work is being done.
Geographical Area	Transportation Agency-defined geographical region where the sample, lab, or equipment is located.
Represented Quantity	The quantity of the sample being associated with the contract or the quantity of material represented by the sample.
	If the system operational parameter Require Smpl Basic Data Represented Qty is set to Y, then this field will be required and the value must be greater than zero. Otherwise, this field will remain optional.
	This field is editable.
Sample Unit	The unit of measure of the sample with no label has been moved next to Represent Quantity field.
	After the material is selected the default value for a new sample will be units defined in material details and the system operation parameter Default Material Unit.
	The drop down list box will be populated with the defined

Field Name	Description
	English and Metric material units based on the selected material.
	The Smpl Unit field will present data from a new table, MTLUNITS, a code table in (T_CD_TBL_HDR and DTL).
Authorized By	The ID of the user that authorized (completed) the sample.
Authorized Date	The date the sample was authorized (completed). The system will use the current date when the same is authorized.
Lock Type	Indicates what access is available for this sample.
	If the agency has selected No to Allowed Sample Limited Access Lock in the system operational parameter then this field will be protected.
	If the agency has selected Yes then based on the user group defined for System Operational Parameter Limited Access Sample Group or Limited Access Standalone Group and the current user group the Limited Lock lock type will be available in the drop down list box.
	The Limited Access Lock will be available to the group member belonging to the assigned group for Limited Access Sample Group or Limited Access Standalone Group in the System Operational Parameter. This will be available even after the sample is authorized. A user within this group will be able to set or release the lock on a sample at any time.
Locked By	When the Locked Type field is set to Locked the system will populate this field with the user ID of the locking personnel.
Lock Date	When the Locked Type field is set to Locked the system will populate this field with the current date.
Lab Control Number	System populated with a unique Control Number. This field was introduced in SiteManager 3.9. This field may also contain previously saved Control Numbers from previous versions allowing a tie between one or many samples.
Lab Reference Number	User defined field. Use of this field will be determined by the DOT.

Table 13-53. The Basic Sample Data Fields Table

> 📄 **Note:** If an agency has enabled the SiteManager Laboratory Information Management System (LIMS), additional buttons located on the SiteManager toolbar will be available to initiate the LIMS system and assign tests. The LIMS system may also be accessed from the Services menu.

To add basic sample data:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. In the **Sample ID** field, type the **sample ID**.

3. In the **Smpl Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

4. In the **Status** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

5. Press the **Tab** key.

6. In the **Smpl Dt** field, type the date the sample was taken.

7. Press the **Tab** key.

8. In the **Link To** field, type the sample ID to which this sample is linked.

9. Press the **Tab** key.

10. In the **Log Dt** field, type the date the sample was received at the lab or date the dispute or claim was entered into SiteManager.

11. In the **Smpl Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

12. In the **Acpt Meth** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

13. Press the **Tab** key.

14. Using the right mouse button, click the **Smpld By** field.

15. From the object menu, click the **Search** choice.

16. In the list box, scroll to and click the desired ID of the sampler.

17. Click **OK**.

18. Press the **Tab** key.

19. Using the right mouse button, click the **Material** field.

20. From the object menu, click the **Search** choice.

21. In the list box, scroll to and click the desired material.

22. Click **OK**.

23. Press the **Tab** key.

24. Using the right mouse button, click the **P/S** field.

25. From the object menu, click the **Search** choice.

26. In the list box, scroll to and click the desired producer/supplier.

27. Click **OK**.

28. Press the **Tab** key.

29. Using the right mouse button, click the **Mnfctr** field.

30. From the object menu, click the **Search** choice.

31. In the list box, scroll to and click the desired manufacturer.

32. Click **OK**.

33. Press the **Tab** key.

34. In the **Tow**n field, type the name of the town where the work is being done.

35. In the **Geog Area** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

36. Press the **Tab** key.

37. In the list box, scroll to and click the desired manufacturer.

38. Click **OK**.

39. Press the **Tab** key.

40. In the **Intd Use** field, type the intended use of the material.

41. Press the **Tab** key.

42. In the **Represented Quantity** field, type the desired value.

43. Press the **Tab** key.

44. In the **Lock Type** field, select the lock type for the sample.

45. Click the **Save** button.

To modify an unauthorized sample:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired Sample.

4. Click **OK**.

5. Press the **Tab** key to advance to the field to be modified.

6. Enter the desired change.

7. Click the **Save** button.

8. Click the **Addtl Sample Data** folder tab.

9. Press the **Tab** key to advance to the field to be modified.

10. Enter the desired change.

11. Click the **Save** button.

12. Click the **Contract** folder tab.

13. Press the **Tab** key to advance to the field to be modified.

14. Enter the desired change.

15. Click the **Save** button.

16. Click the **Other** folder tab.

17. Press the **Tab** key to advance to the field to be modified.

18. Enter the desired change.

19. Click the **Save** button.

20. Click the **Tests** folder tab.

21. Press the **Tab** key to advance to the field to be modified.

22. Enter the desired change.

23. Click the **Save** button.

> 🗎 **Note**: If the material code on an unauthorized sample needs to be modified, all Tests
> must be deleted first. Also, if a sample's material code is changed, the values populating
> the following fields will be removed:

- ▪ Producer Supplier

- ▪ Manufacturer

- ▪ Town

- ▪ Product Name

- ▪ Any Contract associations

To view the lab report of an existing sample:

1. On the **Basic Sample Data** folder tab, click the **Open** button.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired **Sample**.

4. Click **OK**.

5. Click the **Services** menu and click the **Lab Report** choice.

6. Select the criteria.

7. Click **OK**.

8. When complete, click the **Close** button.

Sample Security

A facility to lock the sample is available. When a sample is locked only the user(s) with access will be allowed to edit the sample information, including authorizing the sample. All the users without access will have inquiry only access. The sample can be locked at the following levels:

- No Lock – The sample with this security option will be open for changes from any users with update window rights.

- User Only - allows update access to the user who last modified the sample record only.

- Office Level - allows update access to the sample to the specified office and to the users from all the office levels in the chain above the specified office level.

The sample security Lock Type drop down will be populated with these types based on the active security types selected by the agency.

If the agency has selected the User Level by assigning Y to Allow Sample User Lock in the system operational parameter then the Lock Type drop down will have option for User lock and No Lock.

If the agency has selected Office level by assigning Y to Allow Sample Office Lock in the system operational parameter then the users office levels and No Lock will be populated in the sample security type drop down.

The System Operational Parameter Default Sample Security determines the security type, which is allowed in the agency. The default value will be set to No Lock. The security types available will be all security types (i.e. No lock, User Only, Office Level1, Office Level2, Office Level3, Office Level4 based on the defined office level in the System Operational Parameter). The agency will select the option and based on the option selected, the Maintain Sample Information window will assign the default to the new sample if available to the user.

If the agency has selected No to Allow Sample User Lock and Allow Sample Office Lock in the system operational parameter then sample security will not be enabled in the Maintain Sample Information window.

Limited Access Sample Lock

A facility to lock the sample in a Limited Access mode is required.

If the agency assigns a user group for Limited Access, the user group will be declared in the SiteManager Systems Administration - System Operational Parameter window for the Limited Access Sample Group and Limited Access Standalone Group parameter.

The member of the user group defined for Limited Access Sample Group or Limited Access Standalone Group will be able to lock the sample in Limited Access mode and will be shown the Limited Access Lock type along with the Locked by and Lock date fields. If the current group selected by the user is not the assigned group for Limited Access Sample Group or Limited Access Standalone Group then the Locked by and Lock date field will not be displayed on the screen and Limited Access lock type will not be available.

When a sample is locked in Limited Access only the user(s) belonging to the assigned group for Limited Access Sample Group or Limited Access Standalone Group will be allowed to view or edit the sample information, including authorizing the sample.

The sample locked in the Limited Access will not be accessible by the users not belonging to the assigned group for Limited Access Sample Group or Limited Access Standalone Group.

The Sample Information window – File Open pick list window and the Search window will exclude samples locked in Limited Access for the users not belonging to the assigned group for Limited Access Sample Group or Limited Access Standalone Group.

A sample created by a user belonging to the assigned group for Limited Access Sample Group or Limited Access Standalone Group but not locked in Limited Access mode will be available for all the material users.

When the Sample Information window is in new mode for creating a sample the value of the Lock Type field if available will be defaulted to No Lock.

The user belonging to the assigned group for Limited Access Sample Group or Limited Access Standalone Group will be able to set or release the lock on a sample at any time.

The samples locked in the Limited Access lock type will be only available in the search window on Link To field for the defined Limited Access Sample Group or Limited Access Standalone Group.

Figure 13-87. The Basic Sample Data Folder Tab - Limited Access

Additional Sample Data Folder Tab

On the Additional Sample Data window, the Mix ID field has a search lens facility to select the relevant Mix Id for the selected Design Type. The search lens window displays the list of Mix Id. The picklist for SUPERPAVE and PCC will display the will display the Producer Supplier Name, Effective Date, Termination Date, Approved Date.

Figure 13-88. The Additional Sample Data Folder Tab

Field Name	Description
Sample ID	The ID of a sample.
Buy American (checkbox)	Identifies if the material sampled fulfills the requirement for the Buy USA program.
Buy American (drop-down list)	Identifies the documentation required to accept materials for the Buy USA program.
Requested By	Description identifying who requested the permit.
Witnessed By	The ID of the person who witnessed the sample being taken.
Sample Size	The size of the sample being taken.
Dist. from Grade	The distance from finished grade measurement. It takes care of the height of fill, height of test, and test depth measurements.
Dist. from Grade Unit of Measure	The unit of measure in which the distance from finished grade is measured.
Station	Used for measuring distances and identifying points on the ground along a survey line.
Offset	Distance and direction from the reference.

Field Name	Description
Reference	Line on plans to reference the location of the sample.
Sampled From	Description of where the sample was taken (e.g., truck, bin, etc.)
Sample Origin	Description of the originating location for a sample.
Control Type	Provides an additional identifier for the sample (if available). The type is from a list of defined values by the transportation agency. Examples are heat number, lot number, batch number, etc.
Control Number	The actual number for the type of control to identify the sample.
Seal Number	The seal number of the batch of material tested.
Design Type	This is one of the five types of designs (i.e., Marshall, HVEEM, SUPERPAVE, PCC, Aggregate).
Mix ID	The ID for the mix design. This field cannot be used if Design Type is not entered.
Plant Type	Identifies the type of plant (e.g., plant, pit, quarry, etc.)
Plant ID	The unique identifier for the plant. Plant ID is required if Plant Type is entered.
Plant Name	Name of the plant, pit or quarry.
Creator User ID	User ID of the user creating the Sample Information Record.
Sample Created from DWR	This field will indicate whether this sample was created for the material from the DWR window.
Include Standard Remarks	A checkbox field to determine if standard remarks as defined in the Standard Sample Remark window will appear in the SiteManager standard Lab Report based on the status of the Sample Record.
DWR Date	If the Sample Record was created from the DWR window, this field will be populated with the date of the DWR.
Last Modified User ID	The User ID of the last user who modified the Sample Record.

Field Name	Description
Last Modified Date	The last date that the Sample Record had been modified.
DWR Inspector	If this sample record was created from the DWR window, this field will be populated with the User ID of the person creating the DWR and the Sample Record.

Table 13-54. The Additional Sample Data Table

To add additional sample data:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Sample Data** folder tab, add a sample.

3. Click the **Addtl Data** folder tab.

4. Click the **Buy American** check box (ON) if appropriate.

5. In the **Buy American** drop-down list, click the expand arrow to the right of the current selection and click the desired choice if the Buy American checkbox is clicked (ON).

6. Press the **Tab** key.

7. In the **Reqst By** field, type the name of the person requesting the sample.

8. Press the **Tab** key.

9. Using the right mouse button, click the **Witnessed By** field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired witness.

12. Click **OK**.

13. Press the **Tab** key.

14. In the **Smpl Size** field, type the size of the sample.

15. Press the **Tab** key.

16. In the **Dstnc Finish Grade** field, type the distance from finished grade measurement.

17. In the **Dstnc Finish Grade Unit** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

18. Press the **Tab** key.

19. In the **Station** field, type the desired value.

20. Press the **Tab** key.

21. In the **Offset** field, type the desired value.

22. Press the **Tab** key.

23. In the **Reference** field, type the desired value.

24. Press the **Tab** key.

25. In the **Smpld From** field, type the desired value.

26. Press the **Tab** key.

27. In the **Smpl Origin** field, type the desired value.

28. Press the **Tab** key.

29. In the **Control Type** field, type the desired value.

30. Press the **Tab** key.

31. In the **Cntrl Number** field, type the desired value.

32. Press the **Tab** key.

33. In the **Seal Number** field, type the desired value.

34. Press the **Tab** key.

35. In the **Design Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

36. Press the **Tab** key.

37. Using the right mouse button, click the **Mix ID** field.

38. From the object menu, click the **Search** choice.

39. In the list box, scroll to and click the desired **mix ID**.

40. Click **OK**.

41. Press the **Tab** key.

42. In the **Plant Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

43. Press the **Tab** key.

44. Using the right mouse button, click the **Plant ID** field.

45. From the object menu, click the **Search** choice.

46. In the list box, scroll to and click the desired **plant ID**.

47. Click **OK**.

48. Click the **Save** button.

Contract Sample Data
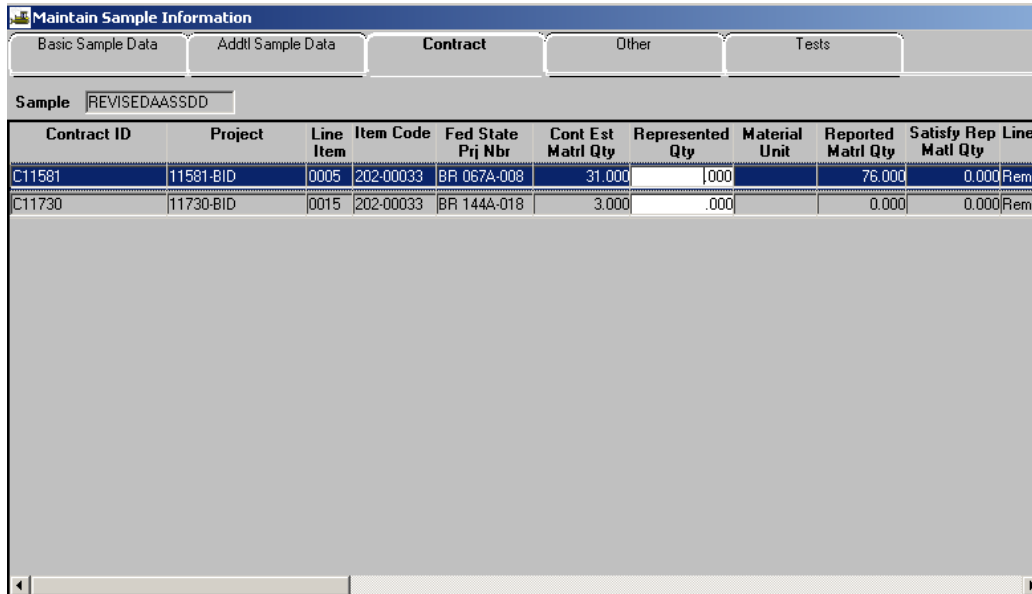
Figure 13-89. The Contract Sample Data Folder Tab

The Contract (Sample) window is used to associate a sample to a particular contract by project (or contracts). When an association is made between a sample and a contract, it is done at the line item level. That is, the sample is kept on the line item within a project within the contract. A quantity to be associated with the contract may also be entered.

When adding a new row, the pick list will include a Contract ID search lens facility. Once a valid contract is selected, it will display the line items on the contract where one or more line items can be selected using standard Windows select functionality.

The Satisfied Represented Material Quantity (labeled as Satisfy Repr Matl Qty) from the Daily Work Report - Work Item tab displays next to Reported Material Quantity.

Depending upon System Operational Parameters settings, the Represented Quantity field may be a required entry.

The total Repr Qty for all contract items on the Contract tab may be compared to the Repr Qty field on the Basic Sample Data tab, depending upon the System Operational Parameter Require Smpl Basic Data Represented Qty setting. If the setting is Yes, then the total Repr Qty for all contract items on the Contract tab will not be allowed to be greater than the Repr Qty on the Basic Sample Data tab when saving an unauthorized sample.

Field Name	Description
Contract	The ID of a contract.

Field Name	Description
Project	The ID of a project.
Line Item	A transportation agency-defined code used to identify a particular item.
Item Code	Code for Bid Item
Fed State Prj Nbr	The federal, state, or province Project number for the Contract, Project or Category. This is a required field.
Cont Est Matrl Qty	The current material quantity expected on the entire contract. Calculated: (Bid Quantity of Contract Item + Change Order Quantity) x Conversion Factor
Represented Qty	Represented Quantity. This field may be required, depending upon System Operational Parameters settings.
Material Unit	The Material Unit short description.
Reported Matrl Qty	This total material installed. Calculated: Installed Quantity of Contract Item x Conversion Factor
Satisfy Repr Matl Qty	The current satisfied represented material quantity, i.e. How much of the material this sample represents to this contract item.
	Calculation: Satisfy Repr Material x Conversion Factor.
Line Item Description	Description of the contract.
Supp Description 1	This field contains a textual description that is supplemental to the item's description and may be required by the transportation agency.
Supp Description 2	This field contains a secondary textual description that is supplemental to the item's description and may be required by the transportation agency.
PickList-Contract	The Contract for the sample. The standard search lens will display the Contract information.
PickList-Item list	The contract line items information like the Project Number, Line Item Number, Line Item Description, and Supplemental Descriptions 1 and 2 for the given contract will be displayed and the user will have the facility to select multiple contract line items. The selected Contract line items will be added to the sample

Table 13-55. The Contract Sample Data Fields Table

To add the association of a sample with a Contract and Project/Line Item:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Sample Data** folder tab, add a sample.

3. Click the **Contract** folder tab.

4. In the list box, scroll to and double-click the desired **Contract**.

5. In the list box, scroll to and click the desired **Project/Line Item**.

6. Click **OK**.

7. Click the **Yes** button if you wish to add all project/line item combinations to this sample.

8. In the **Represented Quantity** field, type the desired value.

9. To add additional contracts and projects/ line items, click the **New** button and repeat steps 4-8.

10. Click the **Save** button.

Other Sample Data

The Other (Sample) folder tab allows the assignment of the current sample to entities other than contracts. Examples of entities other than contracts that may be specified are purchase order requisitions for maintenance, research, design, or geo-technical. You can also assign the sample to one or more destination labs and to other information pertinent to the sample.

Figure 13-90. The Other Sample Data Folder Tab

Field Name	Description
Type	The transportation agency-defined list of entities other than a contract that require sampling and testing (e.g., maintenance, research, design, or geo-technical).
ID	A value representing the entity.
Description	Description of selected ID.

Table 13-56. The Other Sample Data Fields Table

To add the association of a sample with another entity:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Sample Data** folder tab, add a sample.

3. Click the **Other** folder tab.

4. In the **Type** drop-down list, click the expand arrow to the right of the current selection and click the desired choice.

5. Press the **Tab** key.

6. In the **ID** field, type the desired value.

7. Click the **Save** button.

Sample Tests

This tab allows the user to identify the tests to be performed on the sample and to enter the results of the tests. The user can identify tests that have been defined for the material. It also allows the user to track when the test starts and is completed. A test method may be performed on a material more than once since a unique Sample Test Number must be assigned to each test.

The Start Date field is a required field and is currently defaulting to the current system date. The Start Date of the test not the Actual Completion Date will be used in the validation with the active qualification's date range. If the start date is altered after testers have been associated with the test, the qualifications of all associated testers will be reconfirmed before accepting the start date. An error message will be displayed for any error encountered, and the original date will be restored.

Only qualified users will be able to access test results in an update mode. A qualified user is identified by a user ID, that either has global access to test data entry, or by having an active test method qualification with the same test method that is specified on the sample's Tests tab, and where the test start date falls within the active qualification's date range. Otherwise, the test data will only be available in read-only mode.

When test results are saved, the tester (that is, the current User ID) is compared to the list of testers shown in the Sample Testers window. If the tester is already there, no action is taken. If the tester is not there, his or her information will be added. This action will be performed for each associated test. If a test is deleted, the testers' information associated to the test will also be deleted (as is currently being performed).
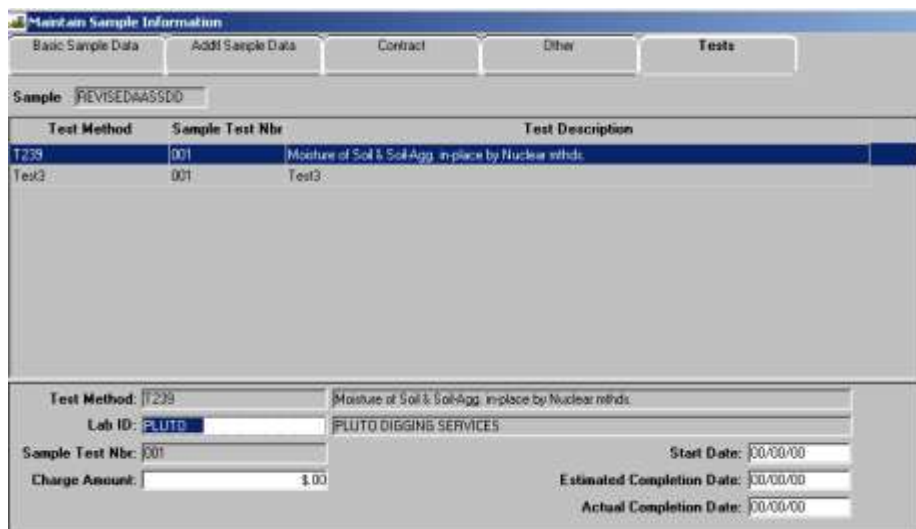
Figure 13-91. The Sample Tests Folder Tab

Field Name	Description
Test Method	Method used for testing the material.
Test Description	Description of the test.

Field Name	Description
Lab ID	The ID for the testing lab
Lab	The name of the testing lab.
Sample Test Nbr	Unique number/identifier for the test.
Start Date	Date to specify when the test began. Defaults to current date for a new test. This is a required field.
Charge Amount	The amount charged for the test.
Estimated Completion Date	The date the test is expected to be completed. Estimated Completion date must be greater than Start Date.
Actual Completion Date	The date the test is completed. Actual Completion date must be greater than Start Date.

Table 13-57. The Sample Tests Fields Table

To add the association of a sample with a test:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Sample Data** folder tab, add a sample.

3. Click the **Tests** folder tab.

4. Using the right mouse button, click the **Test Method** field.

5. From the object menu, click the **Search** choice.

6. In the list box, scroll to and click the desired **test method**.

7. Click **OK**.

8. Press the **Tab** key.

9. Using the right mouse button, click the **Lab ID** field.

10. From the object menu, click the **Search** choice.

11. In the list box, scroll to and click the desired **lab ID**.

12. Click **OK**.

13. Press the **Tab** key.

14. In the **Sample Test Nbr** field, type the number for the test.

15. Press the **Tab** key.

16. In the **Start Date** field, type the date the testing started.

17. Press the **Tab** key.

18. In the **Charge Amount** field, type the amount charged for the test.

19. Press the **Tab** key.

20. In the **Estimate Completion Date** field, type the date.

21. Press the **Tab** key.

22. In the **Actual Completion Date** field, type the date

23. To add additional tests, click the **New** button and repeat steps 4-22.

24. Click the **Save** button.

To view related sample tests:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Sample Data** folder tab, add a sample.

3. Click the **Tests** folder tab.

4. In the list box, scroll to and click the desired test method.

5. Click the **Services** menu and click the **Related Sample Tests** choice.

6. Click the **Close** button to return to the **Test** folder tab.

Assign Tests

The Sample Test window includes an Assign Tests menu item on the Services menu and an Assign Test icon on the menu toolbar. **The Assign Test Service menu option and icon are ONLY available if LIMS is enabled.** The Assign Test Service menu option and icon will be disabled if tests are assigned on the Sample. The Assign Test button is only available after a user has assigned a material code, sample type, geographic area, and a destination lab on the sample record.

Figure **13-92**. Maintain Sample Information Services Menu
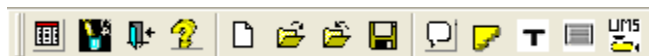
Figure **13-93**. Maintain Sample Information Toolbar

The agency has pre-determined the default tests for select materials, because certain tests are commonly performed on specific materials. Based on the material you select, default tests are available to assign automatically. Once the default tests have been assigned the Sample Tests are locked, no tests can be deleted and no additional tests can be added. If you desire another test for a material, you must click the More button to add additional tests.

Figure **13-94**. Assign Sample Tests Window

Figure **13-95**. Assign Sample Tests Window

Field Name	Description
Additional Available Tests	List of tests associated to a material, but not assigned as a default test.
Test Description	Description of the test.
Lab Unit	Assigned Lab to perform the test.
Test Method	Method used for testing the material.
Tests to be Assigned	List of default tests associated to a material.
Default Test	Indicates test is assigned to be completed and cannot be removed.
Test Rqrd	Indicates test is required and cannot be removed.
Auto-Finalize	Indicates test does not have to be authorized in Sample Review assuming all tests are In Spec.
Add	Click to Add a test to the Tests to be Assigned panel.
Remove	Click to Remove a test to the Tests to be Assigned panel.
Save Tests	Click to save and lock the Sample with the

Field Name	Description
	current selected assigned tests.
Cancel	Click to Exit the Assigned Sample Tests window. No tests will be added and the Sample Test panel will not be locked.

Table 13-58. Assign Sample Tests Window Fields

To add additional tests:

1. Click the **More** button. SiteManager expands the Assign Sample Tests window.

2. In the **Additional Available** Tests panel, select the desired test.

3. Click the **Add** button. SiteManager moves the test to the Tests to be Assigned panel.

4. Enter the number of desired test runs to add additional test runs (maximum of nine).

5. Click the **Save Tests** button.

To remove tests:

You can remove any test except tests marked as default or required.

1. On the **Basic Sample Data** panel, click the **Assign Tests** button. SiteManager displays the Assign Sample Tests window.

2. Click the **More** button. SiteManager expands the Assign Sample Tests window.

3. In the **Tests to be Assigned** panel, select the desired test.

4. Click the **Remove** button. SiteManager moves the test to the Additional Available Tests panel.

5. Click the **Save Tests** button.

Test Data

When a test is selected, the Services menu's Enter/View Test Data choice allows the entry of the test data. This menu choice will access the fields of the material specification as a template for entry of the test data and the values of the materials specification for comparison to the sample.

Figure 13-96. The Test Data Window Using the Determining the Plastic Limit and Plasticity Index of Soils

To add the test data:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Sample Data** folder tab, add a sample.

3. Click the **Tests** folder tab.

4. Click the desired **Test Method**.

5. Click the **Services** menu and click the **Enter/View Test Data** choice.

6. Enter the appropriate test data values for the specific test specification.

7. Click the **Save** button.

8. Click the **Close** button to return to the Test folder tab.

Testers

The Sample Testers window allows testing personnel to be associated with the sample's specific test method.

The Sample Tester window can be accessed from Sample Information window - Test tab service menu option Tester.

The tester search lens filter is restricted to those testers who have valid test method qualifications, by either having global access to test, or by having an active test method qualification with the same test method that is specified on the sample's Tests tab and where the test start date falls within the active qualification's date range. The delete will be available until the test results have been recorded.
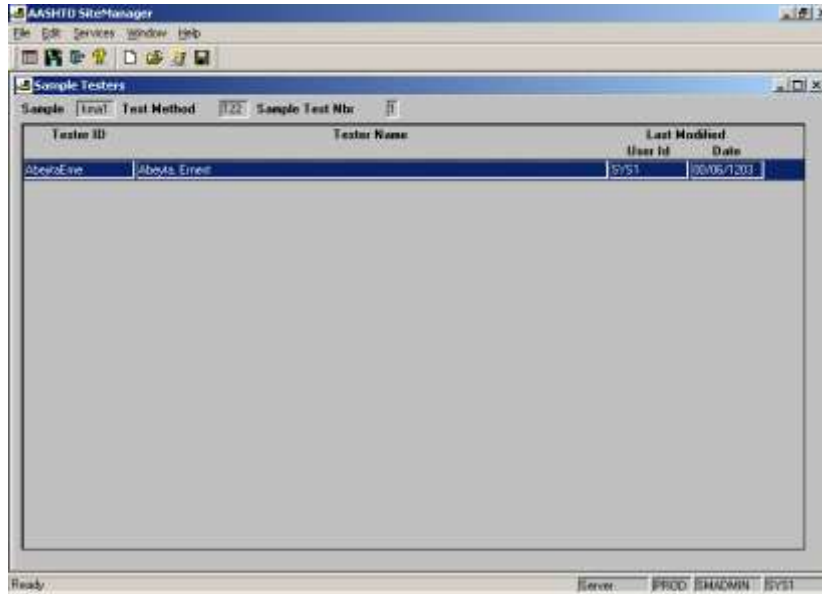
Figure 13-97. The Sample Testers Window

Field Name	Description
Tester ID	The Tester to be associated to a sample's specific test method.
	This is editable field. The Tester search lens filter will be a display only tester with active qualification, i.e., the sample date is between the qualification start date and end date or having global access
Last Modified User Id	The Tester ID of the last person visited this record. This field is protected and is assigned by the system.
Last Modified Date	The date when the last user changed the record. This field is protected and is assigned by the system.

Table 13-59. Same Testers Window Fields

To add a sample tester associated to the test method:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Sample Data** folder tab, add a sample.

3. Click the **Tests** folder tab.

4. Click the desired **Test Method**.

5. Click the **Services** menu and click the **Tester** choice.

6. Using the right mouse button, click the **Tester ID** field.

7. From the object menu, click the **Search** choice.

8. In the list box, scroll to and click the desired ID of the tester.

9. Click **OK**.

10. Click the **Save** button.

11. Click the **Close** button to return to the Test folder tab.

Sampling Information — Authorizing

In order to authorize the sample, all required fields on the Base Sample Data tab need to contain a value, and all tests specified for the sample must have an actual completion date entered. When the sample is authorized, the Authorized Date and Authorized By fields are filled in, and appropriate messages are sent to the project personnel letting them know about the completion. Once the sample has been authorized, the sample cannot be modified.

In the user code table Sample Status Allowing Sample Authorization (SMPLAUTH) will allow users to enter codes that indicate the status of a sample suitable for authorization. The values entered should be a subset of the Sample Status code table (SMPLSTAT). To disable the function provided by this code table makes the codes in SMPLAUTH exactly match those in SMPLSTAT. The initial values in the SMPLAUTH table are the values from SMPLSTAT.

To authorize a sample:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired **Sample**.

4. Click **OK**.

5. Click the **Services** menu and click the **Authorize** choice.

6. Click the **Save** button.

Sampling Information — Unauthorizing

Agencies may choose to allow specific groups to Unauthorize Sample Information records. The Sample Status field of the Unauthorized record will be edible and sample information and tests can also be edited at this time. If the agency is using the Laboratory Information Management System (LIMS), the status of the unauthorized sample will be changed to Pre Authorized and the Sample Status field will remain protected. The Unauthorize option from the Services menu will only be available if the System Operational Parameter Enable Unauthorized Sample is set to Y.

To unauthorize a sample:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired **Sample**.

4. Click **OK**.

5. Click the **Services** menu and click the **Unauthorize** choice.

6. Click the **Save** button.

Sample Information — Copying Sample and Revising

Authorized, unauthorized or Void samples can be copied using the Services menu's Copy Sample choice. Once the sample has been copied, it will require a new sample ID at a minimum. If Other System Parameter Auto Generate Sample ID is enabled a sample ID will automatically be generated.

An authorized sample cannot be modified, but it can be revised. The Service menu's Revise choice creates a copy of the original sample and voids the original sample. The void original is automatically linked to the revised copy. The copy of the sample created by the Revise choice also requires a new sample ID.

When copying or revising a sample, you must select an option to create a new lab control number or use the control number from the existing sample record. If you copy or revise a sample using the **Create new lab control number** option, the new sample has a new corresponding control number. The **Copy lab control number from existing sample** option, creates the new sample with the existing lab control number as the copied or revised sample.
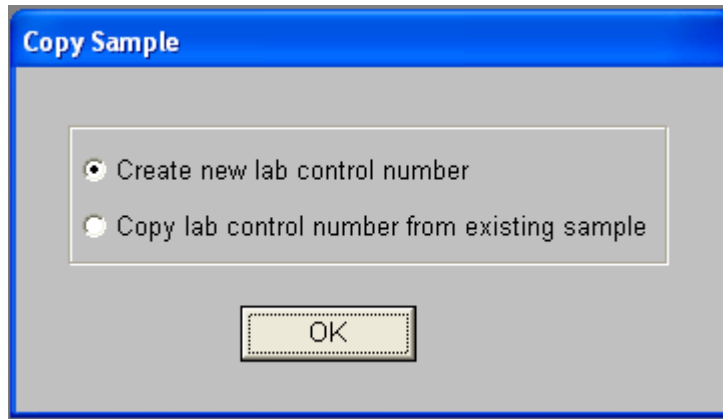
Figure 13-98. The Create New Lab Control Number or Copy From Existing Sample Window

To copy an existing sample:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. Click the **Open** button.

3. In the list box, scroll to and click the desired **Sample**.

4. Click **OK**.

5. Click the **Services** menu and click the **Copy Sample** choice.

6. Select **Create new lab control number** or **Copy lab control number from existing sample** radio button.

7. Click the **OK** button.

8. In the **Sample ID** field, type the **sample ID**. If **Auto Generate Sample ID** is enabled, a sample ID will automatically be generated.

9. Click the **Save** button.

To revise an authorized sample:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Basic Sample Data** folder tab, click the **Open** button.

3. Click the **Open** button.

4. In the list box, scroll to and click the desired authorized **Sample**.

5. Click **OK**.

6. Click the **Services** menu and click the **Revise** choice.

7. Select **Create new lab control number** or **Copy lab control number from existing sample** radio button.

8. Click the **OK** button.

9. In the **Sample ID** field, type the **sample ID**. If Auto Generate Sample ID is enabled, a sample ID will automatically be generated.

10. Click the **Save** button.

Sample Information — Remarks and Disposition Remarks

The Remarks button functions normally and cannot be modified once the sample has been authorized.

In addition to the Remarks buttons, authorized and void samples can have a Disposition Remark attached using the Services menu's Disposition Remark choice. This is the only modification that can be made to authorized or void samples.

To attach a disposition remark to an authorized or void sample:

1. On the **Sampling and Testing** panel, double-click the **Sample Information** icon.

2. On the **Basic Sample Data** folder tab, click the **Open** button.

3. Click the **Open** button.

4. In the list box, scroll to and click the desired authorized or void **Sample**.

5. Click **OK**.

6. Click the **Services** menu and click the **Disposition Remark** choice.

7. Click in the window in the background.

8. Click the **Save** button.

13.8.2 Find Sample — Sample Tracking

The Find Sample window allows a search for samples based on a specific list of criteria. This list of criteria includes geographic area, sampled by, sample date range, producer/supplier, material, contract, and item code. The window allowing the selection of these criteria is called the Find Sample Parameters window. This window will be displayed immediately after opening the Find Sample icon. Once parameters are selected, the data is found and displayed on the original Find Sample window, known below as the Non-Contract Related Window Format, window. There are two exceptions to this rule. They are in the case of contract and/or item code specification. If item code is specified, whether in combination with other criteria or not, a special data presentation known below as the Item Code Related Window Format will be used. If the item is not specified but the contract is, the presentation known below as the Contract Related Window Format is used.

It is important to note that in order for any sample to be shown, it must meet all the conditions specified in the Find Sample Parameters window. For example, if two criteria are specified, and a given sample meets only one of the two conditions, it will not be shown on the report.

If the current user group is the same as assigned to the Limited Access Sample Group or Limited Access Standalone Group System Operational Parameter then all the samples satisfying these conditions will be shown.
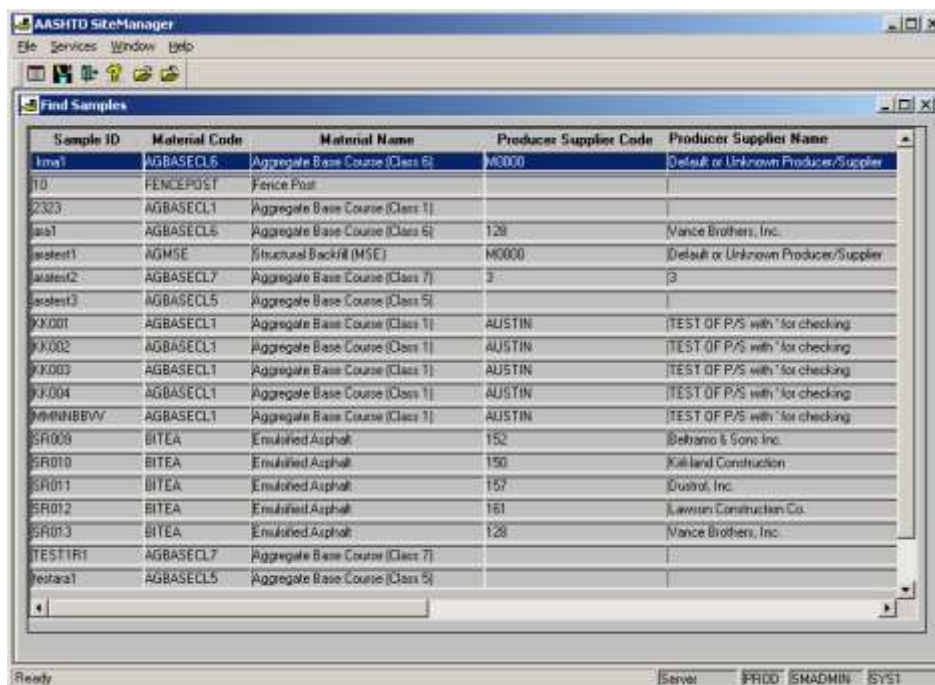
Figure 13-99. The Find Sample Window
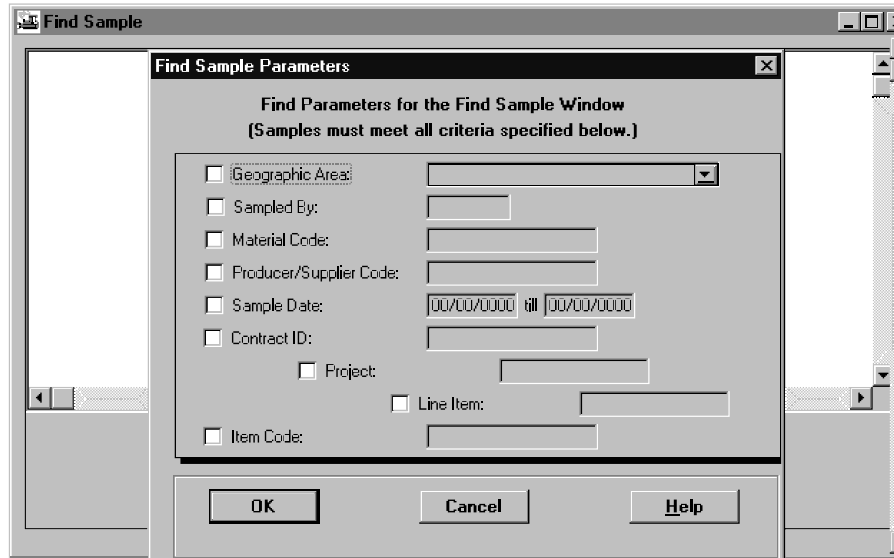
Figure 13-100. The Find Sample Parameters Window
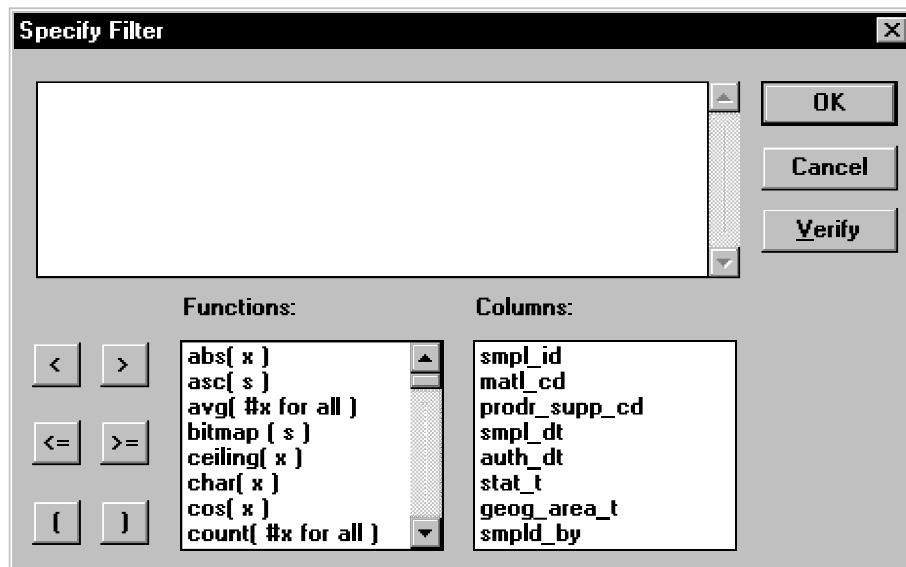
Figure 13-101. The Find Sample Criteria Window

Field Name	Description
Sample ID	The ID of the sample.
Sample Date	The date the sample was taken.
Sampled By	The inspector who took the sample.
Authorized Date	The date the sample was authorized.

Field Name	Description
Status	The current status of the sample.
Geographic Area	The geographic area of the sample.
Producer/Supplier	The producer or supplier of the material.
Material	The material from which the sample was taken.

Table 13-60. The Non-Contract Related Fields Table

Field Name	Description
Project	The project ID with a contract
Line Item	The line item ID of a contract.
Sample ID	The ID of the sample.
Sample Date	The date the sample was taken.
Sampled By	The inspector who took the sample.
Authorized Date	The date the sample was authorized.
Status	The current status of the sample.
Geographic Area	The geographic area of the sample.
Producer/Supplier	The producer or supplier of the material.
Material	The material from which the sample was taken.

Table 13-61. The Contract Fields Table

Field Name	Description
Contract	The ID of the contract.
Project	The project ID with a contract
Line Item	The line item ID of a contract.
Sample ID	The ID of the sample.
Sample Date	The date the sample was taken.

Field Name	Description
Sampled By	The inspector who took the sample.
Authorized Date	The date the sample was authorized.
Status	The current status of the sample.
Geographic Area	The geographic area of the sample.
Producer/Supplier	The producer or supplier of the material.
Material	The material from which the sample was taken.

Table 13-62. The Item Fields Table

To find a sample:

1. On the **Sampling and Testing** panel, double-click the **Find Sample** icon.

2. Click the desired parameter check box (ON).

3. Click **OK**.

4. If appropriate, perform a **Filter** using the object menu (referenced in the Getting Started section).

5. Click **OK**.

13.8.3 Sampling and Testing Requirements

The Sampling and Testing Requirements icon of the Sampling and Testing panel is identical in functionality to the same icon on the Material Information panel.

13.8.4 Standard Sample Remarks

The Standard Sample Remarks window is used to add optional standard remarks that will be added to all samples. A standard remarks entry can be created for the following sample types:

▪ Failed,

▪ Complete, and

▪ Void.

To modify a standard sample remark:

1. On the **Sampling and Testing** panel, double-click the **Standard Sample Remarks** icon.

2. Click the **Code Description** to be modified.

3. In the remarks window, type a message or edit the existing message.

4. Click the **Save** button.
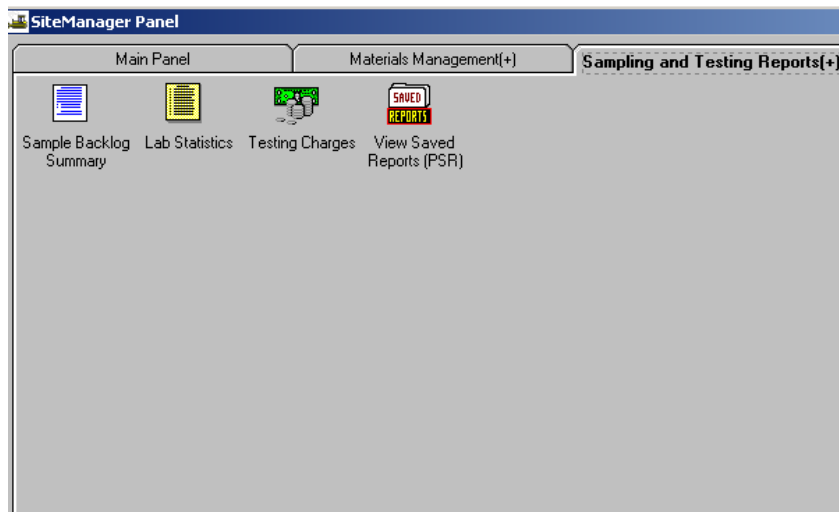
Figure 13-102. The Materials Management Sampling and Testing Reports Panel

13.8.5 Sampling and Testing Reports

The Sampling and Testing Reports panel generates commonly used Sampling and Testing reports. The following report topics are available on this panel:

- Lab Statistics Report,

- Testing Charges Report,

- Failing Samples Report,

- Sample Backlog Summary, and

- View Saved Reports (PSR).

See Section 13.2, Material Management Reports, for more information on generating reports and the report criteria.

13.9 Process List (Materials Management)

The Process List window lists processes that are available to the authorized user. Available processes depend upon the functional area of the process list, for example, Contractor Payment processes are available by clicking the Process List icon located on the Contractor Payments panel. Processes appearing in Process Lists also depend upon the user security assigned to the individual process.

The Materials Management Process List contains the following standard process:

- Sampling Checklist Report (SMPCHKLS)

Processes may be RTF reports, SiteManager PowerBuilder reports, or batch processes. From this window, authorized users may submit processes for batch and background execution.

A process is run from the Process List window by clicking on the named process, and choosing Run Process from the Services menu, or by clicking the named process and clicking the Run Process button or double-clicking the process.

Figure 13-103.   The Process List Window

Field Name	Description
Process ID	The name of the process.
Process Description	Short textual description of the process.
Process Type	Denotes whether the process is a standard process or custom process.

Table 13-63. The Process List Window Field Descriptions Table

To display the Process List window:

1. From the **Main** panel, double click the icon for the desired functional area.

2. Double click the **Process List** icon.

13.9.1 Submitting a Process

In addition to the parameters that may be specified while defining a process, there are runtime parameters that may be specified by the user at the time the process is executed. Processes may also be scheduled to run continuously on a specific day, week, or month. If there are any parameters associated to the process during its definition, a window will display when the process is run requesting the specified information from the user.

The Confirm Process Submission window allows users to choose to continue submission directly, cancel submission immediately, or navigate to a runtime parameters window before queuing the job for execution. The Confirm Process Submission window is accessed when the user selects/highlights a process row then selects Run from the Services menu or when the user double clicks on the process row. If any process-specific parameters have been associated to the process, a process parameter window will display, and the options to submit, cancel or specify parameters are available. The Confirm Process Submission window has three buttons, which are described in the table below.

Figure 13-104. The Confirm Process Submission Window

Button Name	Description
Submit	Submits the selected process for execution.
Parameters	Displays the Process Submission Parameters window
Cancel	Exits the window without submitting the selected process for execution.

Table 13-64. The Confirm Process Submission Button Description Table

To submit a process:

1. From the **Main** panel, double click the icon for the desired functional area.

2. Double click the **Process List** icon.

3. Double click the desired process.

4. If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired.

5. If the process does not have any runtime parameters associated with it, the Confirm Process Submission window will display.

6. Click the **Submit** button.

Setting Process Submission Parameters

The Parameters button on the Confirm Process Submission window navigates the user to the Process Submission Parameters window. This window allows the user to declare certain runtime parameters for each process as it is selected for execution.

Standard SiteManager reports may utilize the Parameters window to schedule the execution of reports off-line.
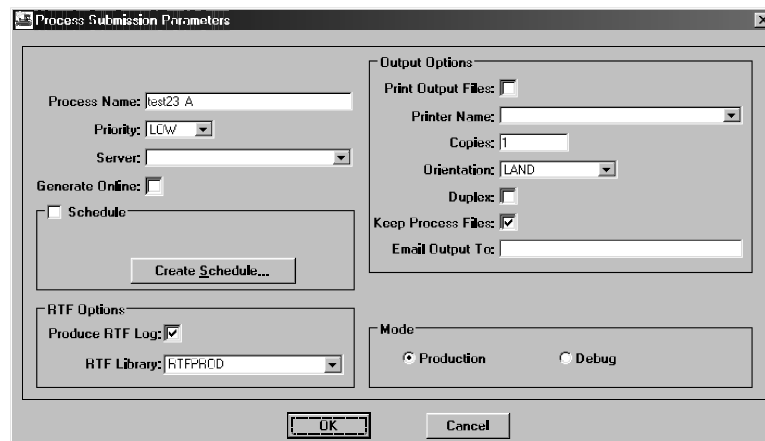
Figure 13-105. The Process Submission Parameters Window

Field Name	Description
Process Name	System-populated from the selected row on the Process List window.

Field Name	Description
Priority	Specifies the priority (the level of importance) of the process. Available priority levels are high, medium, or low.
Server	Displays the IP address of the application server.
Generate Online	If checked on, indicates that the report should be generated online in the client machine and not submitted for application server batch processing.
Schedule	If checked on, indicates the process has a previously-defined schedule for processing. This box may not be check on/off manually.
Create Schedule (Button)	Clicking this button begins the Create Schedule process.
RTF Options	
Produce RTF Log	If selected, this field indicates that RTF log files such as job control and error processing should be generated and included in the output files. The default value for this field is ON.
RTF Library	This field indicates from which report template repository directory the job should obtain its template files. Valid values are test, production, and base (RTFTEST, RTFPROD, RTFBASE). The default is RTFBASE. This access hierarchy applies to all templates used within a custom report. The user CANNOT indicated one template from production and another from test. Regardless of which the user indicates, if the template file is not found where indicated, all jobs will then search for the template in the following hierarchical sequence: base, production, test. The default RTF library is specified on the User Security window for the User ID.
Output Options	
Print Output Files	If checked, the user has chosen to send the executed process's output directly to a printer.
Printer Name	This is the printer name of the printers available to the application server
Copies	This field declares the number of copies the user wants to print. Default value is one.
Orientation	Indicates the orientation of the report. Valid values are LAND-landscape and PORT-portrait.

Field Name	Description
Duplex	If checked, this indicates that the user has chosen to print the report double-sided. Regardless of whether checked, this is overridden by the selected printer's print duplex documents configuration and setting. If the selected printer is not set to print duplex it will not.
Keep Process Files	If checked, the user has chosen to send the executed process's output to electronic files accessible through the Process Status window. This holds the output to be viewed or printed at a later time.
Email Output To	This is the e-mail address to which the user wants to send the output.
Mode	
Production	If selected, this radio button indicates the process is to be run normally.
Debug	If selected, this radio button indicates the process is to be run in debug mode. Do not select this mode unless instructed to do so by the system manager. This mode generates a detailed log of the batch program for problem determination and resolution.

Table 13-65. The Process Submission Parameters Window Field Description Table

To modify the Process Submission parameters of a process:

1. From the **Main** panel, click the icon for the desired functional area.

2. Double click the **Process List** icon.

3. Double click the desired process.

4. If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired.

5. Click the **Parameters** button.

6. On the **Process Submission Parameters** window, click the arrow to the right of the Priority field to display the drop down list.

7. Click the desired priority level.

8. Click the arrow to the right of the **Server** field to display the drop down list, and click the desired server. If any application server may execute the process, it is not necessary to select a specific server.

9. If desired, click the **Generate Online** check box on.

10. If desired, click the **Create Schedule** button.

11. If an RTF Log file is desired, click the **Produce RTF Log** check box on.

12. Click the arrow to the right of the **RTF Library** field to display the drop down list, and click the desired **RTF Library**.

13. If desired, select the **Print Output Files** check box.

14. If the **Print Output Files** check box is selected, click the arrow to the right of the Printer Name field to display the drop down list. Click the desired printer.

15. If the **Print Output Files** check box is selected, click the **Copies** field and enter the desired number of copies.

16. If the **Print Output Files** check box is selected, click the arrow to the right of the Orientation field to display the drop down list. Click the desired page orientation.

17. If the **Print Output Files** check box is selected, click the **Duplex** check box on if desired.

18. If desired, select the **Keep Process Files** check box.

19. If desired, click the **Email To** field and enter an email address.

20. Click the **Production** mode radio button or the **Debug** mode radio button.

21. Click the **OK** button.

22. On the **Confirm Process Submission** window, click the **Submit** button.

Creating a Process Schedule

The Create Process Schedule window allows users to create a scheduled submission and frequency for a process. A process may be scheduled to run Once, Daily, Weekly, or Monthly. Depending

upon the frequency (once, daily, weekly, or monthly), different fields will be presented on the Schedule window.

The steps to schedule a process are the same until you view the Schedule window. To schedule a process:

From the **Main** panel, click the icon for the desired functional area.

Double click the **Process List** icon.

Double click the desired process.

If the process has any runtime parameters associated, a screen will display requesting values from the user. Enter the requested values as desired, and click the **Parameters** button.

Click the **Create Schedule** button. The Schedule window appears. Click the down arrow to the right of the field to display the drop down list.

    a) To schedule a monthly process, click **Monthly**.

    b) To schedule a weekly process, click **Weekly**.

    c) To schedule a daily process, click **Daily**.

    d) To schedule a one-time process, click **Once**.

If you scheduled a monthly process:
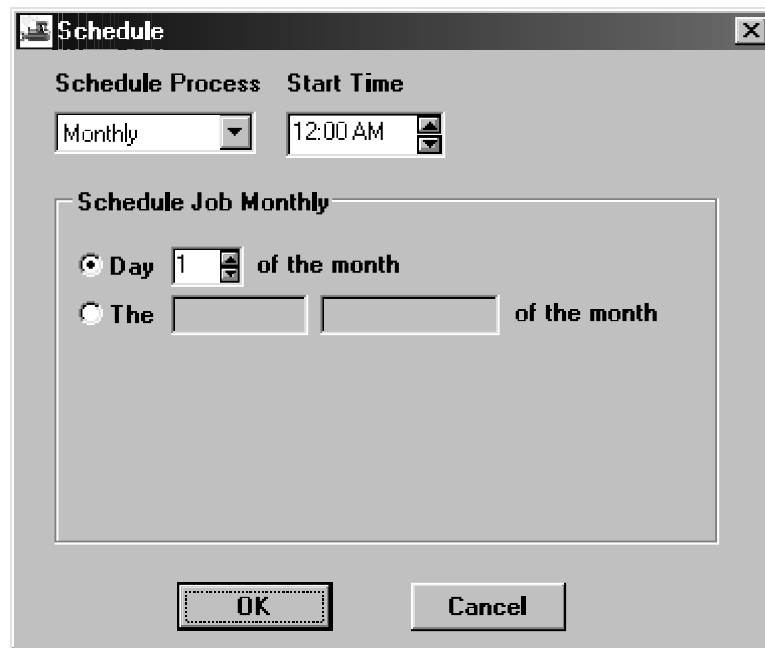
Figure 13-106. The Schedule Monthly Window

Follow the instructions to create a process schedule and select a monthly schedule.

Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

If an exact date is desired, click the radio button beside the **Day of the Month** choice and use the up or down arrow to display the desired day of the month.

If a day of the week is desired, click the radio button beside the **Day of the Month** choice.

Click the arrow to the right of the first blank field to display the frequency choices. Choose the desired frequency.

Click the arrow to the right of the second blank field to display the day choices. Choose the desired day of the week.

Click the **OK** button.

Field Name	Description
Schedule Process	The process schedule's frequency type. Option is Monthly. Selected from drop-down box.
Start Time	Time of day the process is scheduled to execute.
Day	Indicates that the monthly schedule is a numerical day of the month. This radio button enables the day spin box and disables the radio button.
Of the month	Identifies the scheduled numerical day of the month. Values are 1 through 28.
The	Indicates that the monthly schedule is a regular day of the month. For example, third Monday and last Friday. This radio button enables the Of the month boxes and disables the day radio button.
Of the month (first box)	Identifies which regular occurrence of a month's day is scheduled. Values are First through Fourth and Last.
Of the month (second box)	Identifies which day is scheduled. Values are Monday through Sunday.

Table 13-66. Schedule Job Monthly Window Field Descriptions

If you scheduled a weekly process:
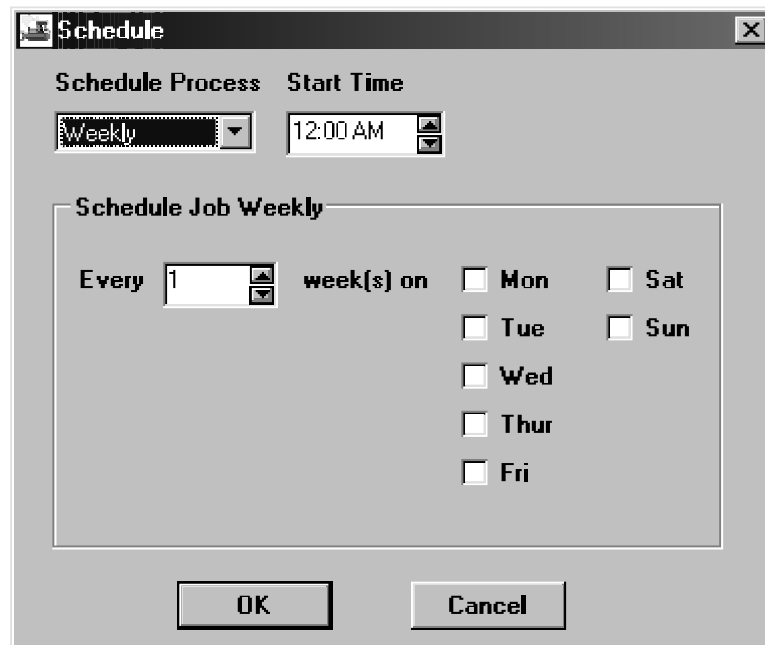
Figure 13-107. The Schedule Weekly Window

1. Follow the instructions to create a process schedule and select a weekly schedule.

Click the arrow to the right of the **Schedule Process** field to display the drop down list, and click the **Weekly** choice.

Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

Click the up or down arrow to the right of the **Every** field to display the desired frequency in weeks.

Click the check box(es) beside the desired day(s) of the week.

Click the **OK** button.

Field Name	Description
Schedule Process	The process schedule's frequency type. Option is Weekly. Selected from drop-down box.
Start Time	Time of day the process is scheduled to execute.
Every	The frequency number of the schedule week. Values are 1 through 104.
On	Day of the week the weekly job is scheduled to run. Values are Monday through Sunday.

Table 13-67. Schedule Job Weekly Window Field Descriptions

If you scheduled a process to run daily:
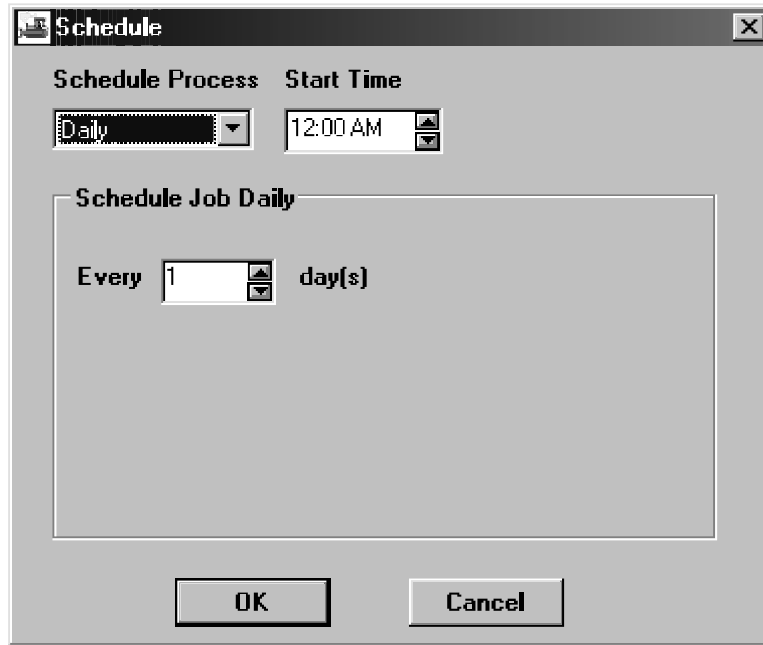
Figure 13-108. The Schedule Process Daily Window

1. Follow the instructions to create a process schedule and select a daily schedule.

2. Click the arrow to the right of the **Schedule Process** field to display the drop down list, and click the **Daily** choice.

3. Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

4. Click the up or down arrow to the right of the **Every** field to display the desired frequency in days.

5. Click the **OK** button.

Field Name	Description
Schedule Process	The process schedule's frequency type. Option is Daily. Selected from drop-down box.
Start Time	Time of day the process is scheduled to execute.

Every	The day frequency of the daily job. Every day equals one (1). Quarterly equals 91.

Table 13-68.   Schedule Job Daily Window Field Descriptions

If you scheduled a process to run once:

Figure 13-109. The Schedule Process Once Window

1. Follow the instructions to create a process schedule and select once.

2. Click the up or down arrow to the right of the **Start Time** field to display the desired start time.

3. Click the **OK** button.

Field Name	Description
Schedule Process	The process schedule's frequency type, selected from a drop-down list. Option is Once.
Start Time	Time of day the process is scheduled to execute.
Run On	The month, year, and day the one-time process is scheduled to execute, selected from the drop-down box and calendar.

Table 13-69. Schedule Job Once Window Field Descriptions

13.9.2 Sampling Checklist Report

This report shows information regarding the current test status of items on a contract. The process is based on the Contract Sampling and Testing Requirements.

The report can be used to identify discrepancies between the total number of required samples and the number of samples taken based on the current quantity, throughout the life of the contract and at finalization. The report contains information on the required values (e.g., number of samples to be taken over the life of a contract, number of samples that should be taken based on the current installed quantities) along with the current values (e.g., how many samples have been taken to date).

When insufficient samples have been taken, an Estimate Discrepancy will result when an estimate is generated (if this discrepancy option is marked ON).

A sample is considered Taken when it is complete but has not yet been authorized. A sample is considered Completed when it is complete and authorized.

Field Name	Description
Contract ID	The primary identifier for the contract.
Fed State Project Number	The federal or state project number for the contract, project, category.
Location	Physical location.
Type of Work	A DOT defined code which can be used to identify the major type of work being done on the contract.
County	Identifies the primary county of construction work.
Route	Route number of the road affected.
Vendor ID	Identifier for the vendor.
Project	Identifier for the project.
Line Item	The contract line item number which uniquely identifies each item as it appears on proposal and contract.
Item Code	An agency defined code used to identify a particular item.
Item Description	Description of the item.
Unit	Unit of measure for this item.
Bid + CO Qty	The Bid quantity of the line item plus the Change Order

Field Name	Description
	quantity for the item.
Installed Qty	Quantity of line item represented by the samples (sum of quantities entered on Contract tab of Sample Information window).
Material	Identifier for a material
Name	Description of the material
Unit	Unit of measure for the material.
Smpl Type	Type of sample taken.
Acpt Mthd	Method by which the sample is accepted.
Prod/Supp	Producer/Supplier ID.
Test Meth	Method by which the sample is tested.
Cur Req	Current required samples. Number of samples that should be taken to date based on current installed quantities of the line item.
Tot Taken	Total taken samples. Number of samples satisfying contract sampling and testing requirement criteria, but NOT authorized. NOTE: These samples may or may not satisfy the Material Discrepancy Accept Sample By criteria (i.e., have either an authorized date, and acceptable status, or both). In the case where authorized date is required to meet the requirement, Tot Taken and Tot Comp will be mutually exclusive, i.e., any sample included in Tot Comp will not be seen as part of Tot Taken. In the case where only Sample Status is required, Tot Taken will give an indication of how many of the Tot Comp samples have not been authorized (i.e., a Tot Taken is a subset of Tot Comp).
Tot Comp	Total Completed samples. Number of samples satisfying all criteria.
Tot Req	Total required samples. Total number of samples that should be taken based on the total current quantity of the line item.
Tot Rem	Total remaining samples required. Total samples required minus total samples completed (i.e., Tot Req –

Field Name	Description
	Tot Comp).
Qty Reported to Date	The total of all reported quantities in DWRs, regardless of whether the quantities are authorized or unauthorized and regardless of whether or not they are included on an estimate.
Qty Authorized to Date	The total of all reported quantities on DWRs that are authorized.
Installed Qty	The total of all reported authorized reported quantities included on estimates (of all statuses).
Auth Repr Matrl Qty	The total material quantity reported on the Contract tab of Maintain Sample window. Calculated: Total of all applicable Represented Quantity on samples for this material on this item from the Contract tab. These samples will have an authorized date and/or an acceptable status, based on the Material Discrepancy Accept Sample By in System Operational Parameter settings.
Reported Matrl Qty	The total material installed. Calculated: Installed Quantity of Contract Item x Conversion Factor.
Sample Calc Matrl Qty	The total system calculated represented material quantity based on authorized sample count. Calculated: (Authorized samples MOD (Sample Rate) x Sample Frequency; where MOD means divide by and then round down to the next whole integer.
Discr/Deficient Calc Method	A flag specifying whether the system used the Authorized Represented Material Quantity, displayed as R, or the Sample Calculated Material Quantity, displayed as C, to calculate discrepancies and deficiencies.

Table 13-70. The Sampling Checklist Report Fields Table

13.10 Pipeline Applicability

Project Managers and Inspectors use Site Manager's Pipeline process to transfer Contract data, especially Daily Work Reports, Materials data, and Sample and Test data. Throughout the life of a Contract, the Project Manager downloads Contract plan data from the SiteManager Server to the

field. Only the Project Manager can download data from the Server database. This data is not modified in the field; it is used as a basis for generating Contract activity data. Both the Project Manager and Inspector generate Contract activity data.

First, the Project Manager must download Basic Contract Data and Materials data from the Server to their workstation. Basic Contract Data includes any Force Accounts or Change Orders that apply to the Contract. Then the Project Manager selects data to transfer to the Inspector. After the Inspector receives the data, they can begin generating Contract activity data in the form of Daily Work Reports and Sample and Test data.

The Inspector submits Daily Work Reports to the Project Manager for approval. The Project Manager then uploads the approved Daily Work Reports to the Server. Unapproved Daily Work Reports can be transferred back to the Inspector for modification. The Project Manager creates Diaries, which are also uploaded to the Server. If necessary, the Project Manager can download Daily Work Reports and Diaries from the Server for modification.

Generally, Sample and Test data is not subject to approval. The Inspector submits Sample and Test data to the Project Manager to be uploaded to the Server. Materials data and Sample and Test data may or may not be associated with a specific Contract. For more information, refer to Section 6 — Pipeline.

Due to changes in database structure for the Materials enhancement, the pipeline process has been modified so that users can download data into their stand-alone database and upload data into the server. The login process will be modified to allow the download of instopt table into the local database. The instopt table information will be used by the Contract tab of Sample Information window in the stand-alone mode.

There is a new MaterialUserDownload entry in the smapp.ini file which will be used to perform a Material User refresh from the server.

13.11 Sampling and Testing Procedures

As each transportation agency installs SiteManager, it will convert its sampling and testing procedures documentation to an Adobe Acrobat format that allows the access of the procedures online.

Online versions of the Sampling and Testing Procedures for your transportation agency are accessible in an Adobe Acrobat format.

To access online documentation:

1. On the **Main Panel**, double-click the **Manuals** icon.

2. Double-click the documentation icon you wish to reference.
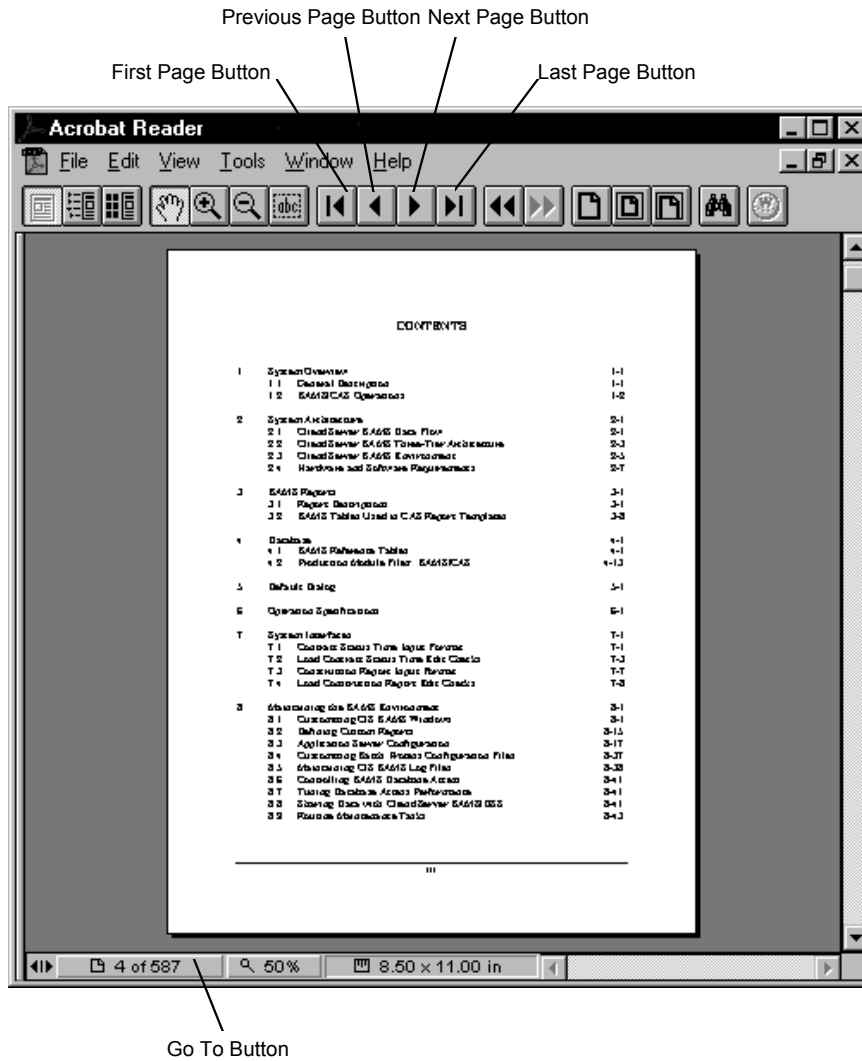
Figure 13-110. The Documentation in Adobe Acrobat

To navigate in Adobe Acrobat:

1. Click the **Next Page** button.

Or

2. Click the **Previous Page** button.

Or

3. Click the **First Page** button.

Or

4. Click the **Last Page** button.

Or

5. Click the **Go To** button.

6. Type page number you want to which you wish to go.

7. Press **Enter**.

14. SiteManager LIMS Administration

14.1 Defining Alternate Test Workflow

Before SiteManager-LIMS can be used as designed data for the system workflow must be setup.

The Alternative Test Workflow window/function is used to define a custom workflow for a test based upon the test status. The test status can be anything from its initial status to the test's final approval status.

The following table describes the field names on the Alternate Test Workflow window:

Field Name	Description
Filter Criteria	Field choices used to limit the samples displayed on the window.
Apply	Activates the filter criteria entered by the user.
Reset	Clears the filter criteria area.
Test Description	The text description of the test. The field is protected and will populate based on selection of Test Method.
Lab Name	The name of the testing lab. The field is protected and will populate based on selection of Lab ID.
Material Code	The Unique ID of the material. The field is protected and will populate based on selection of Material.
Material Short Name	Short Material name assigned to the Material. The field is protected and will populate based on selection of Material.
Sample Type (1)	Identifies the type of sample taken (i.e. Znormal Mill (Domestic), Approved List Evaluation, etc). The field is protected and will populate based on selection of Sample Type (2).
From Test Status	The status of the test to be updated. The field is protected and will populate based on

Field Name	Description
	selection of From Test Status (2).
To Test Status	The updated status of the test. The field is protected and will populate based on selection of To Test Status (2).
Test Method	Method used for testing the Material. The Test Method is a searchable field.
Test Description	The text description of the test. The field is protected and will populate based on selection of Test Method.
Lab Unit	The ID for the testing lab. The lab unit is a searchable field for changes in the lab unit assigned to the test.
Lab Name	The descriptive name for the testing laboratory.
Material Code	The Unique ID of the material. The Material is a searchable field for changes in the Material assigned to the test.
Material Short Name	Short name assigned to the material. The field is protected and will populate based on selection of Material.
Sample Type (2)	Identifies the type of sample taken (i.e. Znormal Mill (Domestic), Approved List Evaluation, etc). The Sample Type (2) assigned to the test is selected from a dropdown list.
From Test Status (2)	The status of the test to be updated. The From Test Status (2) assigned to the test is selected from a dropdown list (i.e. Test Completed, Approved by Lab Supervisor, Back to Lab, etc).
To Test Status (2)	The updated status of the test. The To Test Status (2) assigned to the test is selected from a dropdown list (i.e. Approved by Lab Supervisor, Back to Lab, etc).

Table 14-1. Alternate Test Workflow Window Fields Table
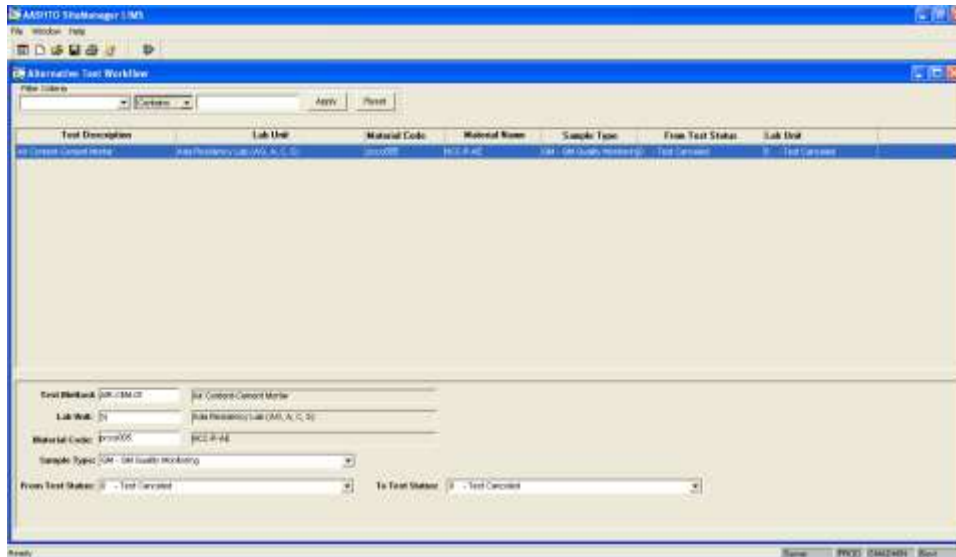
Figure 14-1. Alternative Test Workflow Window

Double-click the **Alternative Test Workflow** icon on the **Navigation Panel** to display the Alternative Test Workflow window.

A new row is added to customize the workflow and define a To Test Status. The alternative workflow is defined for a combination of key information:

- Test Method

- Lab Unit

- Material

- Sample Type

- From Test Status

When a test record with that specific combination of data is found at the time of a test completion or approval, the system changes the status of the test record for the sample to the newly defined To Test Status test status.

The alternative workflow bypasses the standard test status update. The system always refers to the alternative workflow records first to see if a matching combination exists. If a sample's test data combination of keys match a record in the alternative workflow functionality, the To Test Status is used to update the test status for the sample's test; bypassing the system's standard built-in status for the step. If there is no matching alternative workflow record, the system's standard logic is executed.

14.2 Defining Test Triggered Events

The Test Trigger Events window/function is used to change the status of one test for a sample based on the change in status of another test. Both the 'parent' test and the 'triggered' test must always pre-exist in the sample.

The following table describes the field names on the Test Triggered Events window:

Field Name	Description
Test Description	**The text description of the test. The field is protected and will populate based on selection of Test Method.**
Material Code	**The Unique ID of the material. The field is protected and will populate based on selection of Material Code.**
Material Name (1)	**Short Material name assigned to the material. The field is protected and will populate based on selection of Material.**
Sample Type (1)	**Identifies the type of sample taken (i.e. Znormal Mill (Domestic), Approved List Evaluation, etc). The field is protected and will populate based on selection of Sample Type (2).**
From Test Status	**The status of the test to be updated. The field is protected and will populate based on selection of From Test Status (2).**
To Test Status	**The updated status of the test. The field is protected and will populate based on selection of To Test Status (2).**
Trigger SN (1)	**Sequential Trigger number for the Triggered Event. The field is protected and will populate based on the selection of Trigger SN (2).**
Trigger Test (1)	**The text description of the Triggered Test Method (test). The field is protected and will populate based on the selection of Trigger Test (2).**
Test Method	**Method used for testing the Material. The Test Method is a searchable field.**

Field Name	Description
Test Description	The text description of the test. The field is protected and will populate based on selection of Test Method.
Material Code	The Unique ID of the material. The Material is a searchable field for changes in the Material assigned to the test.
Material Name (2)	Short name assigned to the material. The field is protected and will populate based on selection of Material.
Sample Type (2)	Identifies the type of sample taken (i.e. Znormal Mill (Domestic), Approved List Evaluation, etc). The Sample Type (2) assigned to the test is selected from a dropdown list.
From Test Status (2)	The test status of the test that will be updated. The From Test Status (2) assigned to the test is selected from a dropdown list. (I.e. Test Completed, Approved by Lab Supervisor, Back to Lab, etc).
To Test Status (2)	The updated test status of the test. The To Test Status (2) assigned to the test is selected from a dropdown list. (I.e. Approved by Lab Supervisor, Back to Lab, etc).
Trigger SN (2)	Sequential Trigger number for the Triggered Event. Trigger SN (2) assigned to the test is selected from a dropdown list.
Trigger Test (2)	Test Method /test (2) whose test status will be triggered when the "To Test Status" of Test Method is set. Test Method (2) is a searchable field.
Trigger To Test Status	The Test status for Test Method (2) which will be triggered / set when the "To Test Status" of Test Method is set. Trigger To Test Status assigned to Trigger Test (2) is selected from a dropdown list. (I.e. Logged, Test In Queue, Test Assigned, etc).
Exec Object Type	The type of external program to be triggered.

Field Name	Description
Exec Object Name	**The name of the external program to be triggered.**

Table 14-2. Test Triggered Events Window Fields Table
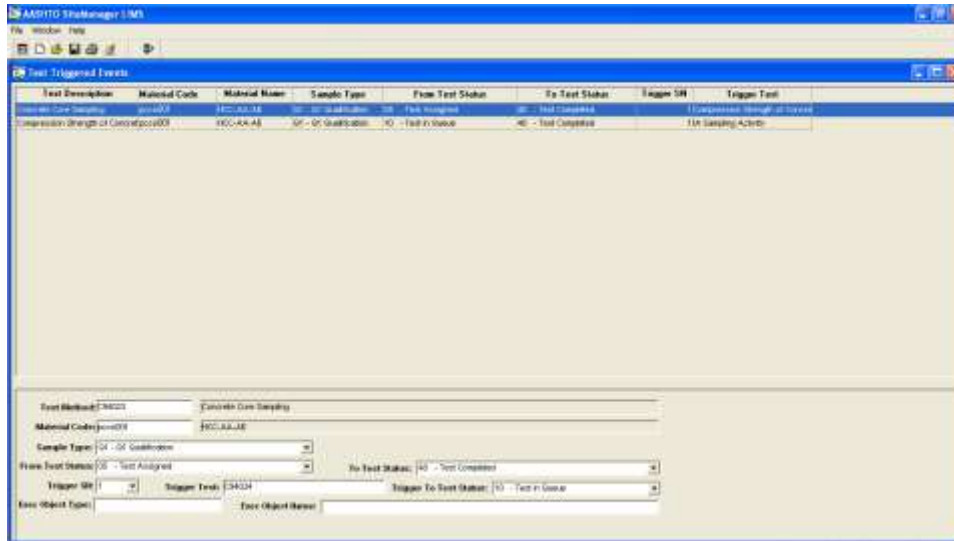
Figure 14-2. Test Triggered Events Window

Double-click the **Test Triggered Events** icon on the Navigation Panel to display the Test Triggered Events window.

To trigger a change in status of one test based on the change in status of another test for a sample, use the Test Trigger Events function. Both the original test (parent) and the trigger test (child) must always pre-exist in the sample.

When an original test method (parent) for a specific sample type and material is changed from one predefined status (From Test Status) to another predefined status (To Test Status), the trigger test method (child) will be taken to a predefined status (Trigger To Test Status).

The From Test Status must match the initial Start Status for the test (this is defined in the Test Assignment Information window).

Test Triggered Events processing goes into effect **after** the original test (parent) changes status.

The Test Trigger Events process **only occurs** when the original test (parent) is in the Enter Test Results queue. The original test must have a From Test Status that is used in the Enter Test Results queue, such as 05 – Test Assigned. When the original test is marked as complete and saved in the Enter Test Result queue, the status will change from 05-Test Assigned to 40-Test Complete. The change in the original test's status from 05 to 40 activates the triggered test's status to be updated to the defined Trigger to Test Status.

The original test (parent) From Test Status cannot be a status that is not used in the Enter Test Results queue.

The Triggered Test's (child) Trigger To Test Status cannot be updated by the Trigger Event to a status that is not used by the Review Tests queue.

Test Trigger Events will **never** result in a change to the sample's status.

To trigger multiple events that will occur in a certain order, use the Trigger SN (Sequence Number) field; this will determine the order of the events.

> 🗅 **Note:** In order use an external program during the Test Trigger Events process, calling procedures for the program must first be coded in the LIMS custom library. Then, input the name of the external program to be triggered in the Exec Object Name field.

To create a new Test Trigger Event:

1. On the LIMS Navigation panel, double-click the Test Trigger Events icon.

2. On the toolbar, click the New button.

3. On the Lower Pane:

   a. In the Test Method field: Enter a Test Method, and then tab to the next field. This Test (original) must exist in the sample.

      OR In the Test Method field: Right-click in the Test Method field. Select a Test Method, and then tab to the next field. This Test (original) must exist in the sample.

   b. In the Material field: Right-click. Select a Material Code, and then tab to the next field.

   c. In the Sample Type dropdown list: Select a Sample Type.

   d. In the From Test Status field: Select the desired, pre-defined Start Status from the Test Assignment Information window for the Material/Sample Type combination.

   e. In the To Test Status field: Select the Status that the Test (child) will be set to after the Test is marked complete; this will activate the performance of the Trigger Event.

   f. In the Trigger SN field: Enter the next sequential number to denote the order that the Trigger Event will be performed. The first SN should be set to 1; increment this value sequentially by 1.

   g. In the Trigger Test field: Enter a Test Method then tab to the next field. This Test (child) must exist in the sample.

OR In the Test Method field: Right-click in the Test Method field. Select a Test Method then tab to the next field. This Test (child) must exist in the sample.

h. In the Trigger To Test Status field: Select the Status to which the Triggered Test (child) will be set as a result of the performance of the Trigger Event.

i. Exec Object Type: Not used at this time.

j. Exec Object Name: Not used at this time.

14.3 Maintaining Test Assignment Information

The Test Assignment window/function is used to determine default test(s) and additional available test(s) settings for a sample. The test assignment criteria consist of the following key information:

- Material

- Sample Type

- Lab Unit

The following table describes the field names on the Test Assignment Information window:

Field Name	Description
Material Code	**The Unique ID of the material.**
Material Name	**Short Material name assigned to the Material.**
Sample Type	**The ID for the type of sample taken (i.e. SMQ, MAT, DOC, etc).**
Sample Type Description	**Description of the type of sample taken (i.e. Small Quantity, Material, Document, etc).**
Lab ID	**The ID for the testing lab.**
Lab Name	**The name of the testing lab. The field is populated based on selection of Lab ID.**
Available Tests	**Tests available for selection based on the Material, Sample Type and Lab Unit**
Test Method	**Method used for testing the Material.**

Field Name	Description
Test Description	**The text description of the test.**
Default Tests	**Tests automatically assigned to a sample based on Material, Sample Type and Lab Unit.**
Test Method	**Method used for testing the Material.**
Test Description	**The text description of the test.**
Start Status	**The Status of the Test when it is received in LIMS.**
Req'd Assign	**Check box to indicate the Test is required.**
Autofinal Ind	**Check box to indicate the Test will Autofinalize after Tests are marked complete by the Tester and Reviewed by a Lab Supervisor.**
Default Test Ind	**Check box to indicate the Test is automatically assigned to a sample based on Material, Sample Type and Lab Unit.**
Test Runs	**Number to indicate how many times a test is to be run on a sample. Valid values are 1 through 9.**

Table 14-3. Test Assignment Information Window Fields Table
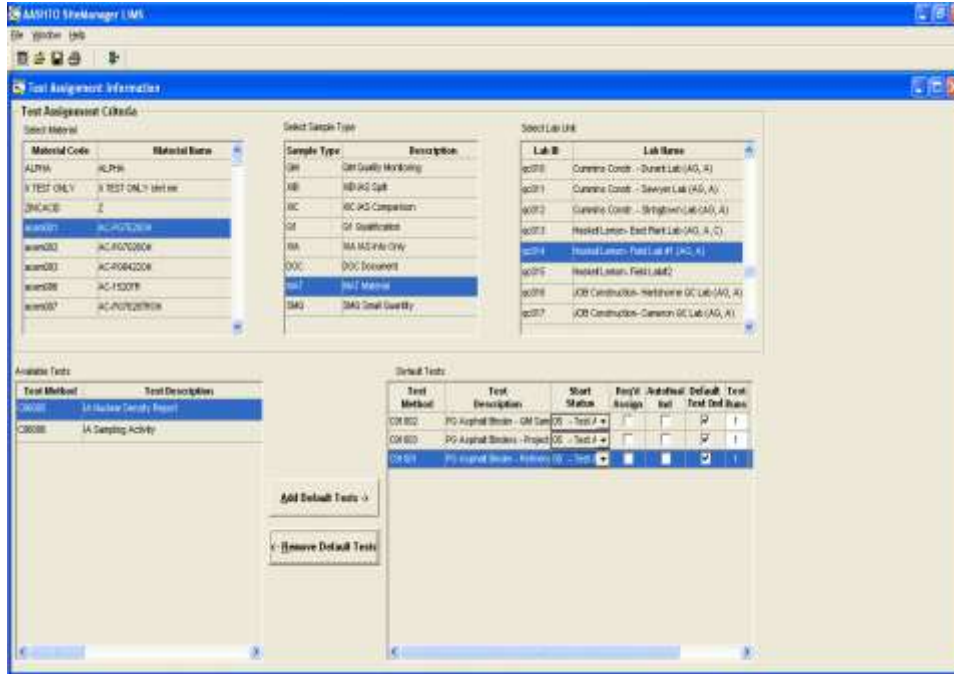
Figure 14-3. Test Assignment Information Window

After making selections in the Test Assignment Criteria area(Material, Sample Type and Lab Unit), SiteManager LIMS displays tests that meet the specified criteria but are not default tests in the Available Tests pane. SiteManager LIMS also displays the tests that meet the specified criteria and ARE assigned as default tests in the Default Tests pane.

When the Req'd Assign check box is selected, the Default Test Ind check box is automatically selected as well (if it has been cleared). To indicate that a test for a Material, Sample Type, Lab Unit combination is to be autofinalized, select the Autofinal Ind check box. If a test is required (when selected, it cannot be cleared on the Assign Tests window in SiteManager), select the Req'd Assign check box. Finally, in order to assign a default number of runs for a test, input a value from 1 through 9 in the Test Runs field.

14.3.1 Adding and Removing Default Tests

To add or remove default test settings, select the test and click the Add Default Tests or the Remove Default Tests buttons. LIMS moves the selected test to and from the Available Tests pane and the Default Tests pane.

14.3.2 Default Test Settings

Default test settings include the following:

Req'd Assign check box	**Select to prevent removal using the Maintain Sample Information window's Assign Test function. (Once added to the sample, an authorized user can only cancel the test**

	using the SiteManager LIMS Maintain Test Queue window).
Autofinal Ind check box	Select to make the test a candidate for the SiteManager LIMS autofinalization process. Note: The autofinalization process will work only if the Autofinal Ind check box has been selected for ALL of the sample's tests AND the lims_templt_monitor_field_test_results System Parameter has a monitor field specified.
Default Test Ind check box	Select to make the test automatically assigned to the sample when the Assign Tests option is saved using the Maintain Sample Information Sample window.
Test Runs	Input a value 1 through 9 to assign a default number of times that tests are to be performed on a sample's test. Once Test Runs is populated with a valid value, the only way to cancel a test is by using the Maintain Test Queue window.

14.3.3 Autofinalize Settings

Several conditions must be met for a sample to be autofinalized. The system administrator can use the following list of conditions when troubleshooting.

To autofinalize a sample, the system verifies that the sample's test records and the test's assignment records meet the following conditions:

- For all tests on the sample, in the Tests Assignment window, the Autofinal Ind = 'Y'. The system uses the test method, material ID, sample type and lab ID to match the sample test records with the corresponding test assignment records.

- All test results must be acceptable, meaning each template's result or value of the F1 field (monitor field specified in the lims_templt_monitor_field_test_results system parameter) must exist in the code table LMSAFINL.

- All canceled tests and non-reportable tests are ignored.

- All tests (minus the canceled and non-reportable) have a test status of Reviewed by Lab Manager, the final level of approval for a test in a lab.

14.4 Maintaining Destination Labs for Lab Units

The Maintain Destination for Lab Units window is used to assign each lab unit to a destination lab. Each lab unit can belong to just one destination lab. If you do not follow this rule, the workflow will not work properly. Use SiteManager's Qualified Labs window to define the lab units and destination labs prior to using this window.

The following table describes the field names on the Maintain Destination Labs for Lab Units window:

Field Name	Description
Destination Lab	**The ID and name of the Central Receiving Destination. Destination Lab is selected from a dropdown list.**
Lab Unit	**The ID and name of the testing lab. Lab Unit is selected from a dropdown list.**
Bypass Central Receive	**Allows a lab unit to mark a sample as received in the Receive Sample in Lab Unit window without the step of receiving the sample at the Central Destination.** **OR** **Allows a Lab Unit to skip the step of receiving the sample at the Central Destination.**
Bypass Lab Unit Receive	**Allows a lab unit to enter test results in the Enter Test Results window without the step of receiving the sample at the Lab Unit.** **OR** **Allows a Lab Unit to skip the step of receiving the sample at the Lab Unit.**

Table 14-4. Maintain Destination for Lab Units Window Fields Table
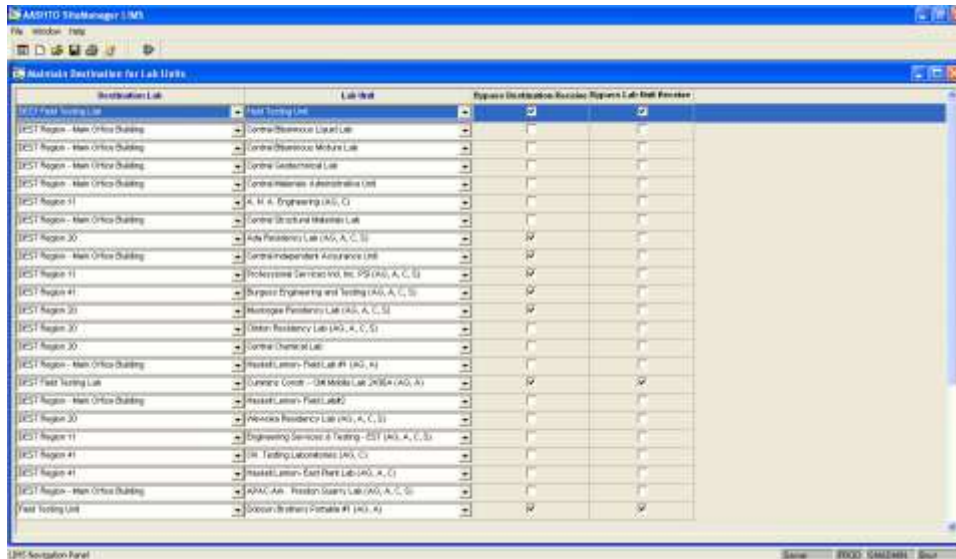
Figure 14-4. Maintain Destination for Lab Units Window

14.4.1 Bypassing Labs

To specify if a lab unit can receive a sample directly, bypass the destination lab. In a standard scenario, the destination lab receives a sample before it is available to be received by a lab unit.

For field tests on site (for example, Slump and Air tests), bypass both the destination lab and the lab unit. To bypass receiving by both labs, select both the Bypass Destination Receive and Bypass Lab Unit Receive check boxes.

14.5 Maintaining Lab Users

To assign lab unit privileges to existing SiteManager users, use the Maintain Lab Users window. Before a user can access a lab unit's work queue, the system administrator must assign the user to the lab unit using this window.

The following table describes the field names on the Maintain Lab Users window:

Field Name	Description
Lab ID	The ID of the testing lab.
Lab Name	The name of the testing lab.
Geographic Area	The defined geographic location of the lab unit.

Field Name	Description
Lab Contact Person	**Designated Contact person at the lab unit.**
Available Users	**List of all users in the SiteManager LIMS system.**
User ID	**SiteManager LIMS assigned user id available for assignment to a LIMS Lab Unit.**
User Name	**Name of the user.**
Central Office	**Displays selected checkbox if the User Id is assigned to the Central or Main office.**
Level 2 Office Number	**Defined office code for the level 2 office. The field is populated based on the value assigned in SiteManager User Security.**
Level 3 Office Number	**Defined office code for the level 3 office. The field is populated based on the value assigned in SiteManager User Security.**
Level 4 Office Number	**Defined office code for the level 4 office. The field is populated based on the value assigned in SiteManager User Security.**
Lab Users	**List of all users assigned to the specific Lab Unit.**
User ID	**SiteManager LIMS assigned user id assigned to the LIMS Lab Unit.**
User Name	**Name of the assigned user.**

Table 14-5. Maintain Lab Users Window Fields Table

Figure 14-5. Maintain Lab Users Window

Double-click the **Maintain Lab Users** icon on the Navigation Panel to display the Maintain Lab Users window.

The Available Users pane displays all the existing SiteManager users who are not currently assigned to the selected lab unit. The Lab Users pane displays all of the SiteManager users who are currently assigned to the selected lab unit.

14.5.1 Adding and Removing Lab Unit Privileges

To grant or remove lab unit privileges, use the Add Users and Remove Users buttons to move selected users between the Available Users and Lab Users panes.

> 🗒 **Note: In LIMS, the list of users in the Available Users pane comes from the SiteManager security users (that is, the pc_user_def table).**

The Available Window Privileges pane displays all windows and some specific panels not currently assigned to the selected group ID. The Assigned Window Privileges pane displays all windows and specific panels currently assigned to the selected group ID.

14.6 Maintaining Product Users

Access privileges to the Review Sample work queue are based on whether a user has authority for specific Product Groups. The Maintain Product Users function allows an agency to assign access to the Review Sample records based on Product Groups.

The following table describes the field names on the Maintain Product Users window:

Field Name	Description
Product Group ID	The ID of the Product Group. The list of available Product Groups is defined in System Code Table LMSPRDGR.
Product Group Description	Description of the Product Group.
Available Users	List of all users in the SiteManager LIMS system available to be assigned to the selected Product Group.
User ID	SiteManager LIMS assigned user id available for assignment to the selected Product Group.
User Name	Name of the user.
Central Office	Displays selected checkbox if the User Id is assigned to the Central or Main office.
Level 2 Office Number	Defined office code for the level 2 office. The field is populated based on the value assigned in SiteManager User Security.
Level 3 Office Number	Defined office code for the level 3 office. The field is populated based on the value assigned in SiteManager User Security.
Level 4 Office Number	Defined office code for the level 4 office. The field is populated based on the value assigned in SiteManager User Security.
Product Users	List of all users assigned to the selected Product Group.
User ID	SiteManager LIMS assigned user id assigned to the LIMS Product Group.
User Name	Name of the assigned user.

Table 14-6. Maintain Product Users Window Fields Table
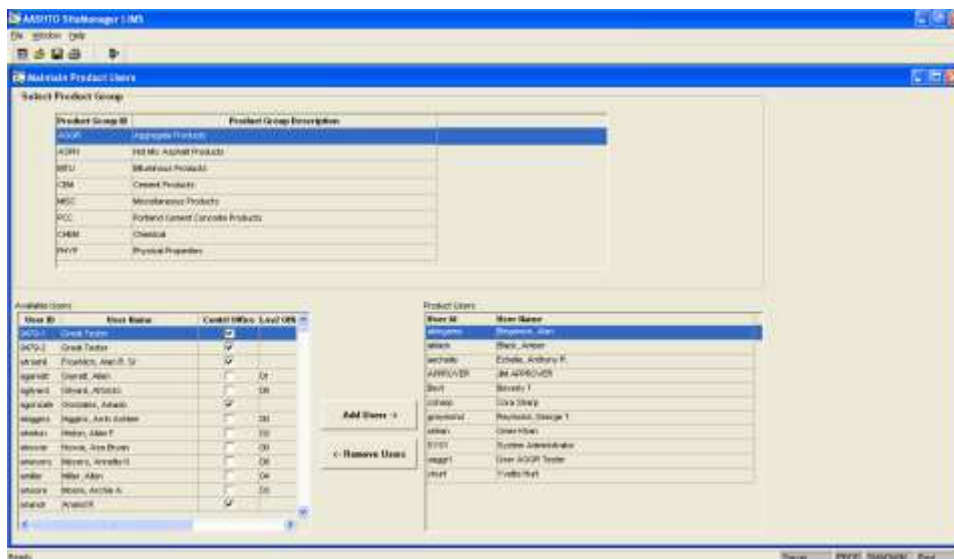
Figure 14-6. Maintain Product Users Window

Double-click the **Maintain Product Users** icon on the Navigation Panel to display the Maintain Product Users window.

The Available Users panel displays all existing SiteManager material users not currently assigned to the selected Product Group. The Lab Users pane shows all the SiteManager material users currently assigned to the selected Product Group.

14.6.1 Adding and Removing Product Group Privileges

To grant or remove Product Group privileges, use the Add Users and Remove Users buttons to move selected users between the Available Users pane and the Product Users pane.

> 📄 **Note: In LIMS, the list of users in the Available Users pane comes from the SiteManager security users (that is, the pc_user_def table).**

14.7 Defining Product Groups

To define a product group, use the Assign Products window. A user's privileges to specific Product Groups determine the access privilege for the Review Sample window's work queue.

The following table describes the field names on the Assign Products window:

Field Name	Description
Material Code	**The Unique ID of the material.**

Field Name	Description
Material Name	**Short Material name assigned to the Material.**
Sample Type	**The ID of the type of sample taken (i.e. SMQ, MAT, DOC, etc).**
Sample Type Description	**Description of the type of sample taken (i.e. Small Quantity, Material, Document, etc).**
Lab ID	**The ID for the Destination lab.**
Lab Name	**The name of the testing lab. The field is populated based on selection of Lab ID.**
Available Products	**List of all Product Groups in the SiteManager LIMS system available to be assigned to the selected Material Code, Sample Type and Destination Lab combination. The list of available Product Groups is defined in System Code Table LMSPRDGR.**
Product Group ID	**The ID of the Product Group.**
Product Group Description	**Description of the Product Group.**
Assigned Products	**List of the Product Groups in the SiteManager LIMS system assigned to the selected Material Code, Sample Type and Destination Lab combination.**
Product Group ID	**The ID of the Product Group.**
Product Group Description	**Description of the Product Group.**

Table 14-7. Assign Products Window Fields Table
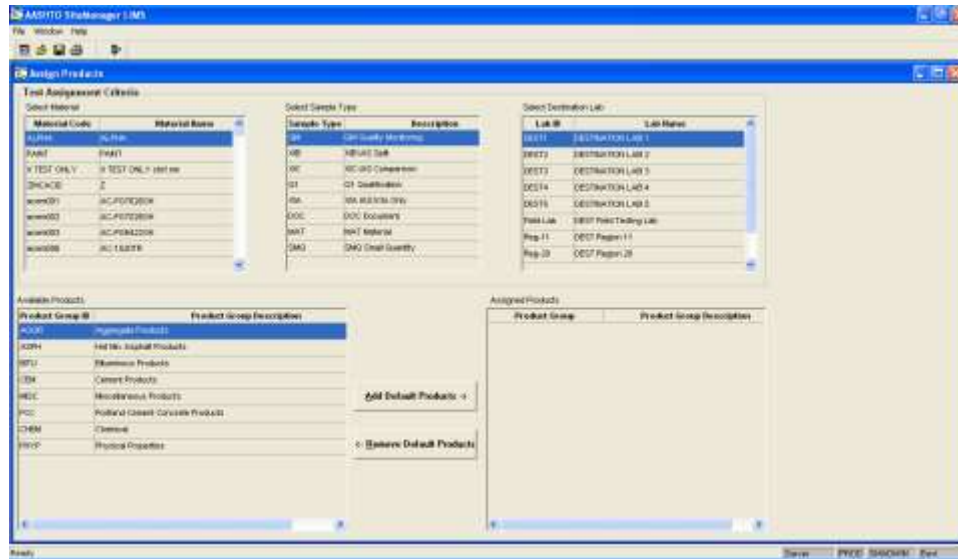
Figure 14-7. Assign Products Window

Double-click the **Assign Products** icon on the Navigation Panel to display the Assign Products window.

To define a Product Group, use the following process:

1. In the Code Table LMSPRDGR, define the Product Group IDs.

2. Using the Assign Products window, specify a combination of Material, Sample Type and Destination Lab ID to define a Product Group. Multiple Product Groups (or Products) can have the same combination of Material, Sample Type and Destination Lab ID.

The Available Products pane displays all existing product groups IDs not currently assigned to the selected test assignment criteria. The Assigned Products pane displays all product groups IDs not currently assigned to the selected test assignment criteria.

14.7.1 Adding and Removing Product Groups

To add or remove product groups, use the Add Default Products and Remove Default Products buttons to move selected product group IDs between the Available Products pane and the Assigned Products pane.

14.8 Receiving Samples

Before a lab technician can enter test results in LIMS, the sample must be received at both a destination lab and a lab unit.

In the destination lab, to denote that the destination lab received the sample, open the Receive Sample at Destination Lab window and select the Sample Received check box.

Once received at the destination lab, a lab technician in the lab unit associated to the destination lab opens the Receive Sample at Lab Unit window and selects the Sample Received check box, to denote that the lab unit received the sample.

Most labs receive samples directly at the lab unit. These lab units have the authority to bypass receiving the sample at the destination lab. For those authorized labs, it is a one-step process to receive a sample; use the Receive Sample at Lab Unit window.

14.8.1 Receiving Samples at Destination Lab

The destination lab uses the Receive Sample at Destination Lab window to mark the sample as received at the destination lab.

Once a sample is received at the destination lab, the system moves the sample record to the Receive Sample at Lab Unit window.

After the lab technician receives the sample, the system changes SiteManager's Maintain Sample Information window's Sample Status field from Logged to Received.

Figure 14-8. Receive Sample at Destination Lab Window

Field Name	Description
Select Sample Location	**Name of the destination lab where samples are being received.**
Sample Received	**Check box to indicate that a sample was received**
Lab Control Number	**System populated with a unique Control Number. This field may also contain previously saved Control Numbers from previous versions allowing a tie between one or many samples.**

Field Name	Description
Sample ID	**The sample ID of the material waiting to be received The unique identifier of a sample.**
Contract ID	**Comma separated list of all contracts assigned to the sample.**
Lab Ref Number	**User defined field. Use of this field will be determined by the Agency.**
Log Date	**The date the sample was logged at the lab.**
Sampler	**The ID of the inspector that took the sample..**
Material Name	**Name of the material for which the sample is taken**
Sample Type*	**Identifies the type of Sample taken (e.g., acceptance, job control, etc.).**
Sample Date	**The date the sample was taken.**
Geographic Area*	**Transportation Agency-defined geographical region where the sample, lab, or equipment is located.**
P/S Code	**The Producer Supplier Code of the selected material.**
Plant ID	**Transportation agency-defined ID for a plant.**
Product Name	**Name of the product for the sample.**
Sample Requester	**The ID of the person requesting the sample.**
Control Number	**The actual number for the type of control to identify the sample.**
Seal Number	**The seal number of the batch of material tested.**

Table 14-8. Receive Sample in Destination Lab Window - Fields

14.8.2 Select Sample Location

LIMS security determines the selection made available to a user in the Select Sample Location dropdown list. A lab manager assigns each user to one or more lab units, which are associated to specific destination labs. For users assigned to multiple labs, LIMS displays several choices in the Select Sample Location dropdown list. The user must belong to a lab unit associated to the chosen destination lab.

14.8.3 Filter Criteria

LIMS can display numerous samples for each destination location. To limit the number of samples displayed or to find a particular sample, use the Filter Criteria area.

> 🗎 **Note: The filter is case-sensitive.**

The Filter Criteria dropdown list contains all of the column headings. Some column heading descriptions have an asterisk (*) next to the field name. An asterisk means that the filter criterion uses the code value and not a description.

The window retains the filter criteria until you click the Reset button. To display certain samples each time you open the window, such as samples created by yourself, do not reset the filter.

   To receive a sample at a destination lab:

1. On the **LIMS** Navigation Panel, double-click the **Receive Sample at Destination Lab** icon.

2. In the **Sample Location** from drop-down list, click the expand arrow to the right of the current selection and click the desired choice. **Ex. Main Office Building**

> 🗎 **Note: Users can be assigned to one or more lab units. The list will only show the lab unit(s) in which the user is assigned.**

3. In the first **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select the **Sample Date**.

4. Press the **Tab** key.

5. In the second **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select **Equals**.

6. Press the **Tab** key.

7. In the **Filter Criteria text** box, type date sample was entered (i.e. 10/28/08).

8. Click **Apply**. Only samples created on date used in step 7 will be displayed.

> 🗎 **Note: The Filter Criteria will remain in effect until Reset is clicked. You cannot build on a previous filter.**

9. In the **Sample Received** column, select the check box of the sample to be received.

10. On the toolbar, click the **Save** button. LIMS progresses the sample to the Receive Sample in Lab Unit queue.

14.8.4 Moving and Adjusting Columns

If desired, you can change column widths and move the location of a column on the window for a better view of the columns mos.

To move and adjust column headings:

1. On the **LIMS** Navigation Panel, double-click the **Receive Sample at Destination Lab** icon.

2. Click on **Log Date**

3. Move mouse to the right while holding the right click button

4. When line is between **Sample ID** and **Contract ID** release right click button.

5. **Log Date** is now located next to the **Sample ID** field.

> 📄 **Note: Once you move a column, it remains in that position until you move it again, even after you exit the window.**

14.9 Receive Sample in Lab Unit

Once a sample is received at the destination lab, LIMS displays the sample record in the Receive Sample in Lab Unit window. If a lab unit has bypass authority, the sample will appear in both the Receive Sample in Lab Unit window and the Receive at Destination Lab window once the sample is logged in SiteManager.

Once you select the Sample Received check box in the Receive Sample in Lab Unit window, the system removes the sample record from the window and makes the tests assigned to the sample available in the Enter Test Results window.

In SiteManager's Maintain Sample Information window, the sample's Status field will continue to display Received if you use the Receive Sample at Destination Lab window to take delivery of the sample. If the lab unit has bypass authority, then the Status field will change from Logged to Received when you receive the sample in the lab unit.

> 📄 **Note: If the sample was first received using the Receive at Destination Lab window, the system populates the Destination Receive Date field on the Receive Sample in Lab Unit window.**
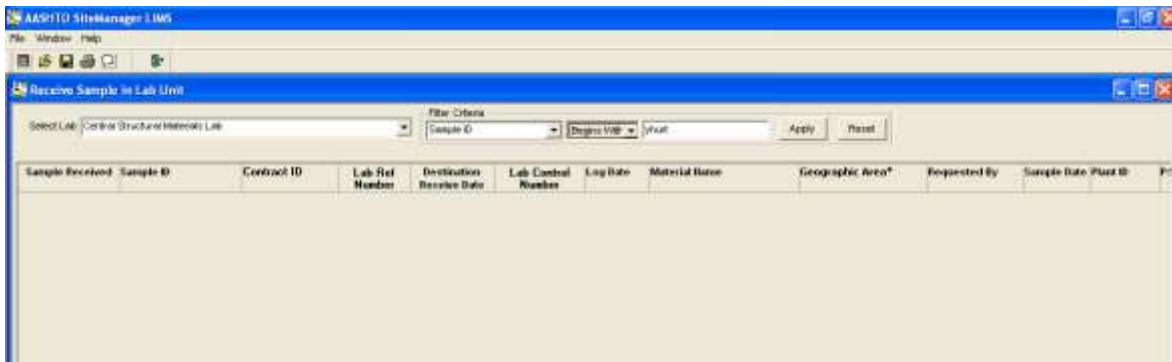
Figure 14-9. Receive Sample in Lab Unit Window

Field Name	Description
Sample Received	Check box to indicate that a sample was received
Sample ID	The sample ID of the material waiting to be received The unique identifier of a sample.
Contract ID	Comma separated list of all contracts assigned to the sample
Lab Ref Number	User defined field. Use of this field will be determined by the agency.
Destination Receive Date	The date the sample was received at Destination lab.
Lab Control Number	System populated with a unique Control Number. This field may also contain previously save Control Numbers from previous versions allowing a tie between one or many samples.
Log Date	The date the sample was logged at the lab.
Material Name	Name of the material for which the sample is taken.
Geographic Area*	Transportation Agency-defined geographical region where the sample, lab, or equipment is located.
Requested By	The ID of the person requesting the sample.
Sample Date	The date the sample was taken.
Plant ID	Transportation agency-defined ID for a plant.
P/S Code	The Producer Supplier Code of the selected material.

Field Name	Description
Product Name	**Name of the product for the sample.**
Control Number	**The actual number for the type of control to identify the sample.**
Seal Number	**The seal number of the batch of material tested.**

Table 14-9. Receive Sample in Lab Unit Window - Fields

14.9.1 Receiving a Sample in Lab Unit

To receive a sample in a lab unit:

1. On the **LIMS** Navigation Panel, double-click the **Receive Sample in Lab Unit** icon.

2. In the Select Lab dropdown list, select a lab. (i.e. Field Lab)

3. In the first **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select the **Sample Date**.

4. In the second **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select **Equals**.

5. In the **Filter Criteria text** box, type date sample was entered. (i.e. 10/28/08)

6. All sample records entered on entered date and that have been received at the destination lab will be displayed.

7. In the **Sample Received** column, click to select check box for the sample(s) you received.

8. On the toolbar, click the **Save** button.

    ▤   **Note: Some samples are assigned multiple tests performed by different labs. Each lab must receive the sample separately in the Receive Sample in Lab Unit window.**

14.10 Maintaining Group Security Within LIMS

The Maintain Group Security window allows the SiteManager System Administrator to define the access rights of the SiteManager security group to the LIMS navigational panels and corresponding windows. The Maintain Group Security window displays all the SiteManager security groups under the Group list. The list of panels and windows in the Window Privileges lists are pre-defined in the LIMS database.

14.10.1 Adding and Removing Group Security Privileges

To grant or remove access privileges, use the Add Access and Remove Access buttons to move selected records between the Available Window Privileges pane and the Assigned Window Privileges pane. Granting access to a window automatically grants access to the navigation panel on which the icon for the window resides. Access rights, if granted, are always Update rights.

The View-Only Sample Information window has two levels of security. First, grant access at the window (icon) level. Then selectively grant access to the tabs available on the window by selecting one or more of the View-Only Sample Information panels.
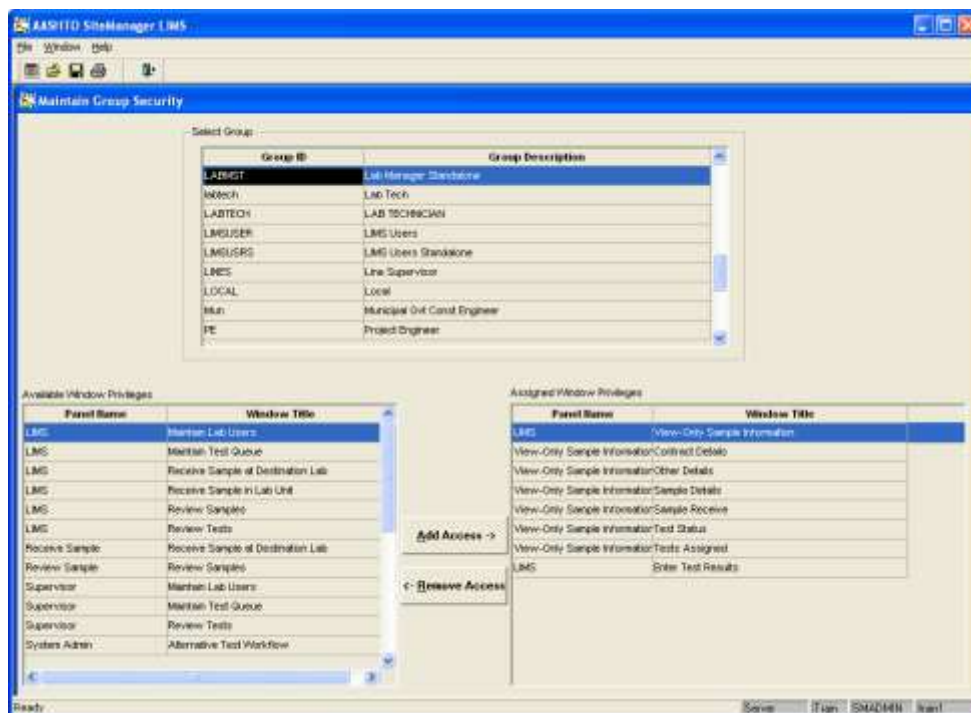
Figure 14-10. Maintain Group Security Window

To access the Maintain Group Security window:

1. On the **Sys Admin** panel, double-click the **Group Security** icon.

To add a group security privilege:

1. Open the Group Security window.

2. In the **Select Group** pane, select the desired security group.

3. In the **Available Window Privileges** pane, select the desired Panel Name and Window Title.

4. Click the **Add Access** button.

5. Click the **Save** button.

To remove a group security privilege:

1. Open the Group Security window.

2. In the **Select Group** pane, select the desired security group.

3. In the **Assigned Window Privileges** pane, the desired Panel Name and Window Title.

4. Click the **Remove Access** button.

5. Click the **Save** button.

14.11 Entering Test Results

To access the test templates in which you record test results, use the Enter Test Results window. Until you receive the sample in the lab unit, you will not see the test in the test queue.

On the middle pane, each row represents individual tests assigned to a sample. When you select a row, the lower pane displays the test template. Record the test results in the test template.

When finished, select the Test Completed check box and click the Save button. The system removes the test from the Enter Test Results queue and adds the test results to the Review Test Results queue for a lab unit supervisor to review.

After you enter the test results, the system changes the sample's Status field in the SiteManager Maintain Sample Information window from Received to In Testing.

> 📄 **Note: As you select different rows, LIMS displays the corresponding test templates in the bottom pane.**
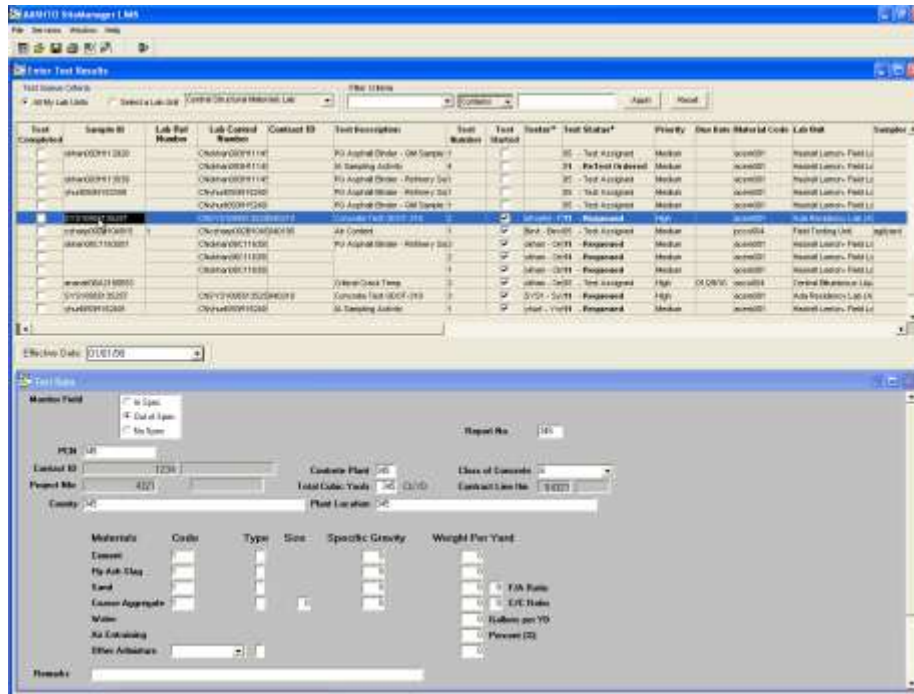
Figure 14-11. Enter Test Results

Field Name	Description
Test Completed	Indicates that test results are complete.
Sample ID	The sample ID of the material waiting to be received The unique identifier of a sample.
Lab Ref Number	User defined field. Use of this field will be determined by the agency.
Lab Control Number	System populated with a unique Control Number. This field may also contain previously save Control Numbers from previous versions allowing a tie between one or many samples.
Contract ID	Comma separated list of all contracts assigned to the sample.
Test Description	Description of the test.
Test Number	Unique number/identifier for the test.
Test Started	Indicates that testing has started on the sample.
Tester	Tester assigned to the test.

Field Name	Description
Test Status	Identifies where test is in the LIMS workflow.
Priority	Importance of test. High, Medium, Low
Due Date	Date test results are due.
Material Code	The ID of a material.
Lab Unit	Lab unit assigned to the test.
Sampler	Identifies the inspector who took the sample.
Sample Type	Identifies purpose of sample.
Producer Supplier	Name of the supplier
Receive Date	Date sample was received at lab unit.
Manufacturer	Manufacturer of the material.
Sample Date	The date the sample was taken.
Control Number	The actual number for the type of control to identify the sample.
Seal Number	The seal number of the batch of material tested.

Table 14-10. Enter Test Results Window - Fields

To enter test results:

1. On the **LIMS** Navigation Panel, double-click the **Enter Test Results** icon.

2. In the Test Queue Criteria area, click the All My Lab Units button.

3. Select the sample's test row.

4. Enter the test results for the test.

5. In the **Test Completed** column, click to select the check box for the sample you are marking complete.

6. On the toolbar, click the **Save** button.

14.11.1 Test Queue Criteria Choices

The Test Queue Criteria area contains both the **All My Lab Units** and the **Select a Lab Unit** buttons. The user's selection determines if LIMS displays the tests for all lab units assigned to

that user or tests for the individual selected lab unit assigned to the user. LIMS displays only **assigned** lab units and tests based on the user's **testing qualifications.**

14.11.2 Filter Criteria

To help define data displayed on the window, the Filter Criteria dropdown list has additional fields available for you to choose. The additional fields include Test Number, Tester, Test Status, Priority, Due Date, and Sample Type.

14.11.3 How Qualifications Determine Available Tests

In the tester's queue on the Enter Test Results window, LIMS displays only the tests available for that tester's qualifications. System Administration sets up the tester qualifications in SiteManager's Approved Lists window to denote the tests a user may perform. If a tester is not qualified to perform a test, then LIMS does not display the test on the Enter Test Results queue even if the test is assigned to the lab unit to which the user belongs.

> 🗎   **Note: If the User is qualified for a test, but it does not appear in the Test Queue, contact System Administration.**

14.11.4 Material Test Templates

Use a defined material test template to record test results. When a test row is selected on the middle pane, LIMS displays the material test template in the lower pane. Typically each test template has a header containing the test description and an area below the header with three choices: In Specification, Out of Specification, and No Specifications. Based on test results, LIMS denotes the status of the test in most cases by automatically selecting the proper choice.

To compare test results against specification requirements, some tests use a material test specification with a minimum and maximum value range. Since this material specification can change over time, the specification is maintained by effective date. LIMS denotes this date in the Effective Date dropdown list.

The system automatically updates the template to indicate if the test results meet specifications or not by selecting the button that corresponds to the sample result's status. If the test results entered do not fall within the effective date's minimum and maximum value range, the LIMS highlights the results in red with an asterisk (*) to flag the failed test result.

14.11.5 The Test Workflow in LIMS

After a test is marked complete, LIMS makes the test available to be reviewed by a test reviewer (i.e. a lab unit supervisor or lab manager) on the Review Tests window. The test reviewer can or mark test results as complete, order a retest of the test or requeue the test. LIMS changes the test status and test number depending on the test reviewer's choice. If the test reviewer determines that the review of the test is complete, the test results will be reviewed in the Review Samples

queue when all tests assigned to a sample are complete. However, the test will appear back in the tester's (Enter Test Results) queue if either a requeue or retest is ordered.

14.11.6 Requeued Tests

A test status of requeue means the test reviewer (i.e. lab unit supervisor or lab manager) wants the tester to re-examine the test results. Requeued tests always appear at the top of the Enter Test Results queue.

14.11.7 Ordering Retests

If a test reviewer orders a retest, LIMS links a new test record to the sample and displays it in the Enter Test Results queue/window. The test number for the new test will be 2. The test status will be ReTest Ordered. The original test, number 1, will not show on the Enter Test Results queue/ window. Tests with a ReTest Ordered status appear at the top of the Enter Test Results window.

14.11.8 Types of Remarks

Remarks found on the Enter Test Results window include both internal lab comments and public remarks.

Qualified lab personnel can enter and view internal (confidential) lab/test remarks in the Enter Test Results, Review Tests, and Maintain Test Queue windows.

Qualified personnel can enter and view general (confidential) sample remarks in the Maintain Sample Information, Receive Sample at Destination Lab, Receive Sample in Lab Unit and Review Samples windows.

Public remarks are not confidential. Qualified lab personnel can enter and view public lab/test remarks in the Enter Test Results, Review Tests, and Maintain Test Queue windows. A public remark can be viewed by any user in the View-Only Sample Information window.

> 🗎 **Note: Most lab users will not enter public remarks.**

14.11.9 Priority

A test reviewer can assign a test priority of High, Medium or Low. The default priority is Medium. If a test reviewer assigns a priority of High to a test, the test appears at the top of the Enter Test Results queue/window (after any ordered retests or requeued tests).

14.11.10 Tester Assignments

A test reviewer can assign a test to a specific tester. Even though the test has been assigned to a specific tester, the test will continue to appear in the queue for all qualified testers in that lab unit.

> 📄 **Note: It is the lab unit's responsibility to enforce a business rule that if a tester is assigned to a test, they are expected to complete the test.**

To add a tester:

1. Double-click the Add Testers icon on the LIMS toolbar.

2. Highlight one or more Tester rows on the Available Testers available for assignment pane.

3. Click the Add button.

4. Click the OK button.

> 📄 **Note: Only the original assigned tester will display in the Tester field in the Enter Test Results queue/window.**

14.11.11 Due Dates

A test reviewer can assign a due date to a test using the Maintain Test Queue window. The field is informational only. If the due date is missed, no warning will appear in LIMS.

14.12 Reviewing Tests

The Review Tests window allows a lab unit supervisor or a lab manager to review the test results submitted by the tester.

Tests marked as complete in the Enter Test Results window appear in the Review Tests window. A reviewer, usually a lab unit supervisor and a lab manager, determines where the test moves in the LIMS workflow based on their review. The test can be marked as Review Complete, Requeue, or Order Retest.

Field Name	Description
All My Lab Units	Selection of this radio button will display tests for all lab units that the logged in user is authorized to view.
Select a Lab Unit	Selection of this radio button will require the user to make a selection from a dropdown list of lab unit names that the logged in user is authorized to view.
Filter Criteria	Field choices used to limit the samples displayed on the window.

Field Name	Description
Apply	Activates the filter criteria entered by the user.
Reset	Clears the filter criteria area.
Supervisor Action	Options Review complete, Re-queue or Order Retest are available to the test reviewer/supervisor to direct the test to various workflows Review Complete - Marking a test Review Complete indicates that the test results have passed the supervisor's review. Re-queue - A test marked for requeue will appear in the technician's Enter Test Results queue so the tester can reexamine the reported test results. Order Retest - A new identical test with the next higher test number will be created and appear in the Enter Test Results queue. The original test will have its status changed to Was Retested.
Reportable	Indicates that test results should be included on reports.
Lab Control Number	Allows tracking of related samples in LIMS - SiteManager assigns "CN" followed by the sample id.
Sample ID	System defined alphanumeric id assigned to identify the sample; comprised of the sample creator's userid, date and a calculated sequence number.
Contract ID	Transportation agency-defined ID for the Contract.
Lab Ref Number	Transportation agency-defined field to identify the sample.
Test Description	The text description of the test being performed.
Test Number	Number assigned to each unique test assigned to a sample. The default is one. Each additional test orders will be assigned the next sequential numeric

Field Name	Description
	value. If a retest is ordered by the supervisor, an identical test will be assigned to the sample with the next sequential numeric value.
Test Status*	Status of the test. The status will change depending on the test's work flow, cancellation of tests, order for retesting of the test, requeue of the test. **Example of Valid Statuses:** **Test in Queue** **ReTest Ordered** **Test Requeued** **Canceled** **Completed** **Lab Supervisor Approved** **Line Supervisor Approved** **Was Retested**
Tester*	The Userid of the user that entered the test results. Additional testers may be assigned to the highlighted test by using the Add Testers icon on the toolbar. Additional testers will not display in the Enter Test Results window.
Completed Date	The date that a test was completed. This date is assigned by LIMS.
Priority	Precedence/importance of the highlighted test. Available choices for establishing priority for tests: Low, Medium and High. Medium is the default test status for new sample tests received in LIMS - Priority can be modified on the Maintain Test Queue window.
Due Date	The date on which a test must be completed. The due date is be entered or modified on the Maintain Test Queue window.
Material Code	The Unique ID of the material. The field is protected and will populate based on selection of Material.
Sampler	Identifies the person who took the sample.
Test Method	Method used for testing the Material.
Sample Type*	Identifies the type of sample taken (i.e. Znormal

Field Name	Description
	Mill (Domestic), Approved List Evaluation, etc).
Producer/Supplier*	The ID of the Producer Supplier that supplied the material.
Manufacturer*	Manufacturer of the equipment.
Sample Date	Date that the sample was actually taken. This date is set to current date but may be changed to an earlier date (the sample could have been taken day(s) earlier and entered later into SiteManager).
Control Number	The actual number for the type of control to identify the sample.
Seal Number	The Seal Number of the batch of material tested.

Table 14-11. Review Tests Fields Table
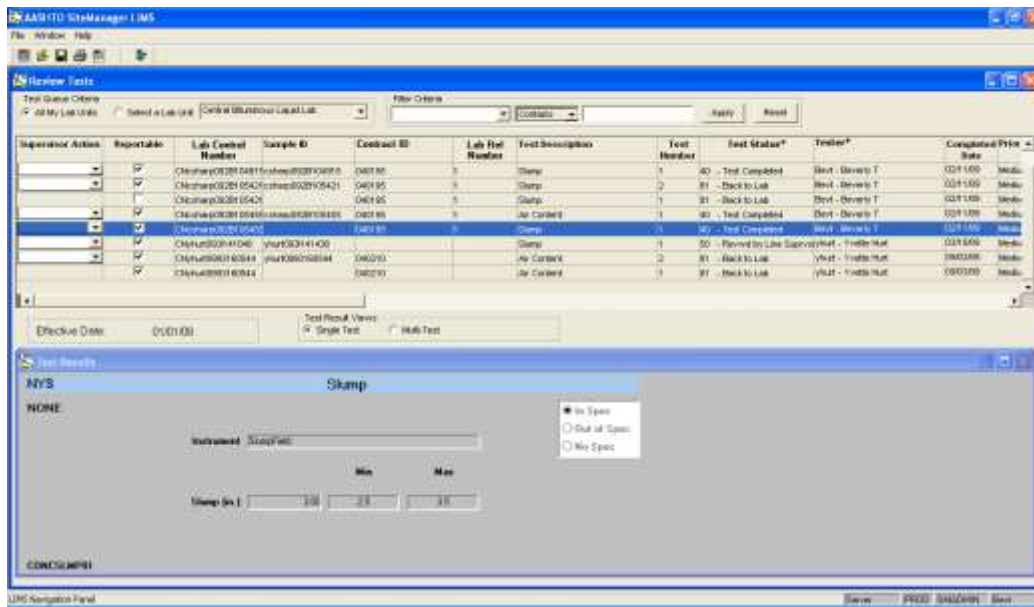
Figure 14-12. Review Tests window

When a test row is selected, the Test Results pane displays its test results. This pane is view only. The reviewer can select a single test or a multi-test test result view for selected tests. The single test result view displays one test results for "one selected test method" associated to one sample. The multi-test test result view displays multiple test results for "one selected test method" associated to the same or different samples. For example, say that Bending Beam @60sec -@18 C is associated to three samples A, B, and C. If this test is selected for sample A with the single test result view, the Test Results pane reflects one test results associated to sample A. If this

same test is selected for samples A, B and C with the multi-test test result view, the Test Results pane reflects three test results - associated tests for samples A, B, and C.

> 🗎 **Note: ALL tests associated to a sample do NOT have to be marked as completed for completed tests to appear on the Review Tests window.**

To display the Review Tests window:

1. On the **Navigation Panel**, double-click the **Review Tests** icon.

2. Select the row with the desired test method. Test results for the selected test are displayed in the Test Results pane. Single Test is the default view.

3. Select the **Multi-Test** test result view option to compare test results for a test template recorded against several different samples

4. Select the additional desired rows for the selected test method using the **Shift** key.

5. Click the **Compare Results** button.

6. Test results for the selected test method are displayed in the Test Results pane. The results for each test are displayed vertically side - by - side.

The Test Results pane displays column headings of the Test Template - Template Column, Min, Max and the test results for selected tests. Expand column widths when using the Multi-Test test result view.

> 🗎 **Note: Only the same test method will display in the Test Results pane.**

14.12.1 Test Queues

The Review Tests queue/window limits the tests displayed based on the reviewer's defined tester qualifications and Contract authority. The tester qualifications are established in the SiteManager Tester Qualifications window.

The Test Queue Criteria has a selection to display either tests for all lab units *assigned* to the reviewer or tests for a selected assigned lab unit.

14.12.2 Reviewing Tests as a Level 1 Reviewer

A Level 1 reviewer (i.e. lab unit supervisor) will review the test results for tests in his queue. Any test that was marked Complete in the Enter Test Result window will appear in the Level 1 reviewer's Review Tests window.

To mark a test as **Review Complete** in the Review Tests window:

1. In the Review Tests window, select the desired test.

2. In the **Supervisor Action** dropdown list, select the **Review Complete** choice.

3. Click the **Save** button.

14.12.3 Reviewing Tests as a Level 2 Reviewer

After the Level 1 reviewer marks a test as **Review Completed**, LIMS moves the test to the top of the queue in the Review Tests queue for the Level 2 reviewer (i.e. Lab Manager) to review.

A Level 2 reviewer can override a Level 1 reviewer's review in the Review Tests window.

> 🗐   **Note: If the Level 1 reviewer marks all of the tests on a sample as complete and the tests were marked as autofinalize, the tests will not appear in the Level 2 reviewer's Review Tests queue. The sample will automatically bypass any further review and become authorized.**

14.12.4 Requeuing Tests

If the reviewer wants the tester to reexamine the test results that were submitted, the reviewer will select the Requeue selection under the Supervisor Action column.

The test will return to the Enter Test Results queue. The test status will be Requeue. The test number will remain the same. Remarks will be added to the test to inform the tester why the test was sent back for reexamination.

To mark a test as Requeue in the Review Tests window:

1. In the Review Tests window, select the desired test.

2. In the **Supervisor Action** dropdown list, select the **Requeue** choice.

3. Enter Internal Comments to the tester specifying why the test needs to be reexamined.

4. Close the Remarks bubble.

5. Click the **Save** button.

14.12.5 Ordering Retests

If the reviewer wants the tester to perform a new test, the reviewer will select the Order Retest choice from the Supervisor Action dropdown list.

A new test will appear in the Enter Test Results queue. This new test will be linked to the sample. The test status will be Retest Ordered. The test number assigned will be the next sequential number after the highest test number for that sample's test method. Add remarks to indicate why the test was reordered.

To order a Retest in the Review Tests window:

1. In the Review Tests window, select the desired test.

2. In the **Supervisor Action** dropdown list, select **Order   Retest**.

3. Enter Internal Comments to the tester specifying why the Retest is required.

4. Close the Remarks bubble.

5. Click the **Save** button.

14.12.6 Excluding Test Results from Reports

A selected Reportable check box for a test indicates that the test results are acceptable for user evaluations. If the Reportable check box has been cleared for the test, the test will not appear in any window except the View-Only Sample Information window and the Maintain Test Queue window. Tests with a Reportable check box that has been cleared will not typically be included on reports.

> 📄 **Note: The Reportable check box is selected by default.**

14.13 Maintaining Test Queues

Level 1 and Level 2 reviewers use the Maintain Test Queue window to monitor tests and test statuses as the tests move through the LIMS workflow. The window displays all tests logged to the Destination Lab for received samples until the all tests associated to the sample are completed and the sample progresses to the Review Samples window.

Field Name	Description
All My Lab Units	**Selection of this radio button will display tests for all lab units that the logged in user is authorized to view.**
Select a Lab Unit	**Selection of this radio button will require the user to make a selection from a dropdown list of lab unit names that the logged in user is authorized to view.**
Filter Criteria	**Field choices used to limit the samples displayed on the window.**
Apply	**Activates the filter criteria entered by the user.**
Reset	**Clears the filter criteria area.**
Sample ID	**System defined alphanumeric id assigned to identify**

Field Name	Description
	the sample; comprised of the sample creator's userid, date and a calculated sequence number.
Contract ID	Transportation agency-defined ID for the Contract.
Lab Control Number	Allows tracking of related samples in LIMS - SiteManager assigns CN followed by the sample id.
Lab Ref Number	Transportation agency-defined field to identify the sample.
Test Description	The text description of the test being performed.
Test Number	Number assigned to each unique test assigned to a sample. The default is one. Each additional test orders will be assigned the next sequential numeric value. If a retest is ordered by the supervisor, an identical test will be assigned to the sample with the next sequential numeric value.
Priority	Precedence/importance of the highlighted test. Available choices for establishing priority for tests: Low, Medium and High. Medium is the default test status for new sample tests received in LIMS - Priority can be modified on the Maintain Test Queue window.
Due Date	The date on which a test must be completed. The due date is be entered or modified on the Maintain Test Queue window.
Tester*	The Userid of the user that entered the test results. Additional testers may be assigned to the highlighted test by using the Add Testers icon on the toolbar. Additional testers will not display in the Maintain Test Queue window.
Material Name	Short Material name assigned to the Material.
Test Status*	Status of the test. The status will change depending on the test's work flow, cancellation of tests, order for retesting of the test, requeue of the test. Example of Valid Statuses: Test in Queue ReTest Ordered Test Requeued

Field Name	Description
	Canceled **Completed** **Lab Supervisor Approved** **Line Supervisor Approved** **Was Retested**
Product Name	**Brand name of the material (defined on the Approved Material Detail window).**
Sample Type*	**Identifies the type of sample taken (i.e. Znormal Mill (Domestic), Approved List Evaluation, etc).**
Seal Number	**The Seal Number of the batch of material tested.**
Lab ID	**The ID for the testing lab. The lab unit is a searchable field for changes in the lab unit assigned to the test.**
Lab Name	**The descriptive name for the testing laboratory.**
Sampler	**Identifies the person who took the sample.**
Charge Amount	**The Amount which the Laboratory charged to perform the test based on the test and fee schedule for the test.**
Start Date	**The date when test results were entered for the test according to the Enter Test Results window.**
Actual Completion Date	**The date when the test was marked Complete according to the Enter Test Results window.**

Table 14-12. Maintain Test Queue Fields Table
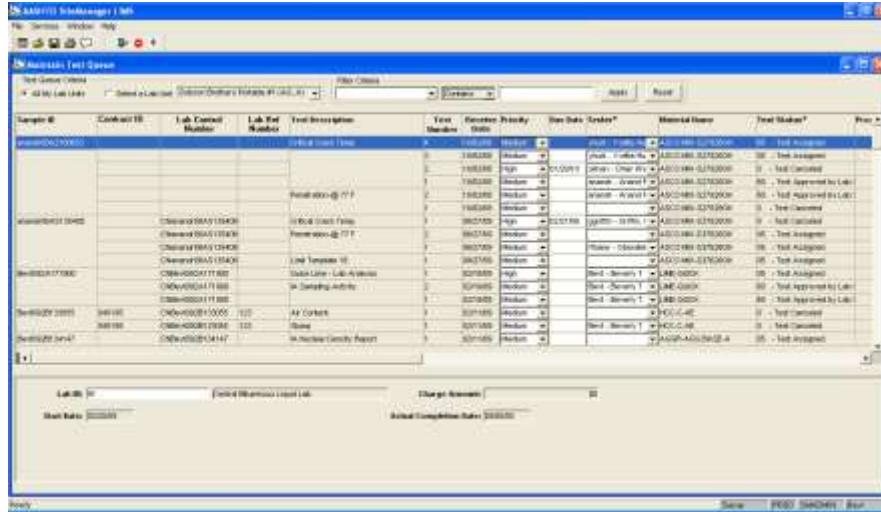
Figure 14-13. Maintain Test Queue Window

The Maintain Test Queue window provides flexibility for processing and/or monitoring tests. Tests can be added or canceled on samples. A priority of high, medium or a low can be assigned to a test indicating testing preference. Due dates can be assigned to tests. Additional testers can be assigned/associated to a test. Finally, a test can be reassigned to a different lab unit.

When a test is selected on the upper pane, the lower pane displays the Lab ID and Lab Name assigned to the test. The test assignment association to a lab is an automatic process when assigning tests on the Maintain Sample Information window.

The lower panel also displays the Charge Amount which is based on a test and fee schedule. Start Date displays the date when testing began according to the Enter Test Results window. The Actual Completion Date displays the date when the test was marked Complete on the Enter Test Results window.

> 📄 **Note: The Sample ID does not repeat on subsequent rows if multiple tests are assigned to the sample.**

Double-click the **Maintain Test Queue** icon on the Navigation Panel to display the Maintain Test Queue window.

> 📄 **Note: It is important to monitor what is happening in the lab. From the Maintain Test Queue the test status of a test can be viewed from receiving to reviewing.**

14.13.1 Understanding Test Queues

The Maintain Test Queue window displays all tests based on your assigned lab units.

The Criteria for Test Queue has a selection to display either tests in all lab units assigned to a user or tests in a selected assigned lab unit.

Known issue: When the **Select a Lab Unit** choice is selected, User qualifications in addition to Lab Unit are used to determine the tests displayed. On this window User qualifications should not have an impact on which tests are displayed.

14.13.2 Adding Tests to Samples

Adding a test(s) to a sample allows a test reviewer to correct mistakes made during sample logging when tests are assigned on the SiteManager Maintain Sample Information window. To add a test, select a sample's test row on the window. Click the Add button on the toolbar. The Add Tests panel opens to display Additional Tests Available for Assignment. One or more tests may be added to the sample.

Each new test is assigned a test number of one if this is the first test of this type; the new test is assigned the next sequential test number if this is not the first test of its type added to the sample. The test status is set to Test in Queue. The priority is set to Medium. The Lab ID, Lab Name and the Charge Amount populate automatically.

To add a test to a sample in the Maintain Test Queue window:

1. Select a sample's test row.

2. Click the **Add** button.

3. In the Add Tests window, select a test from the **Additional Tests Available for Assignment** pane.

4. Click the **Add** button.

5. Select the same test from the **Tests Assigned to the Sample** pane.

6. Click the **Add Test Run** button.

7. Select the number of tests desired from the Select Additional Runs dropdown list.

8. Click the **OK** button.

9. Enter an **Internal comment/Remark** describing why the test(s) were added.

10. Close the **Remarks** window.

11. Click the **Save** button.

☷   **Note: To add a test(s) using the Services menu, select the Add Test choice.**

14.13.3 Assigning Priorities and Due Dates

A test is automatically assigned a priority of Medium. If a test reviewer/supervisor wants to assign a different priority to a test, reviewer clicks the Priority dropdown list and selects the High, Medium or Low choice. A Due Date can be assigned to the test.

> 📄 **Note: Priority and Due Date are informational fields only. No warning messages will appear if the test is not completed by the Due Date or performed by the Priority assigned.**

To add a priority to a sample in the Maintain Test Queue window:

1. Select the desired test.

2. Click on the **Priority** field.

3. Select a **Priority** from the priority drop down list.

4. Click the **Save** button.

To add a due date to a sample in the Maintain Test Queue window:

1. Select the desired test.

2. In the **Due Date** field type in the desired due date (MM/DD/YY).

3. Click the **Save** button.

14.13.4 Assigning Additional Testers

Additional testers can be assigned to a test. The tester dropdown list is limited to *qualified* testers in the selected lab unit for that test. Designating an additional tester does not make the test appear exclusively to that individual on the Enter Test Results window. Any qualified tester assigned to the appropriate lab unit will be able to view the test in Enter Test Results window.

To add a tester to a sample in the Maintain Test Queue window:

1. Select the desired test.

2. In the **Tester** dropdown list select the desired tester.

3. Click the **Save** button.

14.13.5 Assigning Tests to Different Lab Units

Tests are automatically associated to a lab unit during the creation of the sample by clicking Assign Test button. A reviewer/supervisor may determine that the test should be assigned to a different lab unit. The Lab ID field permits the reviewer to choose a different lab unit.

To assign a test to a different lab unit in the Maintain Test Queue window:

1. Select the desired test.

2. Right-click on the **Lab Unit** field to search the list of available lab units.

3. Select the desired lab ID.

4. Click the **OK** button.

5. Click the **Save** button.

14.13.6 Canceling Tests

A test cannot be deleted in LIMS, it must be canceled. To cancel a test, select a test on the window. On the toolbar, click the Cancel button. LIMS automatically displays the Remarks window. Enter the reason for canceling the test. A canceled test will only display in the Maintain Test Queue window.

LIMS changes the test status to Test Canceled. After being canceled a test cannot be modified. If modification is attempted LIMS will display a message that this is not a valid option.

> 🗎 **Note: If a test is canceled by mistake, re-add the test.**

To cancel a test on a sample in the Maintain Test Queue window:

1. Select the desired test.

2. Click the **Cancel** button.

3. Enter an Internal comment detailing why the test was removed.

14.13.7 Understanding Test Status

Test statuses are used to monitor where the test is in the laboratory workflow. Depending on the test status, the test will appear in different queues.

Test statuses determine if a test can be modified. For example, if a reviewer/supervisor attempts to change the Due Date on a Retest Ordered test a warning message states the test cannot be modified.

> 🗎 **Note: Some test statuses will not allow a test to be canceled.**

When a test cannot be canceled it has probable already been canceled previously. If a canceled test should not be seen on reports, reviews, etc. the reviewer should mark the test non-reportable (unselect the reportable box).

Code and Test Status	Description
0 - Test Canceled	**Appears in Maintain Test Queue window only. No modifications allowed.**
01 - Test Initialization	**Appears only in windows available to the system administrator.**
05 - Test Assigned	**Appears in Maintain Test Queue window.**
10 - Test in Queue	**Appears in Enter Test Results window. Appears in Maintain Test Queue window. New test in the queue. Test number is one.**
11 - Requeued	**Appears in Enter Test Results window. Appears in Maintain Test Queue window. Sent back to tester. Test number is one.**
20 - Retest in Queue	**Appears in Maintain Test Queue window. Original test. Test Number is one. No modifications allowed.**
21 - Retest Ordered	**Appears in Enter Test Results window. Appears in Maintain Test Queue window. Newly reordered test. Test number will be two or higher if other retests are ordered.**
40 - Test Completed	**Appears in Review Tests window. Appears in Maintain Test Queue window. No modifications allowed.**
50 - Revwd by Line Supvsr	**Appears in Maintain Test Queue window.**
60 - Test Approved by Lab Supervisor	**Appears in Maintain Test Queue window.**
80 - Finalized	**Appears only in windows available to the system administrator.**
81 - Back to Lab	**Appears in Review Tests window. Appears in Maintain Test Queue window. If other tests were associated to the sample, then all linked tests will appear back in the Maintain Test Queue window with a test status of 60 – Test Approved by Lab Supervisor.**

Table 14-13. LIMS - Test Statuses

14.14 Review Samples

To review the sample, use the Review Samples window. Do so after the lab manager selects the Review Completed choice from the Supervisor Action dropdown list on the Review Tests window for all tests assigned to a sample.

> 🗎 **Note: Prior to authorization, reviewing a sample is the last action taken on a sample.**

After you review the sample's test results, accept the results to authorize the sample or send the results back to the Lab Manager for additional review.

In the upper pane, each row represents individual tests assigned to a sample. Each test that appears has been marked on the Review Tests window as Reportable and Review Completed and is not an autofinalized test.

To open the Review Samples window:

1. On the Navigation Panel window, double-click the **Review Samples** icon.

14.15 Product Review Groups

The system administrator assigns Product Review Groups to specific product types by material category combinations (that is, 703 Aggregates, and so on). Product Review Groups have the authority to view the samples displayed on the Review Samples window.

14.16 View-Only Sample Information

To verify information that was entered on a sample record, use the View-Only Sample Information window. The View-Only Sample Information window's upper pane displays sample records in the system. When you select a row in the upper pane, the information in the lower pane changes to review sample details, contract details, other details, sample receive information, and tests assigned for the selected row.

Before displaying the View-Only Sample Information window, LIMS displays the Open Sample Records window where you must specify criteria to search for samples. To find a specific sample record or groups of sample records based upon selected criteria, use the Open Sample Records window.

> 🗎 **Note: All groups within LIMS have access to the View-Only Sample Information window.**

14.16.1 Using the Generic Filter Criteria

The Filter dropdown list contains a default filter called Generic. Use the Generic filter to create ad hoc search criteria for samples. The Generic filter retains the filter criteria defined in the Open Sample Records window until you clear the filter.

> 📄 **Tip! It's a good idea to create individual filters for frequently used search criteria.**

Field Name	Description
Filter	Dropdown list containing types of available filters (that is, Generic or user-specified).
New Filter	Click to create a new filter.
Delete Filter	Click to delete previously created filters.
Field	Name of the field in which the filter criteria is applied.
Operator	Equals, greater than, less than, begins with, and so on.
Value	User-specified text by which to filter in a field.
And/Or	Choose to combine criteria.
Add Criteria	Click to add another row of criteria for additional comparisons.
Delete Criteria	Click to remove the selected criterion.
Clear All	Click to remove all selected criteria.
Open Records	Click to invoke the search request.
Cancel	Click to close the Open Sample Records window without performing a search request.

Table 14-14. Open Sample Records Fields Table

Figure 14-14. LIMS - Open Sample Records Window

14.16.2 Filter Criteria

To help define data displayed on the window, the Field dropdown list has many fields available for you to choose from. Some of the fields in the dropdown list are Sample Id, Contract Id, Control Nbr, Lab Control Number, Lab Name, Lab Unit, Log Date, Material Code, Material Name, Sample Status code, Sample Type, Producer/Supplier Code, etc.

The Filter Criteria dropdown list contains all of the column headings. Some column heading descriptions have an asterisk (*) next to the field name. An asterisk means that the filter criterion uses the code value and not the description.

> 🗎 **Note: The filter is case-sensitive.**

14.16.3 Creating New Filters

To create a new filter, click the New Filter button, name it, select criteria, and click the Save Criteria button. You may create as many filters as you need; the system does not have a maximum limit. For example you might wish to have a filter for samples that start with a certain prefix, samples that belong to a specific lab unit, samples that are a certain sample type, samples that were logged after a certain date, etc. The filter may be switched at any time by selecting a filter from the Filter dropdown list.

> 🗎 **Tip! LIMS will retain the filter criteria until you clear, add to, or delete the criteria.**

14.16.4 Understanding Sample Information Views

When a row is selected in the upper pane, the information in the lower pane changes to review Sample details, Contract details, Other details, Sample Receive information, and Tests assigned for the selected/highlighted row.

Field Name	Description
Lab Control Number	Allows tracking of related samples in LIMS. SiteManager assigns "CN" followed by the sample ID.
Sample ID	System defined alphanumeric ID assigned to identify the sample, comprised of the sample creator's user ID, date, and a calculated sequence number.
Lab Ref Number	Transportation agency-defined field to identify the sample.
Material Code	The unique ID of the material. The field is protected and will populate based on selection of Material.
Material Name	Name assigned to the material.
Sample Type*	Identifies the type of sample taken (i.e. Znormal Mill (Domestic), Approved List Evaluation, etc).
Sample Date	Date that the sample was actually taken. This date is set to current date but may be changed to an earlier date (the sample could have been taken day(s) earlier and entered later into SiteManager).
Log Date	Date that the sample is entered into SiteManager. This date is assigned by the system and cannot be changed.
Sample Finalized Date	Date that the Sample is authorized.
Geographic Area*	Region where the sample was taken.
P/S Code	Code of the producer/supplier that supplied the material.
Manufacturer*	Manufacturer of the equipment.
Plant ID	Unique identifier for the plant that provided the material.

Field Name	Description
Product Name	Brand name of the material, defined on the Approved Material Detail window.
Sampler	User ID of the person who took the sample.
Logged By	User ID of the person who entered the sample.
Requested By	Name of person requesting the sample.
Last Modified By	User ID of the last user to modify the sample.
Control Number	The actual number for the type of control to identify the sample.
Seal Number	Secondary sample ID.

Table 14-15. LIMS - View-Only Sample Information Fields Table
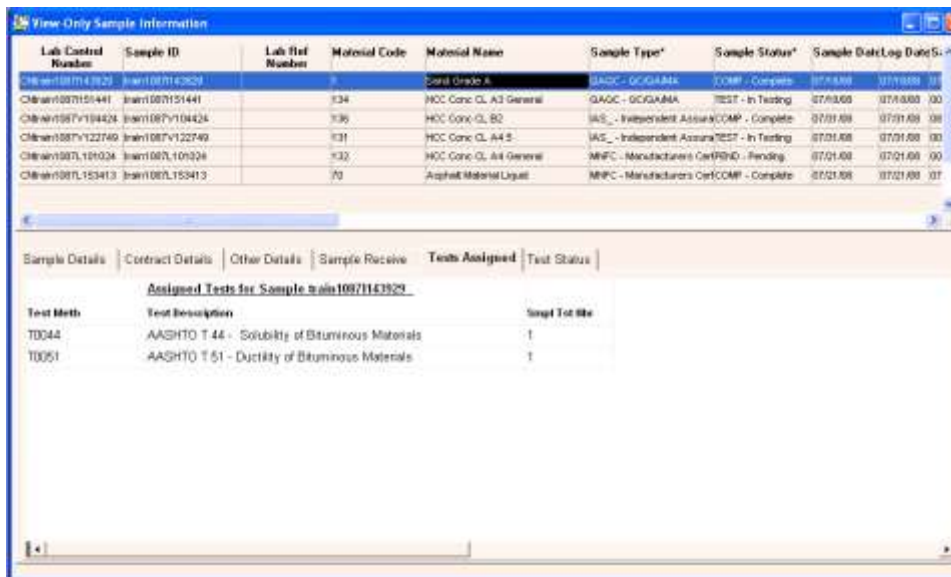
Figure 14-15. LIMS - View-Only Sample Information Window

Again, selecting or highlighting a row in the upper pane will allow you to view additional detail information about the sample in the lower pane.

Viewing the Sample Details Panel

The Sample Details panel displays basic information about the sample. The system pulls details from SiteManager's Maintain Sample Information window's Basic Sample Data and Additional Sample Data panels.

Field Name	Description
Smpl Id	Sample ID. Unique ID auto-generated by SiteManager.
Lab Control Number	Provides tracking of related samples in LIMS. SiteManager assigns 'CN,' followed by the sample ID.
Lab Ref Number	Lab Reference Number. Used to help identify the sample.
Material	Unique code of the material and description.

Sample Status	Code that identifies the current status of the sample record. Reflects current state of the sample.
	  Pending - Initial Status
	  Logged - Tests Assigned
	  Received - Received by a Central Lab
	  In Testing - Enter Test Results
	  Pre-Authorization - Sample in Review Sample Queue
	  Complete - When the Sample is Authorized or Approved

Sample Type	Sample type's code. Used in the default assignment of tests for the sample. Refer to *NYSDOT Sample Status Reference Guide* for selection based upon material.
Acceptance Method	Populated by the user in LIMS when the Sample Review (Approval) is completed.
Log Date	Date the sample was created in SiteManager.
Sample Date	Date that the sample was actually taken.
Geographic Area	Location where the sample was taken.
Authorized By	LIMS populates this field with the SiteManager user ID of the person who completes the Sample Review/Approval in LIMS.
Authorized Date	Authorized Date. LIMS dates when the sample completed the Sample Review (Approval) process.
Smpld By	User ID of the person who took the sample.

Field Name	Description
Producer Supplier	Code and description of the producer supplier that supplied the material.
Manufacturer	Manufacturer of the product selected.
Plant	Identifies the plant that provided the material.
Plant Type	Code for the plant that provided the material.
Mix Design Type	Type of mix design (for example, PCC or SuperPave).
Mix ID	Unique code to identify the mix.
Product Name	Product Name. Brand of the material.
Reference	The location referenced on the plans where the sample was taken.
Station	Station ID that identifies where the installation work began.
Offset	Offset from the station ID that identifies where the installation work began.
Dist from Fnshd Grd	Distance from Finished Grade.
Sample Origin	Origination of the sample.
Town	Name of the town from which the sample was taken.
Sampled From	From where the sample was taken.
Requested By	Name of person requesting the sample.
Intended Use	Reason for using the material.
Buy USA	Indicates if the material fulfills the requirement for the BUY USA program.
Witnessed By	ID of the person witnessing the taking of the sample.
Control Nbr	Control Number. Provides tracking of related samples in LIMS. SiteManager assigns 'CN,' followed by the sample ID.
Represented Qty	Quantity and units of material represented by the sample.
Seal Nbr	Seal Number. Automatically generated to be used to help identify the sample.

Field Name	Description
Sample Size	Size of the sample being taken.
Linked Sample ID	ID of the sample linked to the opened sample.
Revised from Sample ID	Original sample ID that was revised.

Table 14-16. LIMS - View-Only Sample Information Window - Sample Details Panel Fields
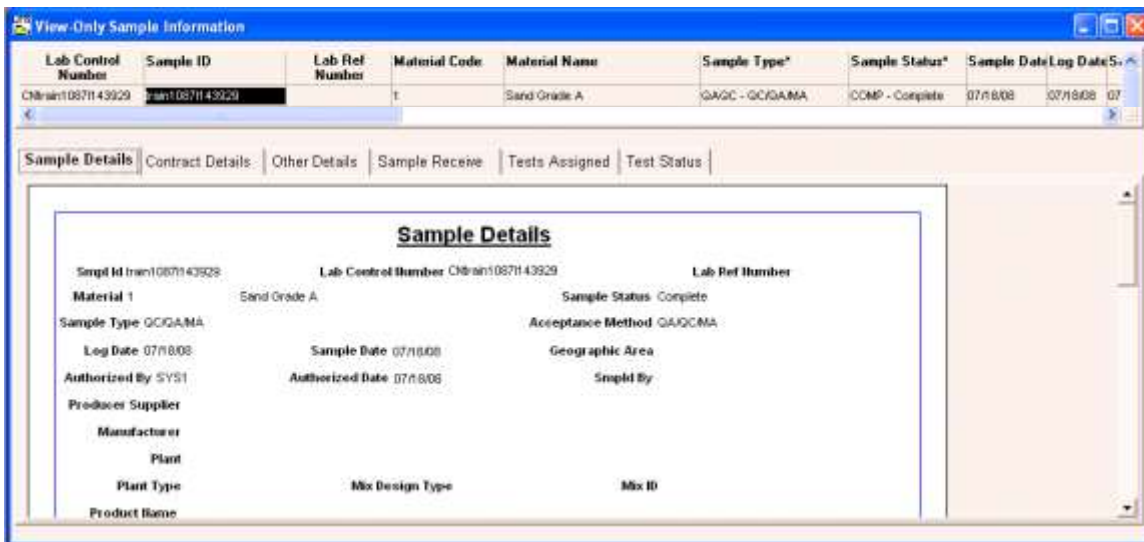
Figure 14-16. LIMS - View-Only Sample Information Window - Sample Details Panel

Viewing the Contract Details Panel

The Contract Details panel is used to display information about the contract associated to the sample and the represented quantity for the contract's line item.

Field Name	Description
Contract ID	Unique ID to identify the contract.
Project Nbr	Project Number. Unique ID of the project.

Field Name	Description
Line Item Nbr	Line Item Number. Within a project.
Represented Quantity	Quantity of the material for the selected contract item.

Table 14-17. LIMS - View-Only Sample Information Window - Contract Details Panel Fields

Figure 14-17. LIMS - View-Only Sample Information Window – Contract Details Panel

Viewing the Other Details Panel

The Other Details panel is used to view information from the Maintain Sample Information window's Other panel. The Destination Lab, the User ID of the user who last modified the sample, and the date the user last modified the sample are some of the information displayed on this panel.

Field Name	Description
Other Type	Other Type processing
Other Information	Identifies values for Other Type field.

Table 14-18. LIMS View-Only Sample Information Window - Other Details Panel Fields

Figure 14-18. LIMS - View-Only Sample Information Window – Other Details Panel

Viewing the Sample Receive Panel

The Sample Receive panel is used to view information about the location that centrally received the sample and the Lab Unit that performed the sample testing. In many instances, the Destination Lab and the Receiving Lab Unit are one and the same because many labs receive samples directly at the lab unit.

Field Name	Description
Dest Receive Date	Date that the sample was received at the central destination.
Receiving Destination	The Central Receiving Destination.
Lab Unit Receive Dt	Date the sample test(s) were received at the testing Lab Unit.
Receiving Lab Unit	The Name of the testing Lab Unit.

Table 14-19. LIMS View-Only Sample Information Window – Sample Receive Panel Fields

Figure 14-19. LIMS - View-Only Sample Information Window – Sample Receive Panel

Viewing the Tests Assigned Panel

The Tests Assigned panel is used to display information about the tests that are assigned to the sample to be performed at the Lab Unit.

Field Name	Description
Test Meth	Test Method. Identification code of the assigned test performed on the sample.
Test Description	Description of the assigned test performed on the sample.

Field Name	Description
Smpl Tst Nbr	Sample Test Number. Sequential number assigned to each unique test on a sample.

Table 14-20. LIMS View-Only Sample Information Window – Tests Assigned Panel Fields

Figure 14-20. LIMS - View-Only Sample Information Window – Test Assigned Panel

Viewing the Test Status Panel

The Test Status panel is used to display information about the status of the individual tests assigned to the sample in the LIMS work flow.

Field Name	Description
Test Meth	Test Method. Identification code of the assigned test performed on the sample.
Test Description	Description of the assigned test performed on the sample.
Smpl Tst Nbr	Sample Test Number. Sequential number assigned to each unique test on a sample.
Test Status	Identifies where the test is in the LIMS work flow.
Priority	Priority of the test: Low, Medium, or High.
Due Dt	Due Date. When the test results are due.
Reportable	Indicates if test results are acceptable and will appear on reports. (Y = Yes)
Test Result Val	Test Result Value.
Tester ID	User ID of the tester.

Field Name	Description
Lab Unit	Lab name of the Lab Unit performing the test.
Chrg Amt	Charge Amount. Pertains to the test.
Start Dt	Start Date. When test results were first entered.
Actl Compl Dt	Actual Completion Date of the test results.

Table 14-21. LIMS View-Only Sample Information Window – Test Status Panel Fields
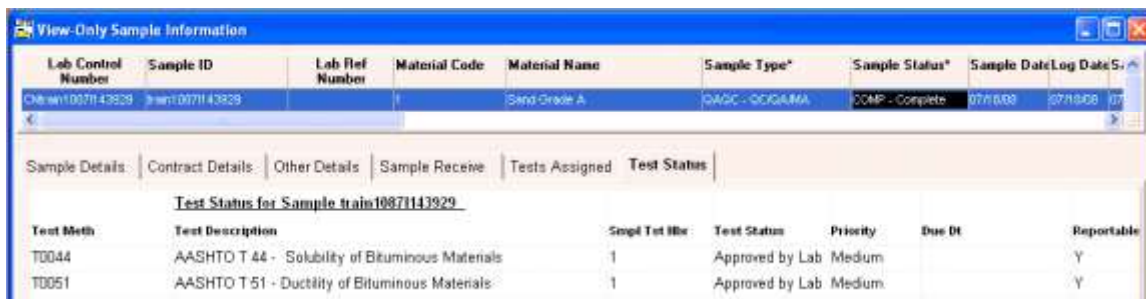
Figure 14-21. LIMS - View-Only Sample Information Window – Test Status Panel

14.17 Review Samples Workflow

After the lab manager uses the Review Tests window in LIMS to review all associated tests for a sample, they mark the tests as *Review Completed* and *Reportable* and the system displays the sample in the Review Samples queue.

The sample reviewer accepts or rejects entries at the *sample level* after selecting an acceptance method and completion status for the *entire sample*. However, the reviewer may select individual test(s) to send back to the Lab Manager. If a test is sent back to the lab, the system removes the sample record from the Review Samples queue.

An exception to the Review Sample workflow is a sample with associated autofinalized test(s). If all of the sample tests were selected to be autofinalized and the lab unit supervisor or lab manager marks them all as *Reportable* and *Review Completed,* the sample bypasses the Review Samples window. If any test results are out of spec limits, autofinalize will not occur, and the sample reviewer can review the test from the Review Samples queue.

Figure 14-22. Review Samples

Field Name	Description
Authorize	**Indicates that the Sample Review(Approval) process is completed.**
Acceptance Method	**Identifies how the material will be accepted on the contract.**
Sample Status	**Status of the sample being viewed.**
Sample ID	**The sample ID of the material waiting to be received The unique identifier of a sample.**
Test Status	**Identifies where test is in the LIMS workflow.**
Contract ID	**Comma separated list of all contracts assigned to the sample.**
Lab Ref Number	**User defined field. Use of this field will be determined by the agency.**
Test Method	**Identification code of the assigned test performed on the sample.**
Test Description	**Description of the test.**
Test Number	**Unique number/identifier for the test.**
Test Number	**Number assigned to each unique test on a sample. The default is 1.**
Send Test Back	**Indicator to return tests back to the Lab unit.**

Field Name	Description
to Lab	
Lab Unit	Lab unit assigned to the test.
Material Code	The ID of a material.
Sampler	Identifies the inspector who took the sample.
Sample Type	Identifies purpose of sample.
Producer Supplier	Name of the supplier
Completion Date	Date the test was marked as Complete on the Enter Test Results window.
Manufacturer	Manufacturer of the material.
Sample Date	The date the sample was taken.
Control Number	The actual number for the type of control to identify the sample.
Seal Number	The seal number of the batch of material tested.

Table 14-22. Review Samples Window - Fields

To view samples by control number:

1. On the Navigation Panel window, double-click the **Review Samples** icon.

2. On the Review Samples window, click the **Control Number** button in the **Data View** area.

3. Move the **Control Number** column between the **Completion Status** column and the **Sample ID** column.

To view samples by sample ID:

1. On the Navigation Panel window, double-click the **Review Samples** icon.

2. On the Review Samples window, click the **Sample ID** button in the **Data View** area.

14.18 Viewing and Comparing Test Results

To access the test results associated to a sample, click the View/Compare Results button. Then, compare the same test method or different test methods across one sample or multiple samples.

On the upper pane, select a row and click the View/Compare Results button to display the test results for one test. Select multiple rows and click the View/Compare Results button to display the test results for the highlighted tests.
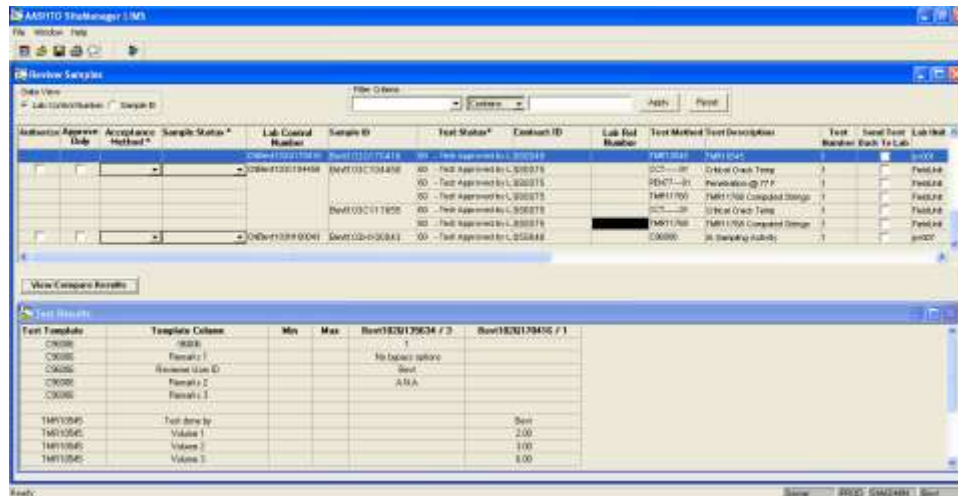
Figure 14-23. View Compare Results Pane

Field Name	Description
View/Compare Results	Activates viewing of a single Test Template's results (a single Test Template can be highlighted and viewed) or the viewing of multiple Test Templates in a Grid format (Multiple Test Templates can be highlighted and compared at one
Test Template	The Template ID code for the test performed on the sample; only one Test template at a time can be used for comparison purposes on one or more samples. Test templates are defined in SiteManager prior to use in LIMS.
Template Column	The Labels used to describe the Test Template layout and data entry fields used by the Lab Technician to record the test results performed on the sample. LIMS highlights Columns where the test results do not meet the minimum or maximum standards in red.
Min	The minimum value LIMS accepts for the Test Template column's test results defined in SiteManager. If there is no minimum value requirement, LIMS displays no value.

Field Name	Description
Max	**The maximum value LIMS accepts for the Test Template column's test results defined in SiteManager. If there is no maximum value requirement, LIMS displays no value.**
Sample ID / Test Number	**Unique identifier/number of the test.**

Table 14-23. Review Samples Window (Lower Pane) – Fields

To View/Compare Test Results:

1. In the first **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select the **Sample ID**.

2. In the second **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select **Contains**.

3. In the **Filter Criteria text** box, type your user id. (i.e. SYS1)

4. Click **Apply**. Only samples created with your user id is displayed.

5. Click the **View/Compare Results** button.

6. Test Results are displayed.

14.18.1 Viewing and Comparing Multiple Test Results for a Sample

LIMS provides a means for you to view multiple tests on a sample.

1. In the first **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select the **Sample ID**.

2. In the second **Filter Criteria** drop-down list, click the expand arrow to the right of the current selection and select **Contains**.

3. In the **Filter Criteria text** box, type your user ID (i.e. SYS1).

4. Click **Apply**. Only samples created with your user ID are displayed.

5. Select every row for both samples.

6. Select every row displayed for at least two samples. Press and hold down the **Ctrl** key while selecting the samples.

7. Click the **View/Compare Results** button.

8.   Test Results are displayed.

If you want to compare test results for the multiple test templates recorded against several different samples, then also click the View/Compare Results button. For example, say that tests *IA Sampling Activity* and *Critical Crack Temp* are associated to two samples - B, and C. If these two tests are selected for samples B and C with the View/Compare Results, the Test Results pane reflects four test results – two associated tests for sample B, and two associated tests for sample C.

To view test results for different test methods across multiple samples using View/Compare Results:

1.   Select (highlight) the row with the desired test method.

2.   Select the additional desired rows for the selected test method using the **Shift** or **Ctrl** key.

3.   Click the **View/Compare Results** button.

4.   Test results for the selected test methods are displayed in the Test Results pane. The results for each test are displayed vertically side-by-side.

14.19 Accepting Test Results and Indicating Completion Status

From the Acceptance Method * dropdown list, select the desired choice. The system updates the fields in SiteManager's Maintain Sample Information window's Acceptance Method field with the selected choice when you authorize the sample.

To indicate the acceptability of the test results, use the Completion Status* dropdown list.

14.20 Finalizing Samples

Before the sample will be removed from the Review Samples window, the user must complete the Acceptance Method * dropdown list, the Completion Status* dropdown list, and the Authorize check box.

> 🗎   **Note: Select the Acceptance Method * and Completion Status* dropdown choices before selecting the Authorized check box.**

After the sample progresses from the Review Samples queue, the system updates the Maintain Sample Information window's fields. The choice you select in the Acceptance Method * dropdown list on the Review Samples window displays in the Acceptance Method field in SiteManager's Maintain Sample Information window. The system also populates the Auth By

field with the reviewer's user ID, populates the Auth Date with the current system date, and changes the sample status from *Pending Authorization* to *Complete*.

To authorize a sample:

1. On the Review Samples window, in the upper pane, select a test row.

2. In the **Acceptance Method*** dropdown list, select the desired choice.

3. In the **Completion Status*** dropdown list, select the desired choice.

4. In the **Authorize** column, select the checkbox.

5. Click the **Save** button.

14.21 Sending Tests Back to the Lab

The sample reviewer selects individual test(s) to send back to the lab for further review. The system changes the status from *Pending Authorization – Approved by Lab Supervisor* to *Back to Lab* and removes the sample record from the Review Samples queue and places the selected test in the Review Tests queue.

To send a test back to the lab:

1. On the Review Samples window, in the upper pane, select the **Send Test Back to Lab** check box.

2. Click the **Save** button.

14.22 Approving a Sample Rather than Authorizing a Sample

A sample reviewer may elect to approve a sample rather than authorize it. This means that additional contract information may be added to the sample in SiteManager using the Maintain Sample Information window, Contracts tab.

A checkbox column called Approve Only appears on the Review Sample window. The Approve Only checkbox is visible and enabled *only* if the system operational parameter LIMS Enable Sample Approve Only option is set to 'Y'.

For each sample, you may select either the Authorize check box or the Approve Only check box. If both check boxes are selected and Save is clicked, a popup message will be presented. When you select the Authorize check box, the system processes the sample as stated in the previous section. In order to approve a sample but not authorize it, you must check the Approve Only check box. When Approve Only check box is elected, the system filters the Sample Status field to allow only sample statuses that are designated for *approval* of a sample to ensure that

these samples do not mistakenly show up in any of the other LIMS queues. This includes all sample statuses in the SMPLAUTH code table except the LIMS sample statuses (LOGD, RECV, TEST, PREA). The sample reviewer must still select a choice from the both the Acceptance Method dropdown list and the Sample Status dropdown list and click the Save button.

To approve a sample:

1. Select an **Acceptance Method*** from the dropdown list.

2. Select a **Sample Status*** from the dropdown list.

3. Select the **Approve Only** check box.

4. Click the **Save** button.
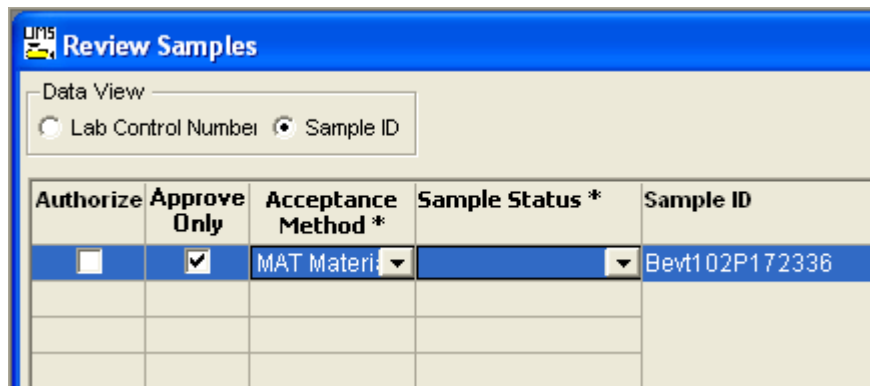
Figure 14-24. Review Samples Window – Approve Only Check Box

> 🖹 **Note: Upon successful save, the system will update the sample status and acceptance method fields for the selected sample; refresh the sample list in the Review Sample queue and remove the approved sample. The sample will *not* be authorized in LIMS; additional processing will occur in SiteManager.**

Understanding the Impact of Authorizing or Approving Samples

After the sample progresses from the Review Samples queue, the system updates the Maintain Sample Information window's fields. The choice you select in the Acceptance Method dropdown list on the Review Samples window displays in the Acceptance Method field in SiteManager's Maintain Sample Information window. The system also changes the sample status from *Pending Authorization* to the *Sample Status chosen using the Sample Status dropdown*. If the sample was authorized rather than approved, LIMS also populates the Auth By field with the reviewer's User ID and populates the Auth Date with the current system date.

14.23 User Settings

LIMS automatically creates a subfolder called **limsmisc** under the SiteManager installation folder (C:\SMAPP). This folder contains exported files (SRDs) corresponding to the modifiable datawindows used in the system. The system uses the limsmisc folder to save the user's GUI customizations, such as resized or moved columns.

> ▤ **Note: The feature to resize or move columns is not available on the windows accessed from the System Admin panel.**

14.23.1 Customizing Views

In LIMS, users may resize or move columns to customize the datawindow gridview for the work queues. To save the changes usually lost upon closing and reopening of the windows, LIMS exports the source file (SRD) of the PowerBuilder datawindow objects to save the modified datawindows. When users open windows in LIMS, the application looks for corresponding SRD files for the datawindows. If a modified SRD exists, LIMS imports it to reconstruct the user-defined layout of the datawindow gridview.

14.23.2 Updating LIMS
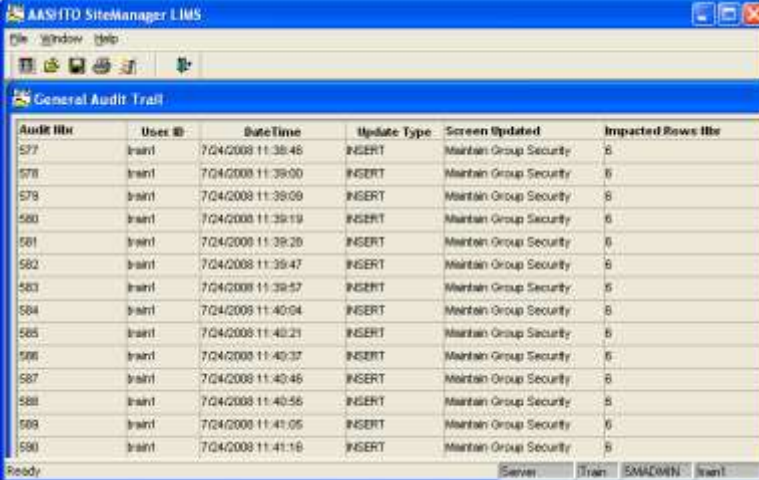
For every new release of LIMS, delete the contents of the limsmisc folder. Delete the entire folder or its individual contents.

> ! **Warning! Failure to delete the folder may result in missing updates or errors resulting from the outdated contents of the limsmisc folder.**

> ▤ **Note: After applying LIMS updates, all user customizations will need to be reapplied.**

14.24 General Audit Trail

To view the LIMS audit records captured in all general data manipulating operations explicitly triggered by the user on the LIMS work queue windows, use the General Audit Trail window. The window displays the database operations categorized as update, insert, and delete.

> ▤ **Note: Periodically, use the GUI or a batch or backdoor method to clean up this window.**

Figure 14-25. General Audit Trail Window

To access the General Audit Trail window:

1. On the **System Admin** panel, double-click the **General Audit Trail** icon.

2. On the toolbar, click the **Exit SiteManager LIMS** button.

Appendix A: Glossary

A

AASHTO
American Association of State Highway and Transportation Officials

AASHTOware
AASHTO owned and distributed software

AGC
Association of General Contractors

API
Application Program Interface

Application Workbench
7 components: (1) Materials Testing Templates, (2) Custom Contract Records Templates, (3) Custom
Approved Lists Templates, (4) Security Administration, (5) Reference Table Maintenance, (6) Help Text
Maintenance, (7) Message Maintenance.

Architecture
GUI Windows-based client/server architecture interoperable across various hardware platforms and will
comply with Microsoft's ODBC and OLE2 standards.

ASTM
American Society for Testing and Materials, now known as ASTM International. An association which
defines standards and procedures for tests and materials used by the construction industry and others.

Attachments
Attachments is a method in SiteManager that allows URL links, Plug-in applications and OLE documents to
be associated to certain functions or specific records within that function or window. System Attachments are
a stand-alone version of Attachments and are accessed by clicking the System Attachments icon on the
Accessories panel.

B

BAMS
AASHTO's Bid Analysis Management System for Managing Transportation Programs. Now known as
AASHTOWare Project BAMS/DSS (formerly Trns•port BAMS/DSS).

Bid Quantity
The quantity of an item of work appearing on the contract between the prime contractor and the DOT.
Generally an estimated quantity. Also called the award quantity.

Bituminous Price Adjustment

An adjustment to the price of an item of work based on a significant change in the price of asphalt products
and the quantity of asphalt in the item. An asphalt (or bituminous) price index is established at the time of the
contract, and is compared to the index at the time the item is installed.

BLOB
Binary Large Object

BPE
Business Process Engineering

C

CAD
Computer Aided Design

CAS
The Construction Administration System module of BAMS.

Category
A grouping of items within a contract project. Usually set up during pre-construction. Can be done for the purpose of grouping like or related items, such as roadway items, traffic control items, or structure items. In BAMS ™ all items within a project category share the same funding sources.

Charge Day
A normal working day for a contractor. See also No Charge Day and Credit Day.

Checklist Event
A scheduled event associated with a contract.

CMS
Construction Management System; previous name of SiteManager.

CNS
Construction (subsystem)

CO/EWO
Change Order/Extra Work Order

Contract
The entity which represents the legal agreement between the contractor and the DOT. A contract can include multiple projects, each of which includes specific items of work. In SiteManager this can also refer to all the contract records in the system.

Conversion Factor
The factor applied to the item quantity to determine the material quantity. The conversion factor converts the item's quantity based on its unit measure to a material quantity based on the materials unit of measure (e.g., item bid in tons and sampled in linear feet). Current quantity times conversion factor equals required quantity. Also called placement factor.

Cost Estimation
AASHTOWare Project Cost Estimation is the cost estimating system module of AASHTOWare Project.

CPI
Continuous Process Improvement

Credit Day
A day in which limited or no work was completed (e.g., official shut down, rain day). This does not relate to liquidated damages. In other words, the DOT allows the contractor to have credit for a no charge day of work. See Charge Day and No Charge Day.

Critical Date
The Critical Dates are required dates because SiteManager includes critical date information in the standard Contract status reports. The default Critical Date types are defined for the transportation agency when the system is installed. The User can not add, modify, or delete the Critical Date types. SiteManager adds the Critical Date types automatically to each new Contract.

CUF
Commercially Useful Function

Current Quantity
Bid quantity plus the net quantity on approved change orders, unless an anticipated overrun or underrun has been entered in a state which allows overruns without change orders. If an anticipated overrun or underrun has been entered, the over/underrun quantity will be the current quantity. If a final quantity has been approved, the final quantity is the current quantity.

D

Daily Work Report
Inspector's Daily Work Report. Captures data for a job or part of a job on a daily basis. Unique to the inspector per date (one daily work report per inspector per day). Data can be collected on a standalone PC and uploaded to the Server database which contains the current copy of the contract. There can be none to many DWRs per contract. Installed work reported on DWRs, and authorized in the Diary, is the basis for the Contractor Payments.

DBE
Disadvantaged Business Enterprises

DBE/WBE
Disadvantaged/Women Business Enterprises

DBMS
Data Base Management System

DC
The IBM CICS/DB2 version of BAMS

Development Software
Application written in PowerBuilder.

DFD
Data Flow Diagram

Diary
Diary representing all work done on the contract for a given day. Includes weather and time charge information. When the Project Manager approves the contract diary, all installed item quantities from all IDWRs for that day are available for payment and will be used the next time an estimate is generated. Must be one and only one for each contract per day.

DOT
Department of Transportation. In the documentation, the term transportation agency is also used.

Draft Estimate
The estimate generated automatically by SiteManager, formerly CMS, from previously entered data. This

estimate is generated upon request (usually from the Project Manager), and is available for review within minutes of the request.

DSS
The Decision Support System module of BAMS

DWR
Daily Work Report

E

EBS
Electronic Bidding System

EDA
Economic Development Association

EEO
Equal Employment Opportunity

Estimate
Payment for all or part of the work accomplished by the contractor and his subcontractors. Variations on the term are partial payment, estimate payment, progress estimate (for all estimates except the final one), and voucher.

Estimate Generation
SiteManager, formerly CMS, automatically generates an estimate from previously entered data. This data can include installed quantities from approved diaries, stockpiled materials, and adjustments. The estimate generation process is initiated by the Project Manager, and occurs virtually immediately, in background. When the generation is complete, the Project Manager can look at the "draft" estimate, which is a list of all the items for which payment is being made, plus all other adjustment-type data. Note that the Project Manager does not have to enter data on every item to be paid; this information comes from data previously entered on the system.

Extra Work
An item of work not provided for in the contract but found essential for the completion of the project.

F

FHWA
Federal Highway Administration

Force Account
In the most general sense, a method of applying a cost to a defined piece of construction work. Often used when the DOT and the contractor cannot agree on a cost for the work before it is done, or when the full extent of the work cannot be determined in advance. Consists of data on the equipment, labor, and materials used by the contractor when doing the work.

Fuel Price Adjustment
An adjustment to the price of an item of work based on a significant change in the price of fuel. A base fuel index is established at the time of the contract and is compared to the fuel index at the time the item is installed.

G

GDS
Graphical Data System

GUI
Graphical User Interface

GPS
Global Positioning System

H

HighEst
Highway Construction Cost Estimate Workstation

HUB
Historically Underutilized Business

I

IAS

Independent Assurance Sample

Installed Quantity
The quantity of a line item which has been completed and can be paid. Can be an estimated quantity until the
approved final quantity is determined.

ISTEA
Intermodal Surface Transportation Efficiency Act

J

JAD
Joint Application Design

JMF
Job Mix Formula.

Job Mix Formula
The specific requirements for blending materials used in an asphalt or concrete mix for a contract.

K

Key Date
The Key Dates are not considered 'critical dates' because SiteManager does not require them for the standard
Contract status reports. SiteManager adds the default Key Date types automatically to each new Contract.

Key Value
When associated with an entity, data store, or table, the values by which that entity, data store, or table can be
uniquely identified. For example, "contract ID" is the key value which identifies the contract data store.

L

LAS
The Letting and Award System module of AASHTOWare Project

LAN
Local Area Network

LIMS
Laboratory Information Management System, a sample workflow management tool for the Materials Management module of **AASHTOWare Project SiteManager**

Liquidated Damages
Damages assessed by the DOT because the contractor did not complete all or a portion of the work before a specified date or time. The damages are intended to cover additional DOT costs associated with the contractor's failure to complete the work on time.

Lump Sum
Most items of work are paid for in terms of an item of measure relating to a physical characteristic of the item; for example, guardrail is usually paid for in linear feet. For items which are defined in the proposal as lump sum, the contractor bids a dollar figure for the entire item of work, and is paid that dollar amount (unless circumstances change significantly), either in one payment or in a series of partial payments.

M

Milestone
Intermediate steps within a contract which must be met to receive incentives and avoid disincentives.

MM
Materials Management subsystem

Mix ID
Method by which a DOT defines different types of test for concrete/gravel/sand/ashpahlt concrete. Types include: Aggregate, Super Pave, HVEEM, Marshall, and Portland Cement.

N

No Charge Day
A day in which limited or no work was completed, but work was scheduled. See Charge Day and Credit Day.

NOI
Notice of Intent. The official notice provided by the contractor to the DOT which indicates that the contractor intends to file a claim.

NOT
Notice of Termination

O

OCR
Optical Character Recognition

ODBC
Open Database Connectivity

OJT
On-the-Job Training

OLE Attachments
This is a link to an external document such as Excel, Word or pdf document.

OLE2
Object Linking and Embedding Version 2

P

Paybook
This term is frequently used in the transportation business. The SiteManager, formerly CMS, paybook displays information regarding how much was paid to a contractor, when the information was sent to the financial department, etc.

Pay Factor Adjustments
Adjustments to the agreed price for an item based on test results.

PBL
Power Builder Library

PE
Professional Engineer

Pending Quantity
The quantity of an item on unapproved change orders.

PES
The Proposal and Estimates System module of AASHTOWare Project

PIN
Project Identification Number

Pipeline
The pipeline process loads data groups from one database to another. The Project Manager uses the pipeline process to upload and download data directly to and from the Server's database.

Plug-In Attachments
Plug-In attachments allow access to other programs similar to the OLE function. The Plug-in functionality also allows a limited amount of data to be automatically passed to the Plug-in application upon execution.

Prime Contractor
A firm or corporation who has a signed contract with the DOT to perform work. Often referred to as the contractor.

Project
A construction job, defined using a number of items of work which must be accomplished. Multiple projects can be grouped into a single contract during the letting process. Within AASHTOWare Project, projects are

divided into categories, which contain items. All items within a category must be funded in the same way, in general.

Project Manager (PM)
The individual responsible for the day-to-day management of the contract. The person responsible for contract Diary approval, contractor payment estimates, contract records maintenance, contractor evaluations, and a design evaluation at the end of the job.

Proposal
The document by which the DOT describes the construction work to be done, and requests bids on that work. When a job is awarded, the proposal becomes the contract between the DOT and the contractor (with some additional documentation).

PTF
AASHTOWare Project Task Force

Q

QA/QC
Quality Assurance/Quality Control. Also known as QC/QA, Quality Control/Quality Assurance.

R

RAS
Remote Access Support

Required Quantity
Current quantity times the conversion factor for the material. Identifies the quantity of the material which must be tested and approved for an installed contract item.

Reporting
Standardized reports developed within the application.

Represented Quantity
Amount of material represented by a sample.

Retainage
Funds withheld from the progress payments made to the contractor for the purpose of ensuring that the work done is satisfactory and that timely progress is made.

RFP
Request for Proposal

RTF
Report Template Facility

S

Sample
Provides a record for a material from a designated source being tested and/or accepted for a contract (or multiple contracts or multiple line items in a contract) or "other" entity (e.g. purchase order, research, preliminary survey, etc.). The Material Sample area in SiteManager can be used to record sample and testing information as well as provide a source record for accepting material for reasons such as manufacturers

certification, visual acceptance, approved source, etc. where testing is not required. Identified information includes the sample identifier, date sampled, reason for taking the sample, reason for accepting the material, material, material source, represented quantity, sample quantity, location, mix identifier, plant, pass/fail status, approval status, comments, etc. Testing information (test results, labs, testers, completion date, etc.) can also be recorded.

SCOSS
AASHTO's Standing Committee on Software Systems

S/F
Semi-Final

SiteManager
A construction contract records and materials management module for AASHTOWare Project

Special Provisions
Additions and revisions to the standard and supplemental specifications covering conditions peculiar to an individual contract.

Specialty Items
Items of work which require highly specialized knowledge or equipment not ordinarily available in the contractor community. These items can be excluded from the value of the contract when calculating the percentage of work which must be done by the prime contractor.

Specifications
The directions, provisions, and requirements for construction and materials defined by the DOT and included by reference in construction contracts.

SQL
Structured Query Language

SRDS
System Requirements and Design Specification

SRS
System Requirements Specification

SSN
Social Security Number

Stockpiled Materials
Materials which are eligible for payment before they are "installed." Sometimes called materials on hand or allocation for materials. When the items are installed in place on the job, the pre-payment is deducted from the payment for installed quantities.

Surety
A corporation or company which executes a performance or payment bond furnished by the contractor.

Supplemental Specifications
Additional specifications not included in the most recent published version of the DOT's specification book. In general, they supersede or supplement the specifications in the DOT specification book.

Subcontractor
A contractor who has a signed contract with either a prime contractor or another subcontractor to do a portion

of the work on a construction contract. A subcontractor does not have a contract with the DOT for this work. A contractor can be a subcontractor on one contract and a prime contractor on another.

SWPPP
Storm Water Pollution Prevention Plan

T

TAG
Technical Advisory Group

TFJD
AASHTO's Task Force on Joint Development

TRT
Technical Review Team

Type of Test
Reason for which sample is being taken. For example, manufacturers certification, visual, independent assurance, acceptance.

U

Unit of Measure
The term describing the physical characteristic by which an item or material is measured. For items of work on a contract, the unit of measure defined in the contract is used when paying for the item.

URL Attachments
URL attachments are links to HTML documents defined by the user or agency.

V

Vendor
A contractor (prime or sub), producer, supplier, hauler, trucker, surety, bonding company, utility, or other commercial concern being referenced in SiteManager. Before any of these entities can be used in SiteManager, some limited data such as ID (generally the Federal tax ID), type, and name must be entered on a vendor list.

W

W/G
Warranty/Guarantee

WORM
Write Once, Read Many

Appendix B: SiteManager Navigation

The SiteManager Main Panel
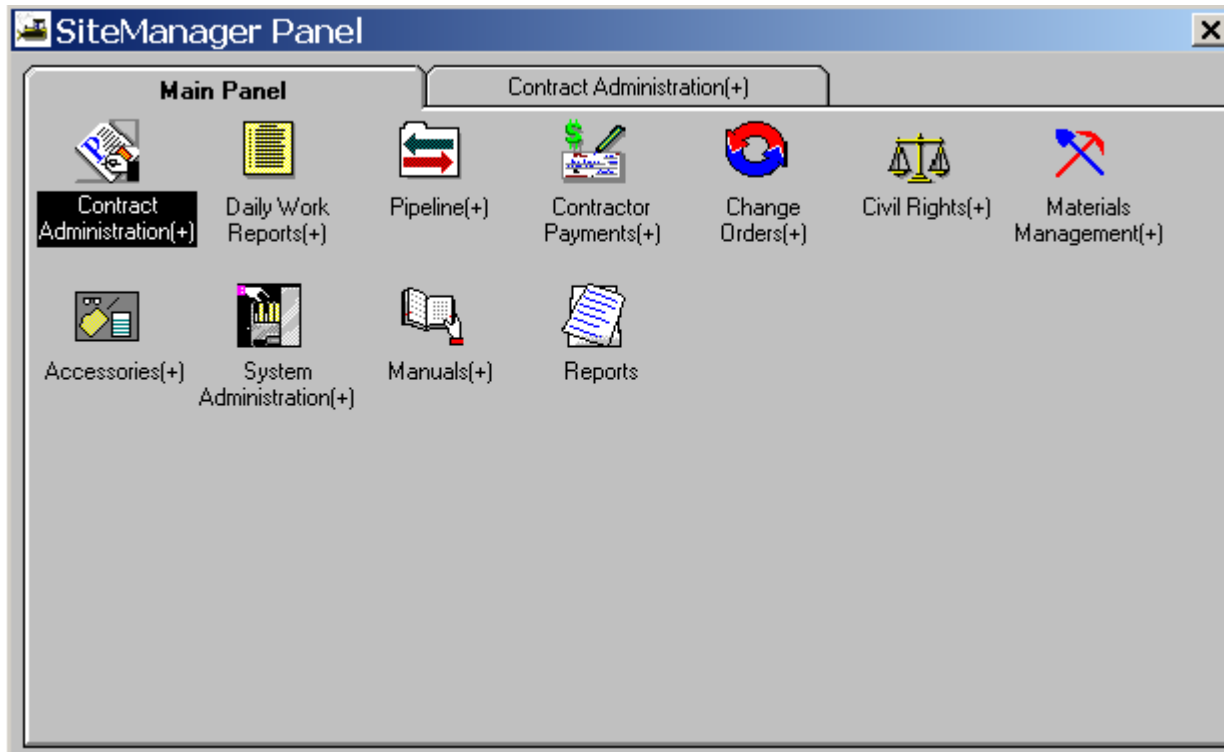
The SiteManager Road Map

The figure below illustrates the navigation in SiteManager through the second panel.

Contract Administration

- Reference Tables
- Contract Records
- Contractor Management
- Reports
- Process List

Pipeline and Zip

- Server to PM Pipeline
- PM to Server Pipeline
- PM to Inspector Zip
- Imspector to PM Zip
- PM/Inspector Load
- Pipeline and Zip Information
- Process List

Change Orders

- Change Order Maintenance
- Reports
- Reference Tables
- Process List

Materials Management

- Material Information
- Material Information Reports
- Contract Materials
- Contract Materials Reports
- Approved Lists
- Approved Lists Reports
- Mix Design
- Mix Design Reports
- Sampling & Testing
- Sampling & Testing Reports
- Process List

Accessories

- In-Box
- Distribution List
- Custom List Record Usage
- Adhoc Query Tool
- View Saved Reports
- System Attachments
- Process List
- Process Status

System Administration

- Group Security
- User Security
- System Tables Maintenance
- Reports
- Templates
- System Operation Parameters
- Contract Archival
- Contract Restore
- Process List
- Process Security
- Define Process
- Intranet Security Group
- Maintain Sysparms & Servers

Appendix C. Estimate Generation Calculation

This appendix documents the calculation components of the Generate Estimate process. Due to the complexity and size of the generate process, the documentation has been broken down into components. In total, the generate process is comprised of the following components:

Component	Description
Generate Estimate	Handles the online process which queries the user on the type of estimate to generate and commences the Initiate Estimate Generation component.
Initiate Estimate Generation	The driving process of the estimate generation. It determines which of the components should be included in the generation process, as dependent on the type of estimate and the status of other generation parameters.
Delete Pending Estimate	Removes an estimate and all associated details for the estimate calculated prior to this date and existing in an unapproved status. (Only one estimate may exist for a given estimate period.)
Calculate Contract Adjustments	Calculates contract adjustments to be applied to the contract payment amount for the current estimate period, e.g., liquidated damages.
Calculate Price Adjustments	Calculates line item adjustments in price to be applied to a contract item with installed quantities for the current contract and estimate period, e.g., fuel adjustments.
Calculate Retainage	Calculates a contract adjustment for retainage to be applied to the contract payment amount. (See Appendix D - Retainage Calculation)
Calculate Stockpiled Materials	Calculates a line item adjustment to reflect stockpiled materials to be applied to contract items with installed quantities for the current contract and estimate period. Calculates stockpiled materials and associated replenishment stockpiles in sequence.
Determine Quantity To Be Paid	Calculates the quantity and amount to be paid out on each contract item with installed quantities for the current contract and estimate period.

Component	Description
Determine Training Items	Determines whether training has taken place without an associated contract item and if so, calculates the contract adjustment dollar amount for the training which was given for the current contract and estimate period.
Identify Discrepancies	Determines if a discrepancy exists for the current contract and estimate period for those discrepancies which are valid (as determined by the Discrepancy Table).
Determine Funding Amounts	Calculates the amount of funding dollars which are added to participating or non-participating funds identified at the contract item, category, project or contract level for the current contract and estimate period.

Table C-1. The Estimate Generation Component Table

From the this point forward, this document describes the individual components associated to this appendix except for Retainage Calculation, documented in Appendix D.

C.1 Delete Pending Estimate

This process is initiated by one of the following two means:

1. User requests a delete of a pending estimate from the Estimate Summary window, or

2. The Initiate Estimate process detects that current pending estimate needs to be deleted before a new estimate can be generated, and the user confirms the desire to delete the current estimate.

The process does the following tasks in the sequence they are described. At the end of all the tasks, it returns the control to the window that invoked it, usually the Initiate Estimate Generation window or the Estimate Summary window.

1. Select the payroll rows which were included in the estimate and initialize the Estimate number to zero for all the selected payrolls.

2. Select all the rows from the DWR table for the estimate. Initialize the Estimate number to zero so that the DWRs will be included in the next generation.

3. Delete all the rows from the Contract Liquidated Damages for the Estimate.

4. All securities encumbered and retainage information for the estimate are stored in the Estimate and Estimate Project tables. No action is necessary to revert these information because the rows for the above tables for the estimate will be deleted.

5. Delete all the Contract Estimate Adjustments for the estimate.

6. Delete all the rows from the Contract Line Item Adjustments for the estimate.

7. Delete all the rows from the Contract Estimate approval for the estimate.

8. Delete all the rows from the Contract Estimate Discrepancy for the estimate.

9. Delete all the rows from the Contract Estimate Item Discrepancy table for the estimate.

10. Delete all the rows from the Contract Estimate Project table for the estimate.

11. Delete all the rows from the Contract Estimate Item Funding table for the estimate.

12. Delete all the rows from the Contract Estimate Item table.

13. Delete the Contract Estimate row for the estimate number.

The above deletions and initializations are prerequisites for the regeneration of the estimate. At this point, the contract reverts to the status before the estimate was generated.

C.2 Calculate Contract Adjustments

This process calculates liquidated damages applied to a contract and incentives or disincentives applied to a milestone. In SiteManager, these types of contract adjustments are referred to as system-defined adjustments. The contract adjustment amounts calculated by this process (i.e., liquidated damages or incentives/disincentives) are applied to the prime project in a contract. The prime project is defined as the project within the contract that comprises the most amount in the bid amount of the contract. A detailed description of the process and examples is included below.

C.2.1 Applying Liquidated Damages – Working Day Contract

If the contract is a Working Day contract, SiteManager extracts the number of days for which the contract was bid, called Contract Bid Days.

> CONTRACT_BID_DAYS = T_CONT.Bid Days

SiteManager extracts all time extensions and reduction, called Change Order Adjustment Days.

> CHANGE_ORDER_ADJ_DAYS = T_CONT_CO.Change Order Adjustment Days

SiteManager adds the Contract Bid Days and all Change Order Adjustment Days, which gives you the Current Days for the contract.

CURRENT_DAYS = CONTRACT_BID_DAYS + CHANGE_ORDER_ADJ_DAYS

SiteManager extracts the number of Total Charge Days.

TOTAL_CHARGE_DAYS = T_CONT.Total Charged Days

SiteManager compares the value of Current Days and Total Charge Days. If the Total Charge Days is greater than Current Days, then a liquidated damage is applied to the contract.

TOTAL_CHARGE_DAYS > CURRENT_DAYS

The amount of liquidated damage applied is calculated by multiplying the rate amount in the Contract Table with the difference between Total Charge Days and Current Days. Therefore,

LIQUIDATED_DAMAGE_AMOUNT = T_CONT.Liqd Dam Rate Amount
*(TOTAL_CHARGE_DAYS - CURRENT_DAYS)

If the Total Charge Days is equal or less than Current Days, then no liquidated damages are applied to the current estimate.

TOTAL_CHARGE_DAYS <= CURRENT_DAYS

However, if there are liquidated damages which have been applied to the contract prior to this estimate (e.g., the current days or contract completion date for this contract has been increased), then an amount equal to the sum of all liquidated damages that have been applied prior to this estimate is release to the contractor.

C.2.2 Applying Liquidated Damages – Calendar Day Or Fixed Completion Date Contract

If the contract is a Calendar Day or a Fixed Completion Date contract, SiteManager extracts the Type of Date, e.g., Substantial Completion Date or Contract Items Completion Date, to calculate the liquidated damage.

TYPE_OF_DATE = T_SYS_OPRTNL_PARM.Liqd Dam Calc Type

SiteManager extracts the Estimated Completion Date.

ESTIMATED_COMPLETION_DATE = CRITICAL_DATE(Code Table).Estimated Completion Date

SiteManager compares the value of the Substantial Completion Date or Contract Items Completion Date with the Estimate Completion Date. If the Substantial Completion Date or the Contract Items Completion Date (as determined by Type of Date) is later than the Estimate Completion Date, then a liquidated damage is applied to the contract.

CRITICAL_DATE(Code Table).Substantial >ESTIMATED_COMPLETION_DATE

or

CRITICAL_DATE(Code Table). Contract Items Completion Date > ESTIMATED_ COMPLETION_DATE

The amount of liquidated damage applied is calculated by multiplying the liquidated damage rate amount with the difference (in days) between Substantial Completion Date or Contract Items Completion Date (as determined by Type of Date) and the Estimate Completion Date. Therefore,

LIQUIDATED_DAMAGE_AMOUNT = T_CONT. Liqd Dam Rate Amount * CRITICAL_DATE(Code Table).Substantial - ESTIMATED_COMPLETION_DATE,

or

LIQUIDATED_DAMAGE_AMOUNT = T_CONT. Liqd Dam Rate Amount * CRITICAL_ DATE(Code Table).Contract Items Completion Date - ESTIMATED_COMPLETION_DATE,

If the Substantial Completion Date or Contract Items Completion Date (as determined by Type of Date) is equal to or earlier than the Estimate Completion Date then no liquidated damages are applied to the current estimate.

CRITICAL_DATE(Code Table).Substantial <=ESTIMATED_COMPLETION_DATE

or

CRITICAL_DATE(Code Table). Contract Items Completion Date < = ESTIMATED _ COMPLETION _ DATE

However, if there are liquidated damages which have been applied to the contract prior to this estimate, then an amount equal to the sum of all liquidated damages that have been applied prior to this estimate are release to the contractor (e.g. the estimated completion date for this contract has been extended).

C.2.3 Applying Incentives/Disincentives

If the contract is a Work Days Milestone, SiteManager extracts the number of days or hours for which the associated milestone is bid. If the milestone rate time period type is designated as hour, then the milestone bid hours is used; otherwise, milestone bid days is used.

IF T_CONT_MLSTN.Rate Time Period Type = {hour}T_CONT_MLSTN.Bid Hours

{is used}

ELSE:

T_CONT_MLSTN.Bid Days {is used}

If milestone bid days is used (T_CONT_MLSTN.Bid Days):

SiteManager extracts all the adjustment days, Total Adjustment Days for the associated milestone.

TOTAL_ADJUSTMENT_DAYS = T_CONT_MLSTN.Total Adjustment Days

SiteManager adds the milestone bid days and all Total Adjustment Days, which gives you the Current Days for the milestone.

> CURRENT_DAYS = T_CONT_MLSTN.Bid Days + TOTAL_ADJUSTMENT_DAYS

SiteManager extracts the number of days Total Charged Days the contractor has worked on the contract towards the milestone.

> TOTAL_CHARGED_DAYS = T_CONT_MLSTN.Total Charged Days

SiteManager compares the value of Current Days and Total Charged Days. If the Total Charged Days is greater than Current Days then a disincentive is applied to the contract.

> TOTAL_CHARGED_DAYS > CURRENT_DAYS

The amount of disincentive applied is calculated by multiplying the rate with the difference between Total Charged Days and Current Days. Therefore,

> DISINCENTIVE_AMOUNT = T_CONT.Disincentive Rate Amount * (TOTAL_CHARGED_DAYS - CURRENT_DAYS)

Incentives are applied only if the Actual Completion Date has been entered for a day-type milestone and Actual Completion Date and Actual Completion Time have been entered for an hour-type milestone. If the Completion Date/Time fields have been entered, the incentive is calculated by the following process:

If the Total Charged Days is equal to or less than Current Days and the incentive indicator for the milestone is blank, then no incentive is calculated.

> TOTAL_CHARGED_DAYS <= CURRENT_DAYS AND T_CONT_MLSTN.Incentive Indicator = ''

If there are disincentives which have been applied to the milestone prior to the current estimate, an amount equal to the sum of all disincentives that have been applied prior to this estimate is releases to the contractor (e.g. the current days for this milestone has been extended).

Otherwise, if Total Charged Days is less than Current Days and incentive indicator for the milestone is not blank, an incentive is calculated for the associated milestone.

> TOTAL_CHARGED_DAYS <= CURRENT_DAYS AND T_CONT_MLSTN.Incentive Indicator <> ''

Below is the calculation for an incentive to a milestone:

> INCENTIVE_AMOUNT = T_CONT_MLSTN.Incentive Rate Amount * (TOTAL_CHARGED_DAYS - CURRENT_DAYS)

If milestone bid hours is used (T_CONT_MLSTN.Bid Hours), SiteManager extracts the Current Specified Completion Date and Time.

CURRENT_COMPLETION_DATE_TIME = T_CONT_MLSTN.Current Specified Completion Date and Time

SiteManager extracts the Actual Completion Date and Time. If the Actual Completion Date and Time is blank then the current date and time is used

IF T_CONT_MLSTN.Actual Completion Date and Time = 0

ACTUAL_COMPLETION_DATE_TIME = {current date and time}

ELSE:

ACTUAL_COMPLETION_DATE_TIME = T_CONT_MLSTN.Actual Completion Date and Time

SiteManager compares the value of Actual Completion Date and Time to Current Completion Date and Time. If the Actual Completion Date and Time is later than the Current Completion Date and Time and the milestone generate disincentive indicator is not blank, then a disincentive is applied to the milestone.

ACTUAL_COMPLETION_DATE_TIME > CURRENT_COMPLETION_DATE_TIME AND T_CONT_MLSTN.Auto Gen Disincentive <> ''

The amount of disincentive applied is calculated by multiplying the rate with the difference (in hours) between Actual Completion Date and Time and Current Completion Date and Time. Therefore,

Disincentive Amount = T_CONT_MLSTN.Disincentive Rate Amount * (T_CONT_MLSTN.Actual Completion Date and Time - T_CONT_MLSTN.Current Completion Date and Time)

Incentives are applied only if the Actual Completion has been entered for a day-type milestone and Actual Completion Date and Time have been entered for an hour-type milestone. If the Completion Date/Time fields have been entered, incentives are calculated by the following process:

If the Actual Completion Date and Time is equal to or earlier than Current Completion Date and the milestone incentive indicator is blank then no incentive is calculated.

ACTUAL_COMPLETION_DATE_TIME <= CURRENT COMPLETION DATE AND T_CONT_MLSTN.Incentive Indicator = ''

If there are disincentives which have been applied to the milestone prior to the current estimate, an amount equal to the sum of all disincentives that have been applied prior to this estimate is releases to the contractor (e.g. the current completion date for this milestone has been extended).

Otherwise, if the Actual Completion Date is earlier than the Current Completion Date and the milestone incentive indicator is not blank, an incentive is calculated for the associated milestone.

ACTUAL_COMPLETION_DATE_TIME <= CURRENT COMPLETION DATE AND T_CONT_MLSTN.Incentive Indicator = ''

Below is the calculation for an incentive to a milestone:

> INCENTIVE_AMOUNT = T_CONT_MLSTN.Incintive Rate Amount * |ACTUAL_ COMPLETION_DATE_TIME -CURRENT_COMPLETION_DATE_TIME|

> 🗎   **Note:** If the Incentive amount is greater than the Incentive Cap amount, then Incentive Amount equals Incentive Cap Amount.

If the contract is for a Calendar Day or a Fixed Completion Date milestone, SiteManager extracts the number of days or hours for which the associated milestone is bid. If the milestone rate time period type is designated as hour, then the milestone bid hours is used; otherwise, milestone bid days is used.

> IF T_CONT_MLSTN.Rate Time Period Type = {hour} T_CONT_MLSTN.Bid Hours {is used}

> ELSE

> T_CONT_MLSTN.Bid Days {is used}

> If the rate time period is days (T_CONT_MLSTN.Rate Time Period Type):

SiteManager extracts the Current Completion Date.

> CURRENT_COMPLETION_DATE = T_CONT_MLSTN.Current Specified Completion Date

SiteManager extracts the Actual Completion Date. If the Actual Completion Date is blank then the current date is used as the value for the Actual Completion Date.

> IF T_CONT_MLSTN.Actual Completion Date = 0

> ACTUAL_COMPLETION_DATE = {current date}

> ELSE

> ACTUAL_COMPLETION_DATE = T_CONT_MLSTN.Actual Completion Date

SiteManager compares the value of Actual Completion Date and Estimated Completion Date:

If the Actual Completion Date is later than the Current Completion Date and milestone automatic generation disincentive indicator is not blank, then a disincentive is applied to the milestone.

> ACTUAL_COMPLETION_DATE > CURRENT_COMPLETION_DATE ANDT_CONT_MLSTN.Auto Gen Disincentive Ind

The amount of disincentive applied is calculated by multiplying the rate with the difference (in days) between Actual Completion Date and Estimated Completion Date. Therefore,

> DISINCENTIVE_AMOUNT = T_CONT_MLSTN.Disincentive Rate Amount * (ACTUAL_ COMPLETION_DATE - ESTIMATED_COMPLETION_DATE)

Incentives are applied only if the Actual Completion has been entered for a day-type milestone and Actual Completion Date and Actual Completion Time have been entered for an hour-type milestone. If the Completion Date/Time fields have been entered, the incentive is calculated by the following process:

If the Actual Completion Date is equal or earlier than Current Completion Date and the milestone incentive indicator is blank then no incentive is calculated.

> ACTUAL_COMPLETION_DATE <= CURRENT_COMPLETION_DATE AND
> T_CONT_MLSTN.Incentive Indicator = ' '

If there are disincentives which have been applied to the milestone prior to the current estimate, then an amount equal to the sum of all disincentives that have been applied prior to this estimate is releases to the contractor (e.g. the current completion date for this milestone has been extended).

Otherwise, if the Actual Completion Date is earlier than the Current Completion Date and the milestone incentive indicator is not blank, an incentive is calculated for the associated milestone.

> ACTUAL_COMPLETION_DATE <= CURRENT_COMPLETION_DATE
> ANDT_CONT_MLSTN.Incentive Indicator <> ' '

Below is the calculation for an incentive to a milestone:

> INCENTIVE_AMOUNT = T_CONT_MLSTN.Incintive Rate Amount
> *|ACTUAL_COMPLETION_DATE - ESTIMATED_COMPLETION_DATE|

If the rate time period is hours (T_CONT_MLSTN.Rate Time Period Type), SiteManager extracts the Current Completion Date and Time for the milestone.

> ACTUAL_COMPLETION_DATE_TIME = T_CONT_MLSTN.Current Completion Date
> and Time.

SiteManager extracts the Actual Completion Date and Time. If the Actual Completion Date and Time is blank then the current date and time is used.

> IF T_CONT_MLSTN.Actual Completion Date and Time = 0
>
> ACTUAL_COMPLETION_DATE_TIME = {current date and time}
>
> ELSE
>
> ACTUAL_COMPLETION_DATE_TIME = T_CONT_MLSTN.Actual Completion Date
> and Time

SiteManager compares the value of Actual Completion Date and Time and Current Completion Date and Time. If the Actual Completion Date and Time is later than the Current Completion Date and Time and the milestone automatic generate disincentive indicator is not blank then a disincentive is applied to the milestone.

> ACTUAL_COMPLETION_DATE_TIME >CURRENT_COMPLETION_DATE_TIME
> AND T_CONT_MLSTN.Auto Gen Disincentive Ind <> ' '

The amount of disincentive applied is calculated by multiplying the rate amount with the difference (in hours) between Actual Completion Date and Time and Current Completion Date and Time. Therefore,

> DISINCENTIVE_AMOUNT = T_CONT_MLSTN.Disincentive Rate Amount *
> (ACTUAL_COMPLETION_DATE_TIME - CURRENT_COMPLETION_DATE_TIME)

Incentives are applied only if the Actual Completion Date has been entered for a day-type milestone and Actual Completion Date and Actual Completion Time have been entered for an hour-type milestone. If the Completion Date/Time fields have been entered the incentive is calculated by the following process:

If the Actual Completion Date and Time is equal to or earlier than Current Completion Date Time and the milestone incentive indicator is blank, then no incentive is calculated.

> ACTUAL_COMPLETION_DATE_TIME <=
>
> CURRENT_COMPLETION_DATE_TIME AND T_CONT_MLSTN.Incentive Indicator =
> ''

If there are disincentives which have been applied to the milestone prior to the current estimate, then an amount equal to the sum of all disincentives that have been applied prior to this estimate is released to the contractor (e.g. the current completion date for this milestone has been extended).

Otherwise, if the Actual Completion Date and Time is earlier than Current Completion Date and Time and the milestone incentive indicator T_CONT_MLSTN.Incentive is not blank, an incentive is calculated for the associated milestone.

> ACTUAL_COMPLETION_DATE_TIME <
>
> CURRENT_COMPLETION_DATE_TIME AND T_CONT_MLSTN.Incentive Indicator <>
> ''

Below is the calculation for an incentive to a milestone:

> INCENTIVE_AMOUNT = Incentive Rate Amount *
> |ACTUAL_COMPLETION_DATE_TIME -CURRENT_COMPLETION_DATE_TIME|

> 📄   **Note:** If Incentive amount is greater than Incentive Cap amount, then Incentive Amount equals Incentive Cap Amount.

C.3 Calculate Price Adjustments

This process determines if a price adjustment (e.g., fuel adjustment or asphalt adjustment) is required for a line item in a contract. The calculation of price adjustment is performed after the calculation of installed quantity and after any substandard item calculations have been applied to the line item. An item is a candidate for price adjustment if a record exist in the Project Adjustment table for the project and the item with which it is associated. A price adjustment to an item is a modification

(positive or negative) to the To Be Paid Amount for the item in the estimate. A detail description and examples of price adjustment calculation is covered below.

The following procedure and examples describe the method used in calculating price adjustments:

Access the Contract Table and examine the value of the Adjustment Indicator (T_CONT.PRIC_ADJMNT_IND). If the value is Y then price adjustment processing is enabled for the contract, otherwise no price adjustment processing is needed.

Access the Critical Dates Code table and access the value for INDEX BASE DATE.

Access the Project Adjustment table (T_PROJ_ADJ) for each project in the contract to determine if a price adjustment calculation is needed for the items in the project. If there is no record in T_PROJ_ADJ for a project, then no price adjustment is needed for the corresponding items.

For each line item that corresponds to the project found in Project Adjustment table (T_PROJ_ADJ) from above, access the price index record for the line item in the Item Price Index table (T_ITM_PRIC_INDX_ADJ). The following steps are performed to calculate the price adjustment:

1. Using the project number and the price index, access the Project Adjustment table (T_PROJ_ADJ) if the record exist.

2. If no record is found, skip to the next index price adjustment for the item that is within the project.

3. Using the price index, access the Price Index table (T_PRIC_INDX) for the default threshold percent.

4. Using the price index and index base date, access the Price Index History table (T_PRIC_INDX_HISTORY) for the BASE_PRICE. If no record is found, find a record using the same price index within the table that is just prior to the index base date.

5. Using the price index and estimate generation date, access the Price Index History table (T_PRIC_INDX_HISTORY) for the CURRENT_PRICE. If no record is found, then find a record using the same price index within the table that is just prior to the estimate generation date.

The following steps describe the formulas and variables involved in calculating the price adjustments:

To calculate the PERCENT_PRICE_CHANGE:

The PERCENT_PRICE_CHANGE is the absolute value of one minus the quotient of the BASE_PRICE divided by the CURRENT_PRICE.

$$(PERCENT\_PRICE\_CHANGE = |\, 1 - (BASE\_PRICE / CURRENT\_PRICE)|)$$

To calculate the INDEX_THRESHOLD_PERCENT:

The INDEX_THRESHOLD_PERCENT is based upon the value of Threshold Percent field in the Item Price Index Adjustment table (T_ITM_PRIC_INDX_ADJ). If the value is blank, then the INDEX_THRESHOLD_PERCENT is equal to the Threshold Percent found in the Price Index table (T_PRIC_INDX). Otherwise, it is equal to the Threshold Percent found in the Item Price Index Adjustment table (T_ITEM_PRIC_INDX_ADJ).

> (If T_ITM_PRIC_INDX_ADJ. THRESHOLD_PERCENT is blank then,
>
> INDEX_THRESHOLD_PERCENT =   T_PRIC_INDX.THRESHOLD_PERCENT
>
> ELSE
>
> INDEX_THRESHOLD_PERCENT = T_ITM_PRIC_INDX_ADJ.THRESHOLD_
> PERCENT)

If the PERCENT_PRICE_CHANGE is less than the INDEX_THRESHOLD_PERCENT, skip to the next index for the item. The price change must exceed the threshold for an adjustment to be made.

To calculate the ADJUSTED_BASE_PRICE:

If the CURRENT_PRICE is greater than the BASE_PRICE, the ADJUSTED_BASE_ PRICE is the original BASE_PRICE plus the product of the BASE_PRICE and the INDEX_THRESHOLD_PERCENT. Otherwise, the ADJUSTED_BASE_PRICE is the original BASE_PRICE minus the product of the BASE_PRICE and the INDEX_ THRESHOLD_PERCENT.

> (If CURRENT_PRICE > BASE_PRICE then,
>
> ADJUSTED_BASE_PRICE = BASE_PRICE + BASE_PRICE * INDEX_
> THRESHOLD_PERCENT
>
> ELSE
>
> ADJUSTED_BASE_PRICE = BASE_PRICE - BASE_PRICE *
>
> INDEX_THRESHOLD_PERCENT)

To calculate the INDEX_FACTOR:

If the Item Value Index Percent in the Item Price Index Adjustment table (T_ITM_PRIC_INDX_ADJ.ITM_VAL_INDX_P) is non-zero, then the INDEX_FACTOR is equal to the Item Value Index Percent in the Item Price Index Adjustment table divided by 100. Otherwise, the INDEX_FACTOR is equal to the contract item's unit price multiplied by the Item Unit Index Quantity from the Item Price Index Adjustment table divided by the Unit Value (Unit Value is set at $1000).

> (If T_ITM_PRIC_INDX_ADJ.ITM_VAL_INDX_P <> 0, then
>
> INDEX_FACTOR = (T_ITM_PRIC_INDX_ADJ.ITM_VAL_INDX_P/100)
>
> ELSE

UNIT_VALUE is set to $1,000

INDEX_FACTOR = T_CONT_ITEM.UNIT_PRICE * (T_ITM_PRIC_INDX_ADJ.ITM_UNT_INDX_QTY / UNIT_VALUE))

To calculate the UNIT_PRICE_ADJUSTMENT_PERCENT:

The UNIT_PRICE_ADJUSTMENT_PERCENT for this period is the INDEX_FACTOR multiplied by the difference between the ADJUSTED_BASE_PRICE and the CURRENT_PRICE.

(UNIT_PRICE_ADJUSTMENT_PERCENT = INDEX_FACTOR * (ADJUSTED_BASE_PRICE -CURRENT_PRICE))

To calculate the ADJUSTED_PRICE:

The ADJUSTED_PRICE is calculated by UNIT_PRICE_ADJUSTMENT_PERCENT multiplied by the quantity to be paid this period from the Contract Estimate Item table (T_CONT_EST_ITM.QTY_THIS_PRD).

(ADJUSTED_PRICE = UNIT_PRICE_ADJUSTMENT_PERCENT * T_CONT_EST_ITEM.QTY_THIS_PRD)

C.3.1 Rounding Method

A value is rounded up if the next significant digit is equal to or greater than five; the value stays the same if the next significant digit is less than five. See example below.

Rounding example :

1. If a value is 5.6789 and needs to be rounded to two significant digits to the right of the decimal, then the new value is 5.68.

2. If a value is 5.6759 and needs to be rounded to two significant digits to the right of the decimal, then the new value is 5.68.

3. If a value is 5.6739 and needs to be rounded to two significant digits to the right of the decimal, then the new value is 5.67.

C.3.2 EXAMPLES

The threshold is set to 5.0%

Example 1

BASE_PRICE   =$1.059/GAL

CURRENT_PRICE   =$1.179/GAL

    T_ITM_PRIC_INDX_ADJ.ITM_VAL_INDX_P   =17.00

    INDEX_FACTOR   =(17.00 / 100) = .17

    T_CONT_EST_ITM.QTY_THIS_PRD   =4,500

PERCENT_PRICE_CHANGE = |1 - (1.059/1.179)| = .1018 = 10.18 %

(Which is > the 5%, therefore an adjustment will be made)

    ADJUSTED_BASE_PRICE   =1.059 + (.05 * 1.059) = 1.112

    UNIT_PRICE_ADJUSTMENT_PERCE   =(1.179 - 1.112) * .17 =
    NT   0.0114

    ADJUSTED_PRICE   =0.0114 * 4,500 = $51.26

($51.26 will be added to the Amount to be Paid to the item for the estimate period)

Example 2

    BASE_PRICE   =$1.179/GAL

    CURRENT_PRICE   =$1.059/GAL

    T_ITM_PRIC_INDX_ADJ.ITM_VAL_IND   =17.00
    X_P

    INDEX_FACTOR   =(17.00 / 100) = .17

    T_CONT_EST_ITM.QTY_THIS_PRD   =4,500

PERCENT_PRICE_CHANGE = |1 - (1.179/1.059)| = 0.1133 = 11.33 %

(Which is > the 5%, therefore an adjustment will be made.)

    ADJUSTED_BASE_PRICE   = 1.179 - (.05 * 1.179) = 1.120

    UNIT_PRICE_ADJUSTMENT_PERCE   = (1.059 - 1.120) * .17 = -0.0104

NT

ADJUSTED_PRICE $= -0.0104 * 4{,}500 = \$-46.67$

($46.67 will be subtracted to the Amount to be Paid to the item for the estimate period.)

Example 3

BASE_PRICE $=\$1.059/GAL$

CURRENT_PRICE $=\$1.179/GAL$

T_ITM_PRIC_INDX_ADJ.ITM_UNT_INDX_QTY $= 19.00$

T_CONT_ITM.UNT_PRIC $=\$50.000$

T_CONT_EST_ITM.QTY_THIS_PRD $=500$

PERCENT_PRICE_CHANGE $= |1 - (1.059/1.179)| = .1018 = 10.18\%$

 (Which is > the 5%, therefore an adjustment will be made)

ADJUSTED_BASE_PRICE

INDEX_FACTOR $=1.059 + (.05 * 1.059) = 1.112$

UNIT_PRICE_ADJUSTMENT_PERCENT $=(1.179 - 1.112) * .95 = 0.064$

ADJUSTED_PRICE $=0.064 * 500 = \$32.00$

($32.00 will be added to the Amount to be Paid to the item for the estimate period)

C.3.3 Calculate Retainage

This component's purpose is to calculate a contract adjustment for retainage which is to be applied to the contract payment amount. Due to the complexity retainage calculation and size of the retainage calculation documentation, it is documented in a separate appendix. See Appendix D - Retainage Calculation.

C.3.4 Determine Initial Stockpile Payment

This process creates a positive adjustment to the associated contract line item for the initial payment to be made for an invoiced stockpiled material submitted through the Maintain Stockpiled Materials window (see Section 3.3.1.3). This initial payment to the contractor will be added to the total earnings for the estimate. This module is performed prior to the Calculate Stockpiled Materials module to ensure proper payment for stockpiled materials.

This process creates a Line Item Adjustment record in Contract Line Item Adjustment table for any stockpiled material records which have not paid out their initial invoice payment amount. The adjustment amount is equal to the value entered in Initial Invoice Payment field on the Maintain Stockpiled Materials window (see Section 3.3.1.3). The contract line item number used in this process is taken from the Stockpile Record created for the associated invoice.

C.3.5 Calculate Stockpiled Materials

This calculation of stockpiled materials determines the quantity of materials used for installed quantities of a line item in a contract from the stockpile during the estimate generation. This process is invoked only if a line item has a stockpiled material record with an open or active status in the Contract Stockpile Material table. This component's purpose is to calculate a line item adjustment to reflect stockpiled materials to be applied to contract items with installed quantities for the current contract and estimate period. When this process is executed, the quantity of the stockpile is adjusted and an adjustment for the line item earnings is generated.

> 📄 **Note**: When the Conversion Factor is set to zero, line item adjustments are not calculated during the estimate process.

The information used in this process is entered through the Maintain Stockpiled Materials window (see Section 3.3.1.3). A detailed description of the process and examples is included below:

- The initial payment of the stockpile invoice for a material can either be a full payment or a partial payment and is entered on the Maintain Stockpiled Materials window. The amount entered should be equal to or less than the invoice amount. The amount is paid out on the first estimate generated after the stockpile has been entered.

- If an installed line item has a corresponding stockpile material, this process reduces the quantity of the stockpile material using the following formula:

STOCKPILE REMAINING QUANTITY = PREV. STOCKPILED REMAINING QTY — (INSTALLED QTY ITEM * MATERIAL CONV. FACT)

- Item earnings are adjusted by the Stockpile Line Item adjustment which is calculated for each item containing a stockpile. This adjustment is computed using the following formula:

STOCKPILE ADJUSTMENT = MATERIAL CONV. FACT * (UNIT PRICE * LINE ITEM ADJ. PERCENT) * ITEM INSTALLED QTY

▪ The following example illustrates how item earnings are adjusted due to stockpile materials.

Example

Contract Item: Guardrail   Unit = 500   Unit of Measure = LF   Unit Price = $25/unit

Material	Unit of Measure	Material Conversion Factor
Post	Each	0.16 (0.16 of Post per LF of Guardrail)
Washers	Each	3.0 (3.0 Washers per LF of Guardrail)
Guardrail	LF	1.0
Panels	LF	1.0 (1.0 Panel per LF of Guardrail)

Definitions

Conversion Factor	A Factor that converts from the material unit of measure to the item unit of measure.
Line Item Adj. Percent	Amount paid for the material on the invoice divided by the invoice amount for the material

Stockpiled Material

Washers

Invoice Amount	=$2,000
Quantity	=2,000
Unit Price (per washer)	=$1
Conversion Factor	=3.0

Panels

Invoice Amount   =$7,500

Quantity   =750

Unit Price (per foot)   =$10

Conversion. Factor   =1.0

Scenario 1 – 100% of invoiced material paid on first estimate. (Using the data from above.)

- Invoice amount is paid in full for Washers ($2,000) and Panel ($7,500). Therefore:

<u>**For Washers:**</u>

Amount Paid for the Material on the   = $2,000
Invoice

Invoice Amount for the Material   = $2,000

Line Item Adj. Percent   = $2,000/$2,000

                                        = 1.0

<u>**For Panels:**</u>

Amount Paid for the Material on the   = $7.500
Invoice

Invoice Amount for the Material   = $7,500

Line Item Adj. Percent   = $7,500/$7,500

                                        = 1.0

250 ft. of Guardrail has been installed for the current estimate. Therefore,

Contract Item Cost:

Guardrail l($25/LF)   250 * $25   = $6,250

Less:

Stockpiled Material   Conversion .Factor * (Unit Price * Line
                        Item Adj. Percent) * Item Installed Qty

Washers :   3.0($1 * 1.0) * 250   = $750

Panels :   1.0($10 * 1.0)) * 250   = $2,500
                                            _____

Stockpile Line   = $3,250
Adjustment Total

Net Amount To be   = $3,000
Paid on the Item

Scenario 2 — Partial payment of invoiced material on first estimate (Using the data from above.)

- Invoiced amount is paid in full for Panel ($7,500).

- Invoiced amount is partially paid for Washers ($1,000). Therefore,

For Panel:

Amount Paid for the Material on the Invoice   =7.500

Invoice Amount for the Material   =7,500

Line Item Adj. Percent   =7,500/$7,500

                                                =1.0

For Washers:

Amount Paid for the Material on the Invoice $1,000

Invoice Amount for the Material $2,000

Line Item Adj. Percent $1,000/$2,000

0.5

- 250 ft. of Guardrail has been installed for the current estimate. Therefore ,

Contract Item Cost:

Guardrail ($25/LF)   250 * $25   =$6,250

Less:

Stockpile Material   Conv.Fact * (Unit Price * Line Item Ad.
                      Percent) * Item Installed Qty

Washers: 3.0($1.0 * 0.5) *   = $375
                                  250

Panels :   1.0($10 * 1.0) * 250   = $2,500

Stockpile Line Item Adjustment Total   = $2,875

_____

Net Amount To be Paid on the Item   **=$3,375**

C.3.6 Determine Quantity To Be Paid

This process calculates quantities to be paid using three quantities for the line item: the Installed Quantity, Payable Quantity to date, and Paid Quantity up to previous estimate (up to and including the previous estimate where this line item was included). These quantities are explained as follows:

The Installed Quantity is the sum total of all the Daily Work report's (DWR) Item Reported Quantity since the last estimate.

Example for How Installed Quantity is Calculated

Suppose we have a contract (contract 1) with only one estimate paid on 01/05/96. The estimate was generated on 1/1/96 with the following DWRs (assume that there is only one Inspector and one item associated with the contract):

- DWR for 12/25/95

- DWR for 12/26/95

Both these DWRs are paid in estimate 1.

We now want to calculate quantities to be paid using this module on 01/06/96. There are four more DWRs which are approved and waiting to be included in the next estimate. They are as follows:

- DWR for 12/27/95

- DWR for 12/28/95

- DWR for 01/04/96

- DWR for 01/05/96

The calculation process will include the quantities in these four DWRs to calculate the installed quantity. Suppose there is one more DWR for 12/29/95 which is not approved yet. This will not be included in the quantity calculation (Once this DWR is approved it will be included in the next calculation.).

Paid Quantity is the total quantity paid in all the previous estimates up to and including the latest paid estimate where this line item was included This information is stored in the Quantity Paid To Date field of the Contract Item table.

The Payable Quantity is the minimum of:

     (Contract Item.Bid Quantity + Contract Item.Net Change Order Quantity + Contract Item.Overrun Quantity, if any, - Paid Quantity), and

     Installed Quantity (calculated in the first step).

The process reads all the approved DWRs which are not checked-out from the Server and not paid in any of the previous estimates. For these DWRs, the associated work items are accessed and quantities are accumulated for each estimate line item. When quantities for all the unprocessed DWRs are accumulated, the line number, project number, and accumulated quantities are returned to the calling object. If the calling object was estimate generation process, all the DWRs which were successfully accumulated are updated with the estimate number and the quantities are updated to the Database.

The formula for the quantity calculation is detailed below:

     1. Create and populate a temporary array with the following fields:

- ▪ Project Number,

- ▪ Line Item Number,

- ▪ Item Reported Quantity.

2. Read all the DWRs where Paid Indicator and checked-out indicator are not equal to Y.

3. Reject the record if there is an entry in the Estimate_DWR table for the same DWR. (This means that the record has already been added to the Item Reported Quantity for the line item.)

4. Add the quantity to the temporary field Item Reported Quantity of the array.

5. Save the Item Reported Quantity and Item Number and Project Number in the temporary array fields.

6. After all the DWRs are read, read the array.

7. If the calling object was the Estimate Generation process, create a row for each DWR with Estimate Number in the Estimate_DWR table (An entry in this table means the quantities reported in the DWR are added to the Item Reported Quantity for the line item).

8. For each entry in the array, retrieve the Contract Item and Item Master row.

9. Check the overrun indicator to see if an overrun is allowed.

10. If an overrun is allowed and the item is a minor item calculate overrun quantity using the percentage overrun allowed and (Bid + Net Change Order).

11. Create a Contract Estimate Item row with the following information:

    A. Move the Quantity Installed To Date field from Contract Item to Quantity Installed Previous To Date field of the Contract Estimate Item.

    B. Move the Quantity Paid To Date field from Contract Item to Quantity Paid Previous To Date field of the Contract Estimate Item.

    C. Move the Item Reported Quantity from the array to the Current Installed Quantity of the Contract Estimate Item.

    D. Move to the Current Quantity To Be Paid of Contract Estimate Item the minimum of:

The (Payable Quantity (i.e., (Contract Item.Bid Quantity + Net Change Order Quantity + Allowed Overrun Quantity if any) - Previous to Date Paid Quantity), and Installed Quantity to Current Quantity To Be Paid (QTY_THIS_PRD) of the estimate item row.

12. Calculate the amount to be paid this period by multiplying Current Quantity To Be Paid from Contract Estimate Item with Unit Price from the Contract Item.

13. Save the updated Contract Estimate Item row.

14. Repeat the creation of Contract Estimate Item rows for each entry of the array.

C.3.7 Auto Deduct Payment for Overrun Items

If the System Operational Parameter Auto Deduct Overrun Item Discrepancy Indicator is set to Y, the Progress Estimate generation process creates a line item adjustment for each item with an overrun discrepancy. During the estimate generation process, the Materials Sample discrepancy and line item adjustment is calculated. The System Operational Parameters Major Item Overrun % and Minor Item Overrun % values are included in the calculation for the overrun deduction or readjustment.

A line item adjustment to deduct payment for the quantity exceeding the item's current quantity and allowed overrun percentage (if any) is automatically created. A system-generated comment is created for each line item adjustment. All the total amounts (e.g., Total Line Item Adjustment amounts, Contract Payment amounts, etc.) are updated appropriately.

The status of each overrun discrepancy is updated to Override and a system-generated comment is added.

In addition, where there are items that have been adjusted previously by this process (prior to the current estimate) and the current item quantity has been increased by an approved change order, the following occurs:

- A positive Line Item Adjustment is created to balance between the current item quantity + approved change order item quantity and previous adjustment(s) for the line item.

- In addition, a similar offsetting adjustment is created if a negative item quantity is introduced via an authorized DWR to ensure the correct installed quantity is paid for the item.

Example 1

Estimate 001, LIN 0775 exceeds current item quantity 100.00 units for a total reported 150.00 units. The agency does not allow major or minor item overrun (0%). Materials samples represented quantity is 150 units. The overrun auto deduction creates a quantity adjustment for (-)50.00 units and the discrepancy is overridden.

Then approved Change Order 001 adds a quantity of 100.00 units to LIN 0775 for a total current item quantity of 200.00 units.

Estimate 002, LIN 0775 includes a line item quantity adjustment for (+)50.00 units.

Example 2

Estimate 001, LIN 0775 exceeds current item quantity 100.00 units for a total reported 150.00 units. The agency permits major or minor item overrun of ten percent (10%) for an allowable item quantity

of 110.00 units. Materials samples represented quantity is 150. The overrun auto deduction creates a quantity adjustment for (-)40.00 units and the discrepancy is overridden.

Then approved Change Order 001 adds a quantity of 100.00 units to LIN 0775 for a total current item quantity of 200.00 units.

Estimate 002, LIN 0775 includes a line item quantity adjustment for (+)40.00 units.

Example 3

Estimate 004, LIN 0875 exceeds current item quantity 100.00 units for a total reported 150.00 units. The agency does not allow major or minor item overrun (0%). Authorized materials samples total represented quantity is 90 units.

A line item adjustment for insufficient materials samples is created for (-)60 units (90-150=-60). The adjusted paid quantity for LIN 0875 is 90 units. This is less than current item quantity so there is no overrun auto deduction and the overrun discrepancy is overridden.

During the next pay period, an authorized sample adds a represented quantity of 40.00 units to material for LIN 0875. The current total sampled quantity is 130.00 units. (90+40=130) LIN 0875 has no Change Order or additional DWR Work Item placed quantity in this time.

Estimate 005 will include the following adjustments:

1. The sample represented quantity for LIN 0875 is now 130 units. Twenty units will continue to be withheld for insufficient materials samples. (130-150=-20) A line item adjustment for +40 units will be calculated based on sufficient materials samples. (130-90 =40)

2. Based on 130 units with sufficient material samples and current item quantity of 100 units, the overrun auto deduction calculates a quantity adjustment for (-)30.00 units and the discrepancy is overridden. (100-130=-30)

3. The Line Item Adjustment window will have a row for LIN 0875 for +40 units for materials discrepancy adjustment. There will also be a row for LIN 0875 for overrun auto-deduction for -30 units.

4. LIN 0875 will include a paid quantity for 10 units on this estimate. (100 current item quantity - 90 previously paid = 10)

Example 4

Estimate 006, LIN 0770 exceeds current item quantity 100.00 units for a total reported 125.00 units. Materials samples represented quantity is 130.00 units. The agency does not allow major or minor item overrun (0%). The overrun auto deduction creates a quantity adjustment for (-)25.00 units and the discrepancy is overridden.

Then an authorized DWR includes a quantity of negative(-)80.00 units for LIN 0770 for a total reported item quantity of 45.00 units.

Estimate 007, LIN 0770 includes a line item quantity adjustment for (+)25.00 units to return the previous deduction.

- All the totals will be updated appropriately as shown on the Line Item Adjustment window (e.g., Total Line Item Adjustment amounts, Contract Payment amounts, etc.).

- A Remark will be added to the Line Item Adjustment indicating it was created by the system.

If the new System Operational Parameter Auto Deduct Overrun Item Discrepancy Indicator is set to N, the estimate generation process will not create any line item adjustments for items with an overrun discrepancy.

C.3.8 Determine Training Items

This process determines whether a training payment needs to be included in the current estimate for the contract and whether a Contract Adjustment or an Estimate Line Item needs to be created for paying the eligible training hours. This process is called by Initiate Estimate Generation process. Depending on the System options, the process creates either a Contract Adjustment or an Estimate Line Item if there are eligible training hours for the estimate period. The process calls a function Determine Training Line Item detailed in Accrue Training Experience. This process gives the unit price and Contract Line Line Item Number associated with the training activity. If the function Determine Training Line Item does not return the Line Item Number, this process creates a Contract Adjustment for the eligible training hours to be paid.

There are four steps involved in this process. There are:

1. From the Contract table, the training hours accrued during the estimate period are retrieved. (This field is incremented by the Accrue Training Experience process and is initialized when the estimate is approved and paid.)

2. Determine whether the training hours should be an Estimate Line Item or a Contract Adjustment. (This depends on the return values from the Determine Training Line Item function.)

3. If the eligible training hours are to be paid as an Estimate Line Item Adjustment, the Estimate Line Item is created using the training hours field from the Contract table and unit price and Line Number fields from the returned values of the function Determine Training Item. This is controlled by Contract Set up when you instruct the system to calculate the training hours as a line item by setting up a line item or as an adjustment by not setting up the line item.

4. If the eligible training hours are to be paid as a Contract Adjustment, a Contract Adjustment row is created using the Training Unit Price and Eligible Training Hours from the Contract table. This is controlled by Contract Set up you instruct the system to calculate the training

hours as a line item by setting up a line item or as an adjustment by not setting up the line item.

C.3.9 Identify Discrepancies

This process identifies the discrepancies associated with an estimate. The discrepancies are of two levels: discrepancies at estimate level and discrepancies at item level. If DBE requirements are not met or payrolls are not certified the discrepancies are associated to the estimate. If there is a deficiency in testing requirements or overrun situations the discrepancies are associated with the line item. There are six types of discrepancies and each will be identified using different criteria. These six discrepancies are as follows:

- Overrun discrepancy,

- Material test discrepancy,

- Payroll certification discrepancy,

- Milestone and Contract Completion discrepancy,

- Checklist event discrepancy,

- DBE compliance discrepancy.

The discrepancy checks are explained in the following.

Overrun Discrepancy

For the calculation of overrun situation, the following steps will be performed:

Find the latest Estimate Item, if any. (It may be that this item was not included in the immediate previous estimate.)

Calculate Total Quantity For Current Estimate.

The Total Quantity For Current Estimate is calculated by the Quantity To Be Paid function and is stored on the Contract Estimate Item.

> **(T_CONT_EST_ITM(current estimate).QTY_THIS_PRD = QTY_TO_BE_ PAID_FUNCTION)**

Calculate Previous To Date Total Quantity

The Previous To Date Total Quantity is calculated by the Quantity To Be Paid function and is stored on the Contract Estimate Item.

> **(T_CONT_EST_ITM(current estimate).QUANTITY_PREVIOUS_TO_DATE_PRD =QTY_TO_BE_PAID_FUNCTION)**

Determine the Quantity To Date

Add Previous to Date Quantity to Total Quantity This Period giving Quantity To Date.

> **(L_QTY_TO_DATE = T_CONT_EST_ITM (current estimate).QUANTITY_PREVIOUS_ TO_DATE + T_CONT_EST_ITM (current estimate). QTY_THIS_PRD)**

Determine overrun status.

Subtract the quantity to date from Bid + Net Change Order Quantity. If the result is negative report overrun discrepancy.

> **(IF T_CONT_ITM.BID_QTY + NET_C_O_QTY - L_QTY_TO_DATE > 0) AND the item is a Major Item THEN**
>
> **Set the flag overrun discrepancy-major to true.**
>
> **If T_CONT_ITM.BID_QTY + NET_C_O_QTY - L_QTY_TO_DATE > 0 and the item is a Minor Item**
>
> **Set the flag overrun discrepancy-minor to true.)**
>
> **MATERIAL TEST DISCREPANCY**

For the calculation of insufficient material test, the following steps are performed:

For each line item, find the materials for the line item (from T_CONT_STREQ_MATL)

For each material, find the contract sampling test requirement (from T_CONT_STREQ).

Pass the parameters to the functions which calculate the samples required and samples taken. These functions are:

> u_mm_nvo_calc_samples_req (Calculate Number of Samples Required) and
>
> u_mm_nvo_calc_samples_complete (Calculate Number of Samples Taken)

Sum of sampling required must be less than or equal to the sum of sampling taken for each line item material. If this is not true, set the Insufficient Samples Flag to true.

Payroll Certification Discrepancy

For the payroll certification check, the following steps are performed:

Calculate Payroll End Date = Estimate End Date - Payroll Discrepancy Lag Days (from the System Parameters table)

Select all the Vendors from Contract Vendor (T_CONT_VEND) table for the contract. Select all the payrolls for the Contract Vendor for Payroll Date <= Payroll End Date. If any of the payroll is not certified, set the Not Certified Payroll Flag to true.

Milestone And Contract Completion Discrepancy

This discrepancy can be of two types: Milestone discrepancy or Contract Completion discrepancy. The following sections explains each of these types:

Milestone Discrepancy

For the Milestone Discrepancy check, the following steps are performed:

Select all the milestones for which Anticipated Completion Date is less than the Estimate End Date and Actual Completion Date is either blank or greater than Estimate End Date.

If one such row is found, the milestone is missed, so set the Milestone Missed Flag to true.

Contract Completion Discrepancy

For the Contract Completion discrepancy check, the following steps are performed:

Select the Contract Dates table for the contract and Estimated Completion Date and Contract and Actual Completion Date.

If the Adjusted Completion Date is less than the Estimate Period End Date, and the Contract Items Completion Date is zeros or greater than the Estimate Period End Date, generate a discrepancy "Exceeded Adj Compl Date, and no Contract Items Complete Date".

Checklist Event Discrepancy

For the Checklist Event discrepancy check, the following steps are performed:

Select all the checklist events with projected dates <= Estimate End Date (using the Contract Check List Date and Contract Checklist Event tables (T_CONT_CHKLST_DT and T_CONT_CHKLST_EVENT tables)).

If any of the Event actual dates is blank or less than the Estimate End Date, set the Checklist Event Incomplete Flag to true.

DBE Compliance Discrepancy

This edit needs to be done only for the final estimate. For the DBE Compliance discrepancy check, the following step is performed:

If total work done by the subcontractor is less than the original commitment amount or sum of the DBE subcontract verified payment is less than the DBE goal amount for the contract, the DBE-not_Met flag needs to be set true.

C.3.10 Determine Funding Amounts

This process calculates the funding amounts for an estimate and updates the Estimate Project table with Total Participating and Non Participating Line Item Amounts. Funding can be at different levels: Contract, Project, Category or Item level. At each of these levels there can be two types of funding: participating and non-participating. Each type of funding can have one or more sources of funding. Each source can have one or more funding rows.

First all the rows for the Contract are retrieved from the Contract Funding Table for the Contract ID. The first row (if exists in the database and satisfies all the selection conditions) represents the Contract (with no Project Number, Category, and no Line Item Number). The Contract Limit Amount (limit amounts are the high caps of amount that can be used from a funding source) and the Contract Participating Percentage are saved in temporary local variables. The subsequent rows represent Project level limits and Participating Percentages, or Category level limits and Participating Percentages, or Line Item level limits and Participating Percentages. These values are saved in sets (called *arrays*) of temporary local variables. In other words, there are four sets of temporary local variables (which are saved) as follows:

Contract Level Local Variables (Occurs only once)

- Fund Source Code

- Contract Funding Sequence Number

- Contract ID

- Contract Limit

- Contract Participating Percentage

- Original Limit Amount

- Funding Amount Used

Project Level Variables (Occurs as many times as number of projects in the Contract)

- Fund Source Code

- Contract Funding Sequence Number

- Contract ID

- Project Number

- Project Limit

- Project Participating Percentage

- Original Limit Amount

- Funding Amount Used

Category Level Variables (Occurs as many times as number of categories in the Contract)

- Fund Source Code

- Contract Funding Sequence Number

- Contract ID

- Project Number

- Category

- Category Limit

- Category Participating Percentage

- Original Limit Amount

- Funding Amount Used

Item Level Variables (occurs as many times as the number of Line Items in the Contract

- Fund Source Code

- Contract Funding Sequence Number

- Contract ID

- Project Number

- Line Item Number

- Line Item Limit

- Line Item Participating Percentage

- Original Limit Amount

- Funding Amount Used

The process reads all the Estimate Line Items and for each line items accesses the Contract Funding Table entries saved in the arrays as described above. One of the following set of tasks is done to calculate the funding depending on the level at which funding exists (Item Level, Category Level, Project Level or Contract Level) for this item. The following algorithm is used to apply the Amount Paid This Period from the Estimate Line Item:

1. The Line Item level array is checked for entries. One of the following conditions will be true:

If not found, the next level entry (Category) is searched until a valid entry is found.

If found, then all of the following tasks need to be done for each entry of the Line Item Level array (Thus all the paid amount is allocated to the multiple Funding sources):

Check if the Funding Amount Used is less than the Limit Amount. If not, the next Priority order entries needs to be checked until the condition is satisfied or all the entries at this level is exhausted. If all the entries at this level is exhausted, then there is no funding available for this item. So, the process returns an error message to the calling object and terminates itself.

Multiply the Amount To Be Paid from the Estimate Line Item by the Contract Participating Percentage of the array and add this amount to the Funding Amount Used in the Item Fund table. Check the Limit to see whether all of this amount can be applied to the current priority entry. If not, go to the next priority level and apply until all of it is applied. If all of this amount cannot be applied to the funding the process returns an error message to the calling object and terminates itself. Update the Item Fund Table with the amount applied to this fund and Contract Funding table with the Funding Amount Used.

Repeat the previous two steps for the next Funding Source Code

2. Repeat above calculations at Category Level if there is no entry at the Item Level. If there is no entry at Category Level, the next step needs to be performed.

3. Repeat above calculations at Project Level if there is no entry at the Category Level. If there is no entry at Project level, the next step needs to be performed.

4. Repeat above calculations at Contract Level if there is no entry at the Project Level. If there is no entry at Contract Level, return an error that no funding exists for the item and terminate.

After the allocation, the database is updated with the funding allocations at item level and the used funding amount is updated at funding level. After all the item level calculations are done the funding is accumulated at project level and the Project funding table row is created.

This specification covers the funding for line items only. It is to be noted that other funding classifications are updated in the other contractor payment modules. The following is the list of fields updated in other processes. These fields are in the Project Estimate table.

- Current Disincentive Amount

- Current Incentive Amount

- Current Liquidated Damage Amount

- Current Retainage (Participating and Non-Participating)

- Current Other Adjustments

- Prev Tot Disincentive

- Prev Tot Incentive

- Prev Tot Liquidated Damage

- Prev Tot Other Adjustments

- Prev Tot Retainage (Participating and Non-Participating)

C.3.11 Calculate Autopay Items

This process calculates payments to be made for an autopay item. Autopay items are paid depending on the total approved work done at the contract level in lieu of the work done at the item level. The parameters to calculate the payments are defined on the Autopay Table. The autopay item payable quantities are calculated using these parameters and the Paid quantities for all the items in the contract (Calculated by Determine Quantities To Be Paid).

There are two methods of autopay calculation:

- **COXA**: The total amounts and earnings are based on contract bid items (original items) excluding the autopay items.

- **CCXA**: The total amounts and earnings are based on all current items (original items + change order items) excluding the autopay items.

The calculation details are explained in the special processing section.

The following are the steps for the Autopay Calculation.

1. Read all the Contract Items and find if there is an Autopay item.

2. If there is one, proceed; else, skip this function

3. Find the method of Autopay (if COXA proceed to 2.1. If CCXA proceed to 2.2).

    COXA

    Read all the Contract Items. Skip the Autopay item. Find whether the item is an original item or a contract bid item. Compute total amount by multiplying the item's Unit Price with the item's Quantity Paid To Date. Skip 2.2.

    TOTAL_AMOUNT = UNIT_PRICE * QUATITY_PAID_TO_DATE

    CCXA

    Read all the Contract Items. Skip the Autopay item. Compute total amount by multiplying item's Unit Price with the item's Quantity Paid To Date.

    TOTAL_AMOUNT = UNIT_PRICE * QUATITY_PAID_TO_DATE

4. Find the ratio of Total Amount computed by COXA (or CCXA) to Total Bid Amount (T_CONT.Total Bid Amount) from the Contract Table. Multiply this amount by 100 to calculate Percent Complete. Store this field in a temporary variable.

    TOTAL_BID_AMOUNT = T_CONT.Total Bid Amount

    PERCENT_COMPLETE = TOTAL_AMOUNT /

    TOTAL_BID_AMOUNT *100

5. Locate the Autopay rows where Threshold Percent (CMPL_THRSHLD_P) is less than or equal to the temporary variable Percent Complete (calculated in the previous step). Sort the rows by descending Threshold Percent. Select the first row so the row selected is the row with highest value of CMPL_THRSHLD_P and less than or equal to percent_complete.

6. Calculate Amount Paid By The Autopay Item by multiplying Quantity Paid To Date field in the Contract Item table with the item's Unit Price.

    AMOUNT_PAID_AUTOPAY_ITEM = QUANTITY_PAID_TO_DATE *

    UNIT_PRICE

7. Calculate Percent Paid By Autopay Item as the ratio of Amount Paid By The Autopay Item to the Total Bid Amount multiplied by 100.

    PERCENT_PAID_AUTOPAY_ITEM =

    AMOUNT_PAID_AUTOPAY_ITEM / TOTAL_BID_AMOUNT *100

8. If Percent Paid By Autopay Item is greater than or equal to Maximum Amount Paid Percent (T_AUTO_PD_ITM.Maximum Amount Paid Percent) in the Autopay table, then payment has already been made. The module returns control to the calling program.

    PERCENT_PAID_AUTOPAY_ITEM >=

    T_AUTO_PD_ITM.Maximum Amount Paid Percent

9. Calculate Quantity To Be Paid as the Quantity Paid Percent (T_AUTO_PD_ITM.QTY_PD_P) divided by 100 multiplied by the item's Current Quantity (T_CONT_ITEM.BID_QTY + T_CONT_ITM.NET_C_O_QTY).

    CURRENT_QUANTITY = T_CONT_ITEM.BID_QTY +

    T_CONT_ITM.NET_C_O_QTY

    QUANTITY_TO_BE_PAID = T_AUTO_PD_ITEM.Quantity Paid Percent /

    100 * CURRENT_QUANTITY

10. Calculate a temporary variable Total Amount To Be Paid as the Quantity To Be Paid multiplied by the item's Unit Price.

TOTAL_AMOUNT_TO_BE_PAID = QUANTITY_TO_BE_PAID *

UNIT_PRICE

11. Calculate Maximum Amount To Be Paid as the Current Quantity multiplied by the item's Unit Price multiplied by the autopay item's Maximum Contract Paid Amount Percent.

MAXIMUM_AMOUNT_TO_BE_PAID = CURRENT_QUANTITY *

UNIT_PRICE * T_AUTO_PD_ITM.MAX_CONT_PD_AMT

12. Calculate Upto date Amount To Be Paid for the autopay item as the minimum of the Maximum Amount To be Paid and the Total Amount To Be Paid (calculated in Step 9).

UPTO_DATE_AMOUNT_TO_BE_PAID =

MIN(MAXIMUM_AMOUNT_TO_BE_PAID, TOTAL_AMOUNT_TO_BE_PAID)

13. Create an Estimate Line Item with the Up to date Amount To Be Paid and associated quantity.

Appendix D. Retainage Calculation

This appendix documents a component of the Generate Estimate process. Due to the complexity and size of the generate process, the documentation has been broken down into components. In total, the generate process is comprised of the following components:

Component	Description
Generate Estimate	Handles the online process which queries the user on the type of estimate to generate and commences the Initiate Estimate Generation component.
Initiate Estimate Generation	Is the driving process of the estimate generation. It determines which of the components should be included in the generation process; as dependent on the type of estimate and the status of other generation parameters.
Delete Pending Estimate	Removes an estimate and all associated details for the estimate calculated prior to this date and existing in an unapproved status. (Only one estimate may exist for a given estimate period).
Calculate Contract Adjustments	Calculates contract adjustments which are to be applied to the contract payment amount for the current estimate period, e.g., liquidated damages.
Calculate Price Adjustments	Calculates line item adjustments in price which are to be applied to a contract item with installed quantities for the current contract and estimate period, e.g., fuel adjustments.
Calculate Retainage	Calculates a contract adjustment for retainage which is to be applied to the contract payment amount.
Calculate Stockpiled Materials	Calculates a line item adjustment to reflect stockpiled materials which are to be applied to contract items with installed quantities for the current contract and estimate period.
Determine Quantity To Be Paid	Calculates the quantity and amount which is to be paid out on each contract item with installed quantities for the current contract and estimate period.

Component	Description
Determine Training Items	Determines whether training has taken place without an associated contract item and if so to calculate the contract adjustment dollar amount for the training which was given for the current contract and estimate period.
Identify Discrepancies	Determines if a discrepancy exists for the current contract and estimate period for those discrepancies which are valid (as determined by the Discrepancy Table).
Determine Funding Amounts	Calculates the amount of funding dollars which are added to participating or non-participating funds identified at the contract item, category, project or contract level for the current contract and estimate period.

Table D-1. The Estimate Generation Component Table

From the this point forward, this document describes the individual component associated to this appendix.

D.1 Calculating Retainage

This process calculates retainage as well as release retainage for the project(s) in a contract as appropriate. In SiteManager, retainage is calculated separately for participating and non-participating at the item level earnings, but is rolled up to the project level for display and reporting. Three types of retainage calculation methods will be used within the system.

Calculation Method	Description
Work In Place(WINP)	Based on the total amount of work that is in place.
Work Per Period(WPER)	Based on the amount of work that is reported for the current estimate period.
Work Remaining(WREM)	Based on the total amount of work remaining.

Table D-2. The Retainage Calculation Methods Table

From the three methods of calculation above, Work In Place and Work Remaining are cumulative (based on total amounts), which offers the capability of mixing these methods in the lifetime of the same contract. Work Per Period is incremental, which is mutually exclusive to the cumulative Work In Place and Work Remaining methods. When Work Per Period is used, it must be used through the

life of the contract. This process uses the retainage record from the Contract Retainage table, that is effective during the estimate generation.

In this process, the first step is to calculate the retainage amount against the item earnings (not including items which are exempt from retainage) for the estimate. Once the retainage amount has been calculated against the item earnings, the actual amount retained by the DOT depends on the amount of calculated retainage that is applied to the security in lieu of retainage and escrow account. A more detailed description on the actual amount retained by the DOT is covered in the Special Processing of this document.

A release of retainage is calculated automatically in this process whenever the criteria for release retainage are met (see examples in special processing for criteria). This process supports the releasing of retainage at a project level whenever the Release Retainage Indicator is set to Y in Contract Project window. When the estimate process releases retainage (retainage indicator is set to Y) for a project, this amount is passed to the accounting system and the accounting system has the option to pay the released retainage to the final estimate amount.

Once the retainage has been calculated for the project(s) in a contract, securities can be applied in lieu of retainage if the contract has an associated securities account(s). If the contract has multiple security accounts, SiteManager applies security in lieu of retainage against one of the accounts until the account's funds is exhausted. Once the account is exhausted, SiteManager uses another account that has available funds until all of the accounts have no funds available.

If a contract is associated with an escrow agent and a retainage amount still exists even after applying the securities in lieu of retainage, then the remaining retainage amount is applied to the escrow account up to the maximum escrow amount.

D.1.1 Retainage Calculation Examples

The following examples should give a clearer understanding on how retainage is being calculated in SiteManager. In the following examples the information below are used :

Contract = CONT1 consist of 3 projects PROJ1,PROJ2 and PROJ3.

The distribution of the amount awarded to the contract is described below:

PROJ1   = $500,000.00

PROJ2 = $350,000.00

PROJ3   =$650,000.00

      $1,500,000.00

The contract had 10 estimates generated while it was active. The following table lists the amounts that were paid for each project. A Release Retainage Indicator has been added at the project level that indicates whether retainage should be released when the project is finished. If this indicator is enabled, then all retainage for the project is released when the project is completed. Any earnings

for the completed project are not included in calculating the retainage for the contract if the contract has multiple projects which are still in progress. This scenario is illustrated in the following examples, starting from estimate 8 to 10.

Earnings

EST	PROJ1 ESTIMATE ACCUMULATE	PROJ2 ESTIMATE ACCUMULATE	PROJ3 ESTIMATE ACCUMULATE	TOTAL ESTIMATE ACCUMULATE
0001	$10,000.00 $10,000.00	0.00 0.00	0.00 0.00	$10,000.00 $10,000.00
0002	$50,000.00 $60,000.00	$10,000.00 $10,000.00	$10,000.00 $10,000.00	$70,000.00 $80,000.00
0003	$50,000.00 $110,000.00	$50,000.00 $60,000.00	$75,000.00 $85,000.00	$175,000.00 $255,000.00
0004	$75,000.00 $185,000.00	$75,000.00 $135,000.00	$95,000.00 $180,000.00	$245,000.00 $500,000.00
0005	$85,000.00 $270,000.00	$85,000.00 $220,000.00	$100,000.00 $280,000.00	$270,000.00 $770,000.00
0006	$75,000.00 $345,000.00	$0.00 $220,000.00	$30,000.00 $310,000.00	$105,000.00 $875,000.00
0007	$75,000.00 $420,000.00	$80,000.00 $300,000.00	$80,000.00 $390,000.00	$235,000.00 $1,110,000.00
0008	$50,000.00 $470,000.00	$50,000.00 $350,000.00	$110,000.00 $500,000.00	$210,000.00 $1,320,000.00
0009	$30,000.00 $500,000.00	$0.00 $350,000.00	$100,000.00 $600,000.00	$130,000.00 $1,450,000.00
0010	$0.00 $500,000.00	$0.00 $350,000.00	$50,000.00 $650,000.00	$50,000.00 $1,500,000.00

Table D-3. The Earnings Table

Below are descriptions of terminology used in the examples.

Term	Description
Maximum Dollar Limit	The maximum amount of retainage that can be applied to the contract.
Amount Percent Limit	An amount derived from multiplying Retainage Percent Limit with the Contract Amount Base. If Maximum Dollar Limit and Amount Percent Limit are specified, the lower of the two is used for retainage limit.

Term	Description
Retainage Percent Limit	The percent used in calculating the Amount Percent Limit from above.
Lump Sum Retainage	A lump sum amount that is retained in addition to the retainage that results from the computation involving the retainage percentage and the contract amount base.
Retainage Percent	The percentage of work that should be retained. This percent is used in conjunction with the contract amount base to compute retainage.
Trigger Percent	The percentage of work completed on the contract, in which time a retainage is applied to the contract (see Example 1).
Work Complete Basis Code	The method used to calculate the amount of work to which the retainage percentage and the lump sum retainage are applied.(e.g., WINP, WPER, WREM).

Table D-4. Terminology Table

In the following examples, all items are considered to be bid items and all items participate in the retainage calculation. An item can be defined to be exempt from retainage in the Item Master file; for example, an item such as mobilization might be exempt from retainage. These examples should behave the same if the retainage were computed on current items. However, if only the awarded items were being used, the addition of new items or changes in the current amounts of various items could cause the calculations to vary.

D.1.2 Example 1

Contract Retainage Based on Work in Place: (w/ no Trigger Percent)

In this example, a contract retainage record is created with the following values:

Maximum Dollar Limit   0

Amount Percent Limit 0%

Retainage Percent Limit   10.00

Lump Sum Retainage 0

Retainage Percent   10.00

Work Complete Basis Code   WINP

Earnings

EST	PROJ1 ESTIMATE ACCUMULATE	PROJ2 ESTIMATE ACCUMULATE	PROJ3 ESTIMATE ACCUMULATE	TOTAL ESTIMATE ACCUMULATE
0001	$10,000.00 $10,000.00	0.00 0.00	0.00 0.00	$10,000.00 $10,000.00
0002	$50,000.00 $60,000.00	$10,000.00 $10,000.00	$10,000.00 $10,000.00	$70,000.00 $80,000.00
0003	$50,000.00 $110,000.00	$50,000.00 $60,000.00	$75,000.00 $85,000.00	$175,000.00 $255,000.00
0004	$75,000.00 $185,000.00	$75,000.00 $135,000.00	$95,000.00 $180,000.00	$245,000.00 $500,000.00
0005	$85,000.00 $270,000.00	$85,000.00 $220,000.00	$100,000.00 $280,000.00	$270,000.00 $770,000.00
0006	$75,000.00 $345,000.00	$0.00 $220,000.00	$30,000.00 $310,000.00	$105,000.00 $875,000.00
0007	$75,000.00 $420,000.00	$80,000.00 $300,000.00	$80,000.00 $390,000.00	$235,000.00 $1,110,000.00
0008	$50,000.00 $470,000.00	$50,000.00 $350,000.00	$110,000.00 $500,000.00	$210,000.00 $1,320,000.00
0009	$30,000.00 $500,000.00	$0.00 $350,000.00	$100,000.00 $600,000.00	$130,000.00 $1,450,000.00
0010	$0.00 $500,000.00	$0.00 $350,000.00	$50,000.00 $650,000.00	$50,000.00 $1,500,000.00

Table D-5. Example 1 Earnings Table

Retainage Withheld

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
0001	$1,000.00	0.00	0.00	$1,000.00	$1,000.00
0002	$5,000.00	$1,000.00	$1,000.00	$7,000.00	$8,000.00
0003	$5,000.00	$5,000.00	$7,500.00	$17,500.00	$25,500.00
0004	$7,500.00	$7,500.00	$9,500.00	$24,500.00	$50,000.00
0005	$8,500.00	$8,500.00	$10,000.00	$27,000.00	$77,000.00
0006	$7,500.00	0.00	$3,000.00	$7,860.00	$84,860.00
0007	$7,500.00	$8,000.00	$8,000.00	$26,140.00	$111,000.00
W/ Release Retainage Indicator = 'Y'					
0008	$5,000.00	-$30,000.00	$11,000.00	Retainage = $16,000.00	Retainage = $127,000.00

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
				Release = $30,000.00	Release = $30,000.00
0009	-$47,000.00	0.00	$10,000.00	Retainage = $10,000.00 Release = $47,000.00	Retainage = $137,000.00 Release = $77,000.00
0010	0.00	0.00	-$60,000. 00	Retainage = 0.00 Release = $60,000.00	Retainage = $137,000.00 Release = $137,000.00
W/ Release Retainage Indicator = 'N'					
0008	$5,000.00	$5,000.00	$11,000.00	$21,000.00	Retainage = $132,000.00
0009	$3,000.00	0.00	$10,000.00	$13,000.00	Retainage = $145,000.00
0010	-$50,000.00	-$35,000.00	-$60,000.00	Retainage = $0.00 Release = $145,000.00	Retainage = $145,000.00 Release = $145,000.00

Table D-6. Example 1 Retainage Withheld

Estimate 1

Earnings: Contract	$10,000.00
Retainage Percent	10%
Target Retainage	$1,000.00
Prior Retainage	$0.00
Potential Retainage	$1,000.00

Earnings for Estimate 1

PROJ1	PROJ2	PROJ3	EST. TOT	CONT. TOT
$10,000.00	$0.00	$0.00	$10,000.00	$10,000.00

PROJ1	1,000.00 * (10,000.00/ 10,000.00)	= $1,000.00
Total Retained for Estimate		$1,000.00
Total Retained for Contract		$1,000.00

Estimate 2

Earnings: Contract	$80,000.00
Retainage Percent	10%
Target Retainage	$8,000.00
Prior Retainage	$1,000.00
Potential Retainage	$7,000.00

Earnings for Estimate 2

	PROJ1	PROJ2	PROJ3	TOTAL
Estimate	$50,000.00	$10,000.00	$10,000.00	$70,000.00
Accum.	$60,000.00	$10,000.00	$10,000.00	$80,000.00

PROJ1	6,000.00 * (50,000.00/ 60,000.00)	= $5,000.00
PROJ2	1,000.00 * (10,000.00/ 10,000.00)	= $1,000.00
PROJ3	1,000.00 * (10,000.00/ 10,000.00)	= $1,000.00
Total Retained for Estimate		$7,000.00
Total Retained for Contract		$8,000.00

Estimate 3

Earnings: Contract	$255,000.00
Retainage Percent	10%
Target Retainage	$25,500.00
Prior Retainage	$8,000.00
Potential Retainage	$17,500.00

Earnings for Estimate 3

	PROJ1	PROJ2	PROJ3	TOTAL
Estimate	$50,000.00	$50,000.00	$75,000.00	$175,000.00
Accum.	$110,000.00	$60,000.00	$85,000.00	$255,000.00

PROJ1	11,000.00 * (50,000.00/110,000.00)	= $5,000.00
PROJ2	6,000.00 * (50,000.00/60,000.00)	= $5,000.00
PROJ3	8,500.00 * (75,000.00/85,000.00)	= $7,500.00

Total Retained for Estimate $17,500.00

Total Retained for Contract $25,500.00

Estimate 4

Earnings: Contract	$500,000.00
Retainage Percent	10%
Target Retainage	$50,000.00
Prior Retainage	$25,500.00
Potential Retainage	$24,500.00

Earnings for Estimate 4

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	$75,000.00	$95,000.00	$245,000.00
Accum.	$185,000.00	$135,000.00	$180,000.00	$500,000.00

PROJ1   18,500.00 * (75,000.00/185,000.00)   = $7,500.00
PROJ2   13,500.00 * (75,000.00/75,000.00)   = $7,500.00
PROJ3   18,000.00 * (95,000.00/180,000.00)   = <u>$9,500.00</u>
Total Retained for Estimate $24,500.00
Total Retained for Contract $50,000.00

Estimate 5

Earnings: Contract	$770,000.00
Retainage Percent	10%
Target Retainage	$77,000.00
Prior Retainage	$50,000.00
Potential Retainage	$27,000.00

Earnings for Estimate 5

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$85,000.00	$85,000.00	$100,000.00	$270,000.00
Accum.	$270,000.00	$220,000.00	$280,000.00	$770,000.00

PROJ1	27,000.00 * (85,000.00/270,000.00)	=	$8,500.00
PROJ2	22,000.00 * (85,000.00/220,000.00)	=	$8,500.00
PROJ3	28,000.00 * (100,000.00/280,000.00)	=	<u>$10,000.00</u>
Total Retained for Estimate			$27,000.00
Total Retained for Contract			$77,000.00

Estimate 6

Earnings: Contract	$875,000.00
Retainage Percent	10%
Target Retainage	$87,500.00
Prior Retainage	$77,000.00
Potential Retainage	$10,500.00

Earnings for Estimate 6

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	0.00	$30,000.00	$105,000.00
Accum.	$345,000.00	$220,000.00	$310,000.00	$875,000.00

PROJ1	34,500.00 * (75,000.00/345,000.00)		= $7,500.00
PROJ2			

> 📄 **Note**: There is no estimate for the project during this period. The amount in place for the project still participates in the retainage computation and thus the potential retainage for this period is not realized.

PROJ3	31,000.00 * (30,000.00/310,000.00)		= <u>$3,000.00</u>
Total Retained for Estimate			$10,500.00
Total Retained for Contract			$87,500.00

Estimate 7

Earnings: Contract	$1,110,000.00
Retainage Percent	10%
Target Retainage	$111,000.00
Prior Retainage	$84,860.00
Potential Retainage	$26,140.00

Earnings for Estimate 7

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	$80,000.00	$80,000.00	$235,000.00
Accum.	$420,000.00	$300,000.00	$390,000.00	$1,110,000.00

PROJ1	42,000.00 * (75,000.00/420,000.00)	= $7,500.00
PROJ2	30,000.00 * (80,000.00/300,000.00)	= $8,000.00
PROJ3	39,000.00 * (80,000.00/390,000.00)	= $8,000.00
Total Retained for Estimate		$23,500.00
Total Retained for Contract		$111,000.00

Estimate 8

In this estimate PROJ2 has been completed.

If Release Retainage Indicator is set to Y for PROJ2

> 🗎 **Note**: Release Retainage Indicator is set to Y and PROJ2 has been completed. Therefore all retainage will be released for PROJ2 and the earnings for PROJ2 in this estimate are not included in calculating the retainage.

Earnings: Contract	$1,320,000.00
Earnings: Contract (eligible for Retainage)	1,320,000 - 350,000= $970,000
Retainage Percent	10%
Target Retainage	$97,000.00
Prior Retainage (Releasing 30,000 for PROJ2)	$111,000 - 30,000 = 81,000
Potential Retainage	$16,000.00

Earnings for Estimate 8

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$50,000.00	$50,000.00	$110,000.00	$210,000.00
Accum.	$470,000.00	$350,000.00	$500,000.00	$1,320,000.00

PROJ1	47,000.00 * (50,000.00/470,000.00)	= $5,000.00
PROJ2		= -$30,000.00
PROJ3	50,000.00 * (110,000.00/500,000.00)	= $11,000.00
Total Retained for Estimate		$16,000.00
Total Released for Estimate		$30,000.00
Total Retained for Contract		$127,000.00
Total Release for Contract		$30,000.00

If Release Retainage Indicator is set to N for PROJ2

Earnings: Contract	$1,320,000.00
Retainage Percent	10%
Target Retainage	$132,000.00
Prior Retainage	$111,000.00
Potential Retainage	$21,000.00

PROJ1	47,000.00 * (50,000.00/470,000.00)	= $5,000.00
PROJ2	35,000.00 * (50,000.00/350,000.00)	= $5,000.00
PROJ3	50,000.00* (110,000.00/500,000.00)	= $11,000.00
Total Retained for Estimate		$21,000.00
Total Retained for Contract		$132,000.00

Estimate 9

In this estimate PROJ1 has been completed.

If Release Retainage Indicator is set to Y for PROJ1

> 📄 **Note:** Release Retainage Indicator is set to Y and PROJ1 has been completed. Therefore all retainage will be released for PROJ1 and the earnings for PROJ1 in this estimate are not included in calculating the retainage.

Earnings: Contract	$1,450,000.00
Earnings: Contract (eligible for Retainage) (Subtracted PROJ1 &	1,320,000 - 350,000 - 500,000 = $600,000

PROJ2	
Retainage Percent	10%
Target Retainage	$60,000.00
Prior Retainage (Released 47,000 for PROJ1)	$97,000 - 47,000 = $50,000
Potential Retainage	$10,000.00

Earnings for Estimate 9

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$30,000.00	$0.00	$100,000.00	$130,000.00
Accum.	$500,000.00	$350,000.00	$600,000.00	$1,450,000.00

PROJ1		= -$47,000.00
PROJ3	60,000.00 * (100,000.00/600,000.00)	= $10,000.00
Total Retained for Estimate		$10,000.00
Total Released for Estimate		$47,000.00
Total Retained for Contract		$137,000.00
Total Release for Contract		$77,000.00

If Release Retainage Indicator is set to N for PROJ1

Earnings: Contract	$1,450,000.00
Retainage Percent	10%
Target Retainage	$145,000.00
Prior Retainage	$132,000.00
Potential Retainage	$13,000.00

PROJ1	50,000.00 * (30,000.00/500,000.00)	= $3,000.00
PROJ3	60,000.00 * (100,000.00/600,000.00)	= $10,000.00
Total Retained for Estimate		= $13,000.00
Total Retained for Contract		$145,000.00

Estimate 10

Since this is the final estimate the Release Retainage Indicator is automatically set to Y and all retainage are released. If Release Retainage Indicator is set to Y for the contract then the amount indicated below is released.

PROJ3	$60,000.00
Total Release for Estimate	$60,000.00
Total Retained for Contract	$137,000.00
Total Release for Contract	$137,000.00

If Release Retainage Indicator is set to N for the life of the contract then the amount below is released.

PROJ1	- $50,000.00
PROJ2	- $35,000.00
PROJ3	- $60,000.00
Total Retained for Estimate	$0.00
Total Released for Estimate	$145,000.00
Total Retained for Contract	$145,000.00
Total Released for Contract	$145,000.00

D.1.3 Example 2

Contract Retainage Based on Work in Place:(w/ Trigger Pct)

In this example, a contract retainage record is created with the following values:

Maximum Dollar Limit   = 0

Amount Percent Limit= 0 %

Retainage Percent Limit   = 10.00

Lump Sum Retainage = 0

Retainage Percent   = 10.00

Trigger Percent   = 50.00

Work Complete Basis Code   = WINP

Earnings

EST	PROJ1 ESTIMATE ACCUMULATE	PROJ2 ESTIMATE ACCUMULATE	PROJ3 ESTIMATE ACCUMULATE	TOTAL ESTIMATE ACCUMULATE
0001	$10,000.00 $10,000.00	0.00 0.00	0.00 0.00	$10,000.00 $10,000.00
0002	$50,000.00 $60,000.00	$10,000.00 $10,000.00	$10,000.00 $10,000.00	$70,000.00 $80,000.00
0003	$50,000.00 $110,000.00	$50,000.00 $60,000.00	$75,000.00 $85,000.00	$175,000.00 $255,000.00
0004	$75,000.00 $185,000.00	$75,000.00 $135,000.00	$95,000.00 $180,000.00	$245,000.00 $500,000.00
0005	$85,000.00 $270,000.00	$85,000.00 $220,000.00	$100,000.00 $280,000.00	$270,000.00 $770,000.00
0006	$75,000.00 $345,000.00	$0.00 $220,000.00	$30,000.00 $310,000.00	$105,000.00 $875,000.00
0007	$75,000.00 $420,000.00	$80,000.00 $300,000.00	$80,000.00 $390,000.00	$235,000.00 $1,110,000.00
0008	$50,000.00 $470,000.00	$50,000.00 $350,000.00	$110,000.00 $500,000.00	$210,000.00 $1,320,000.00
0009	$30,000.00 $500,000.00	$0.00 $350,000.00	$100,000.00 $600,000.00	$130,000.00 $1,450,000.00
0010	$0.00 $500,000.00	$0.00 $350,000.00	$50,000.00 $650,000.00	$50,000.00 $1,500,000.00

Table D-7. The Example 2 Earnings Table

Retainage Withheld

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
0001	0.00	0.00	0.00	0.00	0.00
0002	0.00	0.00	0.00	0.00	0.00
0003	0.00	0.00	0.00	0.00	0.00
0004	0.00	0.00	0.00	0.00	0.00
0005	$629.62	$629.62	$740.76	$2,000.00	$2,000.00
0006	$7,500.00	0.00	$3,000.00	$10,500.00	$12,500.00
0007	$7,500.00	$8,000.00	$8,000.00	$23,500.00	$36,000.00

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
W/ Release Retainage Indicator = 'Y'					
0008	$5,000.00	-$8,629.62	$11,000.00	Retainage = $16,000.00 Release = $8,629.62	Retainage = $52,000.00 Release = $8,629.62
0009	-$20,629.62	0.00	$10,000.00	Retainage = $10,000.00 Release = $20,629.62	Retainage = $62,000.00 Release = $29,259.24
0010	0.00	0.00	-$32,740.76	Retainage = $0.00 Release = $32,740.76	Retainage = $62,000.00 Release = $62,000.00
W/ Release Retainage Indicator = 'N'					
008	$5,000.00	$5,000.00	$11,000.00	Retainage =21,000.00 Release = $0.00	Retainage = $57,000.00 Release =$0.00
009	$3,000.00	$0.00	$10,000.00	Retainage = $13,000.00 Release = $0.00	Retainage = $70,000.00 Release = $0.00
010	-$23,629.62	-$13,629.62	-$32,740.76	Retainage = $0.00 Release =$70,000.00	Retainage = $70,000.00 Release = $70,000.00

Table D-8. Example 2 Retainage Withheld

Estimate 5

> 📄 **Note:** In this estimate since the earnings has reached 50 percent of the contract, the retainage calculation takes effect using the current retainage record. The retainage calculations are illustrated below:

Accumulated Earnings	$770,000.00
50% Threshold Amount	$750,000.00
Earnings eligible for Retainage	$20,000.00
Retainage Percent	10%
Target Retainage	$2,000.00
Prior Retainage	$0.00
Potential Retainage	$2,000.00

Earnings for Estimate 5

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$85,000.00	$85,000.00	$100,000.00	$270,000.00
Accum.	$270,000.00	$220,000.00	$280,000.00	$770,000.00

PROJ1	2.000.00 * (85,000.00/270,000.00)	= $629.62
PROJ2	2,000.00 * (85,000.00/270,000.00)	= $629.62
PROJ3	2,000.00 * (100,000.00/270,000.00)	= $740.76
Total Retained for Estimate		$2,000.00
Total Retained for Contract		$2,000.00

Estimate 6

Earnings : Estimate	$105,000.00
Retainage Percent	10%
Target Retainage	$10,500.00
Prior Retainage	$2,000.00
Potential Retainage	$12,500.00

Earnings for Estimate 6

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	0.00	$30,000.00	$105,000.00
Accum.	$345,000.00	$220,000.00	$310,000.00	$875,000.00

PROJ1	10,500.00 * (75,000.00/105,000.00)	= $7,500.00

PROJ2

Note: There is no estimate for the project during this period, since no earnings have been made by the project

PROJ3	10,500.00 * (30,000.00/105,000.00)	= $3,000.00
Total Retained for Estimate		$10,500.00
Total Retained for Contract		$12,500.00

Estimate 7

Earnings : Estimate	$235,000.00
Retainage Percent	10%

Target Retainage	$23,500.00
Prior Retainage	$12,500.00
Potential Retainage	$36,000.00

Earnings for Estimate 7

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	$80,000.00	$80,000.00	$235,000.00
Accum.	$420,000.00	$300,000.00	$390,000.00	$1,110,000.00

PROJ1	23,500.00 * (75,000.00/235,000.00)	= $7,500.00
PROJ2	23,500.00 * (80,000.00/235,000.00)	= $8,000.00
PROJ3	23,500.00 * (80,000.00/235,000.00)	= $8,000.00
Total Retained for Estimate		$23,500.00
Total Retained for Contract		$36,000.00

Estimate 8

During this estimate, PROJ2 is completed and the examples below illustrate the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ2

> 📄 **Note**: Release Retainage Indicator is set to Y and PROJ2 has been completed. Therefore all retainage will be released for PROJ2 and the earnings for PROJ2 in this estimate are not included in calculating the retainage.

Earnings: Estimate	$210,000.00
Earnings from PROJ1 and PROJ3 (PROJ2 earnings is not included since it has been completed)	$160,000.00
Retainage Percent	10%
Target Retainage	$16,000.00
Prior Retainage	$27,370.38
Potential Retainage	$43,370.38

Earnings for Estimate 8

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$50,000.00	$50,000.00	$110,000.00	$210,000.00
Accum.	$470,000.00	$350,000.00	$500,000.00	$1,320,000.00

PROJ1   16,000.00 * (50,000.00/160,000.00)   = $5,000.00

PROJ2   = -$8,629.62.

> 📄 **Note**: This amount is not included in the previous amount retained because this estimate releases the retainage. However, the amount of work performed participates in the calculation for the potential retainage.

PROJ3   16,000.00 * (110,000.00/160,000.00)   = $11,000.00

Total Retained for Estimate $16,000.00

Total Release for Estimate $8,629.62

Total Retained for Contract $43,370.38

Total Release for Contract $8,629.62

If Release Retainage Indicator is set to N for PROJ2

Earnings:Estimate	$210,000.00
Retainage Percent	10%
Target Retainage	$21,000.00
Prior Retainage	$36,000.00
Potential Retainage	$57,000.00

PROJ1   21,000.00 * (50,000.00/210,000.00)   = $5,000.00

PROJ2   21,000.00 * (50,000.00/210,000.00)   = $5,000.00.

PROJ3   21,000.00 * (110,000.00/210,000.00)   = <u>$11,000.00</u>

Total Retained for Estimate $21,000.00

Total Release for Estimate $0.00

Total Retained for Contract $57,000.00

Total Release for Contract $0.00

Estimate 9

During this estimate, PROJ1 is completed and the examples below illustrates the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ1

> 📄 **Note**: Release Retainage Indicator is set to Y and PROJ1 has been completed. Therefore all retainage will be released for PROJ1 and the earnings for PROJ1 in this estimate are not included in calculating the retainage.

Earnings for Estimate 9

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$30,000.00	$0.00	$100,000.00	$130,000.00
Accum.	$500,000.00	$350,000.00	$600,000.00	$1,450,000.00

Earnings: Estimate	$130,000.00
Earnings PROJ3 (PROJ1 earnings is not included since it has been completed)	$100,000.00
Retainage Percent	10%
Target Retainage	$10,000.00
Prior Retainage (PROJ1 Retainage)	43,370.38 - 20,629.62 =$22,740.76
Potential Retainage	$32,740.76

PROJ1		= -$20,629.62
PROJ3	10,000.00 * (10,000.00/10,000.00)	= $10,000.00
Total Retained for Estimate		$10,000.00
Total Release for Estimate		$20,629.62
Total Retained for Contract		$32,740.76
Total Release for Contract		$29,259.24

If Release Retainage Indicator is set to N for PROJ1

Earnings: Estimate	$130,000.00
Retainage Percent	10%
Target Retainage	$13,000.00
Prior Retainage	$57,000.00
Potential Retainage	$70,000.00

PROJ1	13,000.00 * (30,000.00/130,000.00)	= $3,000.00
PROJ3	13,000.00 * (100,000.00/130,000.00)	= $10,000.00
Total Retained for Estimate		$13,000.00
Total Release for Estimate		$0.00

Total Retained for Contract	$70,000.00
Total Release for Contract	$0.00

Estimate 10

Since this is the final estimate the Release Retainage Indicator is automatically set to Y and all retainage are released.

Earnings for Estimate 10

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$0.00	$0.00	$50,000.00	$50,000.00
Accum.	$500,000.00	$350,000.00	$650,000.00	$1,500,000.00

If Release Retainage Indicator is set to Y for the contract then the amount indicated below is released.

PROJ3	-$32,740.76
Total Retained for Estimate	$0.00
Total Release for Estimate	$32,740.76
Total Retained for Contract	$62,000.00
Total Release for Contract	$62,000.00

If Release Retainage Indicator is set to N for the contract then the amount indicated below is released.

Total Retained for Estimate	$0.00
Total Release for Estimate	$70,000.00
Total Retained for Contract	$70,000.00
Total Release for Contract	$70,000.00

D.1.4 Example 3

Contract Retainage Based on Work Per Period

In this example the following information is used:

>   Maximum Dollar Limit   = $150,000.00

>   Amount Percent Limit= 0 %

>   Lump Sum Retainage = 0

>   Retainage Percent   = 10.00

Work Complete Basis Code   = WPER

Trigger Percent   = 50.00

Trigger Percent Amount Base= BID

Using the retainage calculations from above, a retainage is applied to the contract when the fifth estimate is generated. The following table summarizes when, how much and how the retainage is distributed among the projects. There is no retainage released until each project is finished and the release of retainage indicator is set to Y.

Earnings

EST	PROJ1 ESTIMATE ACCUMULATE	PROJ2 ESTIMATE ACCUMULATE	PROJ3 ESTIMATE ACCUMULATE	TOTAL ESTIMATE ACCUMULATE
0001	$10,000.00 $10,000.00	0.00 0.00	0.00 0.00	$10,000.00 $10,000.00
0002	$50,000.00 $60,000.00	$10,000.00 $10,000.00	$10,000.00 $10,000.00	$70,000.00 $80,000.00
0003	$50,000.00 $110,000.00	$50,000.00 $60,000.00	$75,000.00 $85,000.00	$175,000.00 $255,000.00
0004	$75,000.00 $185,000.00	$75,000.00 $135,000.00	$95,000.00 $180,000.00	$245,000.00 $500,000.00
0005	$85,000.00 $270,000.00	$85,000.00 $220,000.00	$100,000.00 $280,000.00	$270,000.00 $770,000.00
0006	$75,000.00 $345,000.00	$0.00 $220,000.00	$30,000.00 $310,000.00	$105,000.00 $875,000.00
0007	$75,000.00 $420,000.00	$80,000.00 $300,000.00	$80,000.00 $390,000.00	$235,000.00 $1,110,000.00
0008	$50,000.00 $470,000.00	$50,000.00 $350,000.00	$110,000.00 $500,000.00	$210,000.00 $1,320,000.00
0009	$30,000.00 $500,000.00	$0.00 $350,000.00	$100,000.00 $600,000.00	$130,000.00 $1,450,000.00
0010	$0.00 $500,000.00	$0.00 $350,000.00	$50,000.00 $650,000.00	$50,000.00 $1,500,000.00

Table D-9. The Example 3 Earnings Table

Retainage Withheld

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
0001	0.00	0.00	0.00		0.00

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
0002	0.00	0.00	0.00		0.00
0003	0.00	0.00	0.00		0.00
0004	0.00	0.00	0.00		0.00
0005	$8,500.00	$8,500.00	$10,000.00	$27,000.00	$27,000.00
0006	$7,500.00	0.00	$3,000.00	$10,500.00	$37,500.00
0007	$7,500.00	$8,000.00	$8,000.00	$23,500.00	$61,000.00
W/ Release Retainage Indicator = 'Y'(BAMS Method)					
0008	$5,000.00	-$16,500.00	$11,000.00	Retainage = $16,000.00 Release = $16,500.00	Retainage = $77,000.00 Release = $16,500.00
0009	-$28,500.00	0.00	$10,000.00	Retainage = $10,000.00 Release = $28,500.00	Retainage = $87,000.00 Release = $45,000.00
0010	0.00	0.00	-$42,000.00	Retainage = 0.00 Release = $42,000.00	Retainage= $87,000.00 Release = $87,000.00
W/ Release Retainage Indicator = 'N'					
008	$5,000.00	$5,000.00	$11,000.00	Retainage = $21,000.00	Retainage = $82,000.00
009	$3,000.00	$0.00	$10,000.00	Retainage = $13,000.00	Retainage = $95,000.00
010	$0.00	$0.00	$0.00	Retainage = $0.00 Release = $95,000.00	Retainage = $0.00 Release = $95,000.00

Table D-10. The Example 3 Retainage Withheld

As it is shown from the above table, the contract passes the 50 percent complete threshold during the fifth estimate, in which case a retainage is applied to the contract. The algorithm for retainage distributes the retainage to the projects on the basis of how much the project participates in the earnings.

Estimate 5

Earnings: Estimate	$270,000.00
Retainage Percent	10%
Target Retainage	$27,000.00

Prior Retainage	$ 0.00
Potential Retainage	$27,000.00

Earnings for Estimate 5

	PROJ1	**PROJ2**	**PROJ3**	**TOT**
Estimate	$85,000.00	$85,000.00	$100,000.00	$270,000.00
Accum.	$270,000.00	$220,000.00	$280,000.00	$770,000.00

PROJ1	27,000.00 * (85,000.00/270,000.00)	= $8,500.00
PROJ2	27,000.00 * (85,000.00/270,000.00)	= $8,500.00
PROJ3	27,000.00 * (100,000.00/270,000.00)	= $10,000.00

Total Retained for Estimate $27,000.00
Total Retained for Contract $27,000.00

Estimate 6

Earnings: Estimate	$105,000.00
Retainage Percent	10%
Target Retainage	$10,500.00
Prior Retainage	$27,000.00
Potential Retainage	$37,500.00

Earnings for Estimate 6

	PROJ1	**PROJ2**	**PROJ3**	**TOT**
Estimate	$75,000.00	0.00	$30,000.00	$105,000.00
Accum.	$345,000.00	$220,000.00	$310,000.00	$875,000.00

PROJ1	10,500.00 * (75,000.00/105,000.00)	$7,500.00
PROJ2	10,500.00 * (0.00/105,000.00)	= $0.00
PROJ3	10,500.00 * (30,000.00/105,000.00)	= $3,000.00

Total Retained for Estimate $10,500.00
Total Retained for Contract $37,500.00

Estimate 7

Earnings: Estimate	$235,000.00
Retainage Percent	10%

Target Retainage	$23,500.00
Prior Retainage	$37,500.00
Potential Retainage	$61,000.00

Earnings for Estimate 7

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	$80,000.00	$80,000.00	$235,000.00
Accum.	$420,000.00	$300,000.00	$390,000.00	$1,110,000.00

PROJ1	23,500.00 * (75,000.00/235,000.00)	= $7,500.00
PROJ2	23,500.00 * (80,000.00/235,000.00)	= $8,000.00
PROJ3	23,500.00 * (80,000.00/235,000.00)	= $8,000.00
Total Retained for Estimate		$23,500.00
Total Retained for Contract		$61,000.00

Estimate 8

During this estimate, PROJ2 is completed and the examples below illustrates the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ2

> 🗎 **Note**: Release Retainage Indicator is set to Y and PROJ2 has been completed. Therefore all retainage will be released for PROJ2 and the earnings for PROJ2 in this estimate are not included in calculating the retainage.

Earnings: Estimate	$210,000.00
Earnings from PROJ1 and PROJ3 (PROJ2 earnings is not included since it has been completed)	$160,000.00
Retainage Percent	10%

Target Retainage	$16,000.00
Prior Retainage (PROJ2 retainage is not included in this amount)	$44,500.00

Potential Retainage $60,500.00

Earnings for Estimate 8

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$50,000.00	$50,000.00	$110,000.00	$210,000.00
Accum.	$470,000.00	$350,000.00	$500,000.00	$1,320,000.00

PROJ1   16,000.00 * (50,000.00/160,000.00)   =$5,000.00

PROJ2   -$16,500.00

PROJ3   16,000.00 * (110,000.00/160,000.00)   = $11,000.00

Total Retained for Estimate $16,000.00

Total Released for Estimate $16,500.00

Total Retained for Contract $77,000.00

Total Released for Contract $16,500.00

If Release Retainage Indicator is set to N for PROJ2

Earnings: Estimate	$210,000.00
Retainage Percent	10%
Target Retainage	$21,000.00
Prior Retainage	$61,000.00
Potential Retainage	$82,000.00

Earnings for Estimate 8

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$50,000.00	$50,000.00	$110,000.00	$210,000.00
Accum.	$470,000.00	$350,000.00	$500,000.00	$1,320,000.00

PROJ1   21,000.00 * (50,000.00/210,000.00)   = $5,000.00

PROJ2   21,000.00 * (50,000.00/210,000.00)   = $5,000.00

PROJ3   21,000.00 * (110,000.00/210,000.00)   = $11,000.00

Total Retained for Estimate $21,000.00

Total Retained for Contract $82,000.00

Estimate 9

During this estimate, PROJ1 is completed and the examples below illustrates the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ1

> 📄 **Note**: Release Retainage Indicator is set to Y and PROJ1 has been completed. Therefore all retainage will be released for PROJ1 and the earnings for PROJ1 in this estimate are not included in calculating the retainage

If Release Retainage Indicator is set to Y for PROJ1

Earnings: Estimate	$130,000.00
Earnings PROJ3	$100,000.00
(PROJ1 earnings is not included since it has been completed)	
Retainage Percent	10%
Target Retainage	$10,000.00
Prior Retainage	PROJ1 retainage is not included (77,000 - 16,500 - 28,500) = $32,000.00
Potential Retainage	$42,000.00

Earnings for Estimate 9

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$30,000.00	$0.00	$100,000.00	$130,000.00
Accum.	$500,000.00	$350,000.00	$600,000.00	$1,450,000.00

PROJ1		-$28,500.00
PROJ3	10,000.00 * (100,000.00/100,000.00)	$10,000.00
Total Retained for Estimate		$10,000.00
Total Retained for Contract		$28,500.00
Total Retained for Contract		$87,000.00
Total Released for Contract		$45,000.00

If Release Retainage Indicator is set to N for PROJ1

Earnings: Estimate	$130,000.00
Retainage Percent	10%

Target Retainage	$13,000.00
Prior Retainage	$82,000.00
Potential Retainage	$95,000.00

Earnings for Estimate 9

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$30,000.00	$0.00	$100,000.00	$130,000.00
Accum.	$500,000.00	$350,000.00	$600,000.00	$1,450,000.00

PROJ1	13,000.00 * (30,000.00/130,000.00)	= $3,000.00
PROJ3	13,000.00 * (100,000.00/130,000.00)	= $10,000.00
Total Retained for Estimate		$13,000.00
Total Retained for Contract		$95,000.00

Estimate 10

Since this is the final estimate the Release Retainage Indicator is automatically set to Y and all retainage are release.

If Release Retainage Indicator is set to Y for the contract then the amount indicated below is released.

Earnings: Estimate	$50,000.00
Retainage Percent	10%
Target Retainage	$5,000.00
Prior Retainage	Not Applicable
Potential Retainage	Not Applicable

Earnings for Estimate 10

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$0.00	$0.00	$50,000.00	$50,000.00
Accum.	$500,000.00	$350,000.00	$650,000.00	$1,500,000.00

PROJ3	-$42,000.00
Total Released for Estimate	$42,000.00
Total Retained for Contract	$87,000.00
Total Released for Contract	$87,000.00

If Release Retainage Indicator is set to N for the contract then the amount indicated below is released.

Earnings: Estimate	$50,000.00
Retainage Percent	10%
Target Retainage	$5,000.00
Prior Retainage	Not Applicable
Potential Retainage	Not Applicable

Earnings for Estimate 10

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$0.00	$0.00	$50,000.00	$50,000.00
Accum.	$500,000.00	$350,000.00	$650,000.00	$1,500,000.00

PROJ1	-$31,500.00
PROJ2	-$21,500.00
PROJ3	-$42,000.00
Total Released for Estimate	$95,000.00
Total Retained for Contract	$0.00

D.1.5 Example 4

Contract Retainage Based on Work Per Period

This example uses the same basic scenario as in Example 3. However, this time a new contract retainage record is added to the Contract Retainage file. This new record contains an effective date that coincides with the seventh estimate. It also places a limit of $50,000.00 on the amount that can be retained for the contract. The table below illustrates the effect of this new record.

Earnings

EST	PROJ1 ESTIMATE ACCUMULATE	PROJ2 ESTIMATE ACCUMULATE	PROJ3 ESTIMATE ACCUMULATE	TOTAL ESTIMATE ACCUMULATE
0001	$10,000.00 $10,000.00	0.00 0.00	0.00 0.00	$10,000.00 $10,000.00
0002	$50,000.00 $60,000.00	$10,000.00 $10,000.00	$10,000.00 $10,000.00	$70,000.00 $80,000.00
0003	$50,000.00	$50,000.00	$75,000.00	$175,000.00

EST	PROJ1 ESTIMATE ACCUMULATE	PROJ2 ESTIMATE ACCUMULATE	PROJ3 ESTIMATE ACCUMULATE	TOTAL ESTIMATE ACCUMULATE
	$110,000.00	$60,000.00	$85,000.00	$255,000.00
0004	$75,000.00 $185,000.00	$75,000.00 $135,000.00	$95,000.00 $180,000.00	$245,000.00 $500,000.00
0005	$85,000.00 $270,000.00	$85,000.00 $220,000.00	$100,000.00 $280,000.00	$270,000.00 $770,000.00
0006	$75,000.00 $345,000.00	$0.00 $220,000.00	$30,000.00 $310,000.00	$105,000.00 $875,000.00
0007	$75,000.00 $420,000.00	$80,000.00 $300,000.00	$80,000.00 $390,000.00	$235,000.00 $1,110,000.00
0008	$50,000.00 $470,000.00	$50,000.00 $350,000.00	$110,000.00 $500,000.00	$210,000.00 $1,320,000.00
0009	$30,000.00 $500,000.00	$0.00 $350,000.00	$100,000.00 $600,000.00	$130,000.00 $1,450,000.00
0010	$0.00 $500,000.00	$0.00 $350,000.00	$50,000.00 $650,000.00	$50,000.00 $1,500,000.00

Table D-11. The Example 4 Earnings Table

Retainage Withheld

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
0001	0.00	0.00	0.00		0.00
0002	0.00	0.00	0.00		0.00
0003	0.00	0.00	0.00		0.00
0004	0.00	0.00	0.00		0.00
0005	$8,500.00	$8,500.00	$10,000.00		$27,000.00
0006	$7,500.00	0.00	$3,000.00		$37,500.00
0007	$3,989.36	$4,255.31	$4,255.33		$50,000.00
W/ Release Retainage Indicator = 'Y'(BAMS Method)					
0008	$3,986.03	-$12,755.31	$8,769.28	Retainage = $12,755.31 Release = $12,755.31	Retainage = $62,755.31 Release = $12,755.31
0009	-$23,975.39	0.00	$10,000.00	Retainage = $10,000.00 Release = $23,975.39	Retainage = $72,755.31 Release = $36,730.70
0010	0.00	0.00	-$36,024.61	Retainage= 0.00 Release =	Retainage= $72,755.31 Release =

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
				$36,024.61	$72,755.31
W/ Release Retainage Indicator = 'N'					
008	$0.00	$0.00	$0.00	Retainage = $0.00	Retainage = $50,000.00
009	$0.00	$0.00	$0.00	Retainage = $0.00	Retainage = $50,000.00
010	-$19,989.36	-$12,755.31	-$27,255.33	Retainage = $0.00 Release = $50,000.00	Retainage = $50,000.00 Release = $50,000.00

Table D-12. The Example 4 Retainage Withheld

In this example, the new Contract Retainage record resulted in less retainage being withheld during and after the seventh estimate.

Estimate 5

Earnings: Estimate	$270,000.00
Retainage Percent	10%
Target Retainage	$27,000.00
Prior Retainage	0.00
Potential Retainage	$27,000.00

Earnings for Estimate 5

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$85,000.00	$85,000.00	$100,000.00	$270,000.00
Accum.	$270,000.00	$220,000.00	$280,000.00	$770,000.00

PROJ1	27,000.00 * (85,000.00/270,000.00)	= $8,500.00
PROJ2	27,000.00 * (85,000.00/270,000.00)	= $8,500.00
PROJ3	27,000.00 * (100,000.00/270,000.00)	= $10,000.00
Total Retained for Estimate		$27,000.00
Total Retained for Contract		$27,000.00

Estimate 6

Earnings: Estimate	$105,000.00
Retainage Percent	10%
Target Retainage	$10,500.00
Prior Retainage	$27,000.00
Potential Retainage	$37,500.00

Earnings for Estimate 6

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	0.00	$30,000.00	$105,000.00
Accum.	$345,000.00	$220,000.00	$310,000.00	$875,000.00

PROJ1   10,500.00 * (75,000.00/105,000.00)   = $7,500.00

PROJ2   10,500.00 * (0.00/105,000.00)   =$0.00

PROJ3   10,500.00 * (30,000.00/105,000.00)   = $3,000.00

Total Retained for Estimate $10,500.00

Total Retained for Contract $37,500.00

Estimate 7

▤   **Note**: A new retainage record is added to the contract, which results in a new limit of $50,000.00 as the maximum amount to be retained.

Basis Amount: Contract	$235,000.00
Retainage Percent	10%
Target Retainage	$23,500.00
Prior Retainage	$37,500.00
Potential Retainage	$61,000.00

▤   **Note**: Because this potential retainage is greater than the maximum amount that can be retained, the difference between the amount that has been retained before this estimate and the maximum retainage replaces the target retainage for this period.

New Target Retainage	$12,500.00
Prior Retainage	$37,500.00
New Potential Retainage	$50,000.00

Earnings for Estimate 7

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	$80,000.00	$80,000.00	$235,000.00
Accum.	$420,000.00	$300,000.00	$390,000.00	$1,110,000.00

PROJ1   12,500.00 * (75,000.00/235,000.00)   = $3,989.36

PROJ2   12,500.00 * (80,000.00/235,000.00)   = $4,255.31

PROJ3   12,500.00 * (80,000.00/235,000.00)   = $4,255.33

Total Retained for Estimate $12,500.00

Total Retained for Contract $50,000.00

Estimate 8

During this estimate, PROJ2 is completed and the examples below illustrates the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ2

> 📄 **Note**: Release Retainage Indicator is set to Y and PROJ2 has been completed.
> Therefore all retainage will be released for PROJ2 and the earnings for PROJ2 in this
> estimate are not included in calculating the retainage.

Earnings: Estimate	$210,000.00
Earnings from PROJ1 and PROJ3 (PROJ2 earnings is not included since it has been completed)	$160,000.00

Retainage Percent	10%
Target Retainage	$16,000.00
Prior Retainage PROJ2 retainage is not included	(50,000.00 - 12,755.31) =$37,244.69
Potential Retainage	$53,244.69

Because this potential retainage is greater than the maximum amount that can be retained, the difference between the amount that has been retained before this estimate and the maximum retainage replaces the target retainage for this period.

New Target Retainage	$12,755.31
Prior Retainage	$37,244.69
New Potential Retainage	$50,000.00

Earnings for Estimate 8

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$50,000.00	$50,000.00	$110,000.00	$210,000.00
Accum.	$470,000.00	$350,000.00	$500,000.00	$1,320,000.00

PROJ1	12,755.31 * (50,000.00/160,000.00)	= $3,986.03
PROJ2		-$12,755.31
PROJ3	12,755.31 * (110,000.00/160,000.00)	= $8,769.28
Total Retained for Estimate		$12,755.31
Total Release for Estimate		$12,755.31

Total Retained for Contract $62,755.31

Total Released for Contract $12,755.31

If Release Retainage Indicator is set to N for Proj 2, no retainage is applied since the maximum dollar limit has been reached.

Estimate 9

During this estimate, PROJ1 is completed and the examples below illustrates the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ1

> 📄 **Note**: Release Retainage Indicator is set to Y and PROJ1 has been completed. Therefore all retainage will be released for PROJ1 and the earnings for PROJ1 in this estimate are not included in calculating the retainage.

Earnings: Estimate	$130,000.00
Earnings PROJ3 (PROJ1 earnings is not included since it has been completed)	$100,000.00
Retainage Percent	10%
Target Retainage	$10,000.00
Prior Retainage PROJ1 retainage is not included	(50,000.00 - 23,975.39) = $26,024.61
Potential Retainage	$36,024.61

Earnings for Estimate 9

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$30,000.00	$0.00	$100,000.00	$130,000.00

Accum.	$500,000.00	$350,000.00	$600,000.00	$1,450,000.00

PROJ1		= -$23,975.39
PROJ3	10,000.00 * (100,000.00/100,000.00)	= $10,000.00
Total Retained for Estimate		= $10,000.00
Total Release for Estimate		= $23,975.39
Total Retained for Contract		$72,755.70
Total Released for Contract		$36,730.70

If Release Retainage Indicator is set to N for Proj 2, no retainage is applied since the maximum dollar limit has been reached.

Estimate 10

Since this is the final estimate the Release Retainage Indicator is automatically set to Y and all retainage are released.

If Release Retainage Indicator is set to Y for the contract then the amount indicated below is released.

Earnings: Estimate	$50,000.00
Retainage Percent	10%
Target Retainage	$5,000.00
Prior Retainage	Not Applicable
Potential Retainage	Not Applicable

Earnings for Estimate 10

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$0.00	$0.00	$50,000.00	$50,000.00

Accum.	$500,000.00	$350,000.00	$650,000.00	$1,500,000.00

PROJ3	-$36,024.61
Total Released for Estimate	$36,024.61
Total Retained for Contract	$72,755.31
Total Released for Contract	$72,755.31

If Release Retainage Indicator is set to N for the contract then the amount indicated below is released.

Total Retained for Contract	$0.00
Total Released for Contract	$50,000.00

Example 5

Contract Retainage Based on Work Per Period

In this example, when the 50 percent of work is completed for the contract the retainage percent is reduced from 10 percent to 5 percent and a Maximum Retainage Amount of $50,000.00. The following values below shows the data used for each basis code:

	WPER	WPER
Maximum Dollar Limit	= 0	$40,000.00
Amount Percent Limit	= 0	0
Retainage Percent Limit	= 10.00	0
Lump Sum Retainage	= 0	0
Retainage Percent	= 10.00	5.00
Trigger Percent	= 0	50.00
Trigger Percent Amount Base	CURRENT	CURRENT

The following tables give an overview of how retainage is withheld and released for the example contract with these options.

Earnings

EST	PROJ1 ESTIMATE ACCUMULATE	PROJ2 ESTIMATE ACCUMULATE	PROJ3 ESTIMATE ACCUMULATE	TOTAL ESTIMATE ACCUMULATE
0001	$10,000.00 $10,000.00	0.00 0.00	0.00 0.00	$10,000.00 $10,000.00
0002	$50,000.00 $60,000.00	$10,000.00 $10,000.00	$10,000.00 $10,000.00	$70,000.00 $80,000.00
0003	$50,000.00 $110,000.00	$50,000.00 $60,000.00	$75,000.00 $85,000.00	$175,000.00 $255,000.00
0004	$75,000.00 $185,000.00	$75,000.00 $135,000.00	$95,000.00 $180,000.00	$245,000.00 $500,000.00
0005	$85,000.00 $270,000.00	$85,000.00 $220,000.00	$100,000.00 $280,000.00	$270,000.00 $770,000.00
0006	$75,000.00 $345,000.00	$0.00 $220,000.00	$30,000.00 $310,000.00	$105,000.00 $875,000.00
0007	$75,000.00 $420,000.00	$80,000.00 $300,000.00	$80,000.00 $390,000.00	$235,000.00 $1,110,000.00
0008	$50,000.00 $470,000.00	$50,000.00 $350,000.00	$110,000.00 $500,000.00	$210,000.00 $1,320,000.00
0009	$30,000.00 $500,000.00	$0.00 $350,000.00	$100,000.00 $600,000.00	$130,000.00 $1,450,000.00
0010	**$0.00** **$500,000.00**	**$0.00** **$350,000.00**	**$50,000.00** **$650,000.00**	**$50,000.00** **$1,500,000.00**

Table D-13. The Example 5 Earnings Table

Retainage Withheld

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
0001	$1,000.00	0.00	0.00	$1,000.00	$1,000.00
0002	$5,000.00	$1,000.00	$1,000.00	$7,000.00	$8,000.00
0003	$5,000.00	$5,000.00	$7,500.00	$17,500.00	$25,500.00
0004	$7,500.00	$7,500.00	$9,500.00	$24,500.00	$50,000.00
0005	-$3,148.14	-$3,148.14	-$3,703.72	Retainage = $0.00	Retainage = $50,000.00

EST	PROJ1	PROJ2	PROJ3	EST TOT	CONT TOT
				Release = $10,000.00	Release = $10,000.00
0006	$0.00	0.00	$0.00	Retainage = $0.00 Release = $0.00	Retainage = $50,000.00 Release = $10,000.00
0007	$0.00	$0.00	$0.00	Retainage = $0.00 Release = $0.00	Retainage = $50,000.00 Release = $10,000.00
W/ Release Retainage Indicator = 'Y'					
0008	$2,500.00	-$10,351.86	$5,500.00	Retainage = $8,000.00 Release = $10,351.86	Retainage = $58,000.00 Release = $20,351.86
0009	-$17,851.86	0.00	$5,000.00	Retainage = $5,000.00 Release = $17,851.86	Retainage = $63,000.00 Release = $38,203.72
0010	0.00	0.00	-$24,796.28	Retainage = 0.00 Release = $24,796.28	Retainage = $63,000.00 Release = $63,000.00
W/ Release Retainage Indicator = 'N'					
0008	$0.00	$0.00	$0.00	Retainage = $0.00 Release = $0.00	Retainage = $50,000.00 Release = $10,000.00
0009	$0.00	0.00	$0.00	Retainage = $0.00 Release = $0.00	Retainage = $50,000.00 Release = $10,000.00
0010	-$15,351.86	-$10,351.86	-$14,296.28	Retainage = $0.00 Release = $40,000.00	Retainage = $50,000.00 Release = $50,000.00

Table D-14. Example 5 Retainage Withheld

Estimate 1

Earnings: Estimate	$10,000.00
Retainage Percent	10%

Target Retainage	$1,000.00
Prior Retainage	$0.00
Potential Retainage	$1,000.00

Earnings for Estimate 1

PROJ1	PROJ2	PROJ3	EST TOT	CONT. TOT
$10,000.00	$0.00	$0.00	$10,000.00	$10,000.00

PROJ1	1,000.00 * (10,000.00/ 10,000.00)	= $1,000.00
Total Retained for Estimate		$1,000.00
Total Retained for Contract		$1,000.00

Estimate 2

Earnings: Estimate	$70,000.00
Retainage Percent	10%
Target Retainage	$7,000.00
Prior Retainage	$1,000.00
Potential Retainage	$8,000.00

Earnings for Estimate 2

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$50,000.00	$10,000.00	$10,000.00	$70,000.00
Accum.	$60,000.00	$10,000.00	$10,000.00	$80,000.00

PROJ1	7,000.00 * (50,000.00/ 70,000.00)	= $5,000.00
PROJ2	7,000.00 * (10,000.00/ 70,000.00)	= $1,000.00
PROJ3	7,000.00 * (10,000.00/ 70,000.00)	= $1,000.00
Total Retained for Estimate		$7,000.00
Total Retained for Contract		$8,000.00

Estimate 3

Earnings: Estimate	$175,000.00
Retainage Percent	10%

Target Retainage	$17,500.00
Prior Retainage	$8,000.00
Potential Retainage	$25,500.00

Earnings for Estimate 3

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$50,000.00	$50,000.00	$75,000.00	$175,000.00
Accum.	$110,000.00	$60,000.00	$85,000.00	$255,000.00

PROJ1	17,500.00 * (50,000.00/175,000.00)	= $5,000.00
PROJ2	17,500.00 * (50,000.00/175,000.00)	= $5,000.00
PROJ3	17,500.00 * (75,000.00/175,000.00)	= $7,500.00
Total Retained for Estimate		$17,500.00
Total Retained for Contract		$25,500.00

Estimate 4

Earnings: Estimate	$245,000.00
Retainage Percent	10%
Target Retainage	$24,500.00
Prior Retainage	$25,500.00
Potential Retainage	$50,000.00

Earnings for Estimate 4

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	$75,000.00	$95,000.00	$245,000.00
Accum.	$185,000.00	$135,000.00	$180,000.00	$500,000.00
PROJ1	24,500.00 * (75,000.00/245,000.00)		= $7,500.00
PROJ2	24,500.00 * (75,000.00/245,000.00)		= $7,500.00
PROJ3	24,500.00 * (90,000.00/245,000.00)		= $9,500.00
Total Retained for Estimate			$24,500.00
Total Retained for Contract			$50,000.00

Estimate 5

▤ **Note**: The new Contract Retainage (basis code = WPER) record will take effect when this phase of the contract is processed. This new record now withholds 5 percent of the contract and implement a $40,000.00 retainage limit. This change is incorporated immediately and retainage is released for this estimate.

Earnings: Estimate	$270,000.00
Retainage Percent	5%
Target Retainage	$13,500.00
Prior Retainage	$50,000.00
Potential Retainage	$63,500.00

Since there is a maximum retainage limit of $40,000.00 in effect during this estimate and the retainage assessed prior to this estimate is $50,000.00, a $10,000.00 of retainage is released during this estimate and distributed to all the projects.

Earnings for Estimate 5

	PROJ1	**PROJ2**	**PROJ3**	**TOT**
Estimate	$85,000.00	$85,000.00	$100,000.00	$270,000.00
Accum.	$270,000.00	$220,000.00	$280,000.00	$770,000.00

PROJ1	-10,000.00 * (85,000.00/270,000.00)	= -$3,148.14
PROJ2	-10,000.00 * (85,000.00/270,000.00)	= -$3,148.14
PROJ3	-10,000.00 * (100,000.00/270,000.00)	= -$3,703.72
Total Retained for Estimate		$0.0
Total Released for Estimate		$10,000.00
Total Retained for Contract		$50,000.00
Total Released for Contract		$10,000.00

Estimate 6

Earnings: Estimate	$105,000.00
Retainage Percent	5%
Target Retainage	$5,250.00
Prior Retainage	$40,000.00
Potential Retainage	$45,000.00

Earnings for Estimate 6

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	0.00	$30,000.00	$105,000.00
Accum.	$345,000.00	$220,000.00	$310,000.00	$875,000.00

Since the maximum retainage limit of $40,000.00 has been reached from the previous estimate, no retainage is assessed during this estimate.

Total Retained for Estimate	$0.00
Total Released for Estimate	$0.00
Total Retained for Contract	$50,000.00
Total Released for Contract	$10,000.00

Estimate 7

Basis Amount: Contract	$235,000.00
Retainage Percent	5%
Target Retainage	$11,750.00
Prior Retainage	$40,000.00
Potential Retainage	$51,750.00

Earnings for Estimate 7

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$75,000.00	$80,000.00	$80,000.00	$235,000.00
Accum.	$420,000.00	$300,000.00	$390,000.00	$1,110,000.00

Since the maximum retainage limit of $40,000.00 has been reached from the previous estimate, no retainage is assessed during this estimate.

Total Retained for Estimate	$0.00
Total Released for Estimate	$0.00
Total Retained for Contract	$50,000.00
Total Released for Contract	$10,000.00

Estimate 8

During this estimate, PROJ2 is completed and the examples below illustrate the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ2

> 📄 **Note:** Release Retainage Indicator is set to Y and PROJ2 has been completed. Therefore all retainage will be released for PROJ2 and the earnings for PROJ2 in this estimate are not included in calculating the retainage

Earnings: Estimate	$210,000.00
Earnings from PROJ1 and PROJ3 (PROJ2 earnings is not included since it has been completed)	$160,000.00
Retainage Percent	5%
Target Retainage	$8,000.00
Prior Retainage PROJ2 retainage is not included	(40,000.00 - 10,351.86) =$29,648.14
Potential Retainage	$37,648.14

Earnings for Estimate 8

	PROJ1	**PROJ2**	**PROJ3**	**TOT**
Estimate	$50,000.00	$50,000.00	$110,000.00	$210,000.00
Accum.	$470,000.00	$350,000.00	$500,000.00	$1,320,000.00

PROJ1	8,000.00 * (50,000.00/160,000.00)	= $2,500.00
PROJ2		-$10,351.86
PROJ3	8,000.00 * (110,000.00/160,000.00)	= $5,500.00
Total Retained for Estimate		$8,000.00
Total Released for Estimate		$10,351.86
Total Retained for Contract		$58,000.00
Total Released for Contract	($10,000.00 + $10,351.86) =	$20,351.86

If Release Retainage Indicator is set to N for PROJ2, since the maximum retainage limit of $40,000.00 has been reached from the previous estimate, no retainage will be assessed during this estimate.

Total Retained for Estimate	$0.00

Total Released for Estimate	$0.00
Total Retained for Contract	$40,000.00
Total Released for Contract	$10,000.00

Estimate 9

During this estimate, PROJ1 is completed and the examples below illustrate the scenario of having the Release Retainage Indicator set to Y and N.

If Release Retainage Indicator is set to Y for PROJ1

> 🖹 **Note:** Release Retainage Indicator is set to Y and PROJ1 has been completed. Therefore all retainage will be released for PROJ1 and the earnings for PROJ1 in this estimate are not included in calculating the retainage.

Earnings: Estimate	$130,000.00
Earnings from PROJ1 and PROJ3 (PROJ1 earnings is not included since it has been completed)	$100,000.00
Retainage Percent	5%
Target Retainage	$5,000.00
Prior Retainage PROJ1 retainage is not included	(37,648.14 - 17,851.86) = $19,796.28
Potential Retainage	$24,796.28

Earnings for Estimate 9

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$30,000.00	$0.00	$100,000.00	$130,000.00
Accum.	$500,000.00	$350,000.00	$600,000.00	$1,450,000.00

PROJ1		-$17,851.86
PROJ3	5,000.00 * (100,000.00/100,000.00)	=$5,000.00
Total Retained for Estimate		$5,000.00
Total Released for Estimate		$17,851.86
Total Retained for Contract		$63,000.00
Total Released for Contract	($10,000.00 + $10,351.86 + 17,851.86) =	$38,203.72

If Release Retainage Indicator is set to N for PROJ2, since the maximum retainage limit of $40,000.00 has been reached from the previous estimate, no retainage is assessed during this estimate.

Total Retained for Estimate	$0.00
Total Released for Estimate	$0.00
Total Retained for Contract	$40,000.00
Total Released for Contract	$10,000.00

Estimate 10

Since this is the final estimate the Release Retainage Indicator is automatically set to Y and all retainage are released.

Earnings for Estimate 10

	PROJ1	PROJ2	PROJ3	TOT
Estimate	$0.00	$0.00	$50,000.00	$50,000.00
Accum.	$500,000.00	$350,000.00	$650,000.00	$1,500,000.00

If Release Retainage Indicator is set to Y for the contract then the amount indicated below is released.

PROJ3		-$24,796.28
Total Retained for Estimate		$0.00
Total Released for Estimate		$24,796.28
Total Retained for Contract		$63,000.00
Total Released for Contract	($10,000.00 + $10,351.86 + 17,851.86 + 24,796.28) =	$63,000.00

If Release Retainage Indicator is set to N for the contract then the amount indicated below is released.

Total Retained for Estimate		$0.00
Total Release for Estimate		$40,000.00
Total Retained for Contract		$50,000.00
Total Released for Contract	(10,000 + 40,000) =	$50,000.00

D.2 Application of Retainage

The following process below is executed after the retainage against the item earnings is calculated for the estimate.

Term	Definition
Securities in lieu of retainage	To apply securities in lieu of retainage, the Allowed Securities indicator must be enabled at contract setup. Once the indicator is enabled, SiteManager applies the retainage amount against the available security in lieu of retainage. All of the retainage amount is applied only if the available security is equal to or greater than the retainage amount, otherwise the amount of retainage applied is equal to the amount of available security.
Max Escrow Amount	If a retainage amount still exists after applying securities in lieu of retainage and an escrow agent is associated with the contract, SiteManager transfers (through the financial sequential file) retainage amount using the following logic: If retain amount is equal to or less than the available escrow amount then apply all retain amount to escrow If retain amount is greater than the available escrow amount then apply retain amount equal to the available escrow amount
Net Retainage(Cash Retainage)	The amount remaining after securities in lieu of retainage and escrow has been applied to the calculated retainage against the earnings for the estimate. This is the cash amount being retained by the state against the contract.

Table D-15. The Definitions Table

D.2.1 Application of Retainage Examples

The process is demonstrated through an example for clarity. The following assumptions are used for the examples.

Assumptions :

- Allow Security indicator is enabled

- An escrow agent is associated with the contract.

Example 1

Estimate 1

Available Security(e.g., stocks, bonds)	= $10,000
Maximum Escrow	= $1,000
Retainage(before applying security and escrow)	= $11,000

From the data above, the following process is applied to the Retainage amount

Retainage	= $11,000
Less:	
Security in lieu of retainage	= $10,000
Escrow Amount	= $1,000
Net Retainage	= $0
Available Security	= $0
Available Escrow Amount	= $0

Example 2

Estimate 1

Available Security(e.g., stocks, bonds)	= $10,000
Maximum Escrow	= $1,000
Retainage(before applying security and escrow)	= $15,000

From the data above, the following process is applied to the Retainage amount.

Retainage	= $15,000
Less:	
Security in lieu of retainage	= $10,000
Escrow Amount	= $1,000
Net Retainage	= $4,000
Available Security	= $0
Available Escrow Amount	= $0

Example 3

Estimate 1

Available Security(e.g., stocks, bonds)	= $10,000
Maximum Escrow	= $1,000
Retainage(before applying security and escrow)	= $5,000

From the data above, the following process is applied to the Retainage amount.

Retainage	= $5,000
Less:	
Security in lieu of retainage	= $5,000
Escrow Amount	
Net Retainage	= $0
Available Security	= $5,000
Available Escrow Amount	= $1,000

Example 4

Estimate 1

Available Security(e.g., stocks, bonds)	= $10,000
Maximum Escrow	= $1,000
Retainage(before applying security and escrow)	= $10,500

From the data above, the following process is applied to the Retainage amount.

Retainage	= $10,500
Less:	
Security in lieu of retainage	= $10,000
Escrow Amount	= $500
Net Retainage	= $0
Available Security	= $0
Available Escrow Amount	= $500

Appendix E: Materials Sampling and Testing Calculations

The purpose of this Appendix is to provide examples of Materials System Operational Parameters settings and their effects on how the sampling and testing requirements are met.

SiteManager's Materials Management functionality allows transportation agencies usability and flexibly in defining their contracts' material testing requirements. Sampling and Testing Requirements are satisfied when a sample and test record is entered in the Sample Information window and associated with a contract item. The flexibility of Materials Management is implemented through the use of System Operational Parameters, as listed below:

Use Satisfied Represented Material Qty in Discrepancies Process	Sets system to first attempt to satisfy sampling and testing requirements with sufficient Satisfied Represented Material Quantity before counting number of samples that satisfy requirements. Options include Yes (Y) and No (N). Satisfied Represented Material Quantity is the sum of user-entered represented quantity in the Contract folder tab of sample records for a contract line item on samples that satisfy requirements.
Material Discrepancy Accept Sample By	Designates how samples will be accepted during the materials Sampling and Testing requirements calculation process, requiring Authorized Date A, Acceptable Sample Status (also defined in System Operational Parameters) S, or both B.
Material Discrepancy Accept Sample Status 1-3	The value entered in each of these three parameters is the status of the Sample record the system will use to accept a sample to count towards the sample and testing requirements.
Sampling & Testing Req Criteria Priority 1-4	These parameters are used to prioritize the evaluation criteria used to determine the best fit for a test that meets more than one requirement. A test may only satisfy one requirement for a contract item. Using these four parameters, an agency ranks by importance the values entered on a Sample for Producer/Supplier (PS), Test Method (TM), Sample Type (ST) or Acceptance Method (AM) for the Material Sampling and Testing Requirements process. If any of the values for PS, ST, AM, or TM are left blank in the Contract Sampling and Testing Requirements window for a material, then any value specified in the Sample Information window for that material will be accepted.
Material Discrepancy Payment Calculation	Determines whether material discrepancy line item adjustments are calculated during the estimate process for items whose component materials do not meet sampling and testing requirements. The parameter must be set to Y in order for the calculations to occur. Plus, adjustments are only calculated for items with the Material Discrepancy Adjustment check box selected in the Contract Items window. If set to Y, the system automatically calculates a line item adjustment if a material sample discrepancy exists for an item and the Material Discrepancy Adjustment flag is active for the item.
Material Discrepancy Payment Based on Satisfied Rep Qty	Allows the use of both the specific contract testing requirement and satisfied represented quantity to be evaluated when determining material discrepancies during the estimate generation process. In addition, if all requirements are not met, then a material line item adjustment is to be generated during the estimate process. Also, if multiple requirements are not met, then a material line item adjustment will be made for the least satisfied requirement
Contract Sampling & Testing Req Maximum Rate for Counts	Determines when the Material Discrepancy process will use Sample Counts or Satisfied Represented Qty for Material Discrepancy calculations if the system

	operational parameter Material Discrepancy Payment Based on Satisfied Rep Qty is Y. When the Sample Rate for a Contract's Sampling and Testing Requirement is less than or equal to the system operational parameter Contract Sampling & Testing Req Maximum Rate for Counts, the Material Discrepancy process will use Sample Counts. When the Sample Rate is greater than the system operational parameter Contract Sampling & Testing Req Maximum Rate for Counts, the Material Discrepancy process will use Satisfied Represented Qty for Material Discrepancy calculations. If the system operational parameter Material Discrepancy Payment Based on Satisfied Rep Qty is N, the system operational parameter Contract Sampling & Testing Req Maximum Rate for Counts will be ignored. The default value will be 9000.

E.1 Important Terms to Know

The following table describes some of the important terms to know for Materials Sample and Testing Calculations.

Sample	A record of the details of a specific sample of a specific material recorded in the Sample Information window.
Test	A record of the details of a specific test completed on a specific sampler recorded in the Sample Information window entered in a Test template on a sample record. A single sample may have multiple tests associated with it. A single test may satisfy only one requirement for a contract item.

Sample that Satisfies Requirements	Sample and test records for each contract line item are compared to the sampling and testing requirements for that line item to determine if the sample meets the requirement. Each test record on a sample may satisfy only one requirement for each line item indicated on the sample. In all, SiteManager evaluates the following values entered for a sample and test record to satisfy a requirement:
	
	   ▪ Material Code
	
	   ▪ Contract Item
	
	   ▪ Producer/Supplier
	
	   ▪ Test Method
	
	   ▪ Acceptance Method
	
	   ▪ Sample Type
	
	   ▪ Authorization Status (only if set as required in the System Operational

	Parameters) ▪ Sample Status (only if set as required in the System Operational Parameters) Once SiteManager determines that the values for these fields in the Sample Information window match the contract and system requirements, a requirement is satisfied. Only a satisfied requirement counts toward satisfying the overall sampling and testing requirements for a contract item.
Satisfied Represented Material Quantity	The sum of user-entered represented quantity in the contract folder tab of sample records for a contract line item on samples that satisfy requirements.
Calculated Material Quantity	System-calculated material quantity based on number of samples and sampling requirements. The calculation is: (number of Authorized Samples ÷ Sample Rate) x Sample Frequency.
Deficient Material Testing	The sum of the represented quantities on sample records for a line item material or the number of completed tests for a line item material that does not meet the requirements for that line item material. For the calculation of deficient material test, the following steps are performed: For each line item, find the materials for the line item (from T_CONT_STREQ_MATL) For each material, find the contract sampling test requirement (from T_CONT_STREQ). Pass the parameters to the functions which calculate the samples required and samples taken. These functions are: u_mm_nvo_calc_samples_req (Calculate Number of Samples Required) and u_mm_nvo_calc_samples_complete (Calculate Number of Samples Taken) The sum of sampling required must be less than or equal to the sum of sampling taken for each line item material. If sampling and testing completed does not meet required sampling and testing, a deficient tested material discrepancy will be created for the line item.

E.2 How Sampling and Testing Requirement Criteria Priority 1, 2, 3, 4 are Used Example 1

Transportation Agency XYZ set the Sampling and Testing Req. Criteria Priorities as follows:

Sampling & Testing Req. Criteria Priority 1 = PS (Producer/Supplier)

Sampling & Testing Req. Criteria Priority 2 = TM (Test Method)

Sampling & Testing Req. Criteria Priority 3 = AM (Acceptance Method)

Sampling & Testing Req. Criteria Priority 4 = ST (Sample Type)

For this Contract Item and Material there are two sampling and testing requirements:

Requirement	Producer/Supplier Code	Test Method	Acceptance Method	Sample Type
#1	-------	T27	Certified Test Report	Acceptance
#2	152	T27	-------	Acceptance

For this Contract Item and Material one sample is created:

Sample	Producer/Supplier Code	Test Method	Acceptance Method	Sample Type
#1	152	T27	Certified Test Report	Acceptance

In this example, test method T27 on Sample#1 meets both of the Sampling & Requirements. However, the test may only satisfy one of them. Using the priorities Agency XYZ set for the Sampling & Testing Req. Criteria Priorities, the system evaluates the values for the test and satisfies the requirement it most closely meets. Since Producer/Supplier is set as priority one, this test will satisfy Requirement #2. Assuming there are no other tests for Contract C13397, requirement #1 is not met and a discrepancy results.

E.3 Use Satisfied Represented Material Qty in Discrepancies Process Examples 2 and 3

The following assumptions are used in Example 1 and 2:

AAA Agency set the Use Satisfied Represented Material Qty in Discrepancies Process to Y.

In authorized DWRs, Item XYZ's installed quantity to date is 800 units.

In Contract Sampling &Testing, Contract Item XYZ has a component material ABC with a conversion factor of 1.00.

The system multiplies the installed quantity of item XYZ by the conversion factor to find the installed quantity to date of material ABC is 800 units (800*1.00=800).

For Item XYZ on this contract there are three sampling and testing requirements for material ABC as follows:

- o T11   5 per 1000
- o T27   3 per 1000
- o T89   4 per 1000

E.3.1 Example 2

For material ABS on Item XYZ on this contract, the following samples and represented quantities are found:

> T11   200
>
> T11   200
>
> T27   400
>
> T27   50

The total satisfied material quantity is 850 units

To calculate if requirements are satisfied when the Use Satisfied Represented Material Qty in Discrepancies Process is set to Y, the system first determines the Satisfied Represented Material Qty for each requirement for material ABC on item XYZ:

> The Represented material quantity (850) is then compared to the installed material quantity (800).

Since the represented quantity exceeds the installed quantity for the material, the individual requirements for material ABC are not evaluated. No discrepancies occur, even though there are not enough samples for the T11 and T89 requirements.

E.3.2 Example 3

For material ABS on Item XYZ on this contract, samples of the following represented quantities are found:

> T11   150
>
> T11   150
>
> T27   100
>
> T27   50
>
> T27   50
>
> T27   50
>
> T27   50
>
> T89   100
>
> The total satisfied material quantity is 700 units

AASHTOWare Project SiteManager™

E.4 How the Use Satisfied Represented Material Qty in Discrepancies Process Indicator Is Used, Example 4   **Appendix E: Materials Sampling and Testing Calculations**

In this example, since the Total Satisfied Material Quantity of 700 is less than the Installed Quantity of 800, the individual requirements are evaluated.

Since the Total Samples Satisfied for the T11 and the T89 requirements are less than the Current Required Samples, sampling discrepancies will result.

T11	5 per 1000	800 units installed = 5 samples Req	2 samples found	DEFICIENT
T27	3 per 1000	800 units installed = 3 samples Req	5 samples found	OK
T89	4 per 1000	800 units installed = 4 samples Req	1 sample found	DEFICIENT

E.4 How the Use Satisfied Represented Material Qty in Discrepancies Process Indicator Is Used, Example 4

The following example assumes the Use Satisfied Represented Material Qty in Discrepancies Process indicator is set to Y, and the material's installed quantity is 20.

Requirement	Current Required Samples	Total Samples Satisfied	Satisfied Represented Material Quantity
1	4	2	10
2	2	5	15
3	5	1	5
		Total	30

In the example above, since the total Satisfied Material Quantity meets or exceeds the Installed Quantity, the individual requirements are not evaluated. No discrepancies occur, even though there are not enough samples for requirement 3.

E.5 How the Use Satisfied Represented Material Qty in Discrepancies Process Indicator Is Used, Example 5

The following example assumes the Use Satisfied Represented Material Qty in Discrepancies Process indicator is set to Y, and the material's installed quantity is 20.

Requirement	Current Required Samples	Total Samples Satisfied	Satisfied Represented Material Quantity
1	2	2	1
2	2	5	0
3	5	1	10

Total	11

In the example above, the total Satisfied Material Quantity is less than the Installed Quantity, so the individual requirements are evaluated. Requirement 3 has Total Samples Satisfied less than Current Required Samples, so a discrepancy occurs.

E.6 How Samples Meet Contract Sampling & Testing Requirements Based on System Operational Parameters, Example 6

This example is based on the System Operational Parameters outlined in the table below.

Parameter	Setting
Sampling & Testing Req Criteria Priority 1-4	TM, AM, ST, PS (in descending priority order)
Material Discrepancy Accept Sample By	B (Both)
Material Discrepancy Accept Sample Status	APPR
Use Satisfied Represented Material Qty	N

For the purpose of this example, there are 2,000 units of authorized installed quantity for the material.

There are 3700 units of material expected for the entire contract item.

The following table details the Sampling and Testing Requirements for the Contract.

Requirement Number	Test Method	Acceptance Method	Sample Type	Producer/ Supplier Code	Sample Rate	Sample Frequency
Req. #1	T59	INSP	QC	157	1	4,000
Req. #2	---	PRAP	QC	161	1	4,000
Req. #3	---	PRAP	---	---	1	4,000
Req. #4	---	---	QC	---	1	4,000
Req. #5	---	---	---	160	1	4,000

The following table details the samples that were taken and the requirements they meet.

AASHTOWare Project SiteManager™

E.6 How Samples Meet Contract Sampling & Testing Requirements Based on System Operational Parameters, Example 6   Appendix E: Materials Sampling and Testing Calculations

Smpl ID	Test Meth	Accept Meth	Sample Type	P/S Code	Rep Qty	Status	Authorized (Y or N)	Complete? (Authorized in APPR Status)	TM meets Req?	Tm &AM meet?	Tm, Am & ST	TM, AM, ST, &PS	Applied to:
SR1	T59	INSP	QC	152	5	APPR	Y	*Y*	1,2,3,4,5	1, 4, 5,	1,4,5	4	4
SR2	---	PRAP	QC	150	6	APPR	Y	*Y*	1,2,3,4,5	2,3,4,5	2,3,4,5	3,4	
SR3	T59	PRAP	---	157	7	FAIL	N	N	1,2,3,4,5	2,3,4,5	2,3,4,5	3,4	
SR4	---	PRAP	QC	161	8	FAIL	Y	N	1,2,3,4,5	2,3,4,5	2,3,4,5	2,3,4	3
SR5	T59	INSP	---	128	9	APPR	N	N	1,2,3,4,5	1,4,5	1,4,5	4	4

Only complete samples are counted towards requirements. SR1 and SR2 are complete.

Since TM is the first priority, each sample is evaluated to see which matches the TM requirements, but only the samples that passed the previous step remain included. Each of the samples meet the requirements for Test Method T59 (or blank).

AM is evaluated next, but only the samples that passed the previous step remain included. SR1 and SR5 meet Reqs #1, #4, and #5. SR2, SR3, and SR4 meet Reqs #2, #3, #4, and #5.

ST is evaluated next, but only the samples that passed the previous step remain included. SR1 and SR5 meet Reqs #1 ,#4, and #5.   SR2, SR3, and SR4 meet Reqs #2, #3, #4, and #5.

PS is evaluated last, but only the samples that passed the previous step remain included. SR1 meets Req #4, SR2 meets Reqs #3 and #4, SR3 meets Reqs #3 and #4, SR4 meets Reqs #2 ,#3, and #4, and SR5 meets Req #4.

In this example, only Sample IDs SR1 and SR4 meet specified criteria.

The following table details results that will appear on the Sampling Checklist report:

Requirement Number	Total Samples Required	Total Samples Satisfied	Current Samples Required	Total Samples Taken	Satisfied Material Qty	Calculated Represented Material Qty
Requirement #1	2	0	1	0	0	0

Requirement #2	2	0	1	0	0	0
Requirement #3	2	1 (SR4)	1	0	8	4,000
Requirement #4	2	1 (SR1)	1	1 (SR5)	5	4,000
Requirement #5	2	0	1	0	0	0

E.7 How Samples Meet Contract Sampling and Testing Requirements Based on System Operational Parameters (Example 7)

This example is based on the System Operational Parameters outlined in the table below.

Parameter	Setting
Sampling & Testing Req Criteria Priority 1-4	TM, AM, ST, PS (in descending priority order)
Material Discrepancy Accept Samply By	A
Material Discrepancy Accept Sample Status	APPR
Use Satisfied Represented Material Qty	N

For the purpose of this example, the following authorized installed quantities are used:

Line Item A = 20 units

Line Item B = 2,000 units

The following table details the Sampling and Testing Requirements for the Contract.

Line Item Number / Requirement Number	Material Code	Test Method	Acceptance Method	Sample Type	Producer/ Supplier Code	Sample Rate	Sample Frequency
A, Requirement #1	1	T27	---	ACC	---	1	40
A, Requirement #2	1	T11	---	---	152	1	40
A, Requirement #3	1	---	INSP	---	---	1	40
A, Requirement #4	1	---	---	ACC	---	1	40
A, Requirement #5	1	---	---	---	---	1	40
B, Requirement #6	2	T59	INSP	QC	157	1	4,000
B, Requirement #7	2	---	PRAP	QC	161	1	4,000
B, Requirement #8	2	---	PRAP	---	---	1	4,000
B, Requirement #9	2	---	---	QC	---	1	4,000
B, Requirement #10	2	---	---	---	150	1	4,000

The following table details the samples that were taken and the requirements they meet.

AASHTOWare Project SiteManager™

E.7 How Samples Meet Contract Sampling and Testing Requirements Based on System Operational Parameters (Example 7)   Appendix E: Materials Sampling and Testing Calculations

Smpl ID	Line Itm #	Mat'l	Rep Qty	Test Meth	Accept Meth	Smpl Type	P/S Code	Authorized(Y or N)	Status	Complete? (Authorized)	TM meets Req?	TM &AM meet?	TM, AM & ST	TM, AM, ST, &PS	Applied to Req#:
SR1	A	1	25	T11	INSP	QC	161	N	APPR	N	2,3, 4,5	2,3, 4,5	2,3,5	3,5	3
SR2	A	1	5	T11	INSP	QC	152	Y	FAIL	Y	2,3, 4,5	2,3, 4,5	2,3,5	2,3,5	2
SR3	A	1	5	T11	INSP	QC	152	N	APPR	N	2,3, 4,5	2,3, 4,5	2,3,5,	2,3,5	2
SR4	A	1	35	T11	INSP	QC	152	N	APPR	N	2,3, 4,5	2,3, 4,5	2,3, 5,	2,3,5	2
SR5	A	1	10	T27	INSP	ACC	152	N	APPR	N	1,3,4,5	1,3,4,5	1,3,4,5	1,3,4,5	1
SR5	A	1	10	T11	INSP	ACC	152	N	APPR	N	2,3, 4,5	2,3, 4,5	2,3, 4,5	2,3,4,5	2
SR6	A	1	10	T27	INSP	ACC	152	Y	FAIL	Y	1,3,4,5	1,3,4,5	1,3,4,	1,3,4	1
SR7	A	1	10	---	INSP	QC	161	Y	APPR	Y	1,2,3,4,5	1,2,3,4,5	2,3,5	3,5	3
SR8	A	1	10	---	INSP	QC	128	Y	FAIL	Y	1,2,3,4,5	1,2,3,4,5	1,2,3,5	1,3,5	3
SR9	B	2	5	T59	INSP	QC	152	Y	APPR	Y	6,7,8,9,10	6,9,10	6,9,10	6,9	9
SR10	B	2	6	---	PRAP	QC	150	Y	APPR	Y	,6,7,8,9,10	7,8,9,10	7,8,9,10	8,9,10	8
SR0011	B	2	7	T59	PRAP	QC	157	N	FAIL	N	,6,7,8,9,10	,7,8,9,10	7,8,9,10	8,9	8
SR12	B	2	8	---	PRAP	QC	161	Y	FAIL	Y	6,7,8,9,10	7,8,9,10	7,8,9,10	7,8,9	7
SR13	B	2	9	T59	INSP	QC	128	N	APPR	N	6,7,8,9,10	6,9,10	6,9,10	9	9

Only complete samples are counted towards requirements. SR2,6,7,8,9,10, and 12 are complete.

Since TM is the first priority, each sample is evaluated to see which matches the TM requirements, but only the samples that passed the previous step remain included.

AM is evaluated next, but only the samples that passed the previous step remain included.

ST is evaluated next, but only the samples that passed the previous step remain included.

PS is evaluated last, but only the samples that passed the previous step remain included.

In this example, Sample IDs SR2, SR6, SR7, SR8, SR9, SR10 and SR12 meet the specified criteria.

The following table details results that will appear on the Sampling Checklist report:

Line Item Number / Requirement Number	Total Samples Required	Total Samples Satisfied	Current Samples Required	Total Samples Taken	Satisfied Material Qty	Calculated Represented Material Qty
A, Requirement #1	3	1 (SR6)	1	1 (SR5)	10	40
A,	12	1 (SR2)	2	3 (SR3,	5	10

				SR4, SR5,		
Requirement #2						
A, Requirement #3	3	2 (SR7 & SR8)	1	1 (SR1)	20	80
A, Requirement #4	3	0	1	0	0	0
A, Requirement #5	3	0	1	0	0	0
B, Requirement #6	2	0	1	0	0	0
B, Requirement #7	2	1 (SR12)	1	0	8	4,000
B, Requirement #8	2	1 (SR10)	1	1 (SR11)	6	4,000
B, Requirement #9	2	1 (SR9)	1	1 (SR13)	5	4,000
B, Requirement #10	2	0	1	0	0	0

E.8 Material Discrepancy Payment Calculation Explanation

For the calculation of material discrepancy payment, the projected material qty (based on the samples taken) is compared to the actual material qty (based on actual installed item qty and conversion factor). It is based on the ratio of material quantities (projected / actual), not the ratio of sample quantities (actual / required).

To calculate the Material Discrepancy line item adjustment, the following steps are performed:

The system first calculates the Sample-Calculated Material Quantity for each sampling and testing requirement as shown below:

> (#Authorized Samples ÷ Sample Rate) x Sample Frequency =
> Sample-Calculated Material Quantity

This number is then divided by the Reported Material Quantity to determine the percentage of the sampling requirement met.

> Sample-Calculated Material Quantity ÷ Reported Material Quantity =
> % of Sample Requirement Met

> 📄 **Note:** The requirement resulting in the lowest percentage of satisfied samples is used.

E.9 Material Discrepancy Payment Adjustment Example 8

In this example the following variables are used:

System Operational Parameter Settings	
Use Satisfied Represented Material Qty in Discrepancies Process (Rep Qty in Sample Record)	N
Material Discrepancy Payment Calculation	Y

Item Units Installed = 15

Material Conversion Factor = 1

The contract material has two sample and testing requirements as follows:

Requirement	Sample Rate	Sample Frequency	Total Samples Required	Total Samples Taken	Satisfied Material Quantity (Rep Qty on samples)	Sample-Calculated Represented Material Qty	Reported Material Qty
#1	1	4	4	1		4	15
#2	1	10	2	1		10	15

Payment Adjustment for Requirement 1:

Sample Calculated Material Quantity ÷ Reported Material Quantity or $4 \div 15 = 0.27$

Thus 27 percent of material quantity has been met by sampling and should be paid on Requirement #1.

Payment Adjustment for Requirement 2:

Sample Calculated Material Quantity ÷ Reported Material Quantity or $10 \div 15 = 0.66$

Thus 66 percent of material quantity has been met by sampling and should be paid on Requirement #2.

Since the requirement resulting in the lowest percentage of satisfied samples is the basis for the line item adjustment, the system uses the payment adjustment calculated for Requirement #1. Therefore, only 27 percent of the item should be paid and a line item adjustment to reduce the item quantity by 73 percent (100%-27%=73%) will be applied to the estimate during the estimate generation process.

E.10 Material Sampling and Testing Discrepancies in the Estimate Generation Process

The following steps outline the process SiteManager uses to check for and calculate Material Sampling and Testing Discrepancies.

1. During processing, when sample records are reviewed for compliance with the requirements:

    a. The system considers whether the Satisfied Represented Quantity exceeds the Reported Material Quantity. When it does, no sampling discrepancy exists. This is the most important criterion and overrides all other criteria. This first consideration is used to satisfy sampling and testing requirements only if the transportation agency sets the System Operational Parameter Use Satisf. Represented Matrl Qty in Discrepancies Process to Y.

    b. Next, the system considers the most complex to least complex Contract Sampling and Testing criteria, comparing existing sample records to the criteria. The hierarchy of the criteria is as designated by the transportation agency in System Operational Parameters. Each of the following are ranked: Material, Producer/Supplier, Test Method, Sample Type, and Acceptance Method. The transportation agency may effectively cancel the ranking of one or more criteria by not specifying that criteria in the Maintain Sample and Testing Requirements, and Contract Sample and Testing Requirements windows.

    c. Any value shown on a sample record for Producer/Supplier, Sample Type, Acceptance Method, or Test Method is considered acceptable if that field has been left blank in the Contract Sample and Testing Requirements window. Users may still alter the Contract Sampling and Testing Requirements as the project progresses and new information becomes available regarding the material source(s) and sampling and testing requirements.

2. The total required samples are calculated using: CEILING[(DWR Installed Qty x Conversion Factor) / Sample Frequency)] * Sample Rate; where CEILING means rounding up to the next whole integer.

3. If the System Operational Parameter Material Discrepancy Payment Calculation is set to Y, item payment adjustments may be calculated based on Material Sampling and Testing deficiencies. The payment adjustments are based on the percentage of testing requirements met. This is determined by dividing the Sample Calculated Material Quantity by the Reported Material Quantity. (See the previous sections for further explanation and an example.)

E.10.1 Recalculate Estimate Discrepancies Process

The following steps outline the process SiteManager uses to recalculate Estimate Discrepancies associated with Material Sampling & Testing.

During processing, when sample records are reviewed for compliance with the requirements:

1. The system first considers whether the Authorized Represented Material Quantity exceeds the Reported Material Quantity. When it does, no sampling discrepancy exists. This is the most important criterion and overrides all other criteria. This first consideration is used to satisfy sampling and testing requirements only if the transportation agency sets the System Operational Parameter Use Satisf. Represented Matrl Qty in Discrepancies Process to Y.

2. Secondly, the system considers the most complex to least complex Sampling and Testing criteria, comparing existing sample records to the criteria. The hierarchy of the criteria is as designated by the transportation agency in System Operational Parameters. Each of the following are ranked: Material, Producer/Supplier, Test Method, Sample Type, and Acceptance Method. The transportation agency may effectively cancel the ranking of one or more criteria by not specifying that criteria in the Maintain Sample and Testing Requirements, and Contract Sample and Testing Requirements windows.

3. Any value shown on a sample record for Producer/Supplier, Sample Type, Acceptance Method, or Test Method will be considered acceptable if that field has been left blank in the Contract Sample and Testing Requirements window. Users may still alter the Contract Sampling and Testing Requirements as the contract progresses and new information becomes available regarding the material source(s), and sampling and testing requirements.

E.10.2 Material Discrepancy Payment Based on Satisfied Represented Quantity in the Estimate Generation Process

If the system operational parameter Material Discrepancy Payment Based on Satisfied Rep Qty is set to Y, the Contract Sampling and Testing Req Max Rate for Counts parameter's setting will determine when the material discrepancy process will use sample counts or satisfied represented quantities for material discrepancy calculations. This will be cumulative for all contract material samples with the same test method, acceptance method, sample type, and producer supplier combination.

When the Contract's Sampling and Testing Requirements window's Rate field contains a values less than or equal to the Contract Sampling and Testing Req Max Rate for Counts parameter, the material discrepancy process will use sample counts. When the Rate field contains a value greater than the Contract Sampling and Testing Req Max Rate for Counts parameter, the material discrepancy process will use the satisfied represented quantity for material discrepancy calculations.

In the examples below the following variables are used:

System Operational Parameter Settings	
Use Satisfied Represented Material Qty in Discrepancies Process (Rep Qty in Sample Record)	Y
Material Discrepancy Payment Calculation	Y
Material Discrepancy Payment Calculation Item Default	Y
Material Discrepancy Payment Based on Satisfied Rep Qty	Y

Contract Sampling & Testing Req Maximum Rate for Counts	90000

Material Discrepancy Payment Adjustment Example 1

When multiple test methods/sample types are associated with one material code, all test methods' (sample types) requirements must be met before the estimate process will not process adjustments.

Item Units Installed = 250

The contract material has three sample and testing requirements as follows:

Requirement	Sample Rate	Sample Frequency	Total Samples Required	Total Samples Taken	Satisfied Material Quantity (Rep Qty on samples)	Sample-Calculated Represented Material Qty	Reported Material Qty
#1	1	100	2	1		100	250
#2	1	100	2	1		100	250
#3	90001	1	N/A		205		250

Payment Adjustment for Requirement 1:

Sample Calculated Represented Material Qty - Reported Material Qty or 100 - 250 = -150

Payment Adjustment for Requirement 2:

Sample Calculated Material Represented Qty - Reported Material Qty or 100 - 250 = -150

Payment Adjustment for Requirement 3:

Satisfied Material Qty (Rep Qty on samples) - Reported Material Qty or 205 - 250 = -45

Requirements #1 and #2 are the least satisfied

Because the requirement resulting in the least satisfied samples is the basis for the line item adjustment, the system uses the payment adjustment calculated for Requirement #1 and #2. When multiple requirements have not been met, a materials line item adjustment (MADJ) will be generated for the least satisfied requirement. Therefore, a Material Discrepancy Payment Adjustment (MDPA) is created for the line item. The amount of the payment discrepancy (Material Discrepancy Adjustment * Item Unit Price) will be applied to the estimate during the estimate generation process.

Material Discrepancy Payment Adjustment Example 2

When multiple test methods/sample types are associated with one material code, all test methods' (sample types) requirements must be met before the estimate process will not process adjustments.

Item Units Installed = 100

The contract material has three sample and testing requirements as follows:

Requirement	Sample Rate	Sample Frequency	Total Samples Required	Total Samples Taken	Satisfied Material Quantity (Rep Qty on samples)	Sample-Calculated Represented Material Qty	Reported Material Qty
#1	90001	1	N/A		75		100

Payment Adjustment for Requirement 1:

Sample Calculated Represented Material Qty - Reported Material Qty or 75 - 100 = -25

Requirement #1 is the least satisfied

Since the requirement resulting in the least satisfied samples is the basis for the line item adjustment, the system uses the payment adjustment calculated for Requirement #1. Therefore, a Material Discrepancy Payment Adjustment (MDPA) is created for the line item. The amount of the payment discrepancy (Material Discrepancy Adjustment * Item Unit Price) will be applied to the estimate during the estimate generation process.

Appendix F. Assigning Multiple Subcontractors to a Single Contract Item

Often several subcontractors are selected by the prime contractor to complete parts of a single contract item.

Two scenarios exist:

1. Part of the Quantity – Each subcontractor is responsible for the complete work effort associated to installing one unit of a contract item, but each subcontractor is only responsible for a portion of the total current quantity of the contract item. For example, a contract item has a current quantity of 100.00. One subcontractor is completing work on one end of the project and will install 50.00 units of the item. A different subcontractor is performing work on the other end of the project and will install the other 50.00 units of the item.

2. Part of the Item – Each subcontractor is performing partial work on the whole quantity of the contract item. For example, a contract item has a current quantity of 100.00. One subcontractor is installing the necessary materials for all 100.00 units of the item while another subcontractor is doing the finishing work for all 100.00 units so that the installation is complete and acceptable.

This appendix will describe how to assign multiple subcontractors to one contract item in order to address the scenarios mentioned above.

F.1 Part of the Quantity – Each subcontractor is responsible for installing a portion of the total approved quantity of a contract item

This scenario commonly occurs and SiteManager already handles this scenario, as long as the total quantity for the item for all subcontractors does not exceed the contract's approved quantity for the item.

Example:

The contract below has two subcontract records for Contractor_1 and Contractor_2. Both subcontractors will be responsible for installing the same contract item on different ends of the project site. Contractor_1 will manage the first half while Contractor_2 will manage the second half.

In the SiteManager application, the subcontract records would be created as shown in the screens below:

AASHTOWare Project SiteManager™

F.1 Part of the Quantity – Each subcontractor is responsible for installing a portion of the total approved quantity of a contract item   **Appendix F. Assigning Multiple Subcontractors to a Single Con**

Figure F-1. Subcontract – Description tab for Contractor 1
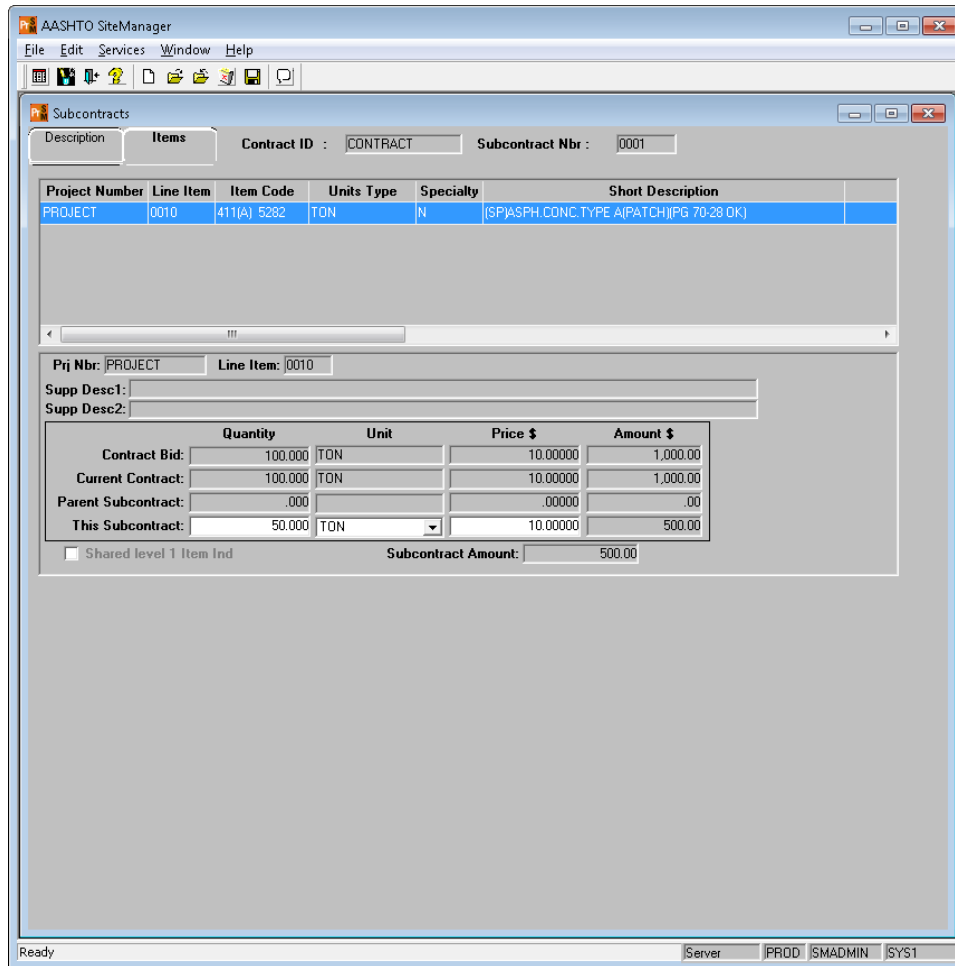
Figure F-2. Subcontract – Items tab for Contractor 1

AASHTOWare Project SiteManager™

F.1 Part of the Quantity – Each subcontractor is responsible for installing a portion of the total approved quantity of a contract item   **Appendix F. Assigning Multiple Subcontractors to a Single Con**

Figure F-3. Subcontract – Description tab for Contractor 2
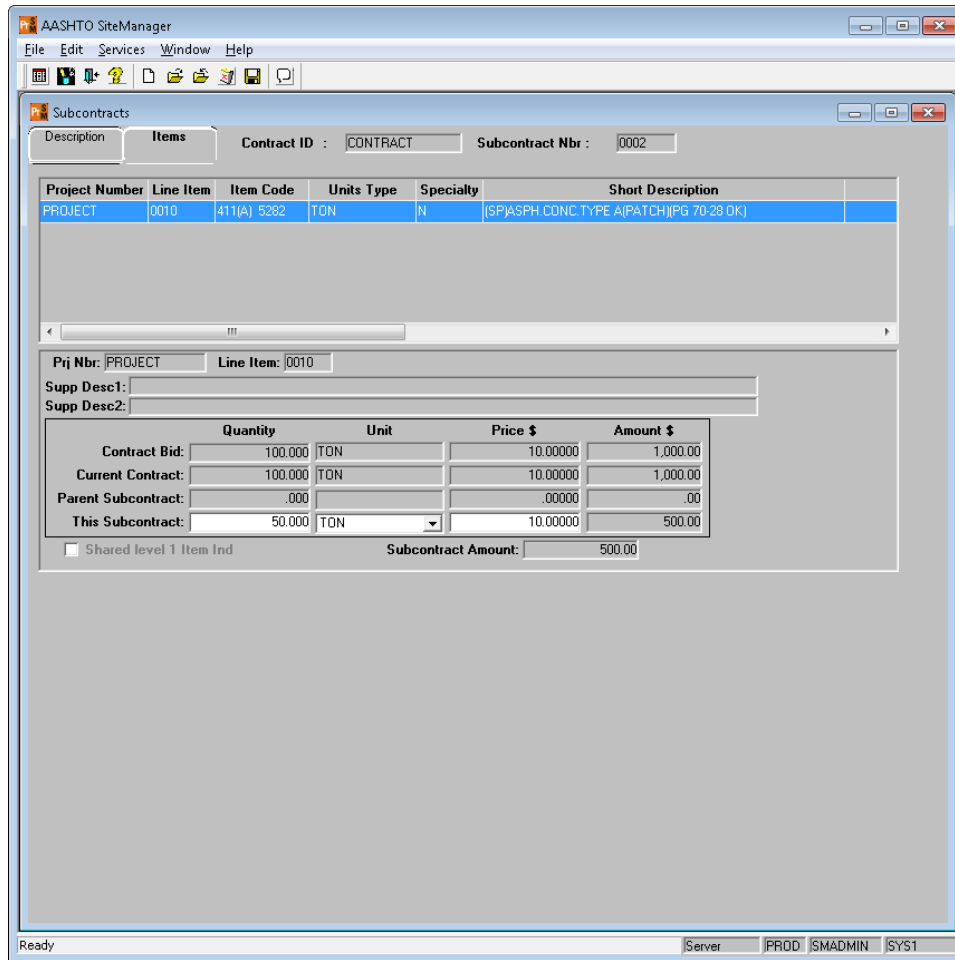
Figure F-4. Subcontract – Items tab for Contractor 2

F.2 Part of the Item – Each subcontractor is performing partial work on the total approved quantity of a contract item

To assign multiple subcontractors to a single item in this scenario (where each subcontractor will be associated to the entire quantity of the item on the Items folder tab), each subcontractor must have a unique UNIT value for the subcontract item record. In other words, if the contract item's UNIT value for the contract is TON, each subcontractor's item record cannot use the value of TON in the UNIT dropdown field.

The SiteManager Administrator must first create and enter new code table values to represent partial units of measure. These partial units will be created under the UNITS and UNITTYP code tables.

In this example, TON is the original unit of measure for a contract item and the codes in the chart below are the partial units of measure associated to TON.

AASHTOWare Project SiteManager™
F.2 Part of the Item – Each subcontractor is performing partial work on the total approved quantity of
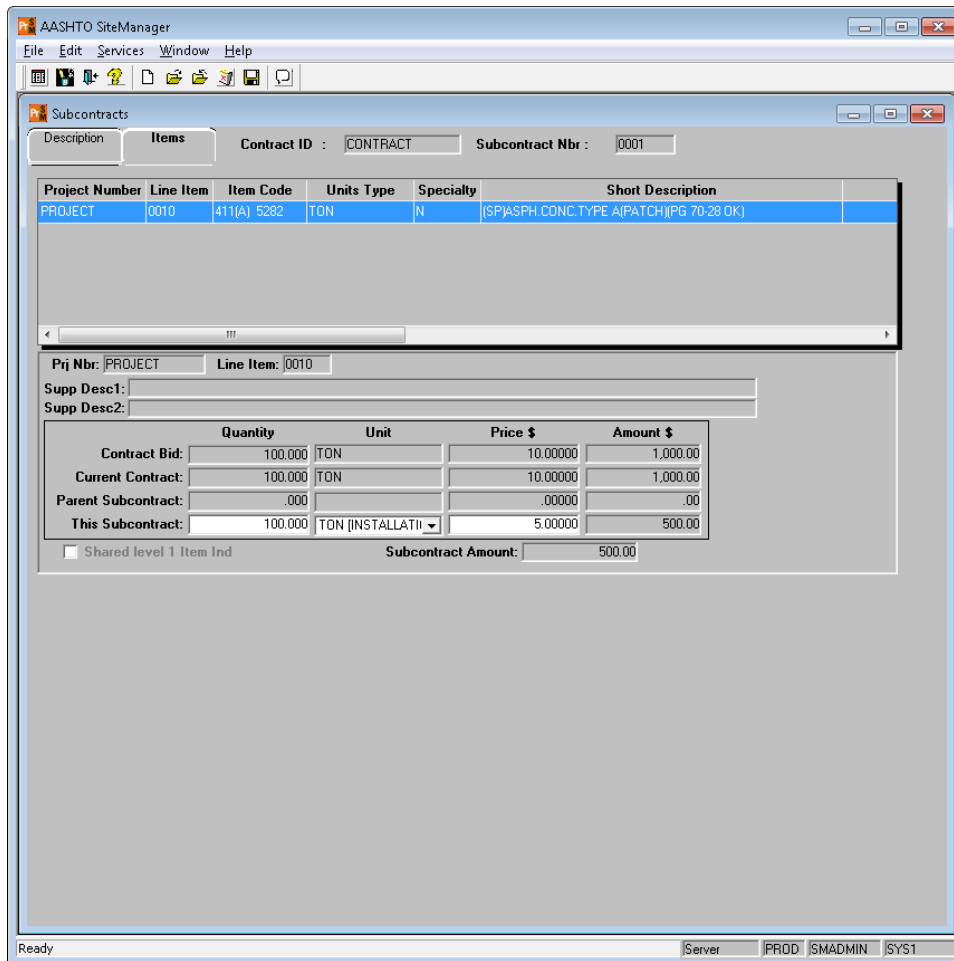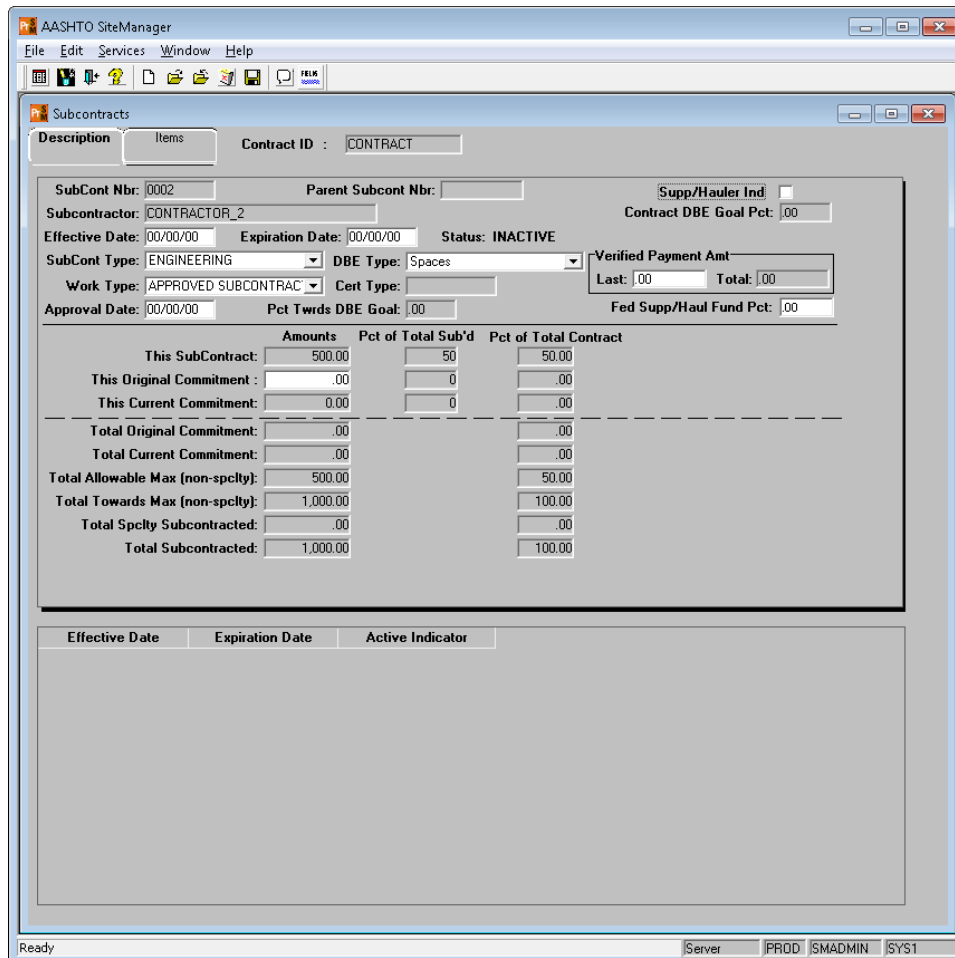**a contract item**   **Appendix F. Assigning Multiple Subcontractors to a Single Co**

Table ID	Code ID	Description
UNITS	TONI	TON [INSTALLATION]
UNITS	TONF	TON [FINISHING]
UNITTYP	TONI	E
UNITTYP	TONF	E

Table F-5. Partial unit of measures for TON

The example subcontract records shown in the screen shots below are using the newly created units to denote the following:

- Contractor_1 is installing the necessary materials for all units of the item.

- Contractor_2 is completing the finishing work for all units of the item to ensure the installation is complete and acceptable.

Both subcontractors are completing their work on the total approved quantity of the contract item.

Figure F-6. Subcontract – Description tab for Contractor 1

AASHTOWare Project SiteManager™

F.2 Part of the Item – Each subcontractor is performing partial work on the total approved quantity of a contract item   **Appendix F. Assigning Multiple Subcontractors to a Single Con**
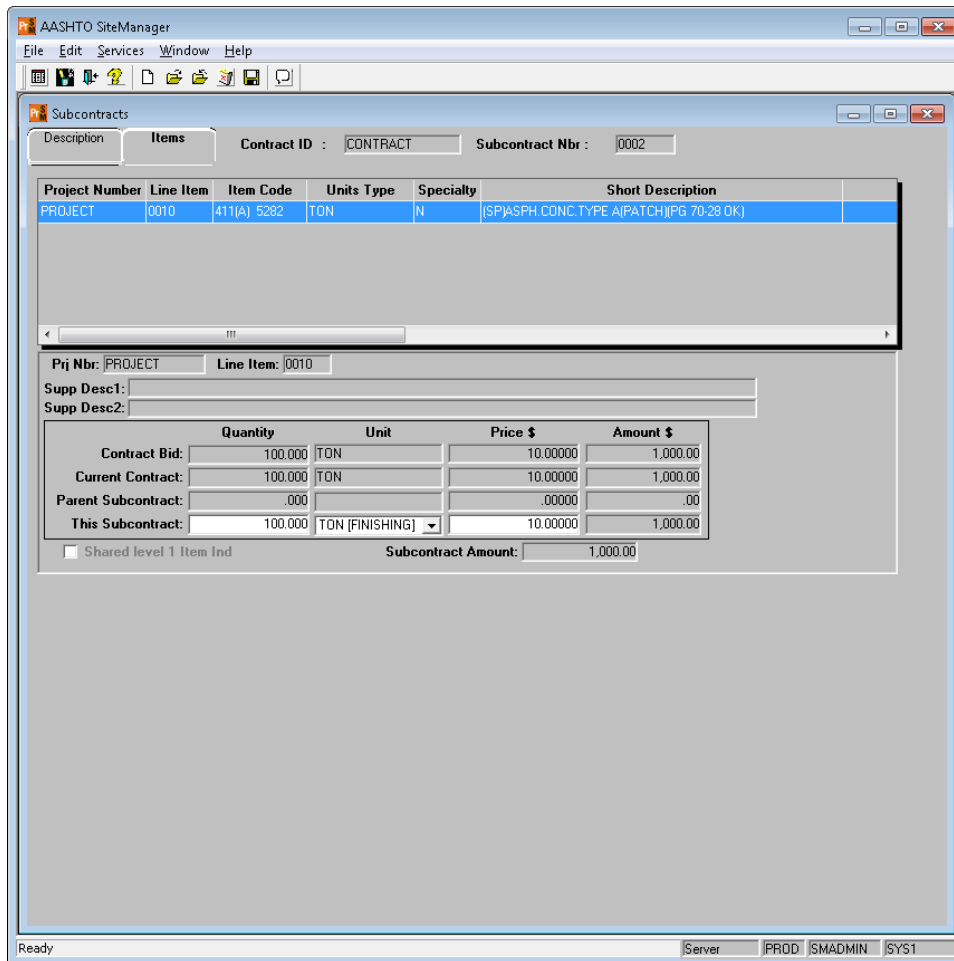
Figure F-7. Subcontract – Items tab for Contractor 1

Figure F-8. Subcontract – Description tab for Contractor 2

AASHTOWare Project SiteManager™

F.2 Part of the Item – Each subcontractor is performing partial work on the total approved quantity of a contract item   **Appendix F. Assigning Multiple Subcontractors to a Single Con**

Figure F-9. Subcontract – Items tab for Contractor 2

Appendix G. Assigning Multiple Contractors to a Single Item

Often, several subcontractors are selected by the contractor to complete parts of a single bid item.

Two scenarios exist:

1. Part of the Quantity – Each contractor is responsible for the complete item of work, but is performing only part of the total quantity of items bid (e.g. one contractor is completing work on one end of the project and a different contractor is performing work on the other end of the project).

2. Part of the Item – A contractor is performing partial work on the whole quantity (e.g. one contractor is installing the materials for the item while another contractor is doing the finish work to make the installation acceptable).

This appendix will cover on how to assign multiple contractors on the scenarios as mentioned above.

G.1 Part of the Quantity – Each contractor is responsible for the complete item of work

This scenario commonly occurs and SiteManager already handle this scenario, and as long as the total quantity for the item for all contractors does not exceed the contract's approved quantity for the item.

Example:

The contract below has created two subcontract records for Contractor 1 and Contractor or 2. Both contractors will work on the item on different ends. Contractor 1 will work on the first half while Contractor 2 will work on the second half.

In the SiteManager application, the subcontract records will be similar to the screens shown below:
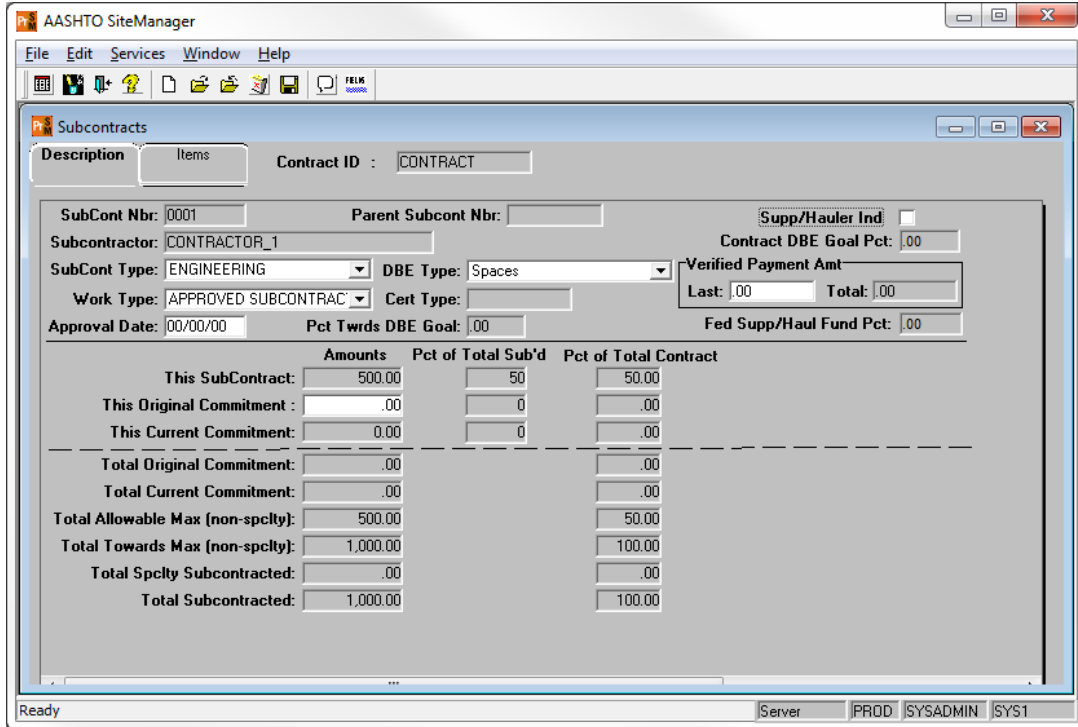
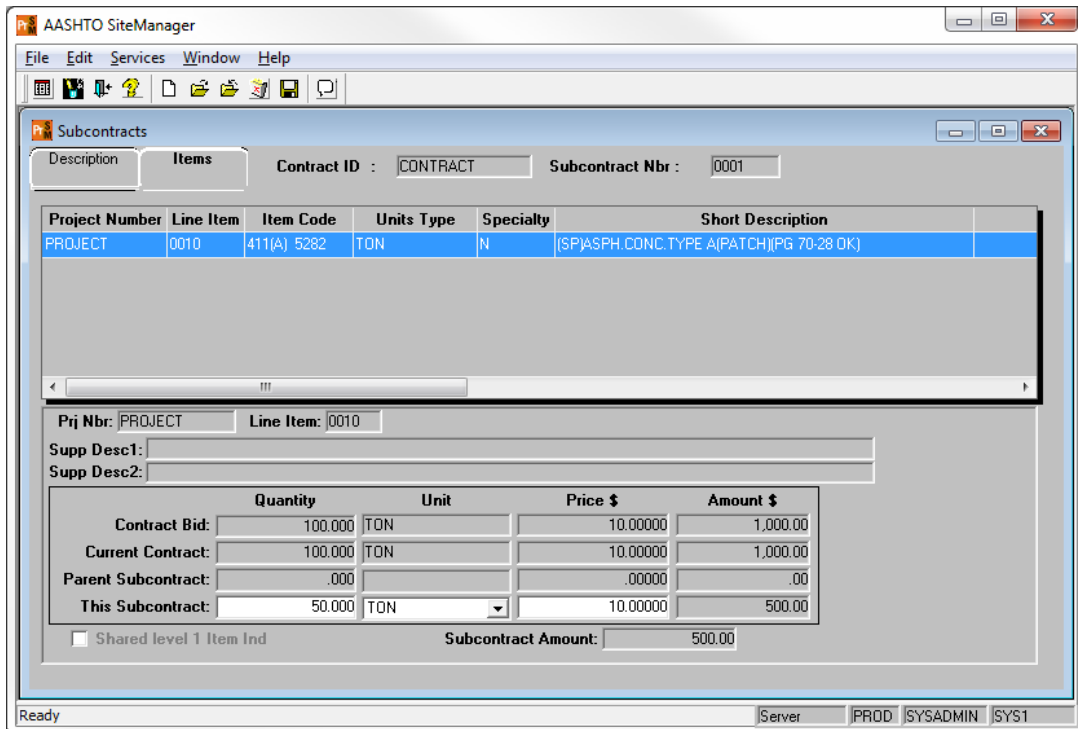Figure G-1. Subcontract – Description tab for Contractor 1

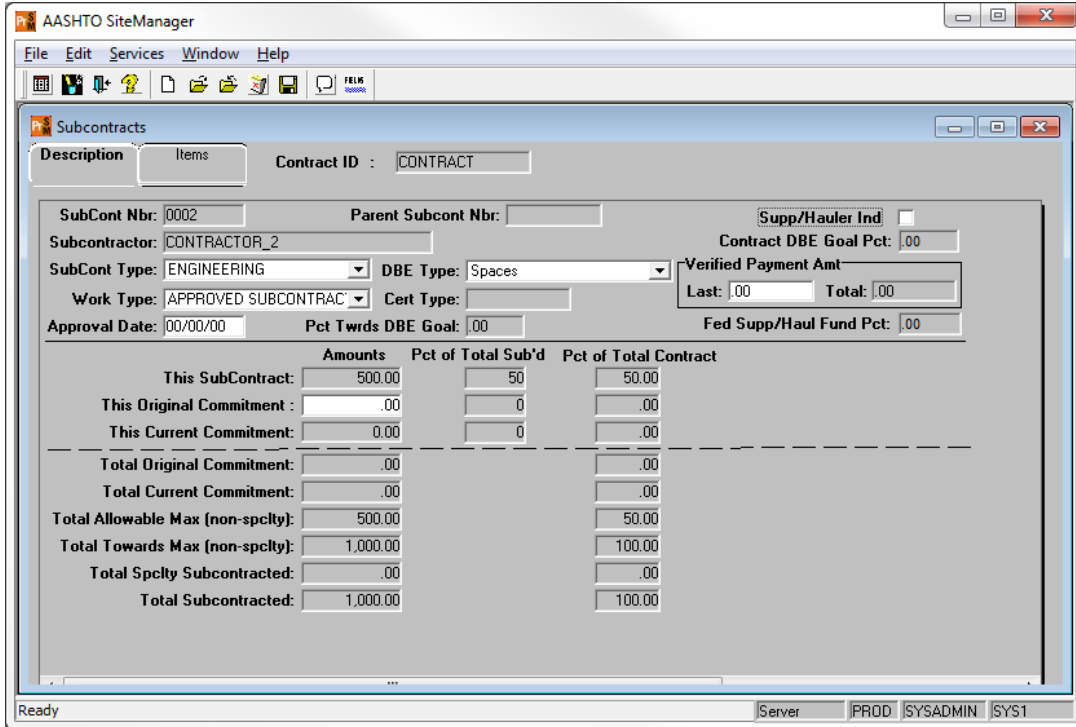Figure G-2. Subcontract – Items tab for Contractor 1

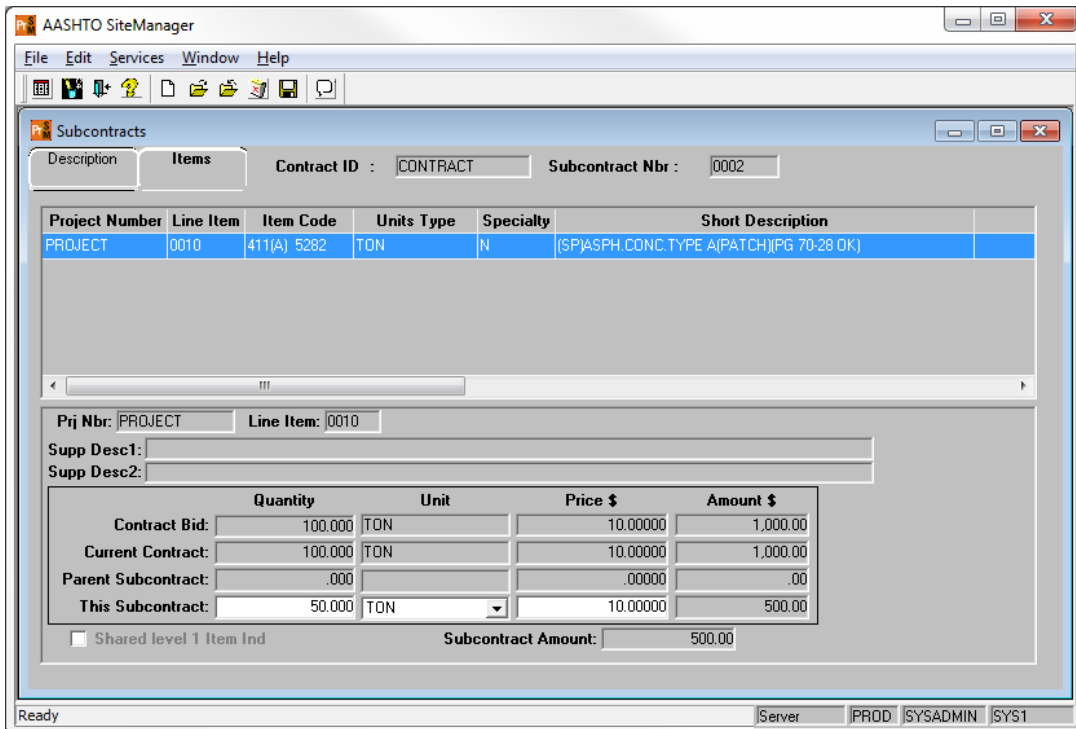Figure G-3. Subcontract – Description tab for Contractor 2

Figure G-4. Subcontract – Items tab for Contractor 2

G.2 Part of the Item – A contractor is performing partial work on the whole quantity

To assign multiple contractors to a single item for this scenario, SiteManager user must need to setup first partial unit of measures. These partial units will be created under the UNITS and UNITTYP code tables. In this example we are using TON as the original unit of measures (as depicted in the contract record) and below are the partial units.

Table ID	Code ID	Description
UNITS	TONI	TON [INSTALLATION]
UNITS	TONF	TON [FINISHING]
UNITTYP	TONI	E
UNITTYP	TONF	E

Table G-5. Partial unit of measures for TON

When we create the subcontract records, we will be using the newly created units to denote that:

- Contractor 1 is installing the materials for the item

- While Contractor 2 is finishing the work to make the installation acceptable

Both contractors are doing 100% of the partial work.

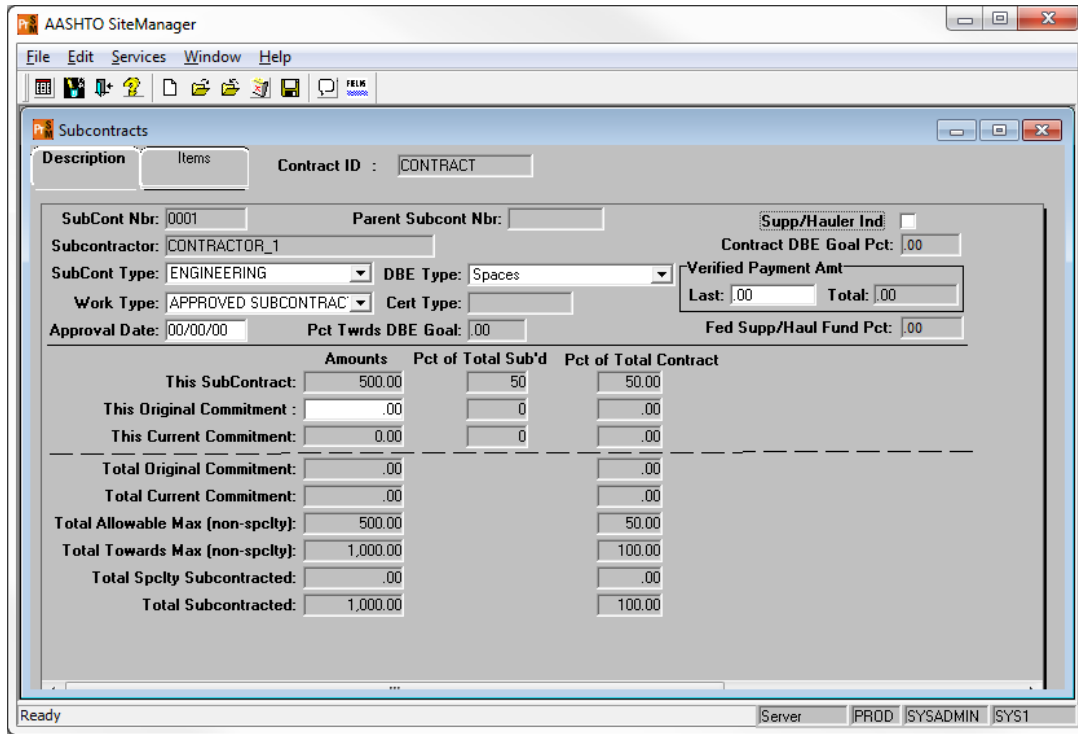Below is what the first subcontract record should look like.

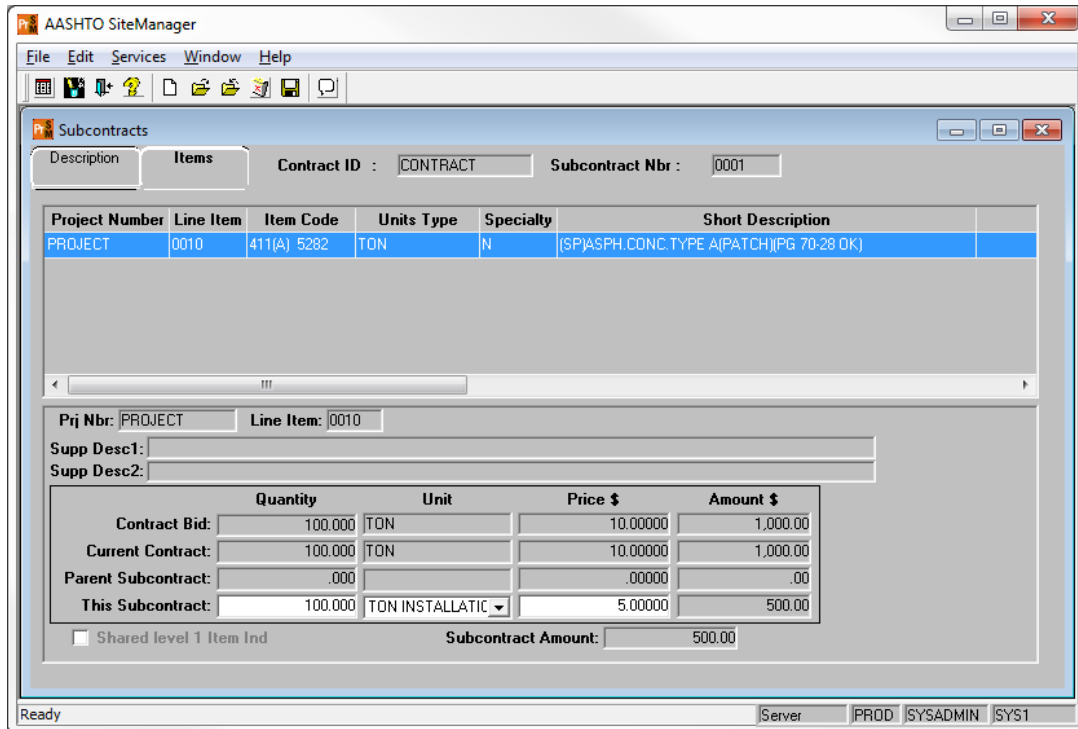Figure G-6. Subcontract – Description tab for Contractor 1

Figure G-7. Subcontract – Items tab for Contractor 1

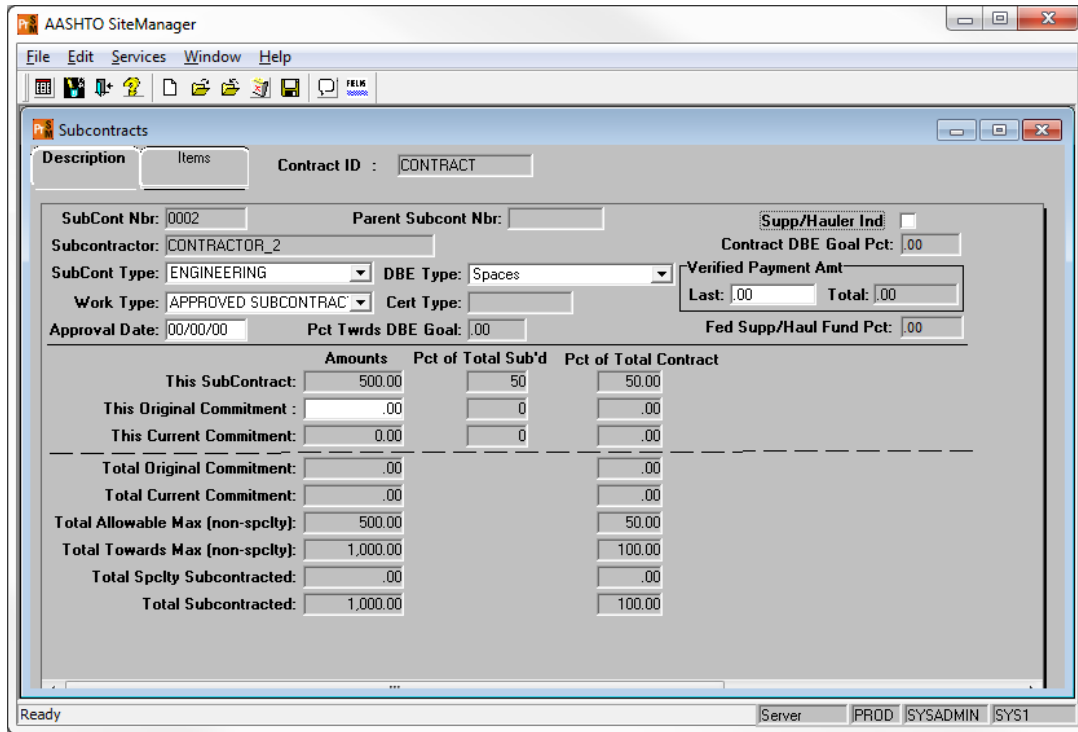Below is what the second subcontract record should look like.
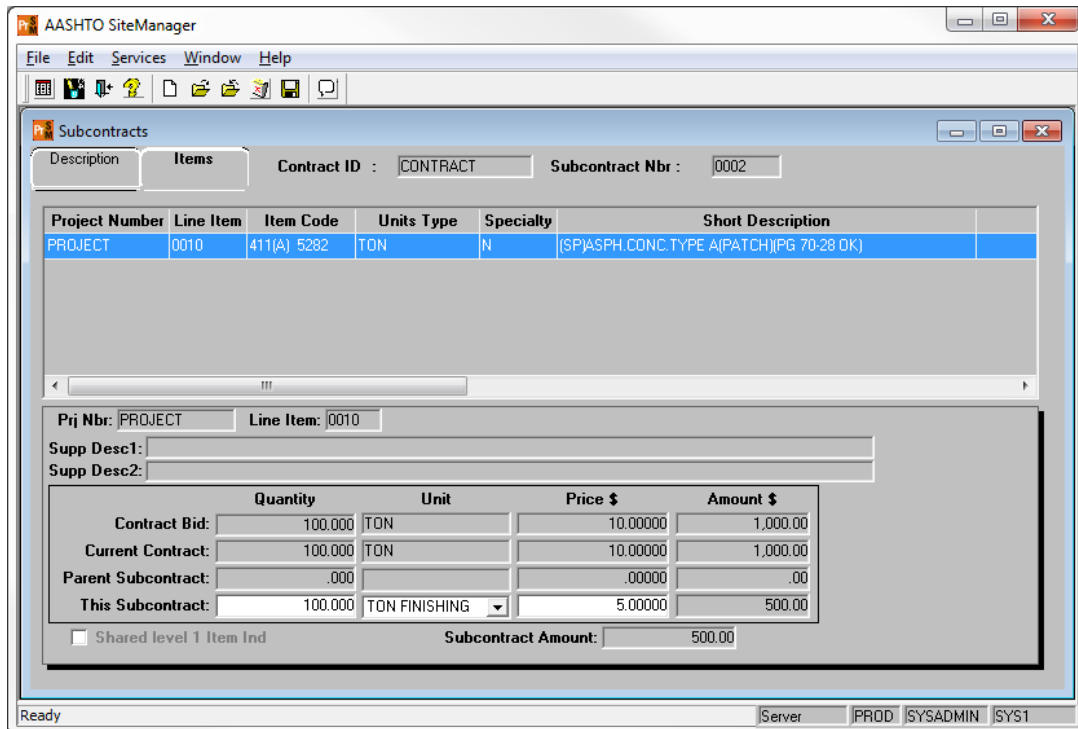

Figure G-8. Subcontract – Description tab for Contractor 2

Figure G-9. Subcontract – Items tab for Contractor 2