

**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
FRANKFORT, KY 40622**

MANUAL TITLE: Utility and Rails Guidance Manual

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REVISION

CHAPTER/ SECTION	EXPLANATION	OLD PAGES TO BE DELETED	NEW PAGES TO BE ADDED
	The purpose of this printing is to replace UR-1101 with UR-1101 of the <i>Utility & Rails and Guidance Manual</i> . This revision also includes one index update.		
UR-01	Table of Contents	UR-01	UR-01
UR-1100	General	UR-1101	UR-1101
Produced & Distributed by Organizational Management Branch			



Matthew G. Bevin
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Greg Thomas
Secretary

OFFICE OF THE SECRETARY 111585
OFFICIAL ORDER _____


SUBJECT: *Utilities and Rails Guidance Manual*

This manual has been prepared to provide information and guidance to personnel of the Kentucky Transportation Cabinet. Its purpose is to establish uniformity in the interpretation and administration of laws, regulations, policies, and procedures applicable to the operation of the Utilities and Rail Branch within the Division of Right of Way and Utilities and its relationship with other units of the Cabinet.

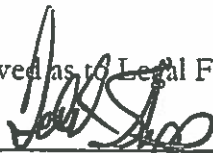
The policies and procedures set forth herein are hereby approved and declared effective unless officially changed.

All previous instructions, written and oral, relative to or in conflict with this manual are hereby superseded.

Signed and approved this 4th day of MARCH, 2019.



Greg Thomas
Secretary

Approved as to Legal Form


Office of Legal Services



UTILITIES & RAILS GUIDANCE MANUAL



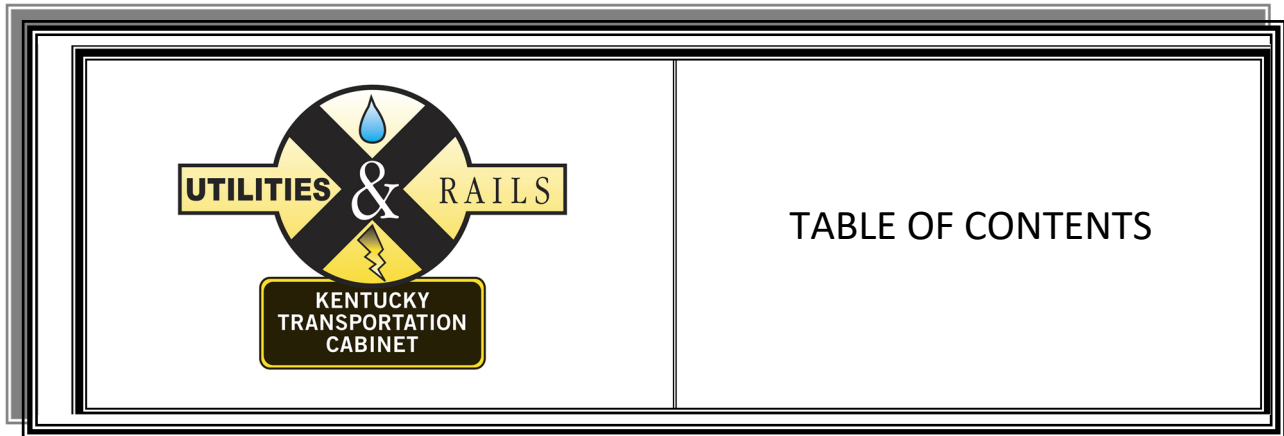
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	Chapter INTRODUCTION
	Subject Design of This Guidance Manual

ORGANIZATION & NUMBERING

Chapters—The subject matter in this manual is divided into chapters. The chapter title appears in the upper right-hand corner of the first page of a subject and in the upper left-hand corner of any subsequent page.

Sections—Some chapters are divided into sections. Each section title, instead of chapter title, appears in the upper right-hand corner of the first page of a subject and in the upper left-hand corner of any subsequent page.

Subjects—Chapters and sections are arranged by subjects.

Subject Number—Each subject is assigned a number, which appears in the upper right-hand corner of each page of the subject. For example, Chapter 300 includes subject 301, followed by subject 302, which is divided into section subjects 302-1 through 302-7.

Subject Title—The title of a subject appears in the upper right-hand corner of the first page of a subject and in the upper left-hand corner of any subsequent page.

“UR” Prefix—Preceding each subject and chapter number, this prefix stands for the manual title *Utilities & Rails*.

Date—The latest issuance date of a subject appears at the bottom left of each page of the subject. This date agrees with the latest issuance date shown for the subject in the Table of Contents (**UR-01**).

Page Numbering—Each subject has its own page numbering, which appears at the bottom of each page.

LOCATING INFORMATION

Indexes—One index appears at the front of the manual, and three indexes appear at the back:

LOCATING

INFORMATION (CONT.)

- **Table of Contents (UR-01)**—This index at the front lists the titles of the manual’s chapters and sections and their subjects, as well as other information, in numerical order. It includes the latest issuance dates of all the subjects. As the manual matures, these dates change.
- **Alphabetical Index (UR-02)**—This index at the back alphabetically lists key information in the manual. Generally, it directs the user to chapter and subject titles referencing the indexed term.
- **Glossary (UR-03)**—This index at the back gives a brief description of commonly used terms and subjects used by the utilities and rails staff.
- **Table of Exhibits (UR-9000)**—This index at the back lists the manual’s exhibits, including forms, worksheets, diagrams, etc., by number and title.

Subject Numbers within Narrative—A subject number within the narrative on a page directs the user to more information about the subject.

QUESTIONS


Whom to Contact—For answers to questions about the contents of the manual, please contact:

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Utilities and Rail Branch
Transportation Cabinet Office Building
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Frankfort, KY 40622
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	<p><i>Chapter</i></p> <p>INTRODUCTION</p>
	<p><i>Subject</i></p> <p>Manual Purpose & Overview</p>

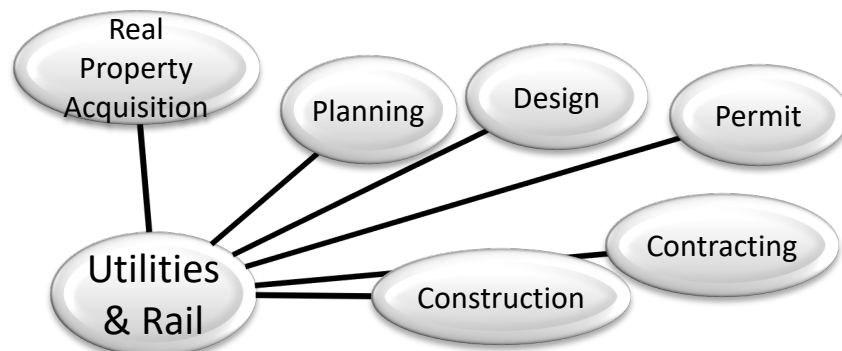
MANUAL PURPOSE

This manual documents the policies and procedures relating to the accommodation, relocation, and adjustment of utility facilities; railroad coordination activities; and select safety improvements at crossings of railroads and public roads.

This manual details the internal and external procedural requirements governing utilities and rails coordination on Transportation Cabinet (Cabinet) highway construction projects and seeks to foster uniformity in the application of state and federal laws, regulations, and policies applicable to the operations of the Utilities and Rail Branch and other Cabinet personnel, agents, and contractors involved in utilities relocation and rails coordination. The policies and procedures contained herein are applicable to the treatment of utility and railroad facilities in the Commonwealth of Kentucky that are affected by Cabinet highway construction and maintenance.

The Utilities and Rail Branch and each Department of Highways’ district Utilities Section administer the Cabinet utilities relocation and railroad coordination functions and are responsible for Cabinet compliance with the [FHWA](#) Railway-Highway Crossings Program and the US Department of Transportation ([DOT](#)) National Highway-Rail Crossing Inventory Program. They are also responsible for coordinating certain other functions of the Cabinet as they may affect utilities relocation and rails coordination activities.

Utilities & Rail Functions



**UTILITIES COORDINATION
FOR HIGHWAY
CONSTRUCTION
(RELOCATION)**

The Cabinet utilities relocation process is governed by [KRS 177.035](#) and [KRS 179.265](#). These statutes control the reimbursement of some or all of the costs of public utility relocation required by Cabinet highway construction projects. The goal of the utilities relocation procedures is to identify and eliminate potential conflicts between the proposed highway construction and existing public utility facilities before those conflicts negatively impact construction activities or public utility facilities.

The Cabinet utilities relocation process allows public utility companies undertaking facilities relocation for the benefit of the Cabinet to use their own planning, design, construction, and accounting practices to the extent practicable. State or federal law or policy may require the use of alternative procedures in order for a utility company to qualify for reimbursement. A utility company may refer to federal and state law, the relocation agreement with the Cabinet, and this manual for guidance.

Undertaking adequate utilities coordination activities early in the highway construction project life cycle is intended to minimize unexpected conflict and unnecessary delay and expense in later phases of the project. The utilities coordination process relies upon early and effective communication with local public utility companies in order to provide the design team with essential information, analysis, and subject matter expertise to further the goal of avoiding existing utility facilities when possible and allowing for thoughtful planning when relocation is necessary. When utility impacts are unavoidable or avoidance impracticable, Utilities and Rail Branch staff work to coordinate relocation of affected facilities in an orderly, efficient, and fiscally responsible manner.

In addition to utilities coordination on individual projects nearing construction, the Utilities and Rail Branch can provide information to public utility companies about future planned highway construction projects that may impact their facilities in furtherance of their long-term planning efforts. [UR-500](#) through [UR-1900](#) detail the utilities relocation process.

**RAILS COORDINATION
FOR HIGHWAY
CONSTRUCTION**

The goal of the rails coordination policy is to identify conflicts with existing railroad facilities directly affected by proposed highway construction and coordinate communication between the rail company and the Cabinet to accommodate rail facilities before those conflicts negatively impact construction activities or the rail facilities.

**RAILS COORDINATION
FOR HIGHWAY**

CONSTRUCTION (CONT.) The Cabinet rails coordination process allows rail companies undertaking facilities relocation for the benefit of the Cabinet to use their own planning, design, construction, inspection, and accounting practices to the extent practicable. State or federal law or policy may require alternative procedures in order for a rail company to qualify for reimbursement. A rail company may refer to federal and state law, the rails agreement with the Cabinet, and this manual for guidance. Undertaking adequate rails coordination activities early in the highway construction project life cycle is intended to minimize unexpected conflict and unnecessary delay and expense in later phases of the project. The rails coordination process relies upon early and effective communication between Utilities and Rail Branch staff and railroad companies in order to provide the design team with essential information, analysis, and subject matter expertise to further the goal of identifying, accommodating, and reconstructing affected rails facilities in an orderly, efficient, and fiscally responsible manner.

The Utilities and Rail Branch rail coordinator can provide information to railroad companies about future planned highway construction projects that may impact their facilities in furtherance of their long-term planning efforts. [UR-2000](#) details the rails coordination program.

**ROAD-RAIL CROSSING
INVENTORY & SAFETY
IMPROVEMENTS**

Transportation safety is of primary concern to the Cabinet, and crossings of motor vehicle traffic lanes and rail lines are of particular concern. Warning devices at highway-rail crossings may lessen the likelihood of accidents but cannot prevent highway-rail at-grade crossing accidents altogether. In the interest of increasing safety, the Cabinet and the FHWA prefer the consolidation or elimination of crossings or the provision of grade-separated crossings. When these alternatives are not practicable, the Cabinet, through the FHWA Railway-Highway Crossings Program and other federal and state law, may provide for the installation of vehicular traffic warning devices such as warning bells, lights, and gates for at-grade crossings, or require the sounding of train whistles at those crossings. Ongoing Cabinet rails safety efforts help increase the safety of the highway traveling public, reduce motor vehicle congestion, and increase rails safety, speed, and reliability.

The Utilities and Rail Branch rail coordinators are responsible for Cabinet compliance with the US DOT National Highway-Rail Crossing Inventory Program by maintaining an inventory of crossings of railroad lines and public highways throughout Kentucky.

ROAD-RAIL CROSSING

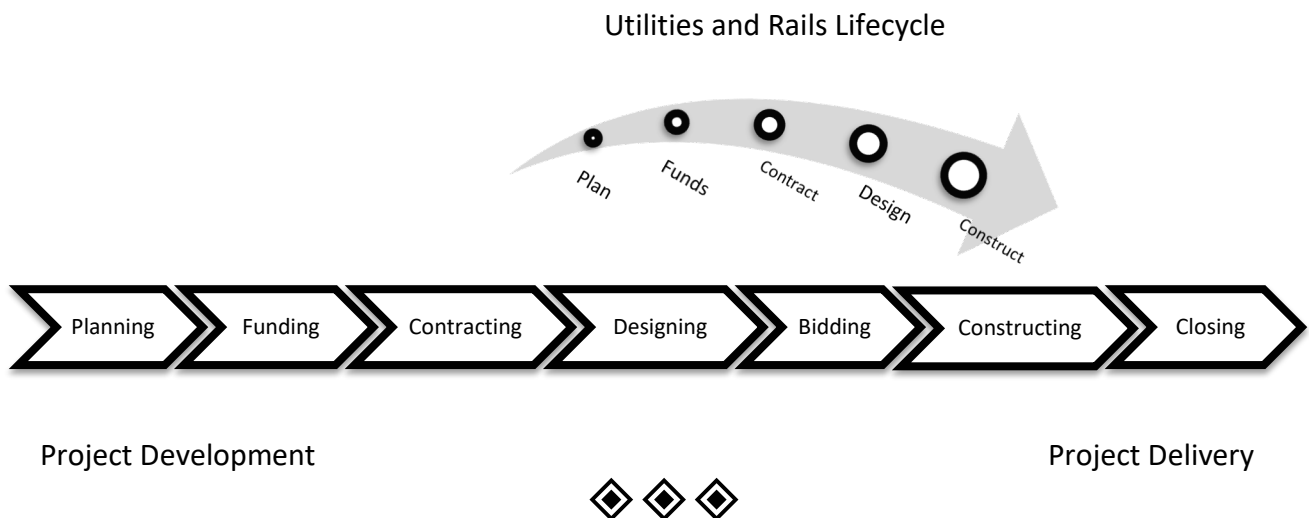
INVENTORY & SAFETY


IMPROVEMENTS (CONT.) Form [FRA F 6180.71](#) is the mechanism by which railroad companies and states update the US DOT National Highway-Rail Crossing Inventory File (National File) on an ongoing basis for all existing open crossings, including the inventorying and numbering of existing or new crossings that are not yet in the National File and the updating of existing crossing identification information after rail lines are transferred to a new operating railroad. Railroads are responsible for public and private vehicular rail crossings and pedestrian rail crossings. The Cabinet is responsible only for public crossings. Utilities and Rail Branch rail coordinators use the inventory to recommend priorities for the allocation of statewide crossing safety improvement funding based upon relative crossing traffic volume and condition. Rail coordinators also oversee the execution of these safety projects. These improvements are accomplished through a federally funded program further detailed in [UR-2100](#).

**BRANCH FUNCTIONS
IN RELATION TO
CABINET PROJECTS**

The Cabinet utilities and rails coordination processes exist to facilitate highway construction, and all branch functions shall be coordinated with project schedules. Utilities and rails coordination may include multiple agreements involving multiple relocation and reconstruction plans, detailed flagging requirements, and multiple design, construction, and inspection contractors for each highway construction project. The overall highway construction project schedule shall give adequate consideration to the time and effort involved in utilities and rails coordination.

**Utilities & Rails Coordination Lifecycle
Relative to Highway Construction Project Lifecycle**



	<i>Chapter</i> LAWS, RULES, & RESOURCES
	<i>Subject</i> General

GENERAL

It is in the public interest for utility facilities to jointly use the right of way of public roads and streets when such use and occupancy does not adversely affect highway use, function, or traffic safety or otherwise impair the roadway or its aesthetic quality. The opportunity for such joint use avoids the additional cost of acquiring separate right of way for the exclusive accommodation of utilities. As a result, the right of way of highways, particularly of local roads and streets, is often used to provide public utility services to abutting residences as well as to serve conventional road needs. In addition to the policies above, the use of highway right of way for the location of a utility facility may not conflict with the provisions of federal, state, or local laws and regulations.


The following are laws and policies controlling or applicable to utility accommodation and relocation within highway right of way:

- [United States Code \(USC\)](#)
- [Code of Federal Regulations \(CFR\)](#)
- [Kentucky Revised Statutes \(KRS\)](#)
- [Kentucky Administrative Regulations \(KAR\)](#)
- Federal and State Executive Orders
- [Manual of Uniform Traffic Control Devices \(MUTCD\)](#)
- [National Electrical Safety Code \(NESC\)](#)
- [FHWA Program Guide Utility Relocation and Accommodation on Federal-Aid Highway Projects](#)

GENERAL (CONT.) The following are various regulatory agencies with oversight authority over utility accommodation within highway right of way:

- [Federal Highway Administration \(FHWA\)](#)
- [Occupational Safety and Health Administration \(OSHA\)](#)
- [Kentucky Transportation Cabinet \(KYTC\)](#)
- [American National Standards Institute \(ANSI\)](#)
- [Institute of Electrical and Electronic Engineers \(IEEE\)](#)




	<i>Chapter</i> LAWS, RULES, & RESOURCES
	<i>Subject</i> Federal Eligibility

**FEDERAL
CONSIDERATIONS IN
UTILITY RELOCATION
& ACCOMMODATION**

Most utility relocation and accommodation issues involve consideration of the following federal questions:

- Accommodation of utility facilities on highway right of way
Each state must decide if, and if so, to what extent and under what conditions, it may allow utility facilities to be maintained on highway right of way, including that of freeways. The state's decision must be documented in a [Federal Highway Administration \(FHWA\)](#)-approved utility accommodation policy. A state may reasonably permit facilities of certain types of utilities and exclude others. The charging of fees for utility use of the highway right of way is within the discretion of each state, and those fees may be used for highway maintenance or as the state sees fit.
- Use of federal-aid highway funds for the relocation of utility facilities
Since the initiation of the Federal-Aid Highway Program in 1916, utility relocation work has been eligible for federal-aid participation as a construction cost item to the extent the state was obligated to pay for such work. During the early years, the use of federal-aid funds for utility relocations was quite limited; however, with the advent of the Interstate Program in the 1950s, it became a much more common practice for the states to use their highway funds to reimburse utilities for relocation costs.



	<p><i>Chapter</i></p> <p>LAWS, RULES, & RESOURCES</p>
	<p><i>Subject</i></p> <p>Federal Laws, Regulations, Policies, & Practices</p>

GENERAL

Utility and railroad facilities, unlike most other fixed objects that may be present within the highway environment, are not owned, nor are their operations directly controlled by, state or local highway agencies. Because of this, highway authorities have developed policies and practices which govern when and how utility and railroad companies may use public highway right of way and under what conditions public funds may be used to relocate utility facilities and to accommodate railroads in highway construction. Federal laws and [Federal Highway Administration \(FHWA\)](#) regulations contained in Title 23 of the [United States Code \(23 U.S.C.\)](#) and the [Code of Federal Regulations \(23 CFR\)](#), respectively, have been developed to codify the use of federal highway funding and federal highway right of way.

FEDERAL LAW

Two sections of 23 U.S.C. deal specifically with utilities:

- [23 U.S.C. 109\(I\)](#) addresses the accommodation of utilities on the right of way of federal-aid highways.
- [23 U.S.C. 123](#) addresses reimbursement for the relocation of utility facilities necessitated by the construction of a project on any federal-aid highway.

One section of 23 U.S.C. deals specifically with railroad and highway crossings:

- [23 U.S.C. 130](#) addresses railroad-highway crossings.

FEDERAL REGULATION

Present FHWA regulations, policies, and practices dealing with utility relocation and accommodation matters have evolved from basic principles established decades ago, with many of the policies remaining unchanged. Present utility regulations are contained in [23 CFR 645](#), and nonregulatory supplements are contained in chapter I, subchapter G, part 645 of the [Federal-Aid Policy Guide \(FAPG\)](#).


**FEDERAL REGULATION
(CONT.)**

- [23 CFR 645](#), Subpart A, addresses issues related to utility relocations, adjustments, and compensation.
- [23 CFR 645](#), Subpart B, addresses the general accommodation of utilities.
- Chapter I, subchapter G, part 645 of the [FAPG](#) provides nonregulatory supplements.

FHWA regulations, policies, and practices dealing with railroad companies are contained in 23 CFR 646 and 23 CFR 924.

- [23 CFR 646](#), Subpart A, addresses the need and applicability of railroad-highway insurance protection.
- [23 CFR 646](#), Subpart B, addresses issues related to railroad-highway projects.
- [23 CFR 924](#) defines the Highway Safety Improvement Program (HSIP), which includes the Railway-Highway Crossings Program.



	Chapter LAWS, RULES, & RESOURCES
	Subject State Laws

**KENTUCKY REVISED
STATUTES**


The [Kentucky Revised Statutes \(KRS\)](#) cited are the primary state laws governing the Transportation Cabinet's (Cabinet) utility relocations and railroad coordination:

- [KRS 179.265](#) requires the cost of relocating any utility facilities originally constructed on *other than* public right of way required to be moved in the reconstruction or improvement of a public road to be borne by the Department of Highways in the case of a road on the state system of highways, or by the public agency having jurisdiction over that public road and sponsoring the reconstruction or improvement.
- [KRS 177.035](#) addresses the conditions under which the cost of relocation of certain publicly owned utility equipment and appliances belonging to any municipality or a municipally owned utility, or certain water districts, certain water associations, any local school district, or certain sanitation districts, to be removed or relocated on, along, over, or under a highway in order to construct, reconstruct, relocate, or improve any highway, shall be borne by the Department of Highways. It also addresses the conditions under which the department may reimburse a privately owned utility that has facilities located within the public right of way pursuant to [KRS 416.140](#) for the cost to relocate if the relocation is required due to a highway construction project.
- [KRS 177.106](#) requires a person or business to obtain a permit from the Department of Highways for encroachments under, on, or over any part of the right of way of a state highway. If the encroachment interferes with the safe, convenient, and continuous use and maintenance of the road, the department may order it removed or relocated upon 30 days' notice to the entity maintaining the encroachment, at their expense. Failure to remove or relocate the encroachment in conformance with the order allows the department to cause the encroachment to be removed and to charge the expense for the removal to the entity maintaining the encroachment.

**KENTUCKY REVISED
STATUTES (CONT.)**

- [KRS 177.110-177.210](#) provides the Cabinet the right to eliminate any grade crossing or change any existing overhead or underpass structure where any public road crosses railroad tracks. The statutes provide procedures to execute these changes and address the policy on the interactions between the Cabinet and the involved railroad.
- [KRS 277.065](#) provides how the costs of eliminating hazards of railroad-highway crossings shall be allocated between the railroad and the governmental unit involved. Elimination of hazards includes separation or protection of grades at crossings, reconstruction of existing railroad crossing structures, and highway relocation to eliminate railroad crossings. The statute authorizes the expenditure of state funds for hazard elimination and restricts a railroad's maximum benefit to 10 percent of the total benefit resulting from the project.
- [KRS 277.190](#) requires bells and whistles on locomotive engines and regulates their use. The statute also allows local governments to regulate the sounding of train whistles at night.
- [KRS 367.4901-4917](#) requires underground utilities to be notified and located in advance of excavations, and defines the terms by which underground utilities are located for design, construction, and emergency projects. The statute outlines the responsibilities of parties typically involved: utility companies, engineers, contractors, and protection notification centers.
- [KRS 416.140](#) allows any person authorized to produce, supply, transmit or sell water, electricity, gas or gasoline for light, heat, domestic use or power, to construct and maintain transmission or distribution lines for use in the transmission and sale under, on, along, or over any right of way used as a state highway, county road, public way, or dedicated road outside the limits of a city, and over, under, or across any of the waters of this state outside the limits of a city. The statute prohibits utility fixtures from interfering with, obstructing, or endangering travel on and along the highway or road, or obstructing the navigation of waters. In addition, before installing a utility, the statute requires a person to first obtain a permit from the Cabinet. The statute also addresses the conditions under which the department may require the removal or relocation of such facilities and who incurs liability for the costs thereof.



	Chapter LAWS, RULES, & RESOURCES
	Subject Table of Authorities

**STATUTORY
PROVISIONS**

The following [United States Code](#) (USC) sections are available online:

- [18 USC 874](#)
- [23 USC 109\(I\)](#)
- [23 USC 123](#)
- [23 USC 130](#)
- [33 USC 1368](#)
- [40 USC 3141-3148](#) and [guidance](#)
- [42 USC Chapter 85](#) and [guidance](#)

The following Kentucky Revised Statutes (KRS) are available online:

- [KRS 177.035](#)
- [KRS 177.106](#)
- [KRS 177.110 – 177.210](#)
- [KRS 179.265](#)
- [KRS 45A.480](#)
- [KRS 277.065](#)
- [KRS 277.190](#)
- [KRS 278.010](#)
- [KRS 337.505](#)
- [KRS 337.550](#)
- [KRS Chapter 338](#)
- [KRS Chapter 341](#)
- [KRS Chapter 342](#)
- [KRS 367.4901 – 367.4917](#)
- [KRS Chapter 371 \(371.400 – 371.425\)](#)
- [KRS 416.140](#)

REGULATORY**PROVISIONS**

The following regulatory provisions (Code of Federal Regulations) are available online:


- [23 CFR 635.309](#)
- [23 CFR 645, Subpart A](#)
- [23 CFR 645, Subpart B](#)
- [23 CFR 646, Subpart A](#)
- [23 CFR 646, Subpart B](#)
- [23 CFR 924](#)
- [29 CFR 3.1 – 3.11](#)
- [49 CFR 18.42](#)

**BOOKS, PERIODICALS,
& ANNOTATIONS**

The following references provide additional information on topics encountered in this manual:

- [American National Standards Institute \(ANSI\)](#)
- [Executive Order 11738](#)
- [FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects](#)
- [Finance and Administration Cabinet Manual of Policies and Procedures](#)
- [Institute of Electrical and Electronic Engineers \(IEEE\)](#)
- [Kentucky Standard Specifications for Road and Bridge Construction](#)
- [Manual of Uniform Traffic Control Devices \(MUTCD\)](#)
- [National Electrical Safety Code](#)
- [Occupational Safety and Health Administration \(OSHA\)](#)
- [OSHA Safety and Health Regulations for Construction](#)
- [Transportation Cabinet Construction Guidance Manual](#)
- [Transportation Cabinet Highway Design Guidance Manual](#)
- [Transportation Cabinet Permits Guidance Manual](#)
- [Transportation Cabinet Right of Way Guidance Manual](#)
- [Transportation Cabinet Standard Drawings](#)



	<p><i>Chapter</i></p> <p>ROLES & RESPONSIBILITIES</p>
	<p><i>Subject</i></p> <p>General</p>

OVERVIEW The utility and rail responsibilities within the Transportation Cabinet (Cabinet) are divided into three primary functions:

- Utility Coordination
- Railway-Highway Crossing Safety Improvements
- Railroad Coordination

Employees throughout the Cabinet influence utilities and rails work. Their decisions can significantly affect the outcome of a project. Because those decisions are important, it is critical for all utilities and rail staff to:

- Appropriately document milestone decisions on utility and rail issues
- Communicate their decisions with other affected functional areas and utility and rail owners, whether by letter or email
- Maintain records of correspondence and documentation

**UTILITY
COORDINATION
FUNCTION**

Utilities coordination is the mechanism by which the Cabinet identifies, resolves, and relocates utility facilities that are in conflict with highway construction. [KRS 177.035](#) requires the Cabinet to reimburse certain publicly owned utilities for relocating their facilities due to conflict with highway construction. It also addresses the conditions under which the department may reimburse a privately owned utility that has facilities located within the public right of way. [KRS 179.265](#) requires the cost of relocating any utility facilities originally constructed on *other than* public right of way required to be moved in the reconstruction or improvement of a public road to be borne by the Department of Highways in the case of a road on the state system of highways, or by the public agency having jurisdiction over that public road and sponsoring the reconstruction or improvement.

ACTIVE PROJECT**COORDINATION**

The district office is responsible for direct project development and delivery that is necessary to relocate utility facilities. District offices have staff available to provide the day-to-day management of the Cabinet's utilities functions. These individuals:

- Estimate utility relocation costs
- Authorize utility companies to plan relocations
- Negotiate and draft reimbursement agreements
- Validate and pay current invoices and lump sum final invoices
- Manage the utilities phase of road projects
- Coordinate relocation concerns with all project team members
- Inspect relocations

PROJECT SUPPORT

The Central Office Utilities and Rail Branch has personnel assigned to utility coordination support. These individuals:

- Facilitate the programming of utility funds
- Notify the district of funding availability
- Execute agreements
- Coordinate audits
- Review, process, and store keep-cost final invoices
- Interpret policy and procedure
- Coordinate the project with Federal Highway Administration ([FHWA](#)) and outside agencies
- Develop standards
- Provide technical support to district office staff

**ROAD-RAILROAD
CROSSING SAFETY
IMPROVEMENT
FUNCTION**

The Central Office Utilities and Rail Branch has personnel assigned to facilitate railway-highway crossing safety projects. It derives its authority from [23 U.S.C. 130](#), which addresses railway-highway crossings. This is a federally funded, cooperative program between the Cabinet and railroad companies to upgrade and maintain railway-highway crossing surfaces and warning devices.

**ROAD-RAILROAD
CROSSING SAFETY
IMPROVEMENT
FUNCTION (CONT.)**

Central Office staff maintains the majority of project-specific duties concerning rail-related projects. These individuals perform the following tasks:

- Inventory crossings statewide
- Assess safety concerns of crossings
- Recommend projects
- Secure funding for recommended projects
- Coordinate projects
- Negotiate costs
- Write agreements with railroad companies
- Process final invoices

District office staff:

- Validate invoices
- Pay current invoices
- Provide local support during project execution

**RAILROAD
COORDINATION
FUNCTION**

The Central Office Utilities and Rail Branch has personnel assigned to coordinate railroad involvement on road projects. [KRS 277.065](#) provides direction on how the costs of eliminating hazards of railroad-highway crossings shall be allocated between the railroad and the Cabinet. This function fosters a cooperative partnership between the Cabinet and railroad companies to successfully execute road projects involving railroad facilities.

Central Office staff maintains the majority of project-specific duties concerning rail-related projects. These individuals perform the following tasks:

- Secure funding for railroad coordination efforts
- Act as liaison between the Cabinet and the railroad company
- Negotiate railroad involvement and costs

RAILROAD**COORDINATION****FUNCTION (CONT.)**

- Coordinate the project involvement
- Draft and execute agreements with railroad companies
- Process final invoices

District office staff:

- Validate invoices
- Pay current invoices
- Provide local support during project execution

RESPONSIBILITY OF**DATA MANAGEMENT**

The Cabinet utilizes a web-enabled data system called [KURTS \(Kentucky Utilities and Rail Tracking System\)](#). This system provides a record source for utilities and rail personnel at both Central Office and district offices. The system retains coordination documents and records noted in this section. These records include the approval and retainage of relocation plans, estimates, agreements, invoices, and change orders.


Overall system functionality and administration is the responsibility of the Division of Right of Way and Utilities, Utilities and Rail Branch. The program coordinator (PC) and Utilities Branch Manager are authorized system administrators for KURTS and receive general user requests and new user applications.

The execution of project level utility work, such as document generation, submissions, and approvals, fall to the authorized KURTS users. These users may be the utility area coordinator (AC), district utility supervisor (DUS), or others.

The execution of project level rail work, such as document generation, submissions, and approvals, extend to the authorized KURTS users. These users may be the rail coordinator (RC), rail safety coordinator (RSC), or others.

Utility companies and railroad companies may also generate and submit documents in KURTS and are responsible for the quality and timeliness of the data they provide.



	<p><i>Section</i></p> <p>UTILITIES & RAIL BRANCH PERSONNEL</p>
	<p><i>Subject</i></p> <p>Branch Responsibilities Overview</p>

RESPONSIBILITIES

The Central Office Utilities and Rail Branch is responsible for coordinating utilities and rails from a statewide perspective. The utility function of Central Office staff is to coordinate the fiscal aspects of projects and to assist district staff in executing projects by providing technical support, review, and policy interpretation. The rail function of Central Office staff is much more involved in the actual project execution.


Branch functions are assigned to the following:

- The utility area coordinator (AC) ([UR-302-2](#)) works within the Transportation Cabinet (Cabinet) and with outside agencies and utility companies to facilitate utility relocations. The AC provides quality assurance by reviewing project documents to ensure viability and compliance with Cabinet policy, laws, and regulations. The AC is the primary Central Office contact for district office utility staff.
- The rail safety coordinator (RSC) ([UR-302-3](#)) works within the Cabinet and with outside agencies and railroad companies to facilitate railway-highway crossing safety improvements including the closure of crossings and the upgrading of crossing surfaces and warning devices. The RSC provides project oversight from conceptual planning to execution.
- The rail coordinator (RC) ([UR-302-4](#)) works within the Cabinet and with outside agencies and railroad companies to facilitate execution of highway projects that impact railroad facilities. Some coordination efforts go beyond furthering the highway construction to involve cooperative agreements between the Cabinet and a railroad company to improve a particular railroad-highway crossing. The RC shall be involved in a highway project during all phases of the project that impact railroad facilities.

**RESPONSIBILITIES
(CONT.)**

- The program coordinator (PC) ([UR-302-5](#)) manages transactions and processes final vendor invoicing payments for designated utilities and rails contracts. The PC also generates and reviews reports, assists with audits, manages data and data systems, and supports and coordinates the processing of data and the exchange of information between project partners.
- Administrative support (AD) ([UR-302-6](#)) performs administrative duties to support the day-to-day functions for the Central Office Utilities and Rail Branch and provides professional administrative support in the review, development, and implementation of the branch's activities.
- The Utilities and Rail Branch Manager (UBM) ([UR-302-7](#)) provides overall management for all branch sections and units to ensure appropriate, economical, and efficient operations. The UBM plans and reviews the work of employees in the administration of utilities and rail programs while ensuring adherence to branch policy and procedure.



	Section UTILITIES & RAIL BRANCH PERSONNEL
	Subject Utility Area Coordinator

RESPONSIBILITIES


The utility area coordinator (AC) works with Transportation Cabinet (Cabinet) staff, state and federal agencies, and utility companies to facilitate timely, economical, and appropriate utility relocations. The AC provides quality assurance review to ensure compliance with plans, estimates, Cabinet policies, and state and federal laws and regulations. The AC is the primary Central Office contact for district office utility staff. The AC shall do the following:

- Facilitate the utility relocation process
- Provide guidance and training for district personnel
- Consult with and advise district personnel during review of deliverables, which include, but are not limited to, the following:
 - ◆ Utility or consultant proposals
 - ◆ Fund requests
 - ◆ Agreements
 - ◆ Memoranda of agreement
 - ◆ Invoices
 - ◆ Change orders
 - ◆ Impact notes
 - ◆ Correspondence
- Attend field inspections and other project-related meetings with Central Office, district office, and outside agency personnel
- Manage utilities documents and respond appropriately upon receipt of submittals
- Support branch customers (district personnel, other Cabinet offices, the public, and other government agencies) and partners (project development teams and utility companies)
- Develop, review, and store records and documentation specific to a project or general utility company data

**RESPONSIBILITIES
(CONT.)**

- Advise on Cabinet policy and procedure on utility and railroad matters
- Close projects and calculate final project costs for federal projects




	<p><i>Section</i></p> <p>UTILITIES & RAIL BRANCH PERSONNEL</p>
	<p><i>Subject</i></p> <p>Rail Safety Coordinator</p>

RESPONSIBILITIES

The rail safety coordinator (RSC) coordinates certain activities of the Transportation Cabinet (Cabinet), other state and federal agencies, and railroad companies to facilitate timely, economical, and appropriate upgrades and maintenance of railway-highway crossing facilities and warning devices pursuant to the [Federal Highway Administration \(FHWA\)](#) Railway-Highway Crossings Program ([23 USC 130](#)). The RSC shall do the following:

- Oversee and perform field inventory surveys of public at-grade crossings for each crossing every three years
- Use surveys and other criteria to rank crossings based on need for improvement
- Update the [Federal Railroad Administration \(FRA\)](#) database of public at-grade crossings
- Develop, initiate, manage, and inspect program projects
- Verify and process payment of final invoices for the installation, operation, and maintenance of railroad crossing warning devices
- Develop, review, and store records and documentation specific to a project or general railroad company data
- Serve as the Cabinet liaison for rail safety issues
- Maintain the fiscal integrity of the program
- Recommend improvements to the program




	Section UTILITIES & RAIL BRANCH PERSONNEL
	Subject Rail Coordinator

RESPONSIBILITIES

The rail coordinator (RC) works within the Transportation Cabinet (Cabinet) and with outside agencies and railroad companies to facilitate the timely and economical execution of highway projects that impact railroad facilities. The coordinator shall be involved in a highway project during all phases that impact railroad facilities. Some coordination efforts go beyond furthering the highway construction to involve cooperative agreements between the Cabinet and a railroad company to improve a particular railroad-highway crossing. The RC shall:

- Serve as the Cabinet liaison for railroad-related issues
- Coordinate project activities between the Cabinet and railroad companies
- Consult with and advise railroad companies and review project submissions
- Estimate funding needs and draft, review, and negotiate agreements, invoices, change orders, special notes, and correspondence
- Develop, review, and store records and documentation specific to project, general, and company
- Attend field inspections and other project-related meetings
- Support the efforts of project development teams and railroad companies
- Support rail safety staff
- Recommend and coordinate rail improvements with district offices




	Section UTILITIES & RAIL BRANCH PERSONNEL
	Subject Program Coordinator

RESPONSIBILITIES

The program coordinator (PC) supports and coordinates the processing of data and exchange of information between members of the Utilities and Rail Branch, district offices, other individuals, and agencies external to the Utilities and Rail Branch. The PC shall:

- Provide assistance in fiscal utility and rail processes statewide
- Prepare fiscal documents using the Transportation Cabinet's (Cabinet) fiscal management system and process necessary documents
- Monitor each project's fiscal progression
- Maintain utility or rail program data and Kentucky Utilities and Rail data system
- Track payments to vendors and maintain pertinent vendor numbers statewide
- Respond to questions related to contracts, change orders, and payments
- Provide reports and program data relative to utility and rail functions
- Provide administrative assistance in the form of document writing, meeting attendance, filing, copying, etc.




	<i>Section</i> UTILITIES & RAIL BRANCH PERSONNEL
	<i>Subject</i> Administrative Support

RESPONSIBILITIES

Administrative support team members (AD) perform administrative duties to support the day-to-day functions for the Utilities and Rail Branch. They provide professional administrative support in the review, development, and implementation of the Cabinet's activities and overall office support. The AD shall:

- Provide general administrative and office management services
- Support fiscal processes and reporting needs
- Support policy and procedure development
- Proof documents for accuracy and ensure the completion of review
- Maintain branch filing systems
- Obtain, compile, prepare, draft, and maintain articles, correspondence, data, fiscal records, manuals, manuscripts, memoranda, etc. for the branch




	<i>Section</i> UTILITIES & RAIL BRANCH PERSONNEL
	<i>Subject</i> Branch Manager

RESPONSIBILITIES

The Utilities and Rail Branch Manager (UBM) provides overall management for all sections and units within the branch to ensure appropriate, economical, and efficient operations. The UBM shall:

- Assist in the establishment and implementation of the utility and rail programs
- Provide technical assistance in the development and interpretation of policy, processes, specifications, standards, and new technologies
- Communicate with divisions, districts, vendors, and the Federal Highway Administration to resolve questions and conflicts concerning the utility and rail programs
- Prepare reports with recommendations for policies, plans, and procedures
- Make field visits to district offices to resolve utility and rail issues and to discuss the development of forthcoming utility and rail projects
- Review and approve fiscal processes developed and submitted by branch personnel, district personnel, and consultant engineers
- Plan, assign, supervise, evaluate, and coordinate the work of professional, technical, and administrative personnel within the branch
- Support all partners involved in the function of the branch



	Section DISTRICT OFFICE PERSONNEL
	Subject District Responsibilities Overview

DISTRICT OFFICE FUNCTIONS


The district office is responsible for day-to-day management of highway projects, as they have the specific knowledge, expertise, and regional experience to complete the tasks at hand. There are many roles defined at the district level, but in many cases, one staff member may perform multiple functions. The roles and duties identified are as follows:

- The utility supervisor (US) ([UR-303-2](#)) oversees and manages the activities of the Utilities Section, approves utility agreements and other legally binding documents, issues decisions on project utility matters, enforces the Transportation Cabinet's (Cabinet) utility accommodation policy, and resolves outstanding utility issues. The US serves as a central resource for utility issues at the district office and is the primary contact with the Central Office Utilities and Rail Branch.
- The utility agent (UA) ([UR-303-3](#)) deals directly with the utility companies and project management relative to utility relocation. The UA is most familiar with the utility needs of the individual project. The UA reviews district plans and utility relocation plans and recommends changes. The UA communicates between project partners to prepare, review, and process all fiscal utility documents. A critical portion of the UA's responsibility is to ensure the proper relocation of the utilities via inspection and oversight. The UA is the liaison between the district and the utility owners on project matters and assists on railroad matters as a local liaison.
- The project engineer (PE) ([UR-303-4](#)) is the manager of the road project itself and sets the priorities and budgets for assigned transportation projects, oversees projects, and supports the work of those who are involved in the different aspects of the process.
- The Project Development Branch Manager (PDBM) ([UR-303-5](#)) is responsible for the overall project during the development process and is the individual who is responsible for each stage of project development.

**DISTRICT OFFICE
FUNCTIONS (CONT.)**

- Administrative support (AD) ([UR-303-6](#)) performs administrative duties to support day-to-day functions for the district Utilities Section. They provide professional administrative support in the review, development, and implementation of project fiscal matters.



	<p><i>Section</i></p> <p>DISTRICT OFFICE PERSONNEL</p>
	<p><i>Subject</i></p> <p>Utility Supervisor</p>

RESPONSIBILITIES

The utility supervisor (US) oversees and manages the activities of the utility agents, approves utility agreements and other legally binding documents, issues decisions on project utility matters, enforces the Transportation Cabinet's (Cabinet) utility accommodation policy, and resolves outstanding utility issues. The US is the liaison with Central Office and is the primary contact for the district office regarding utility issues. The roles of the US and utility agent (UA) are often comingled, but the US shall:


- Meet with utility companies to develop strategies for conflict identification, avoidance, and relocation of facilities specific to a project
- Work with the project engineer to ensure utility facilities are relocated as outlined in the project schedule or avoided when viable.
- Coordinate the utility relocation process for preconstruction projects
- Negotiate, review, approve, and submit project deliverables, such as utility relocation agreements, relocation plans, cost estimates, invoices, change orders, and funding requests
- Develop and store records and documentation specific to project and company
- Develop and review documents necessary for road project bidding (utility and rail clearance notes, specs, relocation plans, and estimates going into the road contract)
- Communicate utility and rail matters with project partners to promote project effectiveness
- Meet with utility companies and section staff to develop relocation strategies for future projects in the Six Year Road Plan

RESPONSIBILITIES (CONT.)

- Promote successful, effective, and fiscally responsible utility coordination, relocations, rail coordination, and safety improvements

- Supervise the district Utilities Section




	<i>Section</i> DISTRICT OFFICE PERSONNEL
	<i>Subject</i> Utility Agent

RESPONSIBILITIES

The utility agent (UA) deals directly with the utility companies and project management relative to utility relocation. The UA is most familiar with the utility needs of the individual project. The UA shall:

- Communicate with all involved parties via letters, emails, meetings, etc., and utilize sound management skills to ensure the utility company facilities are successfully avoided or relocated
- Review and recommend revisions to district plans and utility relocation plans
- Perform utility relocation estimates for project budgeting purposes (which may include a site visit, plan review, quantifying work, and allocating costs)
- Negotiate, prepare, and process fiscal and nonfiscal documents on projects to facilitate successful project execution
- Review project deliverables, such as plans, estimates, agreements, change orders, permits, etc., to ensure accuracy and appropriateness and provide recommendations to the utility supervisor
- Meet with project partners (project team, utility company, contractors, property owners, etc.) to coordinate work and resolve conflicts by facility avoidance or relocation
- Develop and store records and documentation specific to project and company
- Inspect the utility and rail coordination process to ensure proper delivery of the planned work
- Serve as the liaison between the district and the utility owners on project matters and assist on railroad matters as a local liaison




	Section DISTRICT OFFICE PERSONNEL
	Subject Project Engineer

RESPONSIBILITIES

The project engineer (PE) manages the individual road project, setting priorities and budgets for assigned transportation projects in his or her district. In relation to utilities and rails, the PE shall do the following:

- Establish a project team that involves each specialization within the project development process, including a utility section representative and rail coordinator (if applicable)
- Provide communication, guidance, support, and advice to the project team, including the utility section representative and rail coordinator (if applicable)
- Coordinate significant project decisions and design changes with utility and railroad impacts considered
- Involve the Utilities Section and rail coordinator at each milestone stage in the development of the project
- Manage the project to ensure adequate schedule for utility relocation and railroad coordination
- Identify and engage the utility companies with facilities in the project scope to determine impacts and opportunities for avoidance
- Cooperatively work to document conflicts with utility facilities and subsequent remedies via avoidance or utility relocation




	<i>Section</i> DISTRICT OFFICE PERSONNEL
	<i>Subject</i> Project Development Branch Manager

RESPONSIBILITIES

The Project Development Branch Manager (PDBM) is responsible for the district project development program as a whole and the individual project development. The PDBM oversees the individuals responsible for any particular stage of project development in the plan development process. In relation to utilities and rails, the PDBM shall:

- Oversee activities to ensure proper coordination of all specialized project development fields at the district office
- Oversee all consultant functions of projects, ensuring the consultant understands and completes all tasks satisfactorily
- Assist and support the establishment, implementation, and maintenance of the district utilities and rails programs
- Approve both fiscal and nonfiscal decisions of the utilities and rail programs




	<i>Section</i> DISTRICT OFFICE PERSONNEL
	<i>Subject</i> Administrative Support

RESPONSIBILITIES

Administrative support (AD) performs duties similar to the Central Office administration staff but also performs tasks identified as program coordinator (PC) duties. [UR-302-6](#) details typical administrative roles, but the AD shall also:

- Prepare fiscal documents using the Transportation Cabinet's fiscal management system and process necessary documents
- Monitor expenditures and funding status of district projects
- Track payments to vendors
- Respond to questions related to contracts, change orders, and payments



	<i>Section</i> SUPPORT TEAMS
	<i>Subject</i> Overview

CABINET**SUPPORT TEAMS**


Utilities and rails impact and are impacted by many Transportation Cabinet (Cabinet) offices. Those offices most frequently affecting utilities and rail functions are:

- Construction ([UR-304-2](#))
- Right of Way ([UR-304-3](#))
- Highway Design ([UR-304-4](#))
- Surveying ([UR-304-5](#))
- Permits ([UR-304-6](#))
- Legal Services ([UR-304-7](#))

EXTERNAL**SUPPORT TEAMS**

Cabinet utilities and rails functions are often affected by agencies outside of the Cabinet—most notably, the [Federal Highway Administration](#) (FHWA). [UR-304-8](#) further details FHWA involvement with Cabinet utilities and rails functions.



	Section <p>SUPPORT TEAMS</p>
	Subject <p>Construction</p>

GENERAL

The Division of Construction administers highway construction from contract award through project completion, including verifying all final estimates and paying the contractor.

The Division of Construction provides technical advice and support to district construction and maintenance personnel. Construction personnel include construction section engineers, construction project engineers, field engineers, inspectors, and field crews.


The Division of Construction and district construction personnel oversee roadwork, which creates the need for utility relocation. The new location of utility facilities and the details of railroad coordination are of particular interest to construction personnel. It is imperative that they be provided the most accurate plans.

For utility relocation work that is to be incorporated into a road project, the Division of Construction shall oversee the work necessary to relocate such utility facilities. They are also responsible for the daily inspection of the roadwork to ensure compliance with plans and specifications and for monitoring progress.

The Division of Construction provides:

- The *Construction Guidance Manual* that gives detailed instructions for field inspection and contract administration
- The *Kentucky Standard Specifications for Road and Bridge Construction* that gives specifications approved for general application and repetitive use by the Cabinet
- Formal training programs for project personnel
- Technical advice and support to district staff



	<i>Section</i> <p>SUPPORT TEAMS</p>
	<i>Subject</i> <p>Right of Way</p>

GENERAL

The Division of Right of Way and Utilities (located in the Office of Project Development) and the district Right of Way Section (located in the Project Development Branch) are responsible for the acquisition and disposition of right of way in compliance with current federal and state laws and regulations.

Utility relocations may require property acquisition and preparation. Communication between right-of-way personnel and utilities and rail staff is essential to executing utility relocations in order for road construction to begin.

Right-of-way personnel:

- Appraise real property value in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act)
- Relocate displaced persons in accordance with the Uniform Act
- Provide or assist in the development of right-of-way impact studies early in the planning stages
- Identify socioeconomic impacts to the communities affected
- Assist the Division of Planning and the Division of Highway Design in selecting the most appropriate and economically feasible roadway location by participating in environmental studies and cost studies of alternative routes

Conduct field inspections of proposed routes to prepare cost estimates


- Acquire right of way needed for project execution
- Acquire replacement utility easements authorized under an easement agreement ([UR-1104-8](#))

GENERAL (CONT.)

The Division of Right of Way and Utilities provides:

- The *Right of Way Guidance Manual* and the *Relocation Assistance Manual* that give detailed instructions for acquisition, relocation, and appraisal of real property
- Formal training programs to improve the skills of staff
- Technical advice and support to the project development team pertaining to road project design



	Section SUPPORT TEAMS
	Subject Highway Design

GENERAL

The Division of Highway Design is fundamental to the project development process. The division designs the proposed highway, but in order to determine the best transportation design, they coordinate with different Transportation Cabinet (Cabinet) personnel, including those in the Utilities and Rail Branch. Utilities and rails concerns shall be considered throughout the project's design.


Designers:

- Ensure that a project satisfies the project purpose and transportation need as agreed by a full range of stakeholders
- Ensure that a project is safe; harmonious with the community; adequately preserves environmental, scenic, aesthetic, historic, and natural resources; meets expectations; efficiently and effectively uses resources; is minimally disruptive; and has lasting value
- Communicate with all stakeholders in an open, honest, early, and continuous manner
- Initiate collaborative efforts with involved utility companies to assess project impacts with the intention of identifying utility relocation needs and avoidance opportunities

The Division of Highway Design provides:

- The *Highway Design Guidance Manual* that gives detailed instructions for design components of road projects
- The Department of Highways' *Standard Drawings* that gives detailed drawings approved for repetitive use
- Project leadership through the project engineer (PE)
- Technical advice and support to the project development team



	<i>Section</i> <p>SUPPORT TEAMS</p>
	<i>Subject</i> <p>Surveying</p>

GENERAL


Surveying is a subset of the Division of Highway Design and the district Design Section. The establishment of the survey control of a project area is the basis for executing the design in the field.

Beyond initiating the project survey control, the district survey team collects data on utility facilities within the project area. This data includes detailed, accurate information on aboveground appurtenances. More accurate horizontal and vertical locations of underground utilities may be provided through field locations and subsurface utility surveys. These detailed investigations can help with the roadwork design and clarify the project's utility relocation requirements. It is important that utilities and rail staff be advised of the survey control boundaries and that they proactively request utility locations within those boundaries when necessary.

The surveying function provides:

- Horizontal and vertical control points to be used in all phases of project implementation
- Location data for identifying the project and its features, both existing and proposed
- Location data specific to utility facilities that clarify the relocation requirements of the project
- Location data specific to railroad facilities for coordination with the railroad company
- Technical advice and support to the project development team
- Subsurface Utility Engineering (SUE) services through a project design consultant or a statewide surveying contract as detailed in [UR-506](#)



	Section SUPPORT TEAMS
	Subject Permits

GENERAL

Any utility company, firm, individual, or governmental agency that wants to perform any work or conduct any activity on state right of way must obtain an encroachment permit. Utility relocations performed pursuant to highway construction are not an exception. Utility relocation projects shall comply with the Transportation Cabinet's (Cabinet) utility accommodation policy ([UR-400](#)).

District permits staff process permits and permanently store records relating to current and historical permits, as well as all applications for permits. The district permits staff may assist the utilities staff in determining the viability of elements of a proposed relocation.


District permits staff (located in the Traffic Engineering and Permits Section) and the Central Office Permits Branch (located in the Division of Maintenance) are primary resources for utility and rail staff on Cabinet permits policy and procedure.

Permits staff provides:

- The *Permits Guidance Manual* which gives detailed instructions for the encroachment permit process and direction in applying Cabinet utility accommodation policy
- Permit numbers for utility agreements and permits associated with facility relocations undertaken as part of the utilities phase of highway projects
- Information about non-project-related utility permit work that may affect highway construction
- A permanent repository for all permits including utility agreement permits

Note: The Utilities and Rail Branch will only maintain project records including utility relocation permits for three years after closeout of the utility phase of the project.




	<i>Section</i> SUPPORT TEAMS
	<i>Subject</i> Legal Services

GENERAL

The Office of Legal Services assigns attorneys at both the Central Office and district offices to act as counsel to the Transportation Cabinet on all legal matters, including utility and railroad issues. The legal services staff also reviews and approves all utility and rail agreements.

Utilities and rail personnel shall consult legal services staff members regarding laws, rules, or regulations that are disputed or otherwise unclear.



	<p><i>Section</i></p> <p>SUPPORT TEAMS</p>
	<p><i>Subject</i></p> <p>Federal Highway Administration (FHWA)</p>

GENERAL

The [Federal Highway Administration \(FHWA\)](#), an agency of the U.S. Department of Transportation ([USDOT](#)), coordinates highway transportation programs in cooperation with states and other partners to enhance the country's safety, economic vitality, quality of life, and the environment. Major program areas include the Federal-Aid Highway Program, which provides federal financial assistance to the states to construct and improve the National Highway System, urban and rural roads, and bridges. This program provides funds for general improvements and development of safe highways and roads. The FHWA organizational structure may be found at:

<http://www.fhwa.dot.gov/org.html>

FHWA federal-aid division offices provide front-line, federal-aid program delivery assistance to partners and customers in highway transportation and safety services.


The FHWA has program oversight, some project-level oversight, and approval responsibility for all federal-aid projects.

Pursuant to 23 [USC](#) 106(c), the FHWA and the Transportation Cabinet (Cabinet) have agreed to follow the procedures set forth in the Cabinet and FHWA Stewardship Plan to carry out their respective oversight responsibilities in the delivery of federal-aid projects. The most recent agreement may be found at:

<https://www.fhwa.dot.gov/federalaid/stewardship/agreements/ky.pdf>

Federal laws, regulations, and policies in effect at the time of the publication of this manual related to utility and rail activities are listed in [UR-202](#), [UR-203](#), and [UR-205](#).



	Section GENERAL UTILITY ACCOMMODATION PRACTICES
	Subject Overview

PURPOSE

This chapter details Transportation Cabinet (Cabinet) policy for accommodating utility facilities during highway construction. These policies apply to the utility facilities operating on Kentucky-owned or Kentucky-controlled right of way, with the exception of utility lines necessary for servicing highway facilities. The policy contained herein is supplementary to the Cabinet's Division of Maintenance *Permits Guidance Manual* and *FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects*. Readers must consult these publications for the full measure of the Cabinet's policies toward utility accommodation.

The accommodation policy and procedure herein describes the proper and permissible locations for relocation of existing utility facilities.

DEFINITION OF A UTILITY

The Cabinet (from [KRS 177.035](#) and [KRS 278.010](#)) defines *utility* as:

- Any municipality or a municipally owned utility
- Any water district established pursuant to [KRS Chapter 74](#)
- Any water association established pursuant to [KRS Chapter 273](#)
- Any local school district
- Any sanitation district established pursuant to [KRS Chapter 220](#)
- Any natural person, partnership, corporation, or two or more persons having a joint or common interest, except a regional wastewater commission established pursuant to [KRS 65.8905](#), or a city, who owns, controls, operates, or manages any facility used or to be used for or in connection with:
 - ◆ The generation, production, transmission, or distribution of electricity to or for the public, for compensation, for lights, heat, power, or other uses

**DEFINITION OF A
UTILITY (CONT.)**

- ◆ The production, manufacture, storage, distribution, sale, or furnishing of natural or manufactured gas, or a mixture of same, to or for the public, for compensation, for light, heat, power, or other uses
- ◆ The transporting or conveying of gas, crude oil, or other fluid substance by pipeline to or for the public, for compensation
- ◆ The diverting, developing, pumping, impounding, distributing, or furnishing of water to or for the public, for compensation
- ◆ The transmission or conveyance over wire, in air, or otherwise, of any message by telephone or telegraph for the public, for compensation
- ◆ The collection, transmission, or treatment of sewage for the public, for compensation, if the facility is a subdivision collection, transmission, or treatment facility plant that is affixed to real property and is located in a county containing a city of the first class or is a sewage collection, transmission, or treatment facility that is affixed to real property, that is located in any other county, and that is not subject to regulation by a metropolitan sewer district or any sanitation district created pursuant to [KRS Chapter 220](#).

The Cabinet considers cable television companies, though not specifically included in the above definition, utilities since they provide goods and services for public use and compensation. Therefore, these companies' facilities are covered by the accommodation policy herein.

In this manual, *utility* refers to an owner of an electric, gas, oil, water, sewage, telephone, communication line, CATV, or other similar facility for transportation of a compensable publically used good or service.

**DEFINITION OF A
FACILITY**

[KRS 278.010\(11\)](#) defines *facility* as all property, means, and instrumentalities owned, operated, leased, licensed, used, furnished, or supplied for, by, or in connection with the business of any utility.

GENERAL POLICY

Utility facilities are permitted to be constructed longitudinally or to cross roads or highways with certain restrictions. Accommodating facilities in public right of way shall not impede the use and function of the road and its appurtenances. Longitudinal utility construction shall be adequately distanced from the traveled pathways and right-of-way features to allow intended movement and sight distance and to minimize similar impacts during utility maintenance activities.

**GENERAL POLICY
(CONT.)**

Facilities crossing a highway shall cross perpendicular to the highway alignment, preferably via an underground conduit. If the facility is aerial, that facility shall not impede the traveled way or features of the right of way. Facilities crossing the traveled way at a number of points within the same area shall be combined.

Accommodation of utilities must conform to the Cabinet's Division of Maintenance *Permits Guidance Manual* and *FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects*.

**UTILITY
RELOCATIONS**

It is the utility owner's responsibility to determine if the facilities within a project area will be impacted by the work proposed. The utility owner is provided project plans and given assistance and direction by the district Utilities Section Supervisor to make this determination.

If the facilities are not to be impacted by the roadwork, the utility owner may request the facilities remain in place. This request will be reviewed by the district Utilities Section Supervisor with consideration given to the access control of the proposed road, the design constraints of the project, the needs of other impacted utility owners, and the final intended use of the road and its appurtenances. The utility owner shall certify that the facility may remain in place and that any needed maintenance will not adversely impact the function of the road and its roadside features. The district Utilities Section Supervisor may allow the facility to remain in situ if these concerns are satisfied.

If the facilities are to be impacted by the roadwork, the relocation of those facilities shall comply with the accommodation policy described in this manual, but shall be superseded by the latest revision of the Cabinet's Division of Maintenance *Permits Guidance Manual*.

**PREFERRED UTILITY
LOCATIONS**

Multiple utility companies are typically relocated in conjunction with a given road project, and one or more of those utilities may request relocation along or within the same or similar alignment. Since more than one such facility may not always coexist in the same general vicinity, the Cabinet has developed guidelines to establish priority for assignment of such preferred locations. The right to relocate to a specific preferred location within the limits of a project shall generally be offered first to facilities that must maintain a specific grade throughout all or portions of the project. Otherwise, the first utility to request relocation within a preferred location may be authorized.

**PREFERRED UTILITY
LOCATIONS (CONT.)**

Exceptions to established priority may be permitted, particularly in cases where the following is true:

- Construction methods required for a particular utility relation may endanger existing or future highway facilities
- Industry code requires separation of specific utility facilities from underground or overhead hazards
- Order of roadway or utility construction requires facilities to be relocated into specific areas

**REIMBURSABLE
RELOCATIONS**

For utility relocations that are reimbursable pursuant to [KRS 177.035](#) and [KRS 179.265](#), the utility owner shall be reimbursed only for the cost of constructing or relocating the most economical type of facility that satisfactorily meets the use and function of the former facility.

**ACCOMMODATION
VIA PERMIT**

Before any utility company, other entity, firm, individual, or other governmental agency undertakes any maintenance, construction, or other work, use of, or activity impacting the right of way of any roadway maintained by the Cabinet, it shall first obtain an encroachment permit allowing that activity from the Department of Highways. The TC 99-1A form, *Application for Encroachment Permit*, is used to process the utility permit application. This application must be made in the name of the owner of the facility that will perform or undertake the work or activity proposed and shall be signed by an official representative whose signature is legally binding upon the applicant.

In the case of utility relocations performed to accommodate road construction for Cabinet-involved projects, a utility agreement or no-charge letter and Cabinet-authorized relocation plan may substitute for the TC 99-1A form. The terms and conditions of a typical encroachment permit apply to these applicants as they would via the traditional encroachment permit application. [UR-1100](#), "Agreements & Authorizations," further details no-charge authorizations.

INVOLVING**PERMITS**

While not typically involved in utility relocation accommodation and authorization, the Central Office Permits Branch may need to review utility relocations for the following circumstances:


- Airspace
- Fully or non-fully controlled access break
- Utility installations near bridges
- Unprecedented requests
- Highway beautification projects
- Permits requiring [Federal Highway Administration \(FHWA\)](#) approval, including relocations involving Interstate or the [Appalachian Development Highway System \(ADHS\)](#)

When such circumstance exists, the district utility supervisor and utility area coordinator are advised to consult district and Central Office permit personnel prior to authorization of work.

INDEMNITIES

The permitted utility company shall at all times, defend, protect, and save harmless the Cabinet from all liability, claims, and demands arising out of work undertaken by the utility company pursuant to the existing facility or relocation work. The Cabinet expects utility companies undergoing authorized relocations to hold the necessary indemnities and bonds in adherence to their permitted obligations.



	Section GENERAL UTILITY ACCOMMODATION PRACTICES
	Subject Design Considerations

**CLEAR ZONE
MINIMUM
REQUIREMENTS**

The Department of Highways and the [Federal Highway Administration \(FHWA\)](#) seek to maximize the safety of roadways. One requirement for a safer roadway is to provide for a roadside clear zone where practical. A clear zone is the total roadside area, starting at the edge of the traveled way, including the shoulders, available for safe use by errant vehicles. The traveled way is the portion of the roadway for movement of vehicles, exclusive of the shoulders. Obstacles created by utility accommodation that impact the available clear zone include facilities such as poles, hydrants, regulators, junctions, cabinets, stations, and other structures.

It is the responsibility of the utility company and its facility designers to consult and comply with the Cabinet's [Highway Design Guidance Manual](#) and [AASHTO's Roadside Design Guide](#) for the latest policy in regards to clear zone calculations and requirements.

**CLEAR ZONE
MINIMUM
REQUIREMENTS**

The Transportation Cabinet (Cabinet) prefers utility designers to utilize the following methods of addressing clear zone obstacles in the order specified:

- Remove the obstacle
- Redesign the obstacle so that it can be safely traversed
- Relocate the obstacle to a point where it is less likely to be struck
- Reduce impact severity by using an appropriate breakaway device

Exceptions to clear zone policy are sometimes made if the facility is shielded by guardrail or other protection designed to ensure the safety of motorists. These exceptions shall be specifically requested within the body of the no charge authorization package, as detailed in [UR-1000](#).

SIGHT DISTANCE**MINIMUM****REQUIREMENTS**

The primary function of the right of way is to carry the traveling public via roadway or pedestrian pathways. Maintaining a clear line of sight is essential for safe movement of the traveling public. Sight distance is the length of highway that is visible ahead of the driver. Utility accommodation practices must be consistent with maintaining a clear line of sight, free of obstacles that might result in a vehicular or pedestrian accident or impact. Potential obstacles created by utility accommodation include facilities such as poles, hydrants, regulators, junctions, cabinets, stations, and other structures.

It is the responsibility of the utility company and its facility designers to consult and comply with the Cabinet's *Highway Design Guidance Manual* and AASHTO's *A Policy on Geometric Design of Highways and Streets* for the latest policy in regards to sight distance calculations and requirements.

AESTHETICS

Aesthetics shall be considered when determining the effects of utility installations. Operational characteristics of the highway and the cost of the construction and maintenance of the utility in accordance with [FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects](#) shall also be considered.

The type and size of the utility facilities and the manner and extent to which they are permitted within scenic areas can materially alter the visual quality of highway roadsides. Such areas include scenic strips, overlooks, rest areas, recreation areas, rights of way of adjacent highways to these areas, and rights of way of highways that pass through public parks and historic sites.


ENVIRONMENTAL**CONSIDERATIONS**

Environmental reviews and permitting for utility relocations performed within the Cabinet's project footprint are secured through the Cabinet's National Environmental Policy Act (NEPA) process. Any facility relocations performed outside of the Cabinet's project footprint are not covered, and the utility company shall secure the necessary environmental reviews and permit.

FRONTAGE RIGHTS

Generally, permitted facilities in public right of way require the approval of adjoining private property owners. These frontage right requirements for a public utility company are waived when installing facilities to serve the public. This waiver does not apply to the installation or relocation of private facilities not intended to serve the community. In such circumstances, property frontage rights apply, and thus the installation or relocation requires the consent of the property owners in front of whose properties the utility is placed. Authorization to perform the work shall be contingent upon Cabinet receipt of the approvals, if applicable.



	<p><i>Section</i></p> <p>GENERAL UTILITY ACCOMMODATION PRACTICES</p>
	<p><i>Subject</i></p> <p>Underground (UG) Facility Design</p>

POLICIES

This section defines basic policies, but readers are advised to consult the Transportation Cabinet's (Cabinet) Division of Maintenance [Permits Guidance Manual](#) and [FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects](#). These documents define the full measure of the Cabinet's policies toward utility accommodation.

**GENERAL TERMS OF
UG PLACEMENT**

Utilities installed longitudinally shall be located back of the ditch line and toe of slope as near to the edge of the right of way as practical or in designated utility strips. Utilities, other than storm sewers, shall not be placed in medians.

With certain restrictions, utilities are permitted to cross any road or highway. When practical, they shall cross perpendicular to the highway alignment and, preferably, under the highway.

Utility facilities shall not be installed longitudinally under proposed pavement and shoulder areas. It is at the discretion of the chief district engineer (CDE), the State Highway Engineer (SHE), and the Federal Highway Administration (FHWA), as applicable, to determine where exceptions shall be allowed.

OPEN TRENCHING

Pavements, shoulders, roadways, or ramps may not be excavated by the open trench method, except with the approval of the Cabinet and the [Federal Highway Administration \(FHWA\)](#) (where applicable). When open trenching is allowed, surface restoration shall be undertaken in accordance with the Cabinet accommodation policy.

TRENCHLESS**CONSTRUCTION**

Several methods of trenchless construction are viable for underground utility accommodation in public right of way. The most commonly recognized methods used are boring and jacking and directional drilling. It is the responsibility of the utility company and facility designer to verify if the preferred methodology is acceptable to the Cabinet and adheres to Cabinet standards and to provide the required drawings and specifications needed to confirm viability.

BACKFILLING &**BEDDING**

Backfilling and bedding, if required, shall be performed in accordance with the Cabinet *Standard Drawings* RDI-020 and RDI-025. Flowable fill shall be used as backfill material when open trenching in the roadway is performed under traffic, in accordance with Sections 601 and 704 of the current *Kentucky Standard Specifications for Road and Bridge Construction*.

DRAINAGE

Utility lines such as water, gas, sewer, telephone, power, and television cable shall not be placed in or through existing drainage structures. Care shall be given to avoid disturbing drainage facilities. Underground utility facilities shall be backfilled with pervious material with outlets provided for entrapped water. Under drains shall be provided where necessary.

UNDERGROUND**FACILITY DEPTHS**

The accommodation policies defined within the Cabinet's Division of Maintenance *Permits Guidance Manual* and *FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects* govern underground facility depths. The following standards are acceptable unless the Division of Maintenance *Permits Guidance Manual* requires more conservative measures be taken:

- The minimum depth for underground utilities is 42 inches below roadways, shoulders, ramps, and ditch lines.
- The minimum depth is 30 inches in all other areas within Kentucky right of way.

Note: Exceptions may be made only where the terrain is such that this requirement is proved to be impractical and where a lesser depth will not interfere with highway maintenance, construction, safety, or aesthetics. The CDE shall determine where these exceptions are to be allowed.

**UNDERGROUND
FACILITY DEPTHS
(CONT.)**

- Pipe crossings 2 inches or less in diameter do not require encasement provided they are buried at least 42 inches below the bottom of the ditches, shoulders, and roadway surfaces.
- All pipe installations greater than 2 inches in diameter must be encased.

Note: Facility depths for natural gas and petroleum fraction lines vary. (See “Natural Gas and Petroleum Fractions Utility Lines.”)


**NATURAL GAS &
PETROLEUM FRACTION
UTILITY LINES**

Natural gas and petroleum lines have safety concerns and increased hazards not associated with other facilities and shall be given additional considerations. The Cabinet’s Division of Maintenance *Permits Guidance Manual* should be directly referenced when accommodating the relocation of such lines.

In general, Natural Gas or Petroleum Fraction transmission lines shall be coated steel pipe. Distribution lines shall be cathodically protected steel carrier pipe or high or medium density polyethylene pipe (PE). Encasement of lines shall be generally required with exceptions defined in the Division of Maintenance *Permits Guidance Manual*.

These lines require a minimum cover of 60 inches. An exception of 42 inches of minimal cover exists for non-fully controlled access highways outside of ditch lines.



	<p><i>Section</i></p> <p>GENERAL UTILITY ACCOMMODATION PRACTICES</p>
	<p><i>Subject</i></p> <p>Overhead Facility Design</p>

POLICIES

This section defines basic policies, but readers are advised to consult the Transportation Cabinet's (Cabinet) Division of Maintenance [Permits Guidance Manual](#) and [FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects](#). These documents define the full measure of the Cabinet's policies toward utility accommodation.

GENERAL TERMS OF PLACEMENT

Utilities installed longitudinally shall be located back of the ditch line and toe of slope as near to the edge of the right of way as practical or in designated utility strips. Utilities, other than storm sewers, shall not be placed in medians.

With certain restrictions, utilities are permitted to cross any road or highway. When practical, they shall cross perpendicular to the highway alignment and, preferably, under the highway.

Utility poles or towers installed longitudinally shall be located outside the clear zone. It is at the discretion of the chief district engineer (CDE), the State Highway Engineer (SHE), and the [Federal Highway Administration \(FHWA\)](#), as applicable, to determine where exceptions shall be allowed.

POLE PLACEMENT

Regardless of the type of facility that exists, each pole shall be located to minimize hazards. Utility designers shall consider the following:

- Poles shall be placed behind existing guardrails (as referenced below) or extensions thereto, atop backslopes, in positions invulnerable to traffic, or placed as far from the roadway as feasible.
- The poles shall not lie within the clear zone unless protected behind an appropriate barrier.
- The poles may be located behind a roadside barrier, such as guardrail or barrier wall.

**POLE PLACEMENT
(CONT.)**

- Poles shall be placed such that overhead wires do not break the plane of the roadside barrier on the roadway side, such as along a curve.
- All overhead roadway crossings shall meet the Cabinet accommodation policy which may be found in the Cabinet's Division of Maintenance *Permits Guidance Manual*.

POLE ANCHORAGE

Typical mechanisms to relieve strains on a pole include: stub poles, anchors, guys, I-beams, and temporary straps. Regardless of the type of anchorage needed, they shall be located to minimize hazards. Anchorage shall be placed outside of the clear zone, behind existing guardrails, or atop backslopes—generally in positions invulnerable to vehicular or pedestrian traffic or as far from the roadway as feasible. These facilities may be located in public right of way or private easements.

AERIAL CLEARANCES

The vertical clearance of overhead utilities on a highway other than a fully controlled access highway shall be a minimum of 18 feet as determined by the Cabinet, but in no case less than the clearance required by the [National Electrical Safety Code](#), [American National Standards Institute](#), and [Institute of Electrical & Electronic Engineers](#), Inc.


The vertical clearance of overhead utilities crossing the interstate or other limited access highway roadways and ramps shall be a minimum of 24 feet as determined by the Cabinet, but in no case less than the clearance required by the [National Electrical Safety Code](#), [American National Standards Institute](#), and [Institute of Electrical & Electronic Engineers](#), Inc.

ROAD LIGHTING

Roadway lighting systems are generally not considered an aspect of the utility facility unless the lighting is owned by the utility company and intrinsic to the facility relocation itself. In such instances, the district Utilities Section Supervisor shall consider the lighting in the relocation accommodation. The supervisor shall involve the district traffic operations staff in the accommodation since roadway illumination is a specialized field. The level and uniformity of illumination shall be designed following the criteria detailed in [AASHTO's Roadway Lighting Design Guide](#).

Every consideration shall be made to minimize roadside hazards produced by poles, wiring, and other associated hardware.



	Section GENERAL UTILITY ACCOMMODATION PRACTICES
	Subject Construction Practices

CONSTRUCTION POLICY The Transportation Cabinet’s (Cabinet) Division of Maintenance *Permits Guidance Manual* contains detailed information on permissible construction practices and shall be the definitive source of guidance. Further, all work within the limits of the Cabinet’s right of way shall be done in accordance with the *Kentucky Transportation Cabinet Department of Highways Standard Specifications for Road and Bridge Construction (Standard Specifications)* and *Standard Drawings*.

TRAFFIC CONTROL All traffic control by the permittee shall comply with the *Manual on Uniform Traffic Control Devices (MUTCD)*; the Department’s *Standard Drawings, Standard Specifications, and Work Zone Safety Requirements on Permit Projects*; and other required documents.

All construction and maintenance operations shall be planned with full regard for safety to keep traffic interference to an absolute minimum. On heavily traveled highways, construction operations interfering with traffic shall not be allowed during periods of peak traffic flow. This type of work shall be planned so that closure of intersecting streets, road approaches, or other access points is held to a minimum.

**NOTIFICATION BEFORE
EXCAVATION**

Underground Facility Damage Prevention Act of 1994—All excavators shall meet the requirements of the act as outlined in [KRS 367.4901](#) to [KRS 367.4917](#). In all nonemergency scenarios, the utility owner shall consult with [Kentucky 811](#) (formerly BUD) to identify underground utilities before any excavation or demolition work begins, pursuant to [KRS 367.4901](#) to [367.4917](#).

Occupational Safety and Health Act Requirements—Per the *Kentucky Occupational Safety and Health Standards for Construction Industry* and [29 CFR 1926.651](#), “Specific Excavation Requirements,” prior to opening an excavation, effort shall be made to determine whether underground installations (such as sewer, telephone, water, fuel, electrical lines, etc.) will be encountered, and if so, where such underground installations are located.

NOTIFICATION BEFORE**EXCAVATION (CONT.)**

When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation.

RESTORING HIGHWAY**FEATURES**

Any highway feature that is removed, adjusted, or altered in connection with utility accommodation work shall be replaced by the utility owner after completion of the construction. Any materials of value shall be hauled and neatly stacked at a place designated by the Chief District Engineer or designee.

**EROSION PREVENTION
& SEDIMENT CONTROL**

In areas of disturbed soils, proper erosion and sediment transport controls shall be established and maintained for the duration of the construction and restoration. These controls shall conform to Cabinet standards and be approved by authorizing agents pursuant to the Cabinet's Division of Maintenance *Permits Guidance Manual*.

**SODDING, SEEDING,
& MULCHING**

In areas where turf is present, restoration shall consist of mechanical tamping, dressing, reseeding, and mulching all affected areas. All slopes and other portions of the unsurfaced highway buffer area, except rock cuts, shall be restored by sodding, seeding, or mulching.

PAVING

Surface restoration shall be performed in accordance with design criteria shown on the Cabinet accommodation policy which may be found in the Cabinet's Division of Maintenance *Permits Guidance Manual*. Pavement specifications shall be included on all utility relocation plans, when applicable, to guarantee that a satisfactory and permanent pavement is obtained within the state right of way. These specifications shall specify pavement and base thickness, prime coat and tack coat specifications, and ambient temperature restrictions. This will ensure a smooth and uniform, true-to-grade, high-quality pavement. New pavement must meet these specifications to be acceptable.

SIDEWALKS

All sidewalks, where required, shall be Portland cement concrete and be constructed in conformance with the Cabinet's Standard Specifications. Bituminous walkways, gravel paths, etc., are not substitutes for cement concrete sidewalks in urban areas. However, they may be considered in rural areas at the discretion of the district utility agent.

CONSTRUCTION

METHODS

Construction methods or materials that allow voids in the roadway foundation shall not be permitted. No bell and spigot pipe nor other pipe that does not have a uniform outside diameter shall be permitted in bored or augured installations unless they are encased.

EXCESS SPOIL


All excess materials and refuse from any installation shall be removed from the right of way and disposed of completely off the limits of the roadway facility.

ARCHAEOLOGICAL

COORDINATION

When archaeological artifacts are discovered during work, the utility company shall cease work and contact the Cabinet's Division of Environmental Analysis immediately. Further action may be required on a case-by-case basis by the State Highway Engineer (SHE) or designee.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>Allowable Installations</p>

**LONGITUDINAL
UTILITY POLICY**

Generally, utility facilities are not permitted to be installed longitudinally within the right of way of the interstate or other fully controlled access highways. Existing, properly-permitted overhead utility lines may be serviced, upgraded, or relocated, provided that the proposed installation meets National Electric Safety Code (NESC) grade “B” – heavy loading standards. The Transportation Cabinet’s (Cabinet) Division of Maintenance [Permits Guidance Manual](#) fully details current and specific terms.


**UTILITY CROSSING
POLICY & EXCEPTIONS**

The preferred method for new utility crossings on fully controlled access highways is underground. However, overhead utility crossings may be allowed if the utility owner can show that the proposed facility will meet NESC grade “B” – heavy loading standard and that the proposed facility, as installed, meets criteria defined in the *Permits Guidance Manual* and [UR-402-3](#) of this manual. Underground crossing requirements are defined in the *Permits Guidance Manual* and supported by [UR-402-4](#) of this manual.

**ACCESSING FULLY
CONTROLLED ACCESS
HIGHWAYS**

Vehicle or machinery parking is not allowed inside the controlled access fence. Access to work areas shall originate from outside the fence. This may require placement of temporary fencing.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>Utility Crossings for At Grade Separation Structures</p>

POLICY

Where a utility facility follows a crossroad, street, or railroad that is carried over or under an interstate or other fully controlled access highway, the facilities shall be located within the normal right of way of the existing or relocated crossroad, street, or railroad. Facilities may cross through the highway grade separation structure, provided installation and servicing can be accomplished without access from the interstate through traffic roadways or ramps.

Where distinct advantages and appreciable cost savings are effected by locating the facilities outside the normal right of way of the crossroad, street, or railroad, the facilities shall be located and treated in the same manner as utility lines crossing the interstate highway at points removed from grade separation structures.


GENERAL REQUIREMENTS

Utility crossings of interstate or other fully controlled access highways shall be installed so there will be minimal, if any, disturbance to the roadway when constructing, maintaining, or expanding the facility.

Accommodation of utilities must conform to the Transportation Cabinet’s Division of Maintenance *Permits Guidance Manual* and the *FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects*.

Overhead crossing policies are addressed in the *Permits Guidance Manual* and **UR-402-3** of this manual. Underground crossing policies are addressed in the *Permits Guidance Manual* and **UR-402-4** of this manual.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>Overhead Utility Crossings</p>

GENERAL**REQUIREMENTS**

The Transportation Cabinet's (Cabinet) Division of Maintenance [Permits Guidance Manual](#) contains detailed guidance on permissible practices and shall be considered the definitive resource and to be used in conjunction with this guidance. Overhead utility lines crossing an interstate or other fully controlled highway outside the normal right of way of a crossroad, street, or railroad will normally be adjusted so that supporting structures are located outside the control-of-access lines. In any case, a clear zone shall be provided as designated in the current edition of AASHTO's [Roadside Design Guide](#).

LONGITUDINAL OR**OVERHEAD****INSTALLATIONS**

Utilities shall not be permitted to be installed longitudinally within the right of way of the interstate or other fully controlled access highways. Existing, properly permitted overhead utility lines may be serviced or upgraded provided that the proposed installation meets [National Electric Safety Code \(NESC\)](#) grade "B" – heavy loading standards and that a permit is obtained each time work on right of way is proposed.

The preferred method for utility crossings on fully controlled access highways is underground. However, overhead utility crossings may be allowed if the utility owner can show that the proposed facility will meet NESC grade "B" – heavy loading standard and that the proposed facility, as installed, meets the following criteria and is supported by an engineering study that details:

- **No Adverse Effects:** Under normal operating conditions, the utility facility will not adversely affect the safety, design, construction, operation, maintenance, or stability of the freeway.
- **Construction/Servicing:** The utility facility will not be constructed or serviced from through-traffic roadways or connecting ramps. Access to utility poles from the interstate right of way shall be executed as part of an approved temporary traffic control plan.

**LONGITUDINAL OR
OVERHEAD
INSTALLATIONS (CONT.)**

- **Traffic Disruption:** The construction, operation, and maintenance of the facility will be performed using both methods and times that minimize disruptions to traffic. The utility facility will not cause any significant stoppages or major disruption to traffic during the construction, operation, or maintenance of the facility. Any proposed stoppages or other impact to traffic shall be planned and executed as part of an approved temporary traffic control plan and scheduled at such times to minimize impact to traffic. Full stoppages shall only be utilized if absolutely necessary.

For all nonemergency operations, full stoppages shall not exceed 30 minutes and shall be performed between 12:00 a.m. and 4:00 a.m., unless approved by the State Highway Engineer (SHE).

- **No Interference:** The utility facility will not interfere with or impair the present use or future expansion of the freeway.
- **Alternative Location Not in the Public Interest:** This determination shall include an engineering study that shall be prepared and submitted by the permittee. A new overhead crossing will not be permitted if a practical alternative location is available.

**HORIZONTAL
CLEARANCE**

Support structures for overhead utility lines crossing an interstate or other fully controlled access highways shall not be on right of way, unless authorized by the SHE. If allowed, they shall be outside the clear zone as designated in the current edition of AASHTO's *Roadside Design Guide*. Supporting structures shall be a minimum of 30 feet beyond the edge of the shoulder.

Where right-of-way lines and control-of-access lines are not one and the same, supporting poles may be located on right of way outside the controlled-access right of way.

Where such spanning of the roadway is not feasible, consideration may be given to conversion of underground facilities to cross the interstate or other fully controlled access highway.

VERTICAL CLEARANCE


The vertical clearance of overhead utility lines crossing any interstate or other fully controlled access highway shall be a minimum of 24 feet as required by the Cabinet, but in no case can the clearance be less than NESC requirements.

INTERCHANGES

At interchange areas in general, supports for overhead utilities shall be permitted only where all of the following conditions are met:

- The necessary vertical clearance (24 feet or higher if required by NESC) is provided.
- The minimum lateral clearance is in accordance with AASHTO's *Roadside Design Guide*, latest edition (at least 20 feet from edge of ramp shoulder).
- Essential sight distance is not impaired.
- The utility facility can be serviced without direct access from the through-traffic roadway and ramps of the interstate or other fully controlled highway.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>Underground Utility Crossings</p>

GENERAL**REQUIREMENTS**

Underground utility crossings of interstate or other fully controlled access highways shall be installed so there will be minimal, if any, disturbance to the roadway when constructing, maintaining, or expanding the facility. Valves, vents, drips, blow-offs, manholes, handholds, vaults, etc. must be located outside the controlled-access right of way. Provisions shall be made so that these facilities can be maintained without access from through-traffic roadways or ramps.

Accommodation of utilities must conform to the Transportation Cabinet's Division of Maintenance [Permits Guidance Manual](#) and [FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects](#). The Cabinet's [Permits Guidance Manual](#) defines the following requirements:

- Minimum Burial Depths
- Encasement Exceptions
- Encasement Materials
- Backfill Requirements
- Restoration Requirements

OPEN TRENCHING

Open trenching of underground utility crossings of interstate or other fully controlled access highways shall not be allowed within the clear zone unless approved by the State Highway Engineer (SHE) and the [Federal Highway Administration \(FHWA\)](#), if applicable.

ENCASEMENT

Encasement of utility lines under the highway right of way is required except for the following:

- Natural Gas and Petroleum Fraction lines (see [PE-304](#), "Natural Gas and Petroleum Fractions")
- Electrical, cable, phone, fiber optic, and other such utility lines encased in conduit

DEPTH

REQUIREMENTS The minimum depth for underground utilities is 42 inches except for natural gas and petroleum fraction lines (see [PE-304](#)). Valves, vents, drips, blow-offs, etc. shall be located outside the right of way.

VOIDS

Construction methods or materials that allow voids in the roadway foundation shall not be permitted. No bell and spigot pipe or other pipe that does not have a uniform outside diameter shall be permitted in bored or augured installations unless they are encased.

EXISTING


UNDERGROUND

UTILITY

Where an underground utility already exists within the proposed right of way of a fully controlled access highway and the grade elevation is such that it need not be relocated, it may remain provided it can be serviced, maintained, and operated without access from the through-traffic roadways or ramps. The facility also shall not adversely affect the safety, design, construction, operation, maintenance, or stability of the road.

Consideration shall be given to the existing alignment, the adequacy of design, and the strength and longevity of materials, in determining whether the utility facility is to remain, be rehabilitated in the same location, or be relocated.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON OTHER THAN FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>General Requirements</p>

POLICY The terms of permitting utility installations are generally defined here, but the definitive resource is the Transportation Cabinet’s (Cabinet) Division of Maintenance [Permits Guidance Manual](#).

Utilities may be placed longitudinally within, as well as across, the right-of-way limits, provided they do not interfere with the safe use of the roadway, median, and shoulder areas, and shall not interfere with maintenance operations or aesthetics.


TRAFFIC IMPACT The utility facility shall not cause any disruptions to traffic during the construction, operation, or maintenance of the facility without the consent of the Cabinet.

EXCAVATION The traveled way or shoulders shall not be excavated by the open trench method unless approved by the Cabinet and shall be backfilled with flowable fill. In locations where flowable fill is unable to dissipate its bleed water, other methods may be used if approved by the Cabinet.

Construction methods or materials that allow voids in the roadway foundation shall not be allowed. No bell and spigot pipe or other pipe that does not have a uniform outside diameter shall be permitted in bored or augured installations unless they are encased.

When the work is complete, all facilities shall be returned to the equivalent of their original condition.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON OTHER THAN FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>Existing Longitudinal Facilities</p>

POLICY

The guidance for when and where to allow utility installations are summarized here but are fully detailed in the Transportation Cabinet’s (Cabinet) Division of Maintenance [Permits Guidance Manual](#).


Utilities may be located longitudinally within, as well as across, the right-of-way limits, provided they do not interfere with the safe use of the roadway, median, and shoulder areas, and shall not interfere with maintenance operations or aesthetics.

When a road project is identified to potentially affect a utility’s facilities, it is the utility owner’s responsibility to determine if the proposed work will impact their facility. If it is determined that the facility will not be affected, the utility owner may request permission to leave existing longitudinal or crossing facilities under pavement and shoulder areas, if the Cabinet is satisfied that the facilities will be maintenance-free, not requiring cutting or disturbing the pavement and shoulder areas. It is the utility owner’s responsibility to certify that the facilities will be maintenance-free.

Any required manholes for such facilities shall be relocated outside intersection areas to minimize any interference with traffic. If it is agreed upon by the Cabinet and the utility owner that it is beneficial to leave the existing manhole within the boundaries of the intersection, the Cabinet may require the utility owner to provide access to the manhole from outside the roadway.

Distribution and service lines constructed of maintenance-free materials and in good condition may remain under a proposed pavement if full provision is made for all future service requirements by stubbing out service lines on either side of the new construction, prior to placing the proposed pavement.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON OTHER THAN FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>New or Relocated Longitudinal Facilities</p>

NEW OR RELOCATED UTILITIES PLACEMENT


The terms of permitting longitudinal installation of utility facilities on other than fully controlled access highways are generally defined here but are fully detailed in the Transportation Cabinet’s Division of Maintenance [Permits Guidance Manual](#).

New or relocated utilities installed longitudinally shall be located behind the ditch line and toe of slope as near to the edge of right of way as practical. Where curb and gutters are provided, underground utilities shall be located in the utility strip back of the curb when possible, and care shall be taken to avoid conflicts with the proposed storm drainage. On divided highways with medians, special circumstances may warrant location of longitudinal utility lines in the median strip.

Generally, facilities are not installed longitudinally under proposed pavement and shoulder areas. Only when there is no other practical location available may a facility be placed under the pavement and shoulder area. If this installation is allowed, it shall be constructed with long-life, maintenance-free materials. Every provision shall be made to minimize the need of having to cut the pavement or interfere with traffic in the future.

Relocations due to highway projects typically impact more than one utility facility; therefore, care must be taken to avoid conflicts with other utility relocations. It is highly recommended for the utility owner and the district Utilities Section Supervisor to review all relocation plans to minimize the possibility of conflicting relocation designs both horizontally and vertically.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON OTHER THAN FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>Underground Utility Crossing Installations</p>

POLICY

The guidance for when and where to permit underground utility crossing installations are summarized here but the Transportation Cabinet’s (Cabinet) Division of Maintenance [Permits Guidance Manual](#) is the guidance document of reference.

Utilities may be located longitudinally within, as well as across, the right-of-way limits, provided they do not interfere with the safe use of the roadway, median, and shoulder areas, and shall not interfere with maintenance operations or aesthetics.

Underground utility crossings shall be constructed with materials that are expected to render long, trouble-free life, and in most cases, be encased to allow removal and replacement without having to cut the pavement. Valves, vents, drips, blow-offs, manholes, handholds, vaults, etc., shall be located to avoid interference with the use and function of the roadway and its features.

**PREFERRED
INSTALLATION
METHODS**

Pipe lines or other utility crossings beneath the pavement shall have sufficient connections and access so repairs can be made without disturbing the roadway surface. Manholes and other points of access to underground utilities may be permitted within the right of way if located where they will not interfere with maintenance of the roadway facility or present a safety hazard to the road user. If it is agreed upon by the Cabinet and the utility owner that it is sufficiently beneficial to leave the existing manhole within the boundaries of the roadway, the Cabinet may require the utility owner to provide access to the manhole from outside the roadway.

Pavements, shoulders, roadways, or ramps shall not be excavated by the open trench method except with the approval of the Cabinet and Federal Highway Administration (where applicable).

PREFERRED**INSTALLATION****METHODS (CONT.)**

If crossroads adjacent to the mainline roadway are paved with concrete or bituminous surface, they shall be bored, unless the district Utilities Section Supervisor determines that boring is not feasible due to any of the following:

- Solid rock
- Excessive disturbance of landscaping established by a property owner
- The volume of excavation for the boring pit and receiving pit (necessitated by the size and depth of the facility) would not be reasonable

If the highway surface is traffic bound (i.e. unpaved), the open cut method may be used provided the roadway is maintained in a traversable condition during construction. When the work is finished, the roadway shall be returned to the equivalent of its original condition.

UNDERGROUND**REQUIREMENTS**

The minimum depth for underground utilities is 42 inches under roadways, ramps, and ditch lines and 30 inches in all other areas within state right of way except for natural gas and petroleum fraction lines.

Exception shall be made only where the terrain is such that this requirement is proved to be impractical and where a lesser depth will not interfere with the highway maintenance or safety.

ENCASEMENT OF**UTILITIES**

Encasement of utility lines under the highway right of way is required except for the following:

- Natural Gas/Petroleum Fraction lines ([PE-304](#))
- Longitudinal lines outside of the ditch line
- Pipe crossings 2 inches or less shall not require encasement
- Electrical, cable, phone, fiber optic, and other such utility lines encased in conduit

Construction methods that allow voids in the roadway foundation are not permitted. If boring or auguring methods are used, encasement shall be required unless the carrier pipe is constructed with a continuous, uniform diameter that is the same size as the bored or augured hole. The encasement pipe shall be of sufficient size and joint design that allows the carrier pipe to be removed or replaced, if necessary, and shall extend from toe of fill to back of the ditch line. Bell and spigot pipe or other pipe that does not have a uniform outside diameter shall not be permitted in bored or augured installations unless they are encased.

UNENCASED LINE


FAILURE

In the event of a failure in an unencased line, the utility owner may be required to abandon the existing line and install a new crossing by a trenchless methodology (boring, directional drilling, tunneling, or pushing).

OPEN TRENCHING

The traveled way or shoulders shall not be excavated by the open trench method unless approved by the Cabinet and shall be backfilled with flowable fill. In locations where flowable fill is unable to dissipate its bleed water, other methods may be used if approved by the Cabinet.



	<p><i>Section</i></p> <p>UTILITY INSTALLATIONS ON OTHER THAN FULLY CONTROLLED ACCESS HIGHWAYS</p>
	<p><i>Subject</i></p> <p>Overhead Installations</p>

GENERAL

The guidance for when and where to permit overhead installations is summarized here, but the Transportation Cabinet’s Division of Maintenance [Permits Guidance Manual](#) is the guidance document of reference.

UTILITY POLE & TOWER LOCATION PREFERENCES

Utility poles or towers with cross-arms shall be located within 5 feet of the right-of-way line.

Utility poles or towers without cross-arms shall be located within 18 inches of the right-of-way line.

Exceptions for these preferred conditions include the following:

- Offsets in the right-of-way line
- Topographical obstructions
- Deep cuts or fills
- Other obstructions
- Conflicts with other utility facilities


CURB & GUTTER SECTIONS

On highway projects where curb, gutter, and sidewalks are provided, overhead utilities shall normally be located behind the sidewalk as near the right-of-way line as practical.

OVERHEAD UTILITY CROSSINGS

The Cabinet shall designate which utilities shall be permitted to be installed overhead within the highway right of way. The vertical clearance of an overhead utility crossing on a highway other than fully controlled access highways must be a minimum of 18 feet but in no case will the clearance be less than the requirements of the National Electrical Safety Code.



	Section UTILITY INSTALLATIONS ON OTHER THAN FULLY CONTROLLED ACCESS HIGHWAYS
	Subject Installations on Bridges

UTILITY INSTALLATIONS ON BRIDGES

The Department of Highways (Department) shall grant approval of utility installations on bridges only when extensive engineering and economic research show that all other means of accommodating the utility are impractical. Other means include, but are not limited to, underground, under-stream, independent poles, cable supports, tower supports, etc.—all of which are completely separated from the bridge. In all cases where approvals are requested, the request shall be sent to the Central Office (CO) Division of Maintenance’s Bridge Preservation Branch and Division of Structural Design for review. The Transportation Cabinet’s (Cabinet) Division of Maintenance *Permits Guidance Manual* is the definitive resource for policy concerning utility installation on bridges.

GENERAL REQUIREMENTS

In all cases where permit approvals are requested, the following requirements shall apply:

- Structure designs, circumstances, and capacities to accommodate utility facilities are variable, and any proposed bridge attachment shall be considered on its own merits. In no instance shall the highway facility be compromised by the positioning of a utility facility that would eliminate or complicate access to any portion of the bridge for repair or maintenance.
- All permanent installations shall be placed below the elevation of the bridge floor when possible. Only where necessary for maintenance of the facility shall installations be permitted on the outside of beams or girders. In this event, the facility shall be located underneath the curb or sidewalk.
- All water carrier pipes shall be properly insulated.
- Adequate provisions shall be made for expansion and contraction due to temperature by line bends, expansion couplings, or other approved means.

GENERAL**REQUIREMENTS (CONT.)**

- No rigid-type connections shall be permitted. All facilities shall be supported by mountings or hangers that are cushioned from noise and vibrations. All support rollers, saddles, or hangers shall be coated or padded with neoprene or other suitable material.
- No field welding (other than that on approved installation drawings) shall be permitted. All field welding shall be performed by welders, qualified in accordance with the Cabinet's current specifications.
- On interstate highways and other freeways, all utility installations shall conform to [AASHTO's Accommodation of Utilities within Freeway Right-of-Way](#).
- No utility facility shall be located where it will reduce the bridge's vertical clearances above stream, railroad rails, or pavement.
- All electrical transmission lines shall be properly insulated and shielded in conformance with current existing electrical codes that will provide all necessary protection to maintenance personnel and eliminate any potential for bridge steel grounding stray currents.
- Emergency shut-off valves, emergency switches, or automatic regulating devices shall be provided at or near each bridge approach to prevent build-up of excessive liquid or gaseous pressure or electrical current.


**UTILITY SUPPORTS &
ATTACHMENTS**

For existing and proposed bridges, the cost of additional supports or attachments for utility facilities shall be borne entirely by the utility owner except when the facilities are being relocated at the Cabinet's expense to accommodate a highway construction project. In that case, the cost of additional supports or attachments shall be borne in accordance with Kentucky statute. Utility supports and attachment hardware items shall be furnished by the utility owner, unless otherwise provided.

**UTILITY
ACCOMMODATION &
ESTIMATING COSTS**

When the estimated cost of designing and constructing a bridge to accommodate a utility facility is considerably more than the cost of designing and constructing the same bridge without the facility accommodation, the Division of Structural Design shall provide the Division of Right of Way and Utilities with the estimated additional cost information. This information shall be incorporated into the utility agreement for reimbursement purposes, when required.



	<p><i>Chapter</i></p> <p>PLANNING OF UTILITY RELOCATIONS</p>
	<p><i>Subject</i></p> <p>General</p>

GENERAL

The planning of utility relocations is the process by which utility companies, both publicly and privately owned, are notified of proposed roadway projects and the potential impact the projects may have upon their facilities. Once identified, the companies and the Transportation Cabinet project team can adequately avoid the facilities or plan for the relocation or adjustment of the facilities to a new location within the highway right of way or within private easements.

Preliminary road project design involves analysis of corridors to determine preferred alignments, which is sometimes too broad-based to truly benefit from specific utility feedback. Therefore, the planning of utility relocations is often best initiated during the early stages of a project’s final design phase. This is the stage of the project’s development when a preferred road alignment has been established, and providing utility feedback at this stage will assist the designers to tailor the project to minimize utility impacts.

Note: The Utilities and Rail Branch encourages the consultation of involved utility companies during preliminary road design when appropriate. Consideration of utility impacts in alignment selection can provide better design decisions.

The more complex the road project, the more attention to detail needed in this utility planning stage. For example, a district utility supervisor and project engineer should not invest much time in planning utilities for a small bridge rehabilitation or replacement. The planning effort recommended is most likely to simply identify the utilities involved. On a major road widening in an urbanized setting, the Utilities and Rail Branch recommends a detailed utility plan be established, along with early and frequent communication with the involved utility owners and the project team.


DEFINITION

A *utility* is defined in [UR-401-1](#), “General Utility Accommodation Practices: Overview.” However, a utility is generally defined as a company that owns or operates facilities used to provide for public consumption any of the following:

- Generation, transmission, or distribution of electricity, gas, or water
- Communication links including telephone, cable, data, and internet
- Collection and treatment of wastewater and storm water

The basic transmission and distribution of these services is accomplished by use of aerial and underground wiring, utility poles, pipe and conduit of various types and sizes, fiber optic cable, and various appurtenances as required.



	<p><i>Chapter</i></p> <p>PLANNING OF UTILITY RELOCATIONS</p>
	<p><i>Subject</i></p> <p>Field Review</p>

GENERAL

When a project is presented, the district utility agent (UA) shall perform a field review of existing utility facilities within the project limits of the proposed roadway construction project to visibly identify those facilities potentially affected by the proposed construction.


The field review may include the following:

- Review of facility maps and as-built plans provided by the utility companies
- Review of Transportation Cabinet survey maps for potential physical survey information (such as location of manholes, utility poles, etc.)
- Discussion with area residents to determine probable utility locations

The UA shall also use the field review to become familiar with the area proposed for roadway construction and to identify potential problems or conflicts between existing utilities, easements, or other physical features by using available information. Additional information may be necessary to properly coordinate utility relocation activities.

Any reimbursable preliminary engineering required by utility companies shall first be authorized and funded as discussed in [UR-603](#) and be requested as discussed in [UR-700](#).




	<p><i>Chapter</i></p> <p>PLANNING OF UTILITY RELOCATIONS</p>
	<p><i>Subject</i></p> <p>Initial Contact Letter</p>

GENERAL

Upon identification of a roadway project, the district utility agent (UA) or project engineer (PE) may prepare and mail or email an initial contact letter to each utility company that may have facilities along the proposed route. This letter notifies the utility companies of the proposed construction and its potential impact upon their facilities. A record of the letter shall be maintained in hard-copy format or electronically. The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standardized templates for this document, which can be electronically generated, sent, and saved.

This initial contact letter is not a *Notice to Proceed* for preliminary engineering services, as discussed in [UR-700](#). Any work performed by a utility company prior to the date of a *Notice to Proceed* is not reimbursable.



	<p><i>Chapter</i></p> <p>PLANNING OF UTILITY RELOCATIONS</p>
	<p><i>Subject</i></p> <p>Utility Contact Lists</p>

GENERAL CONTACT

LISTS

The district utility supervisor (US) shall maintain an accurate, up-to-date list of utility companies. This list shall include all utility owners identified within the district.

The contact list shall be updated as necessary to include the correct company name, utility type, contact name, title, mailing address, email address, and telephone and fax numbers. The use of the [Kentucky Utility and Rail Tracking System \(KURTS\)](#) facilitates tracking of all utility companies and their contacts, allowing all users to access, locate, and update the business address, facility type, contacts, and service area in a single database.

This list shall be readily accessible to the following team members:

- Utility Supervisor
- Utility Agent
- Area Coordinator
- Project Engineer (PE)
- Project Development Branch Manager

PROJECT-SPECIFIC CONTACT LISTS


Upon involvement in the project, the US shall maintain an accurate, up-to-date list of utility companies within the project area of every active road project. This list shall indicate if each listed utility is impacted by the roadwork or simply within the project bounds. The US shall consult with the PE to gather any information received during the project's early development, including contact information. This project contact list shall be maintained in KURTS for the duration of the project's lifetime.

**PROJECT-SPECIFIC
CONTACT LISTS
(CONT.)**

The contact list shall be updated as necessary to include the correct contact name and must be made available to the following team members:

- Utility Supervisor
- Utility Agent
- Project Engineer
- Administrative Staff
- Area Coordinator
- Project Development Branch Manager



	Chapter PLANNING OF UTILITY RELOCATIONS
	Subject Facility Mapping

GENERAL

Facility mapping is a necessary function on most projects and requires the identification and physical location of all utilities potentially affected by the proposed roadway construction. Collaboration between the utility companies, the district utility supervisor, and the project engineer is necessary to produce complete and accurate facility maps.

FACILITY MAPPING COMPONENTS

The components for accurate facility mapping include the following:

- Existing facility maps or drawings provided by a utility company showing the type, size, and approximate location of the company's facilities
- Physical surveys of visible facilities within the proposed project limits
- As-built drawings showing utility locations
- Subsurface Utilities Engineering (SUE)

POTENTIAL**COLLABORATION STEPS**

The utility and design staff may collaborate by these means as applicable:

- Utilize project contact list to solicit facility maps from impacted utility companies
- Visit sites to identify and quantify facilities in the area and the impact potential using [KURTS'](#) Mobile Field Application
- Review facility mapping, Geographic Information System (GIS) data, and available plans


**POTENTIAL
COLLABORATION STEPS
(CONT.)**

- Consult with utility companies

Note: Any consultation with a utility company is nonreimbursable prior to the project authorization letter (state letter) and shall be undertaken with discretion and with the prior knowledge and consent of the utility company to the reimbursement limitation.

- Identify locations that would benefit from SUE investigation, including but not limited to, Quality Level A data
- Review SUE findings



	Section SUBSURFACE UTILITY ENGINEERING (SUE)
	Subject Definition & Purpose

**DEFINITION OF
SUBSURFACE UTILITY
ENGINEERING (SUE)**

Subsurface Utility Engineering (SUE) is a systematic process of identifying and locating existing underground utility facilities using various means and levels of accuracy.

PURPOSE

Accurate location of underground utility facilities is necessary, to some degree, on each highway project to identify, avoid, and successfully plan the relocation or adjustment of such facilities to prevent service disruptions during construction. This is particularly true on projects involving large concentrations of utilities or major utility facilities. Using SUE benefits the Cabinet and the utility companies in several respects:


- The project designers can reasonably know the location of existing facilities early enough to design around many potential conflicts. This may significantly:
 - ◆ Reduce the number, scope, and cost of facility relocations
 - ◆ Reduce project delays resulting from unnecessary or unexpected utility relocation work that must be completed prior to the beginning of roadway construction
- Unexpected conflicts with utility facilities are minimized or eliminated. The exact location of virtually any utility facility can be determined and accurately shown on construction plans via SUE Quality Level A data. As a result:
 - ◆ Delays due to utility conflicts are reduced.

Note: These delays can still occur when a project requires a redesign.

PURPOSE (CONT.)

- ◆ Construction delays caused by cutting, damaging, or discovering unidentified utility lines are reduced.
- ◆ Contractor claims for delays resulting from unexpected encounters with facilities are reduced.
- ◆ Safety is enhanced. When excavation or grading work can be shifted away from existing facilities, there is less possibility of damage to a facility that might result in personal injury, property damage, and releases of utility product into the environment.



	Section SUBSURFACE UTILITY ENGINEERING (SUE)
	Subject Applicability & Quality Levels

APPLICABILITY

Location of utility facilities shall include the horizontal position, the vertical position (depth) when appropriate, the material composition, the size, and any other pertinent data concerning the facilities. Nationally accepted policy defines four basic quality levels of SUE work. These quality levels provide varying degrees of accuracy relative to the horizontal and vertical position of the utility facility.

The quality level utilized depends to some degree upon the current stage of development of a roadway project. For example, during a corridor study to determine potential alternatives, the use of existing utility company records or verbal recollections will usually suffice. The quality level utilized in locating existing utility facilities should improve as a route is selected, refined, and designed in detail.

The quality level needed is also dependent upon the impact potential as the road project develops. For example, if the designer has an approximate horizontal location of a utility facility and the proposed road project can in no way impact it, then there is no need to determine an accurate depth. If there is a significant probability that the roadwork will impact the facility and the potential exists to design the highway to avoid the facility, it may be prudent to request Quality Level A data that provides accurate horizontal and vertical data at this location.

QUALITY LEVELS

The following describes the quality levels of SUE facility location:


- **Quality Level D (QL-D)**, the most basic level of information for facility locations, is derived solely from existing utility company records or verbal recollections and is primarily used for project planning and route selection.
- **Quality Level C (QL-C)** is probably the most commonly used level of information. Data is obtained by surveying and plotting visible aboveground facility features and using professional judgment to correlate this information with QL-D information.

QUALITY LEVELS (CONT.)

- **Quality Level B (QL-B)** involves information obtained through the application of appropriate surface geophysical methods to determine the existence and a more accurate horizontal position of virtually all facilities within the project limits. The locations are surveyed to applicable tolerances and included on plan documents.

- **Quality Level A (QL-A)** affords the highest level of precision for utility facilities location. It involves visibly exposing existing facilities, by use of minimally intrusive excavation equipment, to determine precise horizontal and vertical positions of the facilities. The information provided allows mapping of facilities directly onto plans and is the most accurate level available. This level also provides the type, composition, size, condition, and other characteristics of underground features.



	Section SUBSURFACE UTILITY ENGINEERING (SUE)
	Subject Cabinet Employment of SUE

**CABINET POLICY
ON SUE**

The Transportation Cabinet (Cabinet) recognizes the American Society of Civil Engineers' *Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data* (CI/ASCE 38-02) as the leading document defining the Subsurface Utility Engineering (SUE) process. These are the recommended guidelines for proper execution of SUE, along with the Division of Highway Design's *Highway Design Guidance Manual* and Design Memorandum 12-4 ([Exhibit 9004](#)).

**PROJECTS REQUIRING
SPECIAL EMPHASIS
ON SUE**

The Cabinet recognizes that SUE is employed to varying degrees, depending upon the project itself. Care and emphasis shall be exercised on projects that may be defined within a category listed below. It is recommended that such projects be developed with complete and accurate location of underground utilities:

- Urban highway construction projects with high potential for anticipated utility facility conflicts
- Projects with complex utility networks (either aged or having a significantly high potential for costly facility relocations)
- Limited, narrow, and congested existing rights of way
- High-profile highway projects
- Projects that have a critical or otherwise taxing schedule
- Projects where underground utility facilities are unknown and cannot be determined by review of utility facility maps or the mapping simply does not exist

CABINET PROCEDURE The district project development team members shall determine the appropriate level of SUE to incorporate into the project. Team members to be consulted include the project engineer (PE), the utility supervisor (US), and the project development branch manager (PDBM). The US may consult with utility companies on facility locations and the potential impact of construction on their facilities, review the facility mapping or utility location data available at the time, and consider needs for SUE on the specific project.

The following methods for integrating SUE in Cabinet road projects are available:

- Including SUE in the project design via the consulting engineering services


This process is available for consultant-designed projects and is preferably included in the initial request for engineering services. Integration of SUE into this type of agreement shall be approved by the PE and the PDBM.

- Requesting SUE services be completed under the statewide utility services contract

The Cabinet has a continuing contract for survey services, which includes SUE. Such SUE requests shall be coordinated by the PE and routed through the Cabinet survey coordinator located in the Central Office Division of Highway Design.

The Cabinet's *Highway Design Guidance Manual* ([HD-304](#)) and selected excerpts from Highway Design Memorandum 12-4 ([Exhibit 9004](#)) provide further information concerning the Cabinet's SUE program.



	<p><i>Chapter</i></p> <p>UTILITY ESTIMATING & PROGRAMMING FUNDS</p>
	<p><i>Subject</i></p> <p>General</p>

FUNDING CLASSIFICATION OVERVIEW

Typical Transportation Cabinet (Cabinet) road projects are budgeted with several different types or classifications of funding phases, which may be classified as follows:

- Planning phase funding, identified by the letter “P”
- Design phase funding, identified by the letter “D”
- Right-of-way phase funding, identified by the letter “R”
- Utility phase funding, identified by the letter “U”
- Construction phase funding, identified by the letter “C”

The U phase funds are budgeted to cover expenses associated with utility relocations, including railroad coordination and Cabinet labor to execute the work. Most utilities and rail functions utilize U phase funding. In some instances, utility and rail work may be undertaken with other phase funding, usually D or C. These instances of alternative funding are approved exceptions as described in this chapter.

Having funds budgeted is not equivalent to having funds available for use. Funding authorization, as described in [UR-603](#), is required prior to any expenditure.

DEFINITIONS PERTINENT TO PHASE FUNDING

U phase estimate is the estimated amount of funding required to complete the U phase work.

Programming is the process by which the funding is provided or authorized by the Cabinet or the Federal Highway Administration ([FHWA](#)).

Programmed funds are the amount authorized by the Cabinet or FHWA to complete a scheduled phase of work. This amount is based upon the submitted funding request.

**PROGRAMMING &
ESTIMATING GENERAL
OVERVIEW**

Cabinet road projects typically include established development and execution milestones. The funding phases are periodically reviewed and updated as these milestones approach. U phase funding may be updated at each of the milestones below:

- **Project Planning Stage (Class E)**—when the project is conceptual in nature, being scoped, or in a preliminary study
- **Preliminary Design Stage (Class D)**—when the project is in preliminary design or is a study
- **Early Final Design Stage (Class C)**—when the project is at the preliminary line and grade milestone
- **Final Design Stage (Class B)**—when the project is at the final joint inspection milestone
- **Final Design Completion Stage (Class A)**—when the utility company forwards their relocation proposal to the Cabinet and it is approved by the utility agent

Note: The company's utility relocation agreement is written based upon this estimate.


The estimates produced at each iteration should become more accurate as the project progresses in design detail and utility information increases.

Requests for U phase funding shall be completed using the highest class estimates available (generally Class B or C), utilizing right-of-way plans, reviewed and approved via the final joint inspection review team, and applying the latest utility location information available.

**RECORDS OF ESTIMATES
& FUNDING REQUESTS
WITH KURTS**

The Kentucky Utility and Rail Tracking System ([KURTS](#)) is used to generate and record utility phase estimates and requests to program funds for utility relocation. KURTS contains actively updated utility phase line items for each of the twelve districts. All utility phase estimates and funding requests shall be generated, recorded, and submitted for finding through KURTS.



	<p><i>Chapter</i></p> <p>UTILITY ESTIMATING & PROGRAMMING FUNDS</p>
	<p><i>Subject</i></p> <p>Estimate Development Procedures</p>

ESTIMATING PROCESS Estimates for U phase funding are developed at the request of the project engineer (PE). The utility supervisor (US) shall initiate the development and update of the estimates.

When a project involves railroad coordination, the Utilities Section shall consult with the railroad coordinator in the Central Office Utilities and Rail Branch. Costs associated with the coordination of railroads including upgrading rail facilities shall be included in the U phase funding. [UR-2000](#), “Rail Coordination Program,” provides for additional details.

**PROJECT
PLANNING STAGE
CLASS E ESTIMATES**

During the scoping or prestudy phase of a project, the project development team shall request the US to participate in a preliminary route study. After evaluating the project, the Utilities Section shall:

- Complete a Class E utility cost estimate in the [Kentucky Utility and Rail Tracking System \(KURTS\)](#) for determining the economic feasibility of alternate route locations
- Submit the estimate to the PDBM and project planner or PE and retain the estimate in KURTS

The Class E utility cost estimate shall require the US or utility agent (UA) to conduct a field visit to the proposed project, assume the utilities involved, and create an estimate by counting utility poles and estimating the location of underground utilities by observing the location of water meters, fire hydrants, gas meters, etc. The Utilities Section may use estimation data retained in KURTS or historical costs to help calculate the estimated costs for utility relocations.

The project schedule shall be taken into consideration, since construction costs tend to increase with time.

PRELIMINARY**DESIGN STAGE****CLASS D ESTIMATES**

During the preliminary design or study phase of the project, the project development team shall provide the US with a topographic map, aerial photograph, or rough project plan indicating alternate alignments. The project development team shall request that the Utilities Section prepare a Class D utility cost estimate in KURTS for each alternate. The estimate shall provide sufficient detail to assist in identifying a preferred alternate.

The Utilities Section may use estimation data retained in KURTS or historical costs to help calculate the estimated costs for utility relocations. The project schedule shall be taken into consideration, since construction costs tend to increase with time. The Utilities Section shall make the estimate available to the PDBM and PE by retaining the estimate in KURTS.

EARLY FINAL**DESIGN STAGE****CLASS C ESTIMATES**

The project development team shall notify the US of the preliminary line and grade inspection and provide a set of plans. The Utilities Section may use estimation data retained in KURTS or historical costs to help calculate the estimated costs for utility relocations. The project schedule shall be taken into consideration, since construction costs tend to increase with time. The Utilities Section shall:

- Prepare a Class C utility cost estimate in KURTS
- Make the estimate available to the PDBM and PE by retaining the estimate in KURTS
- The area coordinator (AC) shall review the estimate if the project development is progressing

The estimate shall include, but not be limited to, the following:

- Facility owner(s)
- Type of facility(ies)
- Facility size(s)
- Material type and quantity involved with replacing facilities from their existing location to a location clear of construction
- Percentage of existing facilities located on any public right of way or private easement for privately owned facilities

FINAL DESIGN STAGE**CLASS B ESTIMATES**

The project development team shall notify the US of the final joint inspection and provide a set of plans and any utility location data available. The Utilities Section shall:

- Prepare a Class B utility cost estimate in KURTS
- Make the estimate available to the PDBM, PE, and AC by retaining the estimate in KURTS

The estimate shall include, but not be limited to, the following:

- Facility owner(s)
- Type of facility(ies)
- Facility size(s)
- Material type and quantity involved with replacing facilities from their existing location to a location clear of construction
- Percentage of existing facilities located on any public right of way or private easement for privately owned facilities
- Only reimbursable facilities in the estimate
- Extent of railroad involvement, where applicable

PREPARE AGREEMENT**CLASS A ESTIMATES**

After the US submits the final right-of-way plans to the utility company, the utility company shall prepare a proposal that includes a set of plans showing the proposed relocation of their facilities and a construction cost estimate. Once approved by the US, the cost estimate is known as a Class A Estimate. The Utilities Section shall:

- Review the utility company's proposal and, if acceptable, draft an agreement based on the Class A Estimate uploaded into KURTS
- Upload the agreement into KURTS to the AC for review

The US and AC shall review and approve the agreement. Upon concurrence, the US may submit the agreement to the utility company for signature. The KURTS-approved agreement is the document of record.

PREPARE AGREEMENT


CLASS A ESTIMATES

(CONT.)

The estimate shall include, but not be limited to, the following:

- Facility owner(s)
- Type of facility(ies)
- Facility size(s)
- Material type and quantity involved with replacing facilities from their existing location to a location clear of construction
- Percentage of existing facilities located on any public right of way or private easement for privately owned facilities



	<p><i>Chapter</i></p> <p>UTILITY ESTIMATING & PROGRAMMING FUNDS</p>
	<p><i>Subject</i></p> <p>Funding Request & Authorization</p>

UTILITY FUNDING REQUEST

Funding request packages are submitted through the Kentucky Utility and Rail Tracking System ([KURTS](#)) and shall include a Class A, B, or C estimate; spend down plan; and TC 90-122 form, *Request for Funding Authorization*. They are available to be reviewed and approved in KURTS by the Project Development Branch Manager (PDBM), Utilities and Rail Branch Manager (UBM), and the area coordinator (AC). It is the AC’s responsibility to support the district’s project by providing a thorough review of the costs, quantities, budgeting codes, and viability for reimbursement for quality control purposes. Any discrepancies, errors, or omissions must be addressed prior to final approval and submission of the package to the Division of Program Management for funding.


Upon approval of the documents in KURTS, the package may be submitted electronically to the Division of Program Management for processing. Documentation of these steps are retained in KURTS.

PROGRAMMING/FUNDS AUTHORIZATION

For state-funded projects, the Division of Program Management approves the funding for a *Request for Funding Authorization* and will generate a TC 10-1 form, *Project Authorization*. For federally funded projects, the Federal Highway Administration (FHWA) also must approve a *Request for Funding Authorization*. For federal projects, the Division of Program Management will provide a TC 10-1 form, *Project Authorization*, and the FPA-1 form, *Federal Project Authorization*. Once funding is secured, a notification summarizing the available funding will post in KURTS on the project initiation tab.

The district Utilities Section is now authorized to truly begin the utility relocation process. The right-of-way plans and a project authorization (state letter) shall be sent to the applicable utility companies, as detailed in [UR-700](#).



	Chapter UTILITY ESTIMATING & PROGRAMMING FUNDS
	Subject Utilizing Non-Utility Phase Funding

**FUNDING PRELIMINARY
 UTILITY ENGINEERING
 (FOR CRITICAL PROJECTS
 ONLY)**

Utility engineering work may be initiated **prior to** the authorization of U phase funding. Examples of projects for which early initiation is encouraged are listed below:

- Extensive utility work is needed to complete the project and cannot be completed without early utility engineering.
- The project schedule cannot be successfully executed without early utility engineering, and the letting date must be maintained.
- The project includes complex utility relocations that require more extensive and time-consuming coordination efforts.
- Utility easements need to be acquired by Transportation Cabinet (Cabinet) right-of-way staff, and preliminary engineering is required to identify the easement.

In such scenarios, it is viable to utilize design (D phase) funding to perform preliminary utility engineering services. **This process must be approved by the Project Development Branch Manager (PDBM).**

PROCEDURE

The Cabinet may accept utilizing D phase funding for some utility engineering services as follows:

1. The utility supervisor (US) and project engineer (PE), with the acceptance of the area coordinator (AC), must determine if the project requires preliminary utility engineering funding. This can be determined at the preliminary line and grade stage (Class C) or it can be budgeted into the D phase funding when the project is in a conceptual or planning stage.

PROCEDURE (CONT.)

2. If it is determined that the project needs early utility coordination after D phase funding is established, the US shall provide a recommendation for preliminary utility funding and proper justification to the PDBM for concurrence.
3. Upon acceptance, and if the design budget requires additional funding to support the work, the US shall create an estimate for the preliminary engineering funds, which may be a percentage of the total estimated cost of the relocation work. This estimate is the basis for the funding request.
4. The US drafts the additional funding request contingent upon the selection of a final alignment and submits it to the AC, PE, and PDBM. The funding request for preliminary engineering services shall include all items outlined in [UR-602](#), including an estimate, request form, and spend down plan. The request shall explicitly state that it is for “Preliminary Utility Engineering Services” and shall indicate utilization of D phase funding. Since this request is for D phase funding, it is not required to be generated and retained in the [Kentucky Utilities and Rail Tracking System \(KURTS\)](#).
5. The funding process and Central Office notifications then follow as discussed in [UR-603](#). The AC shall provide all reviews, and PDBM shall submit the request.
6. The Division of Program Management may reallocate utility funds to the design phase, if appropriate and per the funding request.
7. Upon notification, the US shall send a project authorization (state letter), authorizing only preliminary engineering, to the appropriate utility companies. This letter can be electronically generated, sent, and recorded in KURTS.
8. The affected utility companies shall send an estimate for the preliminary engineering services, with an approximate total utility relocation cost, to the US.
9. An engineering services agreement may be drafted to reimburse the utility company for the preliminary engineering costs, under the D phase funding established by the above funding request.

Utilizing this procedure indicates preliminary engineering will be reimbursed by a separate agreement and by a funding source entirely different than the actual utility relocation construction. Engineering would be reimbursed via an engineering services agreement ([UR-900](#)) using D phase funding.

PROCEDURE (CONT.) The relocation construction may be reimbursed under a typical keep cost or lump sum relocation agreement, using approved U phase funding. Those expenses would be invoiced separately, and there would be two agreements and two funds to request and manage. By utilizing D phase funding, utility phase engineering may begin as early as preliminary line and grade.

Note: No construction may be funded utilizing D phase funding, only engineering-related work.

**FUNDING UTILITY
WORK IN THE ROAD
CONSTRUCTION
PROJECT**

Utility relocation work may be completed by the highway contractor (as detailed in [UR-1700](#)). Examples of appropriate utilization of this option include:

- Extensive utility relocation work is needed that cannot be completed prior to the roadwork commencing.
- The project schedule does not allow for utility relocation prior to road construction, and the letting date must be maintained.
- The project includes complex utility relocations that are best completed in conjunction with the road improvement.
- The utility company requests it.

In such scenarios, it is sometimes appropriate to utilize construction (C phase) funding to perform utility relocation services. This process is only to be used when needed and when Cabinet officials agree that it is in the best interest of the project.

U phase funding may be used to reimburse for relocation work in road contracts. However, if executing the relocation agreement with U phase funding will delay the closure of the U phase for a long time (if the roadwork is not to take place for years), it may be best to use C phase funding for the execution of the utility relocation work in the road contract, rather than tie up two funding phases.

The Cabinet may utilize C phase funding for utility relocation services as follows:

- The US, PE, and affected utility company, with the acceptance of the AC, must agree the project is best executed in this manner.

**FUNDING UTILITY
WORK IN THE ROAD
CONSTRUCTION
PROJECT (CONT.)**

- The Division of Program Management may reallocate utility funds to the construction phase, if appropriate and per the funding request. The funding process and Central Office notifications then follow similar to that discussed in [UR-603](#). Since this request is for C Phase funding, it is not required to be generated and retained in KURTS.


**FUNDING RAILROAD
COORDINATION WITH
CONSTRUCTION FUNDS**

Some projects require detailed coordination with railroads, as defined in [UR-2000](#). In such scenarios, it is appropriate to utilize construction (C phase) funding to perform railroad coordination services. This process is only to be used when needed and when Cabinet officials agree that it is in the best interest of the project.

U phase funding may be used to reimburse the railroad company for rail coordination work. If executing the relocation agreement with U phase funding will delay the closure of the U phase for a long time (if the roadwork is not to take place for years), it may be best to use C phase funding for the execution of the coordination work in the road contract, rather than tie up two funding phases.

This procedure is similar to “Funding Utility Work in the Road Construction Project” listed above.



	Chapter PROJECT AUTHORIZATION LETTERS (STATE LETTERS)
	Subject General

OVERVIEW

Upon securing the appropriate funding, the district utility supervisor shall issue a project authorization letter, otherwise known as a state letter to the utility companies whose facilities may be affected by the highway project. The state letter can be electronically drafted, sent, and retained in the [Kentucky Utilities and Rail Tracking System \(KURTS\)](#). The project authorization letter provides three primary functions:


- Notifies the recipients of funding availability
- Authorizes preliminary engineering services, if performed by the utility companies' forces
- Sets up a first official meeting of affected utility companies with the district utility staff, which is called a joint utility meeting

This letter shall be sent only after funds have been authorized for the appropriate phase of the project and after identification of the utility facilities potentially affected by construction.

Secondary functions of the project authorization letter include:

- Establishes a written line of communication between the Transportation Cabinet (Cabinet) and the affected utility company, with regard to the proposed highway project
- Outlines the process by which to seek and attain Cabinet approval of needed and compensable consulting or contracting services
- Defines Cabinet compensation policy and procedures
- Requests those utilities that are not eligible for reimbursement send an acknowledgement letter, often called a no-charge letter
- Acts as the Cabinet's legal authorization for the relocation planning to begin, with the date of the letter serving as the start date of all associated utility relocation agreements



	<p><i>Chapter</i></p> <p>PROJECT AUTHORIZATION LETTERS (STATE LETTERS)</p>
	<p><i>Subject</i></p> <p>Program Funding Requirement</p>

GENERAL


The project authorization letter, often called a state letter, authorizes the utility or rail company to proceed with preliminary engineering and planning services; therefore, appropriate funding shall be available before the issuance of the letter. The state letter can be electronically drafted, sent, and retained in the [Kentucky Utilities and Rail Tracking System \(KURTS\)](#).

Execution of any agreements pursuant to the project in question shall be processed with a start date of the project authorization letter. Any work performed prior to the project authorization letter or prior to the authorization of funds will not be reimbursable. Any such expenses shall not be incorporated into the terms of the agreements unless otherwise funded.

Invoices require a statement of charges which specifies the service dates of the work being compensated. The Transportation Cabinet shall verify the issuance date of the project authorization letter to verify that work performed by utility or rail companies was conducted after the proper funds were made available.

[UR-600](#) provides additional information on funding policies and procedures.



	<p><i>Chapter</i></p> <p>PROJECT AUTHORIZATION LETTERS (STATE LETTERS)</p>
	<p><i>Subject</i></p> <p>Format Requirements</p>

GENERAL

The project authorization letter, often called the state letter, shall be formatted in a manner that clearly provides the utility or rail company with project-specific information. The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses the standard template for this letter, which can be electronically generated, sent, and recorded. It is highly recommended that this template be used; however, the minimally required data is listed herein.

HEADER

The letter's header shall include:

- The current date
- Project identification through the use of a federal, state, or local project number
- The county in which the proposed highway project is located
- The Transportation Cabinet's Six-Year-Plan Identification Number, if applicable
- The funding line identification for preliminary engineering work on the proposed highway construction project

BODY

The letter's body shall include:

- The time and date of a joint utility meeting at the project site, if applicable
- The proposed letting date for the highway construction
- An official authorization date for the utility company to proceed with any necessary meetings, field work, or other preliminary engineering services to determine:
 - ◆ The impact, if any, of the proposed highway construction to an aerial or underground utility or related facility

BODY (CONT.)

- ◆ The scope of work involved for the adjustment, relocation, or protection of the utility company's transmission lines or facilities due to the proposed construction
- ◆ The estimated costs associated with the proposed utility facilities adjustment or relocation
- ◆ The cost of any betterment work involved with the process of adjusting or relocating the utility facilities for highway construction
- ◆ Scheduled completion dates for preliminary utility company plans, preliminary estimates, and right-of-way parcels requiring clearance
- Procedures for obtaining authorization to use consultant engineering services to accomplish preliminary engineering work
- Procedure for negotiating compensation via agreement or the issuance of a permit

ATTACHMENTS

The following attachments shall be included with all project authorization letters when possible:

- Two sets of right-of-way plans and cross-sections, if available

Note: If right-of-way plans are unavailable to distribute at the time of the letter's issuance, Cabinet personnel shall distribute them to the utility company at the joint utility meeting.


- A location map or description of the proposed highway project

OTHER INFORMATION

The following items may be included, as needed:

- Detailed instructions for estimate preparation
- Requirements for encroachment permits when working on state-owned right of way
- Requirements for submittal of water and sewer line modifications to the Energy and Environment Cabinet's Division of Water, if applicable
- Notice of any right-of-way parcels remaining to be cleared



	Chapter JOINT UTILITY INFORMATION MEETING
	Subject General

OVERVIEW

The project authorization letter, otherwise known as a state letter (see [UR-700](#)), is the method by which the Transportation Cabinet (Cabinet) sets up a first official meeting of potentially affected utility companies with the district utility staff, which is called a joint utility information meeting (JUM).


The letter shall be sent only after utility funds have been authorized for the appropriate phase of the project and after identification of the utility facilities potentially affected by construction.

JUM PURPOSE

The JUM is an opportunity to discuss the highway project with potentially affected utility companies to:

- Determine the accuracy of the existing facilities shown on the plans
- Identify facility conflicts with the highway design
- Define possible relocations to address the conflicts
- Examine resolutions with all involved utility companies to identify and resolve conflicts with their relocation plans
- Plan utility design and relocation schedules
- Identify reimbursable and nonreimbursable utility work
- Consider the highway project schedule
- Look for minor highway redesign measures that could minimize utility relocations
- Look for any utility data needs that can be easily addressed with SUE or surveying



	<p><i>Chapter</i></p> <p>JOINT UTILITY INFORMATION MEETING</p>
	<p><i>Subject</i></p> <p>Preparation for the Joint Utility Information Meeting</p>

JUM ATTENDEES

All potentially affected utility companies as identified on the project utility contact list recorded in the [Kentucky Utility and Rail Tracking System \(KURTS\)](#) shall be invited to the joint utility information meeting (JUM) via the project authorization letter. This project utility contact list may have been developed at the project planning stage ([UR-504](#)). If no contact list has been developed, the district utility supervisor (US) shall send the project authorization letter, which includes an invitation to the JUM, to all utility companies that may be in the project area.

The project engineer shall be invited to the JUM. At the discretion of the US, additional Transportation Cabinet (Cabinet) staff members shall be invited based upon the special needs of the project itself. Possible invitees may include Cabinet staff involved with environmental analysis, construction, right of way, Central Office utilities and rails, traffic operations, or other functions. Some projects may be best addressed with the highway project design consultant represented.

JUM SCHEDULING

Generally, appropriate scheduling of the JUM shall depend upon the project, commonly based upon project complexity and schedule. For urgent projects, the US shall schedule the JUM as soon as possible (generally 2—4 weeks after the project authorization letter is sent).

Projects in this category include:

- Projects with short schedules
- Projects with complex utility relocations
- Projects that involve many utility relocations

Some projects are best suited to delay a JUM. The term of the delay is dependent upon the specific project circumstances. Instances where delay is most suited include:

- Projects lacking critical project data needed to determine conflict potential

**JUM SCHEDULING
(CONT.)**

- Projects that are going to be significantly redesigned
- Projects that do not involve many utility relocations and the roadwork will not take place for years

Rarely will a project not require a JUM at all; however, instances that may not require a JUM, include:

- Projects with only one or two utility companies involved
- Projects with very small relocation needs

Note: Considering the many benefits gained from a JUM (as detailed in [UR-801](#)), the Utilities and Rail Branch does not recommend the practice of foregoing the meeting.

**JUM MATERIALS
PREPARATION**

The US is responsible for preparing several items to hold a successful JUM.


Since this meeting is scheduled after utility funding authorization (which occurs at the same time or shortly after right-of-way authorization), right-of-way plans are usually fully developed. Utility companies shall use these plans to begin their facility relocation designs. In preparation of the JUM, the US shall obtain the latest plans in both hard-copy and digital forms. More detail on the necessary plans is defined in [UR-803](#).

A JUM agenda shall be proposed. This agenda shall lay out the purpose of the meeting with an application of project-specific matters to the general purpose of a JUM (as detailed in [UR-801](#)).

A sign-in sheet may be used for the JUM.

If applicable, a general project information sheet can be provided, making available valuable project information. This project information sheet is included in the state letter template found in KURTS and discussed in [UR-703](#).



	Chapter JOINT UTILITY INFORMATION MEETING
	Subject Holding the Joint Utility Information Meeting

MATERIALS

Half-sized plan sets shall be available at the joint utility information meeting (JUM) for any attendee requesting a copy, with a limited number of full-sized sets available. Electronic copies of the plan set shall be available to any attendee requesting a copy.

The electronic sets shall include a complete plan set (plan and profile, cross-section, and pipe-sheet drawings). All electronic plans delivered for use in computer-aided design shall be delivered in MicroStation format. No conversion to other computer-aided design formats shall be provided by the Transportation Cabinet (Cabinet). The lone exception to this “conversion” policy is providing plans in Adobe PDF format. A letter shall be attached to all disseminated electronic plans stating the following disclaimer:

“The electronic CADD files contained on this disk are provided by the Kentucky Transportation Cabinet, Department of Highways, and are for use by anyone who has a need for the information. The information contained on this disk is not the official plans for the project, and hence is not to be construed as a legal document. The Department does not guarantee these files will be readable in your computer system. The Department takes no responsibility and accepts no liability for information lost in transmitting these electronic files or in converting these files to formats usable in other programs or systems.”

Companies unable to utilize electronic files can request specific sheets as needed.

The project authorization letter is the typical point where highway plans are provided to the utility company. However, it may be more expedient (and less costly) to distribute the plan sets at the JUM. Hard-copy and digital formats shall be made available to all attendees, if they were not provided previously. Digital formats may be saved in the [Kentucky Utility and Rail Tracking System \(KURTS\)](#) and shared with the involved utility companies that have access to KURTS data.

MATERIALS (CONT.) The utility companies shall be furnished with the general project information sheet, if one is available. The general project information sheet provides valuable project information such as the highway project's proposed letting date and the date that the utility companies' relocation submittal package (relocation plans and estimate) shall be delivered to the district Utilities Section. This project information sheet is included in the state letter template found in KURTS and discussed in [UR-703](#). It can be generated, sent, and saved electronically, but hard copies are recommended for the JUM.

MEETING EXECUTION The JUM meeting shall be conducted by the district utility supervisor, an agent, or both. It may be conducted at the project site, at the district office, or at a mutually convenient location. However, the meeting site shall be able to accommodate the expected number of attendees and their vehicles, which usually makes meeting at the district office more convenient; although, on-site meetings can be very beneficial and are encouraged when an appropriate location is available. An ideal solution is to hold the JUM at the district office and conduct a walkthrough of the project thereafter.

The district utility representative at the JUM must determine if any utility companies absent from the JUM may be affected by the highway project. These companies shall receive all materials provided at the JUM and the meeting minutes package. Such nonattendees shall be included on the project utility contact list in KURTS until they are confirmed to be uninvolved.

Required results of a successful JUM are as follows:

- Address all applicable JUM purpose items, as shown in [UR-801](#).
- Convey pertinent project data and materials.
- Develop a project utility contact list in KURTS, via the sign-in sheet and meeting discussions.
- Identify any needs to foster utility facility relocations.
- Schedule future meetings, if necessary.

The utility companies must first determine the accuracy of the plans as they pertain to their facilities in location, type, or size. If the company determines that discrepancies do exist, the corrections shall be noted on the plans, so the project engineer (or consultant) can make the appropriate corrections. Once the corrections are made, new plan sets (or specific replacement sheets) can be distributed to the companies.

MEETING EXECUTION**(CONT.)**

Identifying utility facility conflicts at a JUM may be completed to some degree, but such analysis takes time. A JUM is more suitable to the collaborative development of relocation design concepts rather than conflict identification. At the JUM, representatives from all affected utility companies can consider each other's relocation designs to minimize construction conflicts as a team.

JUM attendees shall discuss and review the erosion prevention and sediment control (EPSC) needs of the project site relative to the relocation plans. Utility relocations require individual permitting and such needs shall also be discussed.

Relocation and highway project schedules should be discussed along with the relocation designs to avoid overlapping schedules and verify the relocations can be completed prior to the highway construction. If the utility work cannot be completed prior to the roadwork, utility staff must consider if the highway project letting should be delayed or if some utility work can be included in the highway project.

The JUM is an opportunity to review the highway design as a group. Minor redesigns could result in significant relocation savings. The Cabinet encourages the utility team to actively look for such cost-saving measures. Another valuable result of team-oriented highway plan review is to determine where the plans lack needed utility data.

The purpose of the JUM (as defined in **UR-801**) must be satisfied; however, the format and delivery of the meeting, at the discretion of the district staff, must be tailored to meet district office and project needs. For example, one district may require utility companies to deliver relocation plans identifying the proposed installation locations by station, offset, and elevation, while another district may choose to require locations identified by a distance from the proposed right-of-way line. Regardless of method selected, the result is that the relocated facilities can be easily found and identified in the field. Such decisions are discretionary to the district utility staff but must be discussed at the JUM.

MEETING MINUTES


Meeting minutes shall be kept by the district utility staff and should be distributed within one week of the meeting. The minutes should include a copy of the sign-in sheet.

MEETING MINUTES

(CONT.)

Any utility companies absent from the JUM that may be affected by the highway project shall receive all materials provided at the JUM and the meeting minutes package. Such nonattendees must be included on the project utility contact in KURTS. The district utility representative from the JUM must ensure the materials are provided to these nonattendees. An email containing the contents as described is an adequate substitution for mailed correspondence.



	<p><i>Chapter</i></p> <p>JOINT UTILITY INFORMATION MEETING</p>
	<p><i>Subject</i></p> <p>Complicating Factors to Consider</p>

OVERVIEW Some scenarios may lead to a more complex utility relocation process. These needs shall be discussed with the affected utility companies as early in the facility relocation process as possible, which is generally at the joint utility information meeting (JUM). Some examples of complicating factors are described here.

PROJECTS INVOLVING BRIDGES Since bridge plans are generally one of the last things produced for a project, it is difficult to plan a utility relocation with much confidence around a bridge structure.

While allowing utility facilities to attach to a bridge structure can be accomplished, it is certainly a last resort and is discussed further in [UR-400](#).


PROJECTS INVOLVING RAILROADS Projects involving railroads require special coordination on behalf of the Transportation Cabinet (Cabinet) (as detailed in [UR-2000](#)). If the utility company has facilities in the vicinity of the railroad right of way, it is likely that they too must coordinate with the railroad company independently. Railroad coordinations require specialized insurance, permits, fees, and expenses. Such endeavors take 3 to 6 months to complete preparations and shall be considered when developing a relocation plan, budget, and schedule.

PROPERTY ACQUISITIONS INVOLVING DEMOLITIONS Property acquisitions that involve relocation of the owners or tenants, especially when they require structure demolition, are of particular interest to district utility staff. These parcels take a lengthy amount of time to prepare for construction. If a utility company must utilize the right of way on such a parcel, the utility staff and right-of-way staff shall communicate regularly on the parcel of interest. Such parcels can control the schedule of utility facility relocation and must be planned thoroughly by the district staff.

NEW HIGHWAYS

A new highway may be the simplest Cabinet project from a relocation perspective. Typically, there are not many utility facilities in the area to relocate. However, such developments often spur new utility facilities. Care shall be taken to ensure facilities do not develop that may otherwise impede the highway construction. District utility staff shall consult district permits staff periodically to ensure any new facilities being permitted are enlisting the highway plans in their design to negate the possibility of creating utility conflicts.



	<p><i>Chapter</i></p> <p>ENGINEERING SERVICE CONTRACTS</p>
	<p><i>Subject</i></p> <p>General</p>

OVERVIEW When the Transportation Cabinet (Cabinet) issues project authorization letters ([UR-700](#)), utility companies are authorized to initiate preliminary engineering using utility company personnel only. They are advised that the necessary engineering services may be performed by a consultant engineer if the utility company is not adequately staffed to perform engineering.


If the utility company prefers to enlist the services of a consultant engineer, it shall provide a written request to that effect, and specific steps shall be taken to receive the Cabinet’s approval, as detailed in this chapter.

DEFINITION The engineering service contract (ESC) is a document binding the utility company and its consultant. The Cabinet shall act as an interested party to the ESC if it shall be compensating the utility company for all or part of the costs of contract engineering.

APPLICABILITY Cabinet approval and authorization of engineering services (company personnel or consultant) is applicable only to utility companies authorized to receive compensation for the relocation work. The Cabinet has no interest in approving engineering services for noncompensable utility relocations.

In regards to compensable utility relocations, a utility company intending to secure a consultant for engineering work shall comply with this process. It is of utmost importance that the ESC process be completed, thereby allowing the Cabinet to review and approve the consultant usage. Any work conducted prior to approval is not reimbursable. Consulting expenses associated with proposal preparation are not compensable, as they are typical to securing any work.



	<p><i>Chapter</i></p> <p>ENGINEERING SERVICE CONTRACTS</p>
	<p><i>Subject</i></p> <p>Proposal Package Contents & Submittal</p>

REQUEST TO CONSIDER**USAGE OF CONSULTANT****ENGINEERING**

The Transportation Cabinet (Cabinet) must receive a written request from the utility company to consider utilization of a consultant engineer. This initial request for consideration shall be submitted to the utility supervisor (US). If the US finds the consultant request viable, the US shall reply to the utility company, in written form, authorizing the process to continue.

ESC PROPOSAL**SUBMITTAL**

The utility company shall provide the Cabinet the following items in the engineering service contract (ESC) proposal package:

- Engineering service contract (ESC)
- ESC proposal and checklist

Note: Examples of the above may be found on the Cabinet’s Utility Coordination webpage.
- Engineering services rates and hours estimate (fee estimate)
- Preliminary construction estimate
- Preliminary plan set of relocations
- Certification of consultant and debarment certification

These items may be prepared by the consultant engineer. All items must be reviewed and approved by the utility company before Cabinet submission.

The Cabinet provides the engineering service contract proposal (ESCP) and checklist above for ease of dissemination. The utility company and consultant may utilize their own documents, but the information retained within the above-listed documents must be available and readily located. Incomplete, inaccurate, or disjointed submissions may be delayed or rejected altogether.

ESC PROPOSAL**SUBMITTAL (CONT.)**

The consultant may include the following services in the proposed scope of work:


- Identify existing facilities to be adjusted, relocated, removed, or abandoned
- Provide preliminary plan and cost estimate for existing facilities to be adjusted or relocated
- Meet with Cabinet's project team to determine if changes should be made to the highway plans to eliminate or reduce the impact to existing facilities
- Prepare plans, specifications, and cost estimate for the relocation or adjustment of existing facilities
- Secure all necessary permits
- Obtain appropriate wage rate schedules and incorporate into project documents, if applicable
- Prepare bid documents and perform necessary services to publicly advertise, bid, and award work
- Prepare descriptions and plats for easements
- Provide resident inspection and contract administration
- Perform final inspection and field testing of new facilities
- Prepare billings and as-built plans

SUBMISSION**PROCEDURE**

The package may be submitted to the district utility supervisor (US) using one of the methods below:

- Electronic submission into [KURTS](#) as an ESCP (preferred method)
- Mailed hard copy



	<p><i>Chapter</i></p> <p>ENGINEERING SERVICE CONTRACTS</p>
	<p><i>Subject</i></p> <p>Proposal Review & Approval</p>

**CABINET
RESPONSIBILITIES**

The utility supervisor (US) is the Transportation Cabinet's (Cabinet) initial reviewer of engineering service contracts (ESCs). The US shall review the ESC package to determine if he or she is satisfied that the consultant can deliver the professional work product in an economically viable, workmanlike, and timely manner. If the Cabinet is aware of consultant failures to deliver professional, fiscally responsible, or timely work product, the US shall request to reject the consultant.

The US and Central Office area utilities coordinator (AC) shall review and approve or reject the ESC. Rejections shall include a documented reason for rejection. Upon review, the US or AC shall notify the utility company of the findings. The review and approval of the ESC is recommended to be done within the [Kentucky Utility and Rail Tracking System \(KURTS\)](#). When submitted and reviewed electronically, KURTS generates an approval or rejection letter that can be automatically sent to the utility company of interest.

If necessary, the US or AC may forward the package to the Utilities and Rail Branch Manager (UBM) for approval.

**CONTRACT
NEGOTIATIONS**

All negotiations shall take place between the Cabinet and the utility company. Cabinet staff shall not negotiate directly with the consultant.

The Cabinet may request that the ESC proposal be modified if any or all of the following situations exist:

- It is the opinion of the Cabinet that the scope is not appropriate.
- The proposal includes rates that exceed the maximum established by the Cabinet's Division of Professional Services.
- It is the opinion of the Cabinet that the total fee or a component of the total fee is excessive or inappropriate given the agreed scope of work.

**CONTRACT
NEGOTIATIONS
(CONT.)**

The Cabinet shall request the utility company to have a consultant provide an explanation when the Cabinet finds any of the above situations exist. The Cabinet shall also ask the utility company to submit a new proposal if the explanation provided by the consultant is not satisfactory.

If the Cabinet receives the consultant's second proposal and finds it still unacceptable, the Cabinet shall divulge the conditions considered to be reasonable. If the consultant states he or she cannot perform the services under the stated conditions, an impasse is reached, and the Cabinet shall request the utility company to do one of the following:

- Assume the financial obligation for the cost of work over and above what the Cabinet considers to be necessary and acceptable

Note: This alternative allows the utility company to use the consultant of their choice.


- Secure another proposal from another consultant, following the procedure outlined above

Only in cases where the utility company has no preference for a consultant or refuses to follow the guidelines above shall the Cabinet become actively involved in helping the utility company choose a consultant. In such cases, the Cabinet shall present the utility company with a short list of at least three consultants possessing the requisite experience and resources.

After the Cabinet has approved the engineering fees, the utility company's consultant engineer is approved to provide the utility company with any or all of the engineering services noted as being necessary in the proposal.

The dollar amount established in the ESC is a "not to exceed" amount. Prior approval by the Cabinet is required before any additional work is performed on behalf of the utility company or the "not to exceed" limit is increased.



	<p><i>Chapter</i></p> <p>ENGINEERING SERVICE CONTRACTS</p>
	<p><i>Subject</i></p> <p>Contract Compliance with Cabinet Policies & Procedures</p>

REQUIRED SUBMITTALS**DURING RELOCATION****PROCESS**

The utility company or authorized agent shall submit the following to the Transportation Cabinet (Cabinet):

- The executed engineering service contract (ESC)
- Marked-up preliminary plans showing the consulting engineer's conceptual plan for the relocation of existing facilities and the approximate estimate of cost
- Marked-up road plans that show the final alignment for all relocated utilities and provide the necessary details of the consulting engineer's proposal for the relocation of existing facilities

Note: Plans are to be approximately 50 percent complete.

- Final construction plans, specifications, and estimate of cost to be submitted by the company to the district Utilities Section for review and approval
- Approval letter from the Division of Water, which shall be provided to the district utilities agent (if applicable)
- As-built plans
- Billing information

The deliverables may be submitted to the Cabinet using one of the methods below:

- Electronic submission into the [Kentucky Utility and Rail Tracking System \(KURTS\)](#) (preferred method)
- Mailed hard copy

PROJECT**CONSIDERATIONS**

Utility companies and their consultants shall follow Cabinet policy regarding permissible construction and design aspects. A few of the factors to consider are listed herein, but the reader is advised to consult the Cabinet's Division of Maintenance [Permits Guidance Manual](#) and **UR-400**, "Utility Accommodation Policy."

PLAN PRODUCTION**REQUIREMENTS**

Consultants shall adhere to the following concerning plan submittal requirements:

- All existing topography and information missing from the Cabinet plans that affect the relocation of the proposed utility facility shall be brought to the attention of the district utilities supervisor.
- Any right of way, centerlines, pipe sections, etc., needed by the consultant to develop the utility relocation plans shall be requested in writing. The request may include a marked-up set of highway drawings showing the information that is to be furnished or located in the field.
- Where sizes of existing facilities are increased to comply with statutory or regulatory requirements, a copy of these requirements shall be submitted to the district utilities supervisor prior to completing the proposed utility relocation plans.
- Existing sizes, lengths, and types of underground facilities that are to be abandoned shall be shown on the plans.
- All proposed skewed cross sections shall be field located. Right-angle cross sections taken from the Cabinet's plans shall not be permitted for skewed cross sections.
- Method of supporting all carrier pipes in casing pipes shall be shown in the plans and noted in the specifications.

UNDERGROUND**EXCAVATIONS**

Where solid rock elevations are required (such as underground utilities), the rock elevations shall be field located by the consultant. It shall then be the responsibility of the contractor to estimate the necessary rock excavation and bid the item for "Unclassified Excavation" accordingly.

TRAFFIC CONTROL

All traffic control shall comply with the [Manual on Uniform Traffic Control Devices](#) and Department of Highways' [Standard Drawings](#) TSC series. The project may require traffic control drawings to be developed and included into the utility relocation plans. Special working hours may be required during the construction of the proposed facility. The district utilities supervisor (US) shall make this determination.

INVOICES

After the agreement is executed and the utility company has been notified to start their work, the TC 69-8 form, *Utility/Rail Agreement Statement of Charges*, may be submitted periodically for payment. Documentation of charges, whether submitted by the consultant or the contractor, shall be attached to the TC 69-8 form. All TC 69-8 forms shall be signed by the utility company, or by the consultant if he or she is the designated representative for the utility company. This designation shall be noted on the form. Such a designation shall be in writing and provided to the Cabinet before any submissions. The TC 69-8 form can be accessed on the Cabinet's Utility Coordination webpage or generated and submitted electronically in KURTS.

Electronic submissions of invoice by the utility company or designated representative require backup documentation. When submitted as such, hard copies with original signature are not required.

CHANGE ORDERS

The consultant shall not exceed the costs as identified in the engineering service contract for any single phase (planning, design, right of way, construction management, etc.) of the contract without notifying the utility company and the US. The consultant shall furnish a detailed explanation of why a particular item of work is to be overrun. These expenditures shall be documented and approved via change order.

Each submitted TC 69-4 form, *Utility/Rail Agreement Change Order*, shall be signed by the utility company, or the consultant if he or she is the designated representative for the utility company. This designation shall be noted on the form. The TC 69-4 form can be accessed on the Cabinet's Utility Coordination webpage or generated and submitted electronically in KURTS.

All TC 69-4 form submissions require backup documentation. The Cabinet requires that all TC 69-4 forms be submitted in hard-copy format with original signatures.

Any change to the scope of work shall be preapproved by the US before the consultant begins work on revised items.

SUBCONTRACTS

When the proposed construction is to be done by contract, the consultant shall furnish the district utilities agent two copies of the contract of the low bidder plus two copies of the contract of the next two bidders.


**PERSONNEL &
DIRECT COSTS**

Maximum allowable personnel and direct costs shall be computed in accordance with the Cabinet's *Professional Services Guidance Manual*.

FINANCIAL RECORDS All firms shall be required to maintain financial records in accordance with the Federal Acquisition Regulations ([48 CFR](#), Chapter 1, Part 31). All firms shall maintain payroll records for all employees, including principals.

INSPECTIONS When the section engineer is inspecting the construction of the company's proposed facility, the section engineer shall furnish the district Utilities Section with the documentation of the weekly progress made by the contractor.



	Chapter UTILITY COMPANY SUBMISSIONS
	Subject General

GENERAL

Utility relocation plans document the work necessary to clear utility facilities from the highway contractor's proposed work area while leaving the facilities functioning in a like manner after relocation work is complete. Utility relocation plans are required for both compensable and noncompensable utility relocations. Prompt submission of these required plans is essential for the Cabinet to ensure that:

- All relocated facilities avoid physical conflicts with the road project
- All relocated facilities avoid conflict with other relocated facilities
- All facility relocations comply with Cabinet utility accommodation policy

Only utility companies expecting compensation are responsible for submitting both detailed relocation plans and a cost estimate.

**REQUIREMENTS OF
 COMPENSABLE
 UTILITIES**

The utility company's relocation plans shall include the following:

- Facilities to be removed, materials to be installed, materials to be transferred, and items planned to be left in place
- Pertinent specifications and standard drawings
- Total project cost estimate, which shall be itemized and divided into engineering, administrative, and construction costs if applicable
- Reasonable schedule of consecutive days for completing the relocation that has been agreed to by the Cabinet
- The Cabinet's requested level of cost participation in the form of a percentage compensable, to be justified in writing ([UR-1004](#))
- Engineering service contract package (if applicable and executed as described in [UR-900](#))
- Any special requests related to project development or execution, which shall be submitted in written detail

**REQUIREMENTS OF
COMPENSABLE
UTILITIES (CONT.)**

The utility company's relocation plans may be submitted using one of the following methods:

- Electronic submission into [KURTS](#) as an ESCP (preferred method)
 - Mailed hard copy
- Special requests made by a utility may be considered by the Cabinet and will likely involve additional submission requirements, as detailed elsewhere in this manual. Some examples of special requests include:
- Approval of additional expenses incurred due to utility company policy changes, such as written utility company policies on construction material or methods
 - Noncompensable improvements to the facilities, otherwise defined as "betterments" ([UR-1004](#) and [UR-1102-2](#))
 - Execution of a lump sum agreement ([UR-1104-2](#))
 - Incorporating the utility relocations into the road contract ([UR-1104-9](#) and [UR-1700](#))

The utility company shall also do one of the following:

- Enter into a written agreement with the Cabinet to include the relocation of the facilities as part of the Cabinet's construction contract
- Enter into a written agreement with the Cabinet to remove all its facilities that conflict with the highway construction project, as determined by the Cabinet, prior to letting construction contract

**REQUIREMENTS OF
NONCOMPENSABLE
UTILITIES**

Companies involved in noncompensable utility relocations shall provide the following information:

- No charge letter as requested in the project authorization letter
- Relocation plans showing facilities to be removed, materials to be installed, materials to be transferred, and items planned to be left in place
- Pertinent specifications and standard drawings
- Any special requests related to project development or execution, which shall be submitted in written detail

**REQUIREMENTS OF
NONCOMPENSABLE
UTILITIES (CONT.)**

Companies may make submissions using one of the following methods:

- Electronic submission into KURTS as an ESCP (preferred method)
- Mailed hard copy

**DISTRICT UTILITY
SECTION DUTIES**

The utility supervisor (US) and utility agents (UAs) shall review all utility company submissions. Submissions from all impacted utility companies shall be reviewed to ensure the relocation work is necessary, appropriate, and both physically and fiscally viable. The US and UA shall validate that the packages include all necessary attachments and information, verifying that:

- All relocated facilities avoid conflicts with the road project
- All relocated facilities avoid conflict with other relocations
- All facility relocations adhere to Cabinet utility accommodation policy

The US and UA shall review all compensable relocation packages to ensure that the costs are appropriate, compensable, and consistent with the proposed scope of work. The US shall review and approve or reject the utility's ESC, relocation plans, and estimates in KURTS.

If the proposal is acceptable to the district, the US shall indicate approval to the utility company. If the road project is at a stage where the particular facility relocation may be undertaken, the utility relocation process may continue. Compensable facility relocations may then be drafted as agreements. Noncompensable relocations may then be issued notice to proceed as authorized designs. (Both of these activities are defined in [UR-1100](#).) If the US and UA are not satisfied with the terms of the proposal, additional negotiations shall be undertaken.


At this point in the relocation process, the US or UA should consult the utility company on their erosion prevention and sediment control (EPSC) plan and individual permitting needs.

**CENTRAL OFFICE
UTILITIES & RAIL
BRANCH DUTIES**

The Utilities and Rail Branch shall review the terms of any proposal submitted. The branch shall support the district by advising on any matter related to the proposal (design, accommodation, costs, etc.). The AC shall review and approve or reject the utility company's ESC, relocation plans, and cost estimates uploaded into KURTS.

Note: The cost of utility relocation construction may vary by region. Therefore, the Cabinet relies heavily upon the district utility staff to maintain utility construction cost data to validate cost estimates.



	Chapter UTILITY COMPANY SUBMISSIONS
	Subject Utility Relocation Plan Contents

SUMMARY

Affected utility companies shall submit detailed plans showing the relocation work necessary to clear their facilities from the highway contractor's proposed work area while leaving their facilities functioning in a like manner after relocation work is complete.

The utility supervisor (US) shall review this comprehensive plan set showing the existing and proposed location plans for all utility companies. This set of plans shall show existing facilities to be removed, relocated, replaced, or transferred or to remain in place in addition to any new facilities installed or to be installed.

UTILITY PLAN DEVELOPMENT

The utility company designer shall provide all utility relocation plan information in hard copy or electronically via the [Kentucky Utility and Rail Tracking System \(KURTS\)](#) to the US or assigned utility agent (UA). The US shall determine whether full-sized hard copies are required, with the exception of utility work incorporated into the highway contract. In this case, hard-copy mylars are required. Utility designers shall adhere to the following criteria when developing and submitting utility relocation plans:

- Cabinet plan sheets involving the utility shall be used in the relocation plan.

Note: Utility relocation plans shall be shown on the Cabinet's plan sheets unless the work is taking place outside the project limits.

- Cabinet cross sections showing utility facility crossings shall be included.

Note: Profile sheets may be substituted if appropriate and accepted by district staff.

- The sheets shall be 36 inches by 22 inches cut size.

UTILITY PLAN**DEVELOPMENT (CONT.)**

- Bold lettering shall identify the type of utility to be relocated and the utility owner.
- Whenever possible, the utility relocation sheets shall be designed to the same scale as the roadway plans.
- The scale of the text on the utility relocation plans shall be of sufficient size so that when the sheets are reduced to half scale, the text is still readable.
- Only utility company notes specific to the project or the sheet shall be shown on the plans.
- Existing facilities shall be depicted.

Note: Existing facilities shall be marked to show whether they are on or off existing right of way, if necessary. Existing facilities shall be broken down to show estimated quantities on public and private right of way, if necessary.

- Facilities to be removed, proposed relocations, any proposed structures, materials to be installed, and materials to be transferred shall be depicted.

Note: Proposed facilities shall be itemized to show estimated quantities to be installed on each sheet, or a summary sheet of the line item quantities. The summary sheet is required if the relocation is to be included in the road contract.

- Items planned to be left in place shall be depicted.
- Proposed facility location data such as station and offset of all changes in direction, junctions, or changes in grade shall be included.

Note: Coordinates or offsets from the right of way may be acceptable alternatives if appropriate and accepted by district staff.

- Existing and proposed right-of-way or easement lines shall be depicted.
- Any increases to the functional capacity of facilities or the use of more expensive material shall be clearly designated.

UTILITY PLAN**DEVELOPMENT (CONT.)**

- The utility designer shall develop relocation plans using Microstation (if the utility designer has this capability). By using Microstation, the Cabinet can provide the plans to the utility designer electronically, and the utility designer will have less concern for the loss of data due to conversion. The utility designer can develop plans in other programs; however, he or she shall assume the liability of lost data in the conversion process.

Note: The US or UA shall not provide the utility designer electronic Computer-Aided Design and Drafting (CADD) information in any format other than Microstation. If the Cabinet provides electronic files in converted formats, the Cabinet assumes liability of lost data.

- Applicable specifications and standard drawings shall be included, if needed.
- Traffic control plan shall be included, if applicable.

UTILITY COMPANY**DUTIES**

The utility company is responsible for production of utility relocation plans as described above. The plans shall be submitted to the US. The plans shall be submitted in a timely manner to allow the US to complete the tasks identified as district duties. It is generally preferable for the utility company to submit relocation plans electronically via the Kentucky Utility and Rail Tracking System (KURTS) and provide hard copies only if instructed to do so by the US.

DISTRICT UTILITY**SECTION DUTIES**

The US shall ensure that the work proposed is necessary and remediates conflicts between utility facilities and highway construction. The US shall also verify that the materials being used are consistent with the materials to be replaced, follow utility company policy, or are shown as betterment.

Specifically, the following processes must occur:

- The US shall have the proposal reviewed in detail to ensure compliance to Cabinet accommodation policies.
- The US shall address any questions, errors, or omissions.
- The US shall ensure the final relocation plans are posted for record and approved in KURTS.

**DISTRICT UTILITY
SECTION DUTIES
(CONT.)**

- An agreement shall be written and executed.


- Construction work shall be accomplished so the utility facilities do not conflict with the Cabinet’s construction.

**CENTRAL OFFICE
BRANCH DUTIES**

The area coordinator (AC) shall review the plans submitted to ensure that work addresses project needs and adheres to Cabinet accommodation policy. The AC shall review and approve or reject the relocation plans in KURTS.

The Utilities and Rail Branch Manager may advise on any matters that cannot be resolved by the US, UA, and AC.



	<p><i>Chapter</i></p> <p>UTILITY COMPANY SUBMISSIONS</p>
	<p><i>Subject</i></p> <p>Utility Cost Estimate Review</p>

SUMMARY

In addition to utility relocation plans ([UR-1002](#)), compensable utility companies shall submit a cost estimate for compensable work necessary to clear their facilities from the highway contractor's proposed work area while leaving their facilities functioning in a like manner after relocation work is complete.

COST ESTIMATE REQUIREMENTS

The utility company cost estimate shall include an estimate of all costs associated with the proposed work, which may include the following:

- **Plan Development Costs**, which shall include a detailed breakdown of proposed services, rates, and hours for:
 - ◆ Engineering
 - ◆ Surveying
 - ◆ Property Acquisition
 - ◆ Administration
- **Construction Costs**, which shall include a detailed construction estimate (a detailed bill of materials and labor estimates based upon the relocation plans)
- **Construction Management Costs**, which shall include a detailed breakdown of proposed services, rates, and hours for the following:
 - ◆ Construction Engineering
 - ◆ Administration
 - ◆ Inspection

The estimate shall take into account the Cabinet participation percentage, as detailed in [UR-1004](#). The total project cost and the Cabinet's cost shall be clearly stated and validated.

UTILITY COMPANY**DUTIES**

The utility company is responsible for production of a utility company cost estimate as described above, outlining the method of calculating costs. It shall detail the method proposed to complete work, whether by contract, force account, or by inclusion in the Cabinet's highway contract. The estimate shall be submitted to the district utilities supervisor (US) in a timely manner to allow the US to complete the tasks identified as district duties.

It is preferable for the utility company to submit the estimate electronically through the [Kentucky Utility and Rail Tracking System \(KURTS\)](#) and provide a hard copy only if instructed to do so by the US.

KYTC DUTIES

The US, the area utility coordinator (AC), and the project development team shall consider if there is a significantly ascertainable benefit to employ the full reimbursement of utility relocations for this project as made available in [KRS 177.035\(3\)–\(5\)](#).

If it is determined that employing full reimbursement is in the project's interest, a memorandum shall be drafted and submitted through the PDBM and through the UBM to the State Highway Engineer's Office Project Development Assistant State Highway Engineer. [Exhibit 9010](#) provides an example of this memorandum.

**DISTRICT UTILITY
SECTION DUTIES**

The US shall ensure the cost estimate is mathematically correct, viable, compliant with Cabinet policy, and economical. Upon acceptance of the estimate, the US shall approve the estimate in KURTS, draft the agreement, and submit it electronically to the AC for approval.

Specifically, the following must occur:

- The US shall have the estimate reviewed in detail.
- The US shall address any questions, errors, or omissions.
- An agreement shall be written, approved by the AC, and executed.
- Construction work shall be accomplished so the utility facilities do not conflict with the Cabinet's construction.


CENTRAL OFFICE

BRANCH DUTIES

The AC shall review the agreement in KURTS, the utility relocation plan, and the cost estimate to ensure that the work is necessary for project completion and for the maintenance of function of the utility facility. The AC shall also review whether the work will be by force account or contractor, ensure that a continuing contract is in place and up to date, if applicable, and ensure that work is properly advertised.

The Utilities and Rail Branch Manager may advise on any matters that cannot be resolved by the US, UA, and AC.



	Chapter UTILITY COMPANY SUBMISSIONS
	Subject Calculating Cabinet Participation under KRS 179.265

SUMMARY

Companies whose utility relocation costs are compensable in accordance with [KRS 179.265](#) are compensated only for those utility facilities originally constructed on *other than* public right of way that are required to be moved due to reconstruction or improvement of a public road.

If a utility's facilities were all originally constructed outside the limits of any public right of way, the utility company is entitled to 100 percent reimbursement of necessary relocation costs. If the utility company has part of its facilities initially constructed outside any public right of way (Private R/W) and part of its facilities constructed inside public right of way (Public R/W), a participation percentage shall be calculated for the agreement to cover the reimbursable costs. The participation percentage defines the compensable percentage of work in the project.

This percentage participation is appropriate to calculate if the reimbursable relocations are being compensated pursuant to KRS 179.265. The Transportation Cabinet (Cabinet) has an option for reimbursing utility relocations under [KRS 177.035\(3\)–\(5\)](#), which is discussed in [UR-1102-1](#).

POLICY

There are several acceptable methods of calculating the percentage participation. The utility company shall choose the most appropriate method with the utility supervisor's acceptance.

The utility company shall use a consistent method when calculating participation percentage on highway projects. Specifically, it is inappropriate for the utility company to use the method that yields the best cost return for each individual job. However, it may be necessary to use different methods given the type of facilities on different projects. For example, a company generally uses pole count, but the pole count method will not work if the utility company must also relocate compensable underground facilities.

UTILITY COMPANY**DUTIES**

The utility company shall calculate the participation percentage using the data in the proposal (relocation plans and cost estimate) and utility easement knowledge. The method used to derive the percentage of participation for the project shall be provided to the Cabinet in the proposal. Any documentation necessary to validate the participation percentage shall be provided in the proposal.

DISTRICT UTILITY**SECTION DUTIES**

The district utility supervisor shall:

- Review relocation plans and cost estimates in detail to validate the participation percentage
- Review the method that the utility company uses to calculate percentage of participation and ensure that it is appropriate to the situation
- Check the numbers used in calculating the percentage of participation against the relocation plans and ensure that they are mathematically correct

CENTRAL OFFICE**BRANCH DUTIES**

The utility area coordinator shall review relocation plans and cost estimates to ensure that the method for calculating percentage of participation is the method usually used by the company, is appropriate, and is mathematically correct.

METHODS TO CALCULATE**PARTICIPATION****PERCENTAGE****Method 1: Overhead only (Pole Count)**

The number of poles affected by construction that were originally constructed on Private R/W divided by the total number of poles affected by construction yield the percentage of participation for the agreement.

$$\% \text{ of Participation} = \frac{\text{Poles on Private R/W}}{\text{Total Poles Affected}}$$

Example:

The utility company has to remove or rearrange attachments to a total of 10 poles, and 6 of those poles were originally constructed on other than public right of way. The percentage of participation will be calculated as follows:

$$\begin{aligned} \% \text{ of Participation} &= \frac{6}{10} \\ &= 60\% \end{aligned}$$

METHODS TO CALCULATE**PARTICIPATION**

PERCENTAGE (CONT.) Therefore, the agreement would be written for 60 percent of the approved relocation cost.

Method 2: Combination of Overhead and Underground (Pair Feet)

In a situation where there is existing affected cable both overhead and underground, it may all be broken down into pair feet, fiber feet, or linear feet (if all cable is of like size) and a percentage may be calculated based on this.

$$\% \text{ of Participation} = \frac{\text{Pair Feet Private}}{\text{Total Pair Feet Affected}}$$

Example:

If there are a total of 1,000,000 pair feet of existing cable affected and 250,000 pair feet of cable are on private right of way, the percentage of participation is calculated as follows:

$$\begin{aligned} \% \text{ of Participation} &= \frac{250,000}{1,000,000} \\ &= 25\% \end{aligned}$$

Method 3: Combination of Overhead and Underground (Cost)

In a situation having a contiguous run where a company's facilities are on poles and another contiguous area where the facilities are underground:

1. Calculate each area based on pole count and underground cable (reduced to pair feet, fiber feet, or linear feet [if all cable is of like size])
2. Calculate a cost for each type of existing plant to be relocated
3. Apply the respective percentage of participation to each type of existing plant
4. Calculate a cost for private and a total cost for each
5. Add the costs to relocate the facilities existing on private of both types
6. Calculate a total cost of relocation of existing facilities and a percentage based on:

$$\% \text{ of Participation} = \frac{\text{Cost to Relocate Private}}{\text{Total Cost to Relocate}}$$

METHODS TO CALCULATE PARTICIPATION PERCENTAGE (CONT.)

Example:

If the allowable costs of relocation are \$200,000 (\$120,000 for overhead facilities and \$80,000 for underground facilities) and there are 200 feet of underground facilities on public and 800 feet on private facilities and 6 poles on public and 4 poles on private right of way, the percentage of participation is calculated as follows:

$$\begin{aligned} \% \text{ Participation} &= \frac{(800/1000) \$80,000 + (4/10) \$120,000}{\$200,000} \\ &= \frac{\$64,000 + \$48,000}{\$200,000} \\ &= 56\% \end{aligned}$$

Method 4: Underground Weighted Percentage

Three methods are approved to calculate underground facilities:

- 1 – A separate estimate may be prepared for each different size of line, each prorated by private vs. public.
- 2 – An estimate may be prepared to reflect size of line and length of line (such as in-ft) and prorated by public vs. private.


Example:

If there are 1000 feet of 4-inch line (500 feet on private and 500 feet on public), 1000 feet of 6-inch line (600 feet on private and 400 feet on public), and 1000 feet of 8-inch line (800 feet on private and 200 feet on public right of way); the participation percentage is calculated as follows:

$$\begin{aligned} \% \text{ Participation} &= \frac{(500 \text{ ft})(4 \text{ in}) + (600 \text{ ft})(6 \text{ in}) + (800 \text{ ft})(8 \text{ in})}{(1000 \text{ ft})(4 \text{ in}) + (1000 \text{ ft})(6 \text{ in}) + (1000 \text{ ft})(8 \text{ in})} \\ &= \frac{12,000 \text{ in-ft}}{18,000 \text{ in-ft}} \\ &= 66.67\% \end{aligned}$$

- 3 – A straight percentage is used based on public vs. private (if all lines are the same size).



	Chapter AGREEMENTS & AUTHORIZATIONS
	Subject General

INTRODUCTION

The Cabinet executes agreements with utility companies to provide a clear, written understanding of the responsibilities of the utility company and the Cabinet. Agreements may cover cases where the Cabinet compensates or receives compensation from a utility company. The following page shows a decision tree to assist in selecting the appropriate agreement type.

The Cabinet grants permits to utility companies to allow them to perform work on publicly owned right of way. In cases involving compensation, the agreement serves as the permit application, and once the agreement is approved, an authorization number may be assigned by KYTC.

This chapter describes the different types of agreements that the Cabinet develops with utility companies. The procedure of agreement development and approval is defined, as is the utility permit application and approval procedure.

INVOLVED PARTIES

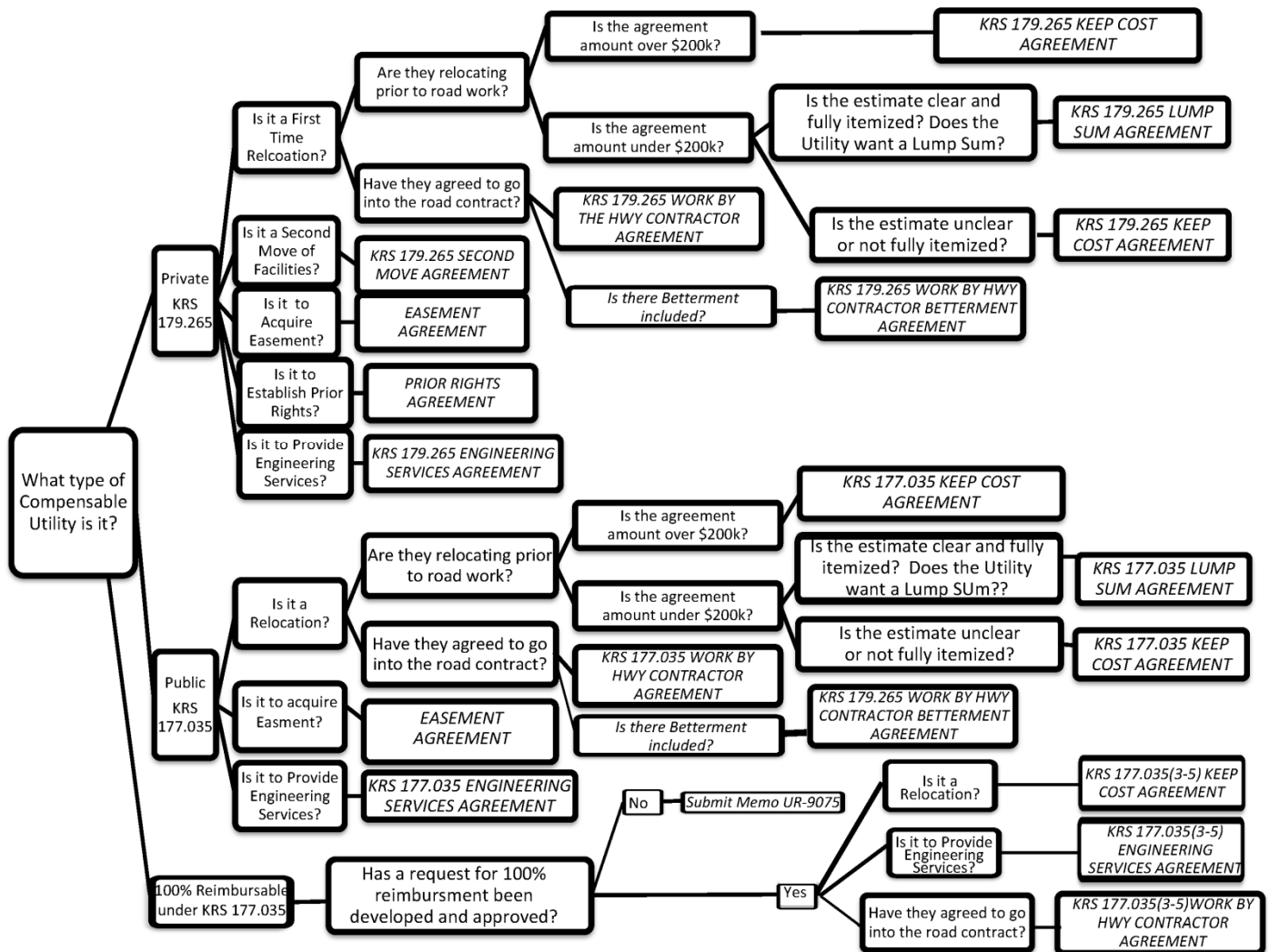
The primary parties involved with agreements and authorizations include:


- District Utility Supervisor (US)
- District Utility Agent (UA)
- Area Utility Coordinator (AC)
- Utilities and Rail Branch Manager (UBM)
- Program Coordinator (PC)
- Utility Companies
- District and Central Office Attorneys

Agreements and authorizations may also involve:

- [FHWA](#)
- Project Engineer (PE)
- Project Development Branch Manager (PDBM)

Selection of Applicable Agreement Type



	<p><i>Section</i></p> <p>COMPENSATION</p>
	<p><i>Subject</i></p> <p>Instances Where Compensation Is Allowed</p>

**QUALIFYING
RELOCATIONS**

[KRS 179.265](#) requires the Transportation Cabinet (Cabinet) to compensate a utility company if a road project requires the relocation of a utility facility located on other than public right of way.

Per [KRS 177.035](#), the Cabinet may compensate certain utility companies for relocating their facilities as needed to complete a road project. This includes relocations of utility facilities owned by publicly held companies and, in certain instances, facilities owned by privately held companies. A publicly held utility may be a municipally owned utility, water district, water association, sewer district, or local school district. In instances where a private utility is being considered for full reimbursement under [KRS 177.035\(3\)–\(5\)](#), there must be a significant and ascertainable benefit to the project.

If it is determined that employing full reimbursement is in the project's interest, a memorandum shall be drafted and submitted through the PDBM and through the UBM to the State Highway Engineer's Office Project Development Assistant State Highway Engineer. [Exhibit 9010](#) provides an example of this memorandum.


For compensation of qualifying relocations, the damaged utility company shall enter into an agreement with the Cabinet. Relocations may be performed as a part of the road construction contract or prior to the road project. If the relocation work is completed before the road project, it may be done with utility company personnel or a continuing contractor approved by the Cabinet, or the utility company may elect to bid and award its own contract for the relocation.

**COMPENSABLE
SERVICES INVOLVING
SMALL PURCHASES**

Professional services needed for qualifying utility relocation work may not require formal agreement if amounts are less than or equal to \$1,000. In such cases, an invoice may be processed in Central Office without an agreement. Professional services would include (but not be limited to) engineering, accounting, legal, appraising, or consulting.

The decision to proceed as such must satisfy both the utility supervisor and area coordinator. [FAP 111-55-00-S](#) provides further information.



	<p><i>Section</i></p> <p>COMPENSATION</p>
	<p><i>Subject</i></p> <p>Instances Where Compensation Is Not Allowed</p>

GENERAL

The Transportation Cabinet (Cabinet) may allow utility companies to relocate their facilities on state right of way by permit pursuant to [KRS 416.140](#). When the Cabinet deems improvements or changes to that right of way necessary, utility companies shall relocate their facilities. Facilities owned by privately held utility companies that unreasonably interfere in any way with the convenient, safe, and continuous use and maintenance of a highway shall be removed or relocated at the company's expense.

The Cabinet shall not compensate a utility company for relocation work involving the following circumstances:

- Privately owned utility facilities that unreasonably interfere with a highway per KRS 416.140
- Work completed prior to funding authorization
- Betterments or improvements to utility facilities
- Improperly documented expenditures
- Work not included in the approved relocation plans, cost estimates, or change orders
- Work not required by the designated highway project
- Utility work or costly changes to an approved design for the benefit or convenience of the utility company or its contractor
- New facilities that do not replace existing facilities and that do not directly serve the highway project

BETTERMENT

[23 CFR 645.105](#) is the Cabinet's primary resource for defining betterment on utility relocation work. Betterment is defined as "any upgrading of the facility being relocated that is not attributable to the highway construction and is made solely for the benefit of and at the election of the utility."

BETTERMENT (CONT.) Betterment differs from making a utility company whole. According to *FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects*, making the utility whole in many cases means that “various facilities will have to be functionally restored” and that “a utility’s service should be restored so that it may continue to provide its product to its users in a fashion similar to that which existed prior to its relocation as a result of the highway project.”

The concept of making a utility company whole may involve the following:

- Replacement facilities that maintain the overall functional capacity, including those that may rearrange this capacity to a more efficient operation as a result of present-day design or operation needs
- Replacing certain functions, including changes that may be required to meet present standards

Betterment occurs when the relocated utility is upgraded by the utility company. The Cabinet shall only compensate for the "replacement-in-kind" component of the cost; not for betterment.

Construction of a relocation facility that has greater capacity or utilizes longer life or more expensive materials than the project requires, or than are present in the existing facility, shall generally be considered betterment. General examples of betterment include an increase in the pipe size and system capacity or the use of more expensive material.

The utility company may provide a written request to exclude the facility change from the definition of betterment. This request shall be submitted to the utility supervisor (US), and the US shall submit the request and his or her recommendation to the area coordinator (AC) for consideration. Such requests shall justify the change, documenting how the work is not betterment. The justification may be based on the following conditions:

- The change is a requirement of the highway project.
- The change of material is an equivalent standard in terms of lifetime, cost, and capacity.
- The change is a higher grade or size, but the existing devices or materials are no longer regularly manufactured.
- The change is a requirement by law under governmental and appropriate regulatory commission code.

BETTERMENT (CONT.)

- The change is a requirement by current design practices regularly followed and documented by the utility company in its own work and there is a direct benefit to the highway project.

Note: A direct benefit to the highway project may include, but is not limited to, economy, time savings, aesthetics, safety, environmental, and future use considerations.

When utility relocation involves betterment and the complexity of the project makes it difficult to separate the specific items where betterment occurs, more extensive methods for determining the betterment credit may be required. In such cases, the utility company shall provide the following two estimates to the Cabinet for determining the betterment credit:

- An estimate for the in-kind replacement cost only
- An estimate for the total cost including betterment

New facilities may be defined as facilities that do not require relocation because they did not exist prior to the road project development. Such new facilities are in no manner compensable and shall be considered betterment.

**COMPENSATION
CALCULATION METHODS
INVOLVING
BETTERMENT**

Compensation involving betterment may be calculated by one of the following methods:

- Compare the percentage of the estimated reimbursable, in-kind replacement costs to estimated betterment alternate costs and derive a reimbursable participation percentage which may be applied to the utility company's total project costs. [UR-1004](#) details methods of calculating the participation percentage.
- Compare estimated replacement-in-kind costs to estimated betterment alternate costs and apply a betterment credit to the agreement amount.
- Create a lump sum agreement for the estimated in-kind replacement cost when the replacement-in-kind alternate represents a small percentage of the actual work to be performed and recordkeeping would be onerous. The Cabinet may write a lump sum agreement for the estimated in-kind replacement cost.

**COMPENSATION
CALCULATION METHODS
INVOLVING**

BETTERMENT (CONT.) In all cases, the Cabinet and the utility company shall agree to the scope of work and the reimbursement calculation method before finalizing an agreement. ([UR-1802-3](#) provides additional details on betterment invoicing.)

**BETTERMENT COSTS
COMPENSABLE TO
THE CABINET**

When a utility has work incorporated onto the road project's bid package which involves betterment work, the utility company owner shall likely be obligated under agreement to reimburse the Cabinet. This reimbursement will be for the Cabinet-contractor-supplied betterment facilities.

The recovery of costs shall be secured through a cooperative effort of the following groups:

- District Office Utilities Section
- District Office Project Delivery and Preservation Branch
- Division of Accounts
- Utilities and Rail Branch


The means by which the Cabinet receives reimbursement for betterment costs from the utility company are defined in [UR-1802-3](#), "Utility Company Closeouts: Recovering Receivables."

**UNDERGROUNDING OF
EXISTING OVERHEAD
FACILITIES**

The Cabinet may reimburse a utility company for relocating existing overhead facilities underground if it can be proven to be a more cost-effective alternate. However, the Cabinet shall not reimburse additional costs attributed to placing underground existing overhead facilities unless the underground placement directly benefits the Cabinet.

If local ordinances, public opinion, or project need require undergrounding of existing overhead facilities, the discretion of utilizing transportation funds to perform such work shall reside with the Transportation Cabinet Secretary or the Secretary's designee. If the project is federally funded, the [FHWA](#) shall be asked to approve the recommendation.



	Section AGREEMENT DEVELOPMENT & EXECUTION
	Subject Overview

INTRODUCTION

Agreements help fulfill the requirements of [KRS 177.035](#) and [179.265](#) and [23 CFR 645](#). They provide a clear, written understanding of the responsibilities of the utility owner and the Transportation Cabinet (Cabinet) and may cover where the Cabinet reimburses a utility owner or receives reimbursement from a utility owner.

The Cabinet uses several types of utility agreements which are detailed in [UR-1104](#).

AGREEMENT COMPONENTS

Except where noted below, utility agreements have five specific sections:

1. Agreement Premises—This section does the following:
 - Gives an overall description of the project
 - Specifies the net dollar amount of the agreement
 - Describes the type of facilities that shall be moved
 - States the participation percentage
 - Authorizes the utility company to begin final work
2. Scope of Agreement—This section does the following:
 - Details the project responsibilities
 - Describes the existing facilities that are affected
 - Describes the reimbursable work to be performed
 - Describes the total work to be performed
 - Outlines any betterment to be included in the agreement
 - Defines the duration of relocation construction

**AGREEMENT
COMPONENTS (CONT.)**

- Describes the utility company’s change order submittal requirements
- Specifies that the utility company shall conform to Cabinet-accepted codes and policy

3. Responsibility of **KYTC**—This section does the following:

- Describes the Cabinet responsibilities for the project, such as the responsibility of reimbursing the utility company
- Describes how billings must be submitted in accordance with federal regulation

Note: Easement agreements (**UR-1104-8**) and prior rights agreements (**UR-1104-7**) exclude the “Responsibility of KYTC” section.

4. Additional Required Clauses—This section does the following:

- Lists all federal and state policies and regulations the utility company shall follow throughout the project

Note: These terms cannot be omitted or revised without the Cabinet’s Office of Legal Services’ written acceptance and acceptance of all signing parties.


5. Agreement Execution (Signature Page)—This section does the following:

- Includes the statutory authority for the agreement and states that all parties have read and agreed to the terms

Note: All signatures are made in this section, including those from the utility company, the Cabinet by way of the Director of the Division of Right of Way and Utilities, the Utilities and Rail Branch Manager, and the Office of Legal Services.

- Includes the date the agreement is signed



	<p><i>Section</i></p> <p>AGREEMENT DEVELOPMENT & EXECUTION</p>
	<p><i>Subject</i></p> <p>Agreement & Delivery Order Preparation</p>

**IDENTIFYING NEED
FOR AGREEMENT OR
DELIVERY ORDER**

An agreement or delivery order is needed if the relocation of a utility facility required for a road project is reimbursable. This information shall be gathered by the district utility supervisor (US) or agent (UA) by notifying the utility company of the project via a project authorization letter (state letter) ([UR-700](#)) and receipt of a utility relocation proposal package ([UR-1000](#)). This proposal allows the Transportation Cabinet (Cabinet) to determine and negotiate the terms of the utility impact by the road project. The resultant product of this negotiation is an executed agreement with the utility company or a delivery order when one is viable.

**WHEN A DELIVERY
ORDER (DO)
IS VIABLE FOR USE**

A project relocation delivery order form (DO) is essentially a short version of an agreement, with some variance in preparation. It is shortened because the bulk of the standard terms and conditions are already met in an overarching master agreement.

When a utility agrees to enter into a long-term agreement with the Cabinet, it is commonly referred to as a master agreement. This agreement is typically executed through negotiations with the Cabinet's Central Office Utilities and Rail Branch. They include typical terms and conditions for the coordination of utility relocations for the Cabinet projects, along with common terms of reimbursement. When such an agreement exists, a DO may be utilized.

**INFORMATION COLLECTION
FOR THE AGREEMENT
OR DELIVERY ORDER**

After identifying the need for an agreement or delivery order, the following information may be required:

- Type of Agreement (Not required for delivery orders)

[UR-1104](#), "Agreement Types", details the agreements available for utility relocation agreement development. (Not required for delivery orders)

**INFORMATION COLLECTION
FOR THE AGREEMENT OR
DELIVERY ORDER (CONT.)**

- **Project Item Numbers, Authorization Numbers, and Dates**

The TC 10-1 form, *Project Authorization*, for a project shall include the project item number, authorization number, and date and shall be found in the project's general file.
- **Uniform Project Numbers (UPN) and Federal Numbers**

The TC 10-1 form also contains components of the UPN including the funding category (FD04, FD52, JL03, etc.), the county number, and the program number. The federal number, if applicable, will be found on the FPA-1 form that is issued by the Division of Program Management. The TC 10-1 and FPA-1, if applicable, should be found in the project's general file.
- **Utility Owner Name and Address**

The agreement writer should know the owner and address from the utility relocation proposal.
- **Agreement (Delivery Order) Amount**

The agreement amount is determined by the estimate, which is provided by the utility company in the proposal. The terms of the proposal shall be accepted by the US prior to drafting an agreement. (The delivery order and estimate arrive together, but the delivery order shall not be executed unless the estimate is approved.)
- **Percent of State Participation**

The state participation percentage is defined in the utility relocation proposal and is the ratio of compensable work to the total work to be performed in accordance with the agreement. Determining the state participation percentage is discussed in [UR-1004](#).
- **Scope of Work**

The scope of work describes the amount and type of all materials to be installed, removed, or abandoned. The utility company shall provide this information in text form or in an estimate, which shall be part of the proposal.

WRITING THE AGREEMENT

The US or UA drafts the agreement by choosing the appropriate type of agreement template and providing the information above as needed. Agreements should be drafted using [KURTS](#) agreement templates and uploaded into KURTS for US and AC approval. The Central Office area coordinator (AC) shall review and approve the drafted agreement and justification documentation prior to submission to the utility company.

If an agreement requires any revisions to boilerplate language to meet the specific needs of the project or utility company, the utility agreement writer shall confer with the district office legal staff and the AC to verify the viability of the revised language of the agreement. Any changes to boilerplate language shall be highlighted.

WRITING THE DELIVERY ORDER

The utility company may complete a delivery order (DO) providing the information above as needed. The template for this form can be found on the project page in KURTS, or can be supplied by the US for utility company completion. The DO shall be submitted in hard-copy form with original signature to the US. It is generally expected that the DO arrive with estimate and relocation plans, if available. The US and AC shall review and approve the drafted DO and supporting documentation prior to seeking signatures and execution. Reviews of the estimate and relocation plans shall take place in KURTS with hard copies accompanying the DO for formal execution and recording.


IMPACTS OF BETTERMENT

When a utility has work incorporated onto the road project’s bid package which involves betterment work, the utility company owner shall likely be obligated under agreement to reimburse the Cabinet. This agreement is defined as a “Work by the Highway Contractor Betterment.”

When drafted, these agreements require the area coordinator (AC) to notify the Division of Accounts. The AC shall provide the Division of Accounts the project, company, and betterment amount. The Division of Accounts will set up a C phase funding line with \$0 that will be funded prior to agreement execution.

The means by which the Cabinet receives reimbursement for betterment costs from the utility company are defined in [UR-1802-3](#), “Utility Company Closeouts: Recovering Receivables.”



	<p><i>Section</i></p> <p>AGREEMENT DEVELOPMENT & EXECUTION</p>
	<p><i>Subject</i></p> <p>Agreement & Delivery Order Execution</p>

**OBTAINING UTILITY
COMPANY AGREEMENT
APPROVAL**

The negotiated agreement shall be reviewed by the district legal services and the Central Office area coordinator (AC) for quality control measures and advisement. These reviews may take place electronically in the [Kentucky Utility and Rail Tracking System \(KURTS\)](#).

Upon approval of the district office attorney and the AC, the utility supervisor (US) shall create 3 original and bound drafts of the agreement. A typical original and bound utility relocation agreement consists of the full legal document and the approved justification documentation attached as exhibits, all bound by a blue paper backing. Each agreement sent must be signed and are considered original agreements.

The fully reviewed and Transportation Cabinet (Cabinet)-accepted agreement originals initiate the execution phase once they are signed by the district office attorney. After receiving the agreements back from the legal department, the US or the utility agent (UA) shall verify that all the agreement originals have been properly signed by their legal personnel.

Note: Legal signatures of approved agreements may be completed post utility company signature. In such instances, the Office of Legal Services in the Central Office is the signatory.

The US or UA then mails the following documents to the utility company:

- A cover letter which includes instructions for the utility company to forward the signed agreement originals to the Central Office Utilities and Rail Branch

Note: Sample submission letters are available for generation in KURTS.

**OBTAINING UTILITY
COMPANY AGREEMENT
APPROVAL (CONT.)**

- The original agreements (3 copies) for signature

Note: For these agreement originals, the Cabinet requires the signature of an officer of the utility company or an employee with the delegated authority, in writing, to negotiate contracts and sign agreements on the utility company’s behalf.

A copy of the package submitted to the utility company shall be provided in the district office project file and provided to the AC for incorporation into the Central Office project file.

**OBTAINING UTILITY
COMPANY DELIVERY
ORDER APPROVAL**

A project relocation delivery order form (DO) is essentially a short version of an agreement that originates with the utility company. It is typically submitted with the estimate and relocation plans, if available. The DO arrives to the Cabinet with the utility company signature approval. Therefore, drafting an agreement for submission to the utility company for signature is unnecessary.

**ACQUIRING THE
AGREEMENT
SIGNATURES**

When the agreement originals arrive at the Central Office, they shall have all been signed by the utility company and the district office attorney if available. Upon receipt of the agreements, the program coordinator (PC) performs the following actions:

- Logs the agreements in the mail log
- Checks the agreement originals for needed signatures
- Forwards the agreement originals to the AC

Upon receipt of the agreements, the AC verifies the following:

- Availability of funds to cover the agreement cost
- Agreement originals were properly signed

Note: If Cabinet legal signature is not obtained, the AC shall secure legal review and signature with the Office of Legal Services.

- Agreement expenditures are reasonable
- Agreement originals adhere to the draft of record in KURTS

**ACQUIRING THE
AGREEMENT****SIGNATURES (CONT.)**

After verifying the above items, the AC completes a routing sheet (**Exhibit 9002**) using information from the agreement, TC 10-1 form, *Project Authorization*, and project file. Using the routing sheet as a cover sheet, the AC forwards the agreement originals to the Utilities and Rail Branch Manager (UBM).

The UBM reviews and signs the agreement originals, and then forwards them to the Director of the Division of Right of Way and Utilities for signature. After signing the agreement originals, the director returns the agreements to the PC.

**ACQUIRING THE
DELIVERY ORDER
SIGNATURES**

The delivery order (DO) package submitted to the district office is expected to arrive with the utility company signatures. Once the package is approved by the US and AC, the US completes the following actions:

- Logs the DO in the mail log
- Checks for needed utility company signatures
- Forwards the DO for legal signature

Note: If Cabinet legal signature is not available in the district office, the AC may secure legal review and signature with the Office of Legal Services.

- Sends the package to the AC for review and execution

All of the remaining tasks to acquire the necessary signatures are the same as defined for a typical agreement.

**AGREEMENT OR
DELIVERY ORDER
EXECUTION**

The PC completes the following actions:

- Processes the final approved and signed agreement originals or DO in the Cabinet's fiscal accounting system
- Attaches a hard copy of the newly drafted fiscal accounting document to the hard-copy agreement originals
- Provides the document to the UBM for final branch approval of the processed agreement originals
- Uploads the final approved and signed agreement or DO in KURTS

**AGREEMENT OR
DELIVERY ORDER
EXECUTION (CONT.)**

The UBM approves the documents via the Cabinet's accounting system and forwards the documents back to the PC. The PC monitors the documents in the Cabinet's system until all necessary parties have approved them.

Approving parties must approve the agreement or DO in the Cabinet's accounting system to have a fully executed utility relocation activity. Once fully executed, the PC shall send the agreement originals or DO to the AC for distribution preparation.

Note: Utilities personnel do not process easement agreements in the Cabinet's fiscal accounting system since these agreements do not encumber any funds. Only agreements that involve an exchange of funds between the parties must be put into the Cabinet's accounting system.

**DISTRIBUTION
PREPARATION**

To prepare the fully executed agreement or DO for distribution, the AC completes the following actions:

- Makes 4 copies (3 if not a federal project) of the original, numbered agreement or DO
 - Makes 3 copies (2 if not a federal project) of the accounting document
 - Makes 7 copies (6 if not a federal project) of the relocation plans on 11" x 17" paper
 - Attaches 1 set of plans to each agreement or DO
 - Prepares the deliverable packages as follows:
 - ◆ One copy of the accounting document and two copies of the agreement or DO and an agreement original for the utility company
 - ◆ For federal projects, 1 copy of the accounting document and 1 original agreement or DO for the Division of Accounts
- Note:** Plans are not required for the copy going to the Division of Accounts. If the agreement or DO is not for a federal project, nothing is submitted to the Division of Accounts.
- ◆ One copy of the accounting document and 1 original agreement or DO for the Central Office project file

**DISTRIBUTION
PREPARATION
(CONT.)**

- ◆ One copy of the accounting document and 1 copy of the agreement or DO for the district Utilities Section

- ◆ One copy of the agreement or DO for the district Traffic Engineering and Permits Section (if required)

Note: For easement acquisition agreement, the same process is followed, with minor alterations. No accounting documents are involved, and an original of the agreement shall go to the AC, the district Utilities Section, the district right-of-way supervisor, and the district legal staff. For a prior rights agreement, an original agreement is sent to the utility company, the district Utilities Section, and Central Office for the project file. A copy is sent to the district Traffic Engineering and Permits Section if required.

**AGREEMENT
DISTRIBUTION**

For all agreement types and DOs, the administration specialist or AC shall do the following:

- Create a distribution letter to the utility company
- Create a memorandum for the district staff
- Obtain the AC’s signature for the distribution letter and memorandum
- Mail the packages to the appropriate persons as listed above

Note: The above documents may be generated electronically using sample templates in KURTS.

**AGREEMENT
AUTHORIZATION
NUMBER**

Execution of the utility relocation agreement or DO implies authorization to relocate. The US shall, upon receipt of the executed agreement or DO, provide the utility company the agreement authorization number, which indicates formal authorization to relocate.

It is advisable for the US to verify the necessary right-of-way acquisitions have taken place, utility companies are properly scheduled, and the relocation work authorized can commence. Otherwise, the notification shall clearly state that the work cannot commence until instructed as such. The unique agreement number from the Cabinet’s accounting system is a valid authorization number.


AGREEMENT

AUTHORIZATION

NUMBER (CONT.)

The relocation of compensable and noncompensable facilities is quite similar after the authorization numbers have been issued. The district Utilities Section shall monitor the construction and provide regular *Utility Progress Reports*. This report can be generated in the field or office and saved in KURTS. The remaining differences are mostly fiscal in nature as shown in the following chapters.



	<p><i>Section</i></p> <p>AGREEMENT DEVELOPMENT & EXECUTION</p>
	<p><i>Subject</i></p> <p>When Agreements Cannot Be Reached</p>

INTRODUCTION

Occasionally, the Transportation Cabinet (Cabinet) and the utility company fail to agree upon the relocation of the utilities facilities. In such instances, it may become necessary to turn to more intensive negotiations involving Central Office staff or possibly legal action. Some potential scenarios of contentious utility relocation negotiations are described here.

DISAGREEMENT ON RELOCATION DESIGN

When the utility company and the district Utilities Section disagree that the proposed design is adequate, the utility supervisor (US) shall put the terms of disagreement in writing and request a response from the utility company within a reasonable timeframe. An email containing the contents of this disagreement is an adequate substitution for mailed correspondence. The terms of dispute may be related to many issues, such as compensable items, alignment, betterment incorporation, construction methodology, materials, etc.

If an agreement cannot be reached and project schedule allows, it is recommended that the US request Central Office negotiation support. This support is requested of the area coordinator (AC) but may include many support teams, such as legal services, the Utilities and Rail Branch Manager (UBM), etc.

If the schedule does not allow for further negotiation or further efforts are fruitless, the Cabinet may proceed with litigation or as prescribed by state law. These processes are described in the last two sections of this subject.

DISAGREEMENT ON RELOCATION COSTS

When the utility company and the district Utilities Section disagree on the proposed cost estimate, the US shall put the terms of disagreement in writing and request a response from the utility company within a reasonable timeframe. An email containing the contents of this disagreement is an adequate substitution for mailed correspondence.

**DISAGREEMENT ON
RELOCATION COSTS
(CONT.)**

The terms of dispute may be related to many issues, such as compensable costs, quantities, betterment, salvage value, overhead, etc. If an agreement cannot be reached, and project schedule allows, it is recommended that the US request Central Office negotiation support. This support is requested of the AC but may include many support teams, such as construction, legal services, the UBM, etc.

If schedule does not allow for further negotiation or further efforts are fruitless, the Cabinet may proceed with litigation or as prescribed by state law. These processes are described in the last two sections of this subject.

**OWNER REFUSAL TO
RELOCATE FACILITIES**

When the utility company refuses to relocate a utility facility located on existing public right of way, the US shall request the utility company to put their refusal in writing, or the US shall draft a written statement outlining the negotiation process and the utility company's refusal as witnessed by the US. This written document shall be provided to the AC and the project team members.

If an agreement cannot be reached and project schedule allows, it is recommended that the US request Central Office negotiation support. This support is requested of the AC but may include many support teams, such as construction, legal services, the UBM, etc.

If schedule does not allow for further negotiation or further efforts are fruitless, the Cabinet may proceed with litigation or as prescribed by state law. These processes are described in the last two sections of this subject.

**DISPUTE RESOLUTION:
QUESTION OF FACT**

Some negotiations are complicated by differing understandings of the law or project facts. These issues may involve property rights dispute, agreement conditions, etc. It is the Cabinet's preference to address such issues with the assistance of the Cabinet's legal services staff.

When agreement cannot be reached, a court of competent jurisdiction shall decide cases involving disputes arising from a difference of opinion on such issues as ownership rights or the legality of policies and procedures. When a final determination by the courts is expected to take a lengthy amount of time, the Cabinet requests the utility company to agree in writing to proceed with the relocation (in order not to impede highway construction) with the provision that one of the parties will institute a suit on the question of law or fact.

DISPUTE RESOLUTION:**QUESTION OF FACT****(CONT.)**

For federal-aid projects, the Utilities and Rail Branch shall furnish a copy of this agreement to the Federal Highway Administration along with a request that they establish an eligibility date for federal participation pending the litigation outcome.

**CABINET'S RIGHT TO
RELOCATE FACILITIES
IN PUBLIC R/W**

The Cabinet relies on [KRS 177.106](#) and [416.140](#) to proceed with utility relocations of facilities within public right of way. If utilities interfere with the convenient, safe, and continuous use and maintenance of a highway, the Cabinet shall issue a notice to the owner to remove, relocate, or change such utility facilities within 30 days.

If the owner fails to comply with the terms of this notice, the Cabinet is authorized by statute to remove the obstruction at the owner's expense and thereupon charge, levy, and collect such cost from the facility owner.

In proceeding to have facilities removed from public right of way, the Cabinet has several methods from which to choose:


- The Cabinet may incorporate the proposed relocation into its highway plans and specifications proposal.
- The Cabinet may advertise and solicit bids for the removal or relocation of the utility facility as a separate contract. This is normally handled by the US with assistance from the Central Office staff. The letting of these contracts is handled, as nearly as possible, in the same as a highway construction contract. A bid proposal is prepared including plans, specifications, bid forms, a bid bond, and wage rates. The work is widely advertised for a minimum of three weeks, and bids are normally solicited from known contractors in the vicinity. The bid opening is held in the district office, and the successful bidder is required to execute a performance bond in the full amount of the contractor price.
- The Cabinet may make other arrangements as necessary to have the work performed provided that the most practical and economical method is used.

**CABINET'S RIGHT TO
RELOCATE FACILITIES
IN PUBLIC R/W
(CONT.)**

Regardless of the method utilized by the Cabinet in accomplishing the removal or relocation of utility facilities from public right of way, upon completion of the work involved, utilities staff shall report the cost to the Division of Accounts, who are requested to bill the owner in an effort to recover the money which the Cabinet has expended.

After normal procedures for collecting these bills have been exhausted, the Division of Accounts shall furnish the file to the Office of Legal Services for necessary legal action.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Keep-Cost Agreements</p>

KEEP-COST AGREEMENTS


In a keep-cost agreement, the Transportation Cabinet (Cabinet) agrees to pay the actual cost of the expense to the utility company for the relocation. The amount paid to the utility company may be more or less than the agreement amount. Keep-cost agreements can be for any amount.

Billings from the utility company can be issued throughout the project but shall be specifically itemized to aid in verification of expenses. This itemization shall be submitted with interim payments, not solely with the final bill. The Cabinet reserves the right to request additional justification if expenses are called into question. [UR-1400](#) details invoicing requirements and procedures.

Change orders are required to modify the amount of keep-cost agreements, as detailed in [UR-1500](#).

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Lump Sum Agreements</p>

LUMP SUM AGREEMENTS

In a lump sum agreement, the Transportation Cabinet (Cabinet) agrees to pay a lump sum to the utility company based upon an estimate of the work. If the amount of the utility relocation exceeds the agreed amount, the Cabinet may only compensate up to the agreement amount, unless the utility company can justify the overage as a project scope change.

Note: Lump sum agreements include only estimated costs of known items of work and not miscellaneous or contingency costs.

Lump sum agreements are recommended only for relocations totaling \$200,000 or less. Rarely do lump sum agreements exceed this amount; and such instances are highly scrutinized. The district utility supervisor (US) shall consult the area coordinator (AC) if considering a lump sum agreement greater than \$200,000.

In order to execute a lump sum agreement in excess of \$200,000, the utility company shall provide a thorough justification and documentation of costs. The utility company shall not execute multiple lump sum agreements on the same project for the same type of facility if those agreements exceed \$200,000.


With lump sum agreements, the amount of the agreement is nonnegotiable unless a change in scope of the project is required to complete the project. In this case, a change order may be issued on the agreement. Otherwise, no change orders can be made against this agreement type.

The utility company may submit invoices (bills) for payment throughout the project. However, unlike keep-cost agreements, lump sum agreements do not require itemization.

**LUMP SUM
AGREEMENTS
(CONT.)**

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>KRS 177.035 Agreements</p>

**KRS 177.035
AGREEMENTS**


[KRS 177.035](#) agreements may be keep-cost ([UR-1104-1](#)) or lump sum ([UR-1104-2](#)). These agreements allow compensation for relocations if a road project requires a publicly or, in some cases, privately held utility company to relocate their facilities.

These agreements usually require the Cabinet to pay 100 percent of the relocation expenses. Exceptions exist when the utility company proposes facility betterment.

The terms of change order execution and invoicing shall be as described in the appropriate prior section, be it keep-cost or lump sum.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>KRS 179.265 Agreements</p>

**KRS 179.265
AGREEMENTS**


[KRS 179.265](#) agreements may be keep-cost or lump sum and are typically written with privately owned utility companies. These agreements allow the state to compensate a utility company if a road project requires the relocation of a utility located on other than public right of way. The Transportation Cabinet (Cabinet) will normally enter into a relocation agreement to compensate the utility owner for the cost of moving the facilities and to authorize the entire relocation work to proceed. It may also authorize the utility company to perform relocation work within public right of way which is not reimbursable under KRS 179.265.

These agreements may be partially or 100 percent compensable. The Cabinet may consider betterment on this type of agreement, and the Cabinet’s participation percentage is often an item of consideration.

The terms of change order execution and invoicing shall be as described in the appropriate prior section, be it keep cost or lump sum.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Engineering Service Agreements</p>

ENGINEERING

SERVICE AGREEMENTS

Engineering service agreements are keep-cost agreements and are used by the Transportation Cabinet (Cabinet) to reimburse for relocation engineering and administrative work to be completed by utility company staff or an approved consultant. These agreements describe the services that will be rendered by the engineering company and associated costs.

These agreements are intended to be used for any of the following reasons:


- The utility company requires the immediate ability to invoice the engineering work only.
- The utility relocation shall be included in the highway contract and there will be no direct reimbursement to the utility company for construction costs.
- The Cabinet has identified a need to initiate utility relocation engineering prior to U phase funding availability.

These agreements may be partially or 100 percent reimbursed. The Cabinet may consider betterment and the Cabinet’s participation percentage as items of consideration.

The terms of change order execution and invoicing shall be as described in the keep-cost section.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are recommended to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Second Move Agreements</p>

SECOND MOVE AGREEMENTS

Second move agreements are needed when design changes or other Transportation Cabinet (Cabinet) decisions occur that cause a utility company to relocate a second time for the same road project.

For all second move agreements, a lump sum or keep-cost agreement may be executed to relocate facilities previously moved under permit or a compensable agreement.


Second move agreements shall not be approved for plan changes that are strictly for the convenience of the highway contractor.

These agreements are usually 100 percent compensable.

The terms of change order execution and invoicing shall be as described in the appropriate prior section, be it keep cost or lump sum.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Prior Rights Agreements</p>

PRIOR RIGHTS AGREEMENTS

The Transportation Cabinet (Cabinet) uses prior rights agreements, also known as use and occupancy agreements, when a facility previously on private property is affected by a road project and now lies within the newly acquired public right of way without relocation of the utility facility. This typically occurs in road-widening projects.


This agreement includes language stating the Cabinet shall compensate the utility company if the facility must be relocated due to future road projects.

If the road plans do not clearly exclude the facility from public right of way, the utility company shall provide evidence of rights of occupancy of private property.

This type of agreement does not incur any transfer of funds at its execution and therefore does not require incorporation into the Cabinet’s accounting system. However, it is critical that the Cabinet records such agreements with the district Traffic Engineering and Permits Section.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Easement Agreements</p>

EASEMENT AGREEMENTS

The Transportation Cabinet (Cabinet) uses an easement agreement when a utility company must be relocated out of their existing permanent easement or when a utility facility on existing right of way cannot be relocated in the new right of way. In the agreement, the Cabinet is provided the authority to acquire a permanent easement in which the utility company may relocate.


The utility company shall provide a request for the Cabinet to enter into such an agreement and for a drafted easement layout if one is not available via the road plans. Upon agreement execution, the Cabinet shall bear the costs associated with the easement acquisition, including all negotiations performed by Cabinet right-of-way personnel.

This type of agreement does not incur any transfer of funds between the utility company and the Cabinet and, therefore, does not require incorporation into the Cabinet’s accounting system. However, it is critical that the Cabinet records such agreements with the district Traffic Engineering and Permits Section.

The [Right of Way Guidance Manual](#) details Cabinet policy and procedure for right-of-way acquisitions and the transfer of that easement to the utility company.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Work by Highway Contractor Agreements</p>


**WORK BY HIGHWAY
CONTRACTOR
AGREEMENTS**

Work by highway contractor agreements are keep-cost agreements that may be under [KRS 177.035](#) or [KRS 179.265](#). These agreements are between the Transportation Cabinet (Cabinet) and a utility company, describing the conditions in which the Cabinet’s road contractor shall perform the utility relocation work and authorizing the Cabinet to do so.

[UR-1700](#), “Utility Work in the Road Contract,” details the process of incorporating utility work into a road contract.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>Work by Highway Contractor Betterment Agreements</p>

**WORK BY HIGHWAY
CONTRACTOR
BETTERMENT
AGREEMENTS**


Work by highway contractor betterment agreements are keep-cost agreements that may be under [KRS 177.035](#) or [KRS 179.265](#). These agreements are between the Transportation Cabinet (Cabinet) and a utility company and describe the conditions in which the Cabinet’s road contractor performs the work for a utility relocation in lieu of the utility company’s forces or contractors.

Work by highway contractor betterment agreements address such instances when betterment results in the utility company being the payee to the Cabinet under the terms of the agreement for betterment costs.

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are recommended to use these templates to be certain of using the most up-to-date version.

The means by which the Cabinet receives reimbursement for betterment costs from the utility company are defined in [UR-1802-3](#), “Utility Company Closeouts: Recovering Receivables.”



	<p><i>Section</i></p> <p>AGREEMENT TYPES</p>
	<p><i>Subject</i></p> <p>KRS 177.035(3)-(6) Agreements</p>

**KRS 177.035(3)-(6)
AGREEMENTS**

[KRS 177.035\(3\)-\(6\)](#) agreements are keep-cost. These agreements allow [KYTC](#) to employ full reimbursement for relocations if a road project requires a privately held utility company to relocate their facilities, but those facilities are not reimbursable under [KRS 179.265](#).


These agreements are intended to be used when a road project requires special attention provided to utility relocations; i.e., expeditious relocation. In cases where this agreement is to be exercised, the district utility supervisor (US) and Project Development Branch Manager (PDBM) must submit a request for utilization of 100 percent reimbursement to the State Highway Engineer’s Office via internal memorandum, ([Exhibit 9010](#)). This request shall identify the project need, the additional cost to be incurred by the Cabinet, and provide a justification. If approved, the DUS shall execute [KRS 177.035\(3\)-\(5\)](#) agreements for all utility relocations and the Cabinet shall pay 100 percent of the relocation expenses. Exceptions exist when the utility company proposes facility betterment.

The terms of change order execution and invoicing shall be as described in the appropriate prior section.

Note: While the noted cited authority of these agreements is denoted as [KRS 177.035](#), it must be clarified that this statute allows the Cabinet to reimburse only for utility relocations performed for facilities within public right of way. The work performed under this agreement that exists outside of public right of way is being reimbursed under [KRS 179.265](#).

The [Kentucky Utility and Rail Tracking System \(KURTS\)](#) houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are advised to use these templates to ensure use of the most up-to-date version.



	<p><i>Section</i></p> <p>NO CHARGE AUTHORIZATIONS</p>
	<p><i>Subject</i></p> <p>Overview</p>

INTRODUCTION

Any work or activity by a utility company, individual, or governmental agency on the right of way of any state road or street requires either an approval for Transportation Cabinet (Cabinet) project relocation or an encroachment permit for any other circumstance from the Department of Highways. The TC 99-1A form, *Application for Encroachment Permit*, is used to process new applications for utility encroachments.

In the case of utility relocations performed to accommodate road construction for Cabinet-involved projects, a utility relocation agreement or no-charge letter and approved relocation plan shall substitute for the TC 99-1A form. The terms and conditions of a typical encroachment permit apply. If a utility company encroaches on right of way prior to or without a permit in place, that encroachment may be removed by the Cabinet, and any and all costs associated with removing the encroachment shall be paid by the utility company.

When a utility company is compensable for the relocation work required due to a road project, the utility relocation agreement is an authorization to relocate the utility facilities as described in the agreement and is issued an authorization number.

When a utility company’s relocation work is not reimbursable, a no-charge letter and an approved relocation plan is the utility company’s authorization application.

For more information about utility relocation and coordination, see the Cabinet’s Utility Coordination webpage at:

<https://transportation.ky.gov/RightofWay/Pages/Utility-Coordination.aspx>


INTRODUCTION

(CONT.)

Upon approval of the proposed relocation work, an authorization number shall be issued. The Cabinet's management system, [Kentucky Utility and Rail Tracking System \(KURTS\)](#), issues a unique authorization number to no charge relocation plans upon approval.

Utility companies shall have a copy of their utility relocation agreement with authorization number or approved relocation notice and plan available for inspection at all times during relocation construction. Failure to do so may result in forced work cessation, at no cost to the Cabinet.



	<p><i>Section</i></p> <p>NO CHARGE AUTHORIZATIONS</p>
	<p><i>Subject</i></p> <p>Approvals</p>

INTRODUCTION

Utility relocations involving noncompensable facilities do not enter into formal agreements. In these instances, the no charge letter and relocation plan act as the authorization application.

PROCEDURE

The procedure to process such a request starts once the proposal is received from the utility company. The plan and no charge letter shall be electronically submitted for review in the Transportation Cabinet’s management system, [Kentucky Utility and Rail Tracking System \(KURTS\)](#). The district Utilities Section and area coordinator (AC) shall review the authorization application package as they would a relocation proposal package for compensable utility relocation work. [UR-1000](#) details the terms of the review.

Any new facility construction included in the relocation proposal package shall be designed so it does not impact the other utility company relocations nor hinder the highway contractors’ operations in road project execution.

The utility company’s application shall show that the relocated facilities will not hinder the construction of the highway project. If the application fails to meet Transportation Cabinet (Cabinet) standards or fails to show appropriate clearance, the request for authorization is denied and the utility company must reapply. Otherwise the authorization request will be approved.

If the relocation proposal package is approved by the district Utilities Section, an acceptance letter to that effect shall be issued to the utility company. An email containing the contents of this letter is an adequate substitution for mailed correspondence. The utility supervisor (US) or utility agent (UA) shall use the authorization number issued by KURTS but may seek an authorization number from the district Traffic Engineering and Permits Section. The acceptance letter shall include the authorization number and a statement that all conditions of the typical encroachment permit (TC 99-1A form) apply.

PROCEDURE (CONT.) The US may provide the Traffic Engineering and Permits Section a copy of the relocation proposal package and acceptance letter for their files, if required.


Note: Acceptance of the relocation proposal package and issuance of an authorization number generally imply a notice to proceed.

The US shall complete the following actions:

- Verify that the necessary right-of-way acquisitions have taken place
- Verify that the utility companies are properly scheduled
- Give permission for authorized relocation work to commence

Otherwise, the acceptance letter shall clearly state that the work cannot commence until instructed as such.



	<p><i>Section</i></p> <p>NO CHARGE AUTHORIZATIONS</p>
	<p><i>Subject</i></p> <p>New Facility Permits in Highway Projects</p>

INTRODUCTION

The Transportation Cabinet’s (Cabinet) highway projects are identified long in advance of their construction phase. The project development team, which includes the district Utilities Section, are the project experts and shall be consulted when an application for new utility facilities is proposed within project boundaries. This section details the process to permit new facilities involving an active highway project.

PROCEDURE

The district Traffic Engineering and Permits Section receive all new utility facility permit applications. Any applications that fall within an active highway project require additional review by members of the project development team. The Design Section and the Utilities Section, at a minimum, shall review all such permit applications on projects in the preconstruction phase. The Project Development Branch Manager (PDBM) is responsible for furnishing recommendations and comments to the district Traffic Engineering and Permits Section or assigning staff to review and comment as appropriate.

The utility owner submits a completed TC 99-1A form, *Application for Encroachment Permit*, and a copy of the plans to the district Traffic Engineering and Permits Section. It is essential that permits applied for on these projects be submitted as early as possible so the proposed location may be shown on the Cabinet’s plans. Any permit for a completely new facility which is not approved in time to show the proposed location on the Cabinet’s plans prior to award on federal-aid projects or prior to advertisement on nonfederal-aid projects may be held without action until the project is awarded on federal-aid projects or advertised on nonfederal-aid projects. At that time, the application shall be reconsidered. If the highway project has valid highway plans at the time of permit submission, the Cabinet may require the utility company to resubmit their design on the highway plans for consideration to take place. It is at the district Traffic Engineering and Permits Section’s discretion to either hold the permit application or allow the overlay of the utility plan to the highway plan.

PROCEDURE (CONT.) If requested by the district Traffic Engineering and Permits Section, the district Utilities Section shall review the submitted documents and reply with comments and a recommendation to either approve or deny the application.


Processing of permits submitted on active construction projects remains the responsibility of the district permit engineer after recommendations or comments from the project development team. Approval of such permits by the Cabinet is discretionary. Normally, approval will not be given unless the proposed work of the applicant can be coordinated with the highway project in such a way as to cause little or no delay to the highway project or all utility companies involved in relocations.

Once approved, the district Traffic Engineering and Permits Section retains the original copy of the approved permit and sends a copy to the utility company and the district Utilities Section.

Note: Acceptance of the plan and issuance of a permit number generally indicate authorization to construct. Prior to permit authorization, it is advisable for the utility supervisor (US) to verify the necessary right-of-way acquisitions have taken place, the utility companies are properly scheduled, and the relocation work authorized can commence. Otherwise, the comments to the district Traffic Engineering and Permits Section shall state the obstructions to commencement of work.

Unlike relocations, the district Utilities Section is not required to inspect construction of new facilities in highway project bounds. However, it is advisable that the district Utilities Section monitor the construction and develop TC 69-7 forms, *Utility Progress Reports*, which can be generated in the field or office and saved via the Cabinet's management system, [Kentucky Utilities and Rail Tracking System \(KURTS\)](#).



	<i>Chapter</i> FINAL PREPARATION FOR UTILITY CONSTRUCTION
	<i>Subject</i> General

OVERVIEW

The preparation of utility relocation plans is the process by which utility companies, both publicly and privately owned, communicate with the Transportation Cabinet (Cabinet) to identify, design, organize, and otherwise make ready any affected utility facilities for relocation.


When a road project's utility relocation plans are finalized, approved by the Cabinet, and all necessary rights of way and easements have been acquired, the utility supervisor (US) or assigned utility agent (UA) shall prepare for utility relocations to commence.

Primary steps to initiate utility relocation construction involve the following:

- Final relocation plan preparation, review, and approval
- Budgetary preparation (agreements and accounting documents)
- Authorization to proceed

These general steps involve coordination between the Cabinet and all utility companies with facilities in the project scope. The US or UA shall also convey information to the highway contract bidders regarding utility relocation schedules and any utility relocations to be executed in the highway contract.



	<p><i>Chapter</i></p> <p>FINAL PREPARATION FOR UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Plan Preparation</p>

PLAN REVIEW

The utility supervisor (US) or utility agent (UA) shall review existing and proposed location plans for all utility companies. These reviews shall give the US or UA an opportunity to analyze the relocation plans of all utility companies for potential conflicts of workspace or method.

If the US or UA is unable to develop and review the comprehensive plan set, the Project Development Branch Manager (PDBM) shall coordinate this activity with district design staff. The area coordinator (AC) may also provide review assistance.

ACQUISITION OF AS-BUILT PLANS

Upon completion of each utility facility relocation, the US or UA shall request as-built plans from the utility company. As-built plans show existing and relocated facilities as they were constructed, removed, relocated, transferred, or left in place.

VERIFY PROPERTY ACQUISITIONS ARE COMPLETE

Prior to commencement of a utility relocation, the US or UA shall verify that all rights of way and easements needed to complete the relocation have been acquired by the Cabinet or the utility company.

COMMUNICATE CABINET COMMITMENTS

Communicate All Promises (CAP) is a program to codify the covenant between the Cabinet and property owners potentially affected by the project.


The US shall be responsible for communicating all CAP issues to utility companies so that their facility relocation and adjustment plans incorporate those requirements into their plans.

RELOCATION

SCHEDULES

The US or UA shall consult the affected utility companies to determine their anticipated completion date for relocation. These schedules must be reviewed in relation to each other and to the road project's schedule for viability.



	<p><i>Chapter</i></p> <p>FINAL PREPARATION FOR UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Budget Preparation</p>

PROJECT OVERVIEW The utility supervisor (US) or utility agent (UA) shall review the project file and correspond with each utility company in the project scope to ensure all compensable work is included in a fully executed agreement. The Central Office area utilities coordinator (AC) may assist the US in fulfilling this task.

REVIEW PHASE


BUDGET

The US or UA shall analyze the utility program budget to ensure that funding is sufficient to complete the relocation of utility facilities on the project.

Analysis shall include consideration of preset funding levels, Transportation Cabinet (Cabinet) labor, agreement amounts, and amounts of any anticipated change orders and billings, including under-runs, so that funding may be clearly understood throughout the project lifespan. If the analysis shows funding levels for a program dipping below \$0, the US shall request additional funds as discussed in [UR-600](#). The request for additional funds should allow the program to remain solvent.

In addition, this analysis shall take into account expenditures and encumbrances from any affected program phase. Typically, utility phase funding is the source for expenditures related to utility and rail work. However, design and construction program funds sometimes are utilized and must be considered. If expenditures related to utility relocation or rail coordination appear to be putting a D or C phase program fund in the negative, the appropriate holder of those funds (design or construction) shall be informed.



	Chapter FINAL PREPARATION FOR UTILITY CONSTRUCTION
	Subject Field Preparation

PRELETTING MEETING A utility company preletting meeting is highly recommended to communicate the project design and to coordinate utility relocation. The decision to conduct such a meeting is at the discretion of the utility supervisor (US) or utility agent (UA).

The meeting offers participants the opportunity to review and discuss the proposed sequence of operations and to raise and resolve concerns about the overall construction plan. The Transportation Cabinet (Cabinet) and the utility companies shall exchange names of emergency contacts that are available 24 hours-a-day. The district Utilities Section maintains a record of decisions, contacts, and actions resulting from the meeting.

**PROJECT
WALK-THROUGH**

If the US or UA and utility companies are unable to develop an adequately coordinated plan at a preletting meeting or if the project warrants, the US or UA may schedule a project walk-through.

At the project walk-through, each utility company shall explain their needs on the project. Their request shall include their access needs to joint-use facilities and specific locations on the project. In addition, the company shall explain special circumstances that dictate their need to be in specific locations on the work site.

The US or UA may perform a walk-through to identify any of the following potentially troublesome construction issues:

- Utility companies' relocation schedules
- Utility companies' relocation designs
- Any site-specific obstructions to the relocations
- Traffic control and erosion control
- Utility companies' completion dates

PROJECT**WALK-THROUGH****(CONT.)**

- Any road project complications, such as outstanding property acquisitions, commitments to property owners, road design elements, etc.

The US or UA shall use the field review to become familiar with the area proposed for roadway construction and to delineate potential problems or conflicts between existing utilities, easements, or other physical features.

RELOCATION**SCHEDULES**

The US or UA shall review the relocation scheduling information provided by utility companies to ensure that the schedules, when considered together, allow for the timely relocation of facilities which will not delay the progress of the Cabinet's contractor.

If the relocation schedule does not provide the road contractor with appropriate workspace to accommodate his or her project construction schedule, the US shall consult with utility companies about modifying their schedule. If it is not possible to modify the utility relocation schedule, the US shall recommend to the Project Development Branch Manager (PDBM) an adjustment to the road project letting date to reflect the utility relocation schedule.

LOCATION DISPUTES


The first rights to specific areas of the project shall generally be granted to facilities which are required to maintain a specific grade throughout the project or at specific locations throughout the project. Otherwise, the first utility company to request the location shall be granted it. Exceptions to this may include the following:

- Construction methods that will endanger existing or future highway facilities
- Industry code that requires separation of specific utility facilities from underground or overhead hazards
- Order of construction requires facilities to be relocated into specific areas

UTILITIES SECTION**INSPECTION**

The UA shall inspect the relocation work to the degree capable with the available Utilities Section staff as prescribed in [UR-1306](#). Field inspections will utilize the Kentucky Utility and Rail Tracking System ([KURTS](#)) mobile data collection (tablet) application in the field to collect progress and location. This report shall be saved for record in KURTS.



	<i>Chapter</i> UTILITY CONSTRUCTION
	<i>Subject</i> General

OVERVIEW

To allow utility relocation construction to begin, the following tasks must have been achieved:


- A relocation plan must be complete and approved by the Cabinet, as detailed in [UR-1000](#).
- A no charge authorization or agreement must be finalized and approved, as detailed in [UR-1100](#).
- The right of way or easement required for the relocation must be acquired or considered imminent.

Note: The decision to begin relocations without full property acquisition is to be considered carefully. Such authorizations must be approved by both district and Central Office staff.

- A schedule of work must be provided and accepted.
- The utility company, or designated excavator, shall call Kentucky 811 at least 48 hours before the commencement of work. More information is provided online at:

<http://www.kentucky811.org>




	<p><i>Chapter</i></p> <p>UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Site Preparations</p>

STAKING Utility companies require staking of right of way or other pertinent project features to successfully relocate their facilities. A utility company may provide staking services by company forces or by an approved contractor. The district Utilities Section may arrange the use of in-house resources or a consultant to perform staking of control points and other highway features necessary for a utility company to stake facility construction. The utility company may also perform the staking of the control points and highway features.

CLEARING When clearing, utility companies shall comply with Transportation Cabinet (Cabinet) tree and vegetation protection and disposal requirements.

COMPENSATION The Cabinet may compensate the utility company to do the staking and clearing to accommodate relocation work. The work shall be compensated at the percentage of participation established in the agreement.



	<p><i>Chapter</i></p> <p>UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Meetings</p>

UTILITY MEETINGS A utility company preletting meeting and walk-through are highly recommended to communicate the project design and to coordinate utility relocations. These meetings are detailed in [UR-1204](#).

PRECONSTRUCTION MEETINGS On all projects, the utility companies in the project area shall be invited to attend the road project’s preconstruction meeting. This meeting provides an opportunity to convey project-specific utility information to the road contractor awarded the project.


The utility companies shall attend and bring 3 copies of their as-built plans for the road contractor’s use. If the work is not yet complete, 3 sets of current plans are required.

This meeting provides an opportunity to discuss relocation nuances, requirements, coordination needs, and construction scheduling.

OTHER MEETINGS Additional utility meetings may be necessary, particularly on complex projects with significant utility involvement. The Transportation Cabinet (Cabinet), utility companies, or contractors may request these meetings.

The project may require one or more meetings or a series of meetings. The Utilities Section is charged with the responsibility of coordinating attendance at these meetings.



	<p><i>Chapter</i></p> <p>UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Requirements</p>

NOTIFICATION The utility company shall notify the district utility supervisor (US) when its crews or its subcontractor’s crews arrive to begin work on the project. A utility company representative shall carry a copy of the executed agreement or the fully approved permit while on the job.

For the utility company to be eligible for compensation, a fully executed agreement must be in force before any work begins.

SAFETY At all times, the utility company shall comply with safety regulations. Terms to be adhered to are identified in the body of the binding document, be it the agreement or the no charge authorization.

CONFLICT RESOLUTION Effective coordination requires communication and participation by the utility company and the Transportation Cabinet (Cabinet). Through early and thorough coordination, the utility coordination process helps to reduce the number of field issues and prevent delays. Utility companies benefit by participating in this process because early coordination potentially reduces the overall amount of utility relocations. The utility company is also able to better plan and budget time and resources for required utility relocations in advance.

Utility-related delays can impact projects in significant ways. The letter submitted to the utility company authorizing the initiation of the utility relocation shall state that if a utility owner negligently fails to respond to requests from the Cabinet during construction, it can be considered liable for the costs that a utility-related delay may cause.

BUY AMERICA Utility relocation steel and iron materials used to make way for road construction work in Kentucky generally shall comply with the Buy America requirements (as specified in [23 U.S.C. 313](#) and [23 CFR 635.410](#)). Utility companies are not required to change standards for materials as long as the Buy America requirements are met. Any materials that do not meet Buy America requirements may not be permanently incorporated into road project utility relocations.

BUY AMERICA (CONT.) Utility companies must be capable of providing certification of Buy America compliance. This requirement is fulfilled via the executed agreement, signature, and submission of the *Utility/Rail Agreement Statement of Charges* form, TC 69-8, but the Cabinet reserves the right to request material certifications.

In some circumstances, a waiver of the Buy America requirements may be granted for specific materials items by the [Federal Highway Administration \(FHWA\)](#), which may be assessed on a project-by-project basis. Generally, the Buy America requirement can be waived if the road project has utilized no federal funding in any phase or aspect during the project's development or execution. A utility company shall assume Buy America compliance is a requirement unless the US identifies the project as completely nonfederally funded at the joint utility meeting (JUM).

UTILITY DELAYS

The Cabinet follows a series of steps in cases of utility delays:

1. At the first indication of delay in the field, the Utilities Section shall document the situation in the project files, discuss the issue with the utility company contact, and notify appropriate district construction personnel.
2. District construction staff shall notify the highway contractor about the delay, if already performing highway construction.
3. After receiving the contractor's notice of potential impacts to the road project which may result in claims, the Utilities Section shall send another letter to the utility company, indicating that costs may be assessed if the utility relocation or adjustment is not completed on schedule. The Utilities Section shall also send a copy of the letter to the prime contractor, any affected subcontractors, and the utility area coordinator.
4. The Cabinet shall review the project history to ensure compliance with all procedures.
5. The Cabinet shall determine the most appropriate action for the project. If the work by the utility company directly results in a delay to the progress of the controlling operation, the construction group shall determine whether a time extension is acceptable or a claim is valid.
6. The construction group shall forward a copy of the contractor's claim settlement agreement to the Utilities Section for appropriate action.

UTILITY DELAYS (CONT.)

7. If the work cannot be suspended, or if it proceeds at a slower pace without service impact to the project, district construction personnel shall order the contractor to continue working around the utility relocation.
8. After completion of work and calculation of costs, district construction personnel shall meet with the project engineer, the Utilities Section, and other pertinent parties to determine cost recovery steps.
9. The construction group shall forward a copy of all documentation and letters to the Utilities Section.
10. The utilities supervisor shall also determine future steps and actions to prevent future delays.

Note: If the contractor and utility company make facility moves or changes or agree to do work solely for their benefit or convenience, the Cabinet is not responsible to compensate for the work.

FIELD REVISION**APPROVAL**


The utility company shall first consult with the Utilities Section before making any changes to plans in the field. The Cabinet highway construction inspector shall also be involved in this review if the highway construction is underway. The utility company shall receive approval from the Utilities Section before making changes.

If the agreement calls for the Cabinet to compensate the utility company for relocation costs and these changes are anticipated to increase the project cost, a change order shall be submitted to the Utilities Section and approved before work may commence.

OVERTIME

Except in an emergency or for minor completion of a phase of work, the utility company shall receive prior approval from the Utilities Section for all overtime work to qualify as a compensable expense.



	<p><i>Chapter</i></p> <p>UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Utility Relocation Contractor</p>

OVERVIEW

All contractors that contract directly with the utility company to perform reimbursable work shall be approved in advance by the Transportation Cabinet (Cabinet). When the Cabinet issues a notice to proceed for utility relocations, the subject utility company is authorized to begin relocation construction by one of three mechanisms:

- Utility company construction personnel
- Cabinet-approved contractor selected through a proper and validated bidding process
- Cabinet-approved contractor retained via an accepted continuing contract

Note: The authorization to begin relocation construction assumes that the relocation work is not incorporated into the road contract. [UR-1700](#) details processes when the relocation work is incorporated into the road contract.

The utility supervisor (US) is the Transportation Cabinet’s (Cabinet) initial reviewer of contractor(s) selected by the utility either through bidding or continuing contract. The Central Office area utility coordinator (AC) also has authority to approve or reject the utility’s contractor selection. If necessary, the US or AC may involve the Utilities and Rail Branch Manager (UBM) for additional reviews.

**CABINET
RESPONSIBILITIES
FOR BID WORK**

If the relocation work is bid, the utility shall provide the US with the bid tab which indicates a minimum of three (3) contractor bids. If the US is satisfied that the selected contractor is qualified and can deliver the utility relocation work in an economic, viable, workmanlike, and timely manner, he or she shall recommend approval.

**CABINET
RESPONSIBILITIES
FOR BID WORK
(CONT.)**

The US and AC shall review and approve or reject the bid tab. Rejections shall include a documented reason for rejection. Upon review, the US or AC shall notify the utility company of the findings. The review and approval or rejection of the contractor is recommended to be done within the Kentucky Utility and Rail Tracking System ([KURTS](#)). When submitted and reviewed electronically, KURTS generates an approval or rejection letter that can be automatically sent to the utility company of interest.

**CABINET RESPONSIBILITIES
FOR CONTINUING
CONTRACTS**

If the relocation work is awarded to a contractor under a continuing contract with the utility company, the utility shall provide the UBM with a copy of the continuing contract. The continuing contract may already be on file with the Cabinet UBM. If so, the utility company may notify the US that this is the contract to be used. The UBM is responsible for validating that the continuing contract rates are viable and commonly used by the utility company of interest. Once validated, the UBM may recommend approval.

Note: Continuing contracts that are supplied by the utility company are not subject to open records.

**VIABLE REASONS FOR
REJECTION OF UTILITY
CONTRACTOR**

The Cabinet may reject a utility contractor due to one of the following reasons:

- The utility company does not issue the award to the low bid contractor and cannot justify the decision to do so.
- It is the opinion of the Cabinet that the scope of work is inappropriate.
- The contractor rates exceed the maximum established by the Cabinet.
- It is the opinion of the Cabinet that the total construction costs or a component of the total construction costs is excessive or inappropriate given the agreed scope of work.


If rejected, the Cabinet shall request that the utility company provide an explanation. The Cabinet may request the selection of another contractor, if the justification is not satisfactory.

APPLICABILITY

Cabinet approval and authorization of construction relocation services is applicable to all utility companies conducting reimbursable relocation work on a Cabinet project.

If a utility company does not utilize its own constructive forces and desires to secure a contractor who is not already on a current Cabinet-approved continuing contract list for relocation work, the utility company shall comply with the Cabinet's review and approval process.



	<p><i>Chapter</i></p> <p>UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Utility Relocations Prior to the Road Contract</p>

PROJECT PARTNER

DUTIES ON INSPECTIONS

Inspection and documentation of utility construction plays an important role in successful utility relocation, in early resolution of issues, in decisions about claims, in auditing issues, and for compensation.

Within limits of highway construction, all utility work is subject to inspection to ensure compliance with the applicable permit or agreement. Direct inspection of permitted utility relocations and construction is required by the Transportation Cabinet (Cabinet) whenever the Cabinet is participating in the cost. The inspector shall provide detailed documentation as to the materials, manpower, and equipment utilized to accomplish the utility work.

UTILITY INVOLVEMENT

Prior to the start of relocation, the utility company shall notify the district utility supervisor (US) or assigned utility agent (UA) in writing of the anticipated date to begin work. An email containing this notification is an adequate substitution for mailed correspondence.

The utility company shall be available to assist the utility contractor in locating facilities and valves for isolation.

The utility company may assign an inspector to ensure safe and efficient installation. If so, the utility company shall supply the Cabinet with the inspector’s contact information.

If inspection is performed by the utility company under force account, the company may have an inspector assigned to the relocation project whenever the utility contractor is on site. The utility company’s inspector shall ensure their facilities are relocated as designed and to the specifications supplied by the utility engineer or consultant engineer. Daily reports shall be kept and submitted regularly to the US or assigned UA.

CONSULTANT**INVOLVEMENT**

The consultant engineer shall be available by phone to answer any concerns or questions that arise in the field.

If inspection is performed by a consultant engineer, the inspector shall be on site as defined in the agreement to ensure the facilities are relocated as designed. Inspection reports shall be kept and submitted regularly to the US or assigned UA.

CABINET**INVOLVEMENT**

The Cabinet is obligated to inspect the utility relocation work performed during and after construction to ensure satisfactory completion as prescribed in [23 CFR 645.115](#). It indicates that inspection of utility relocation work is required to ensure that the work to be reimbursed is completed as specified in the agreement. It also indicates that inspection reports provided by the utility company are required for accurate billing throughout. Logging field inspections of utility relocation work can be completed with the Kentucky Utility and Rail Tracking System ([KURTS](#)) mobile field application or in the office.

The US or assigned UA shall be available by phone for any questions or complications.

The district Utilities Section shall assign an inspector to monitor the work of the utility company or the utility contractor. This inspector shall be provided a copy of the agreement, daily utility reports, the latest highway plans, and any other relevant information.

Due to limited manpower, UAs must manage the amount of inspection time spent on utility relocations. Normally the time required would depend upon the type of jobsite activities being accomplished and the amount of information needed to document relocations for compensation. The Cabinet utility inspector's primary role is to ensure that utility facilities are placed in such manner as to be in compliance with Cabinet accommodation policy; avoid conflicts with roadway improvements, reconstruction, and other utilities; and be adequately documented to ensure proper reimbursement to the utility company.

The UA shall:


- Complete a TC 69-7 form, *Utility Progress Report*, based upon both on-site visits and inspection reports submitted by the utility owner or consultant engineer's inspector assigned to relocation

CABINET**INVOLVEMENT (CONT.)**

- Make utility and Cabinet inspection reports available to project team members

Note: The utility progress report can be generated in the field or office and recorded in KURTS. The reports can be stored in hard-copy format, but retainage in KURTS is preferable because it provides more information, is more accessible, and is retained longer.



	<p><i>Chapter</i></p> <p>UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Inspection Duties</p>

GENERAL

The Transportation Cabinet (Cabinet) is responsible for tracking and inspecting the progress of all utility and rail work. It is necessary that the district utility supervisor (US) or utility agent (UA) perform these field verification activities for each relocation project. The Kentucky Utility and Rail Tracking System (**KURTS**) may be utilized by US and UA to record progress reports in addition to collecting approximate as-built information in the field. These reports are preferably performed onsite using the KURTS mobile application. However, they may also be generated in the office.

AGREEMENT REVIEW

The Cabinet’s assigned utility inspector shall review the agreement to understand charges that are eligible for compensation and review the latest plans to become familiar with the location and the construction limits.

The inspector shall notify appropriate Cabinet officials of any discrepancy. Addressing discrepancies as a team will prevent utility installation or relocation that might conflict with the Cabinet’s construction operation or with other utility companies.

**MEETINGS WITH
UTILITY COMPANIES**

The inspector shall arrange to meet regularly with the utility representative for inspections to ensure project effectiveness.

**REVIEW &
DOCUMENTATION**

During construction, the inspector shall review regular utility reports, inspect the sites, and record entries in the TC 69-7 form, *Utility Progress Report*. These reports may include the following:

- Date
- Time
- Location of construction work, in Latitude/Longitude

**REVIEW &
DOCUMENTATION
(CONT.)**


- Percent complete
- Photographs
- Composition of the crew
- Vehicles and equipment
- Type of work
- Location of facility in relationship to road design elements
- Recently delivered materials and their condition

FIELD INSPECTION

While in the field, the inspector shall:

- Observe the lateral placement of all facilities to validate adherence to the design
- Observe the depth of underground facility installations and structures to validate adherence to the design
- Note the size and type of materials utilized and proposed
- Verify the materials utilized are in agreement with the design
- Make detailed observations of potential conflict locations
- Review the method and type of backfill placement for adherence to Cabinet specifications
- Report locations of bad soil conditions to the district Utilities Section, appropriate construction section (if necessary), and pertinent parties
- Ensure underground facilities placed out of service are covered or removed from Cabinet right of way, if possible
- Watch the removal of materials and list the items removed on utility reports
- Monitor the potential for salvage value
- Review the location of facilities and their proximity to design elements of the road project



	<p><i>Chapter</i></p> <p>UTILITY CONSTRUCTION</p>
	<p><i>Subject</i></p> <p>Completion</p>

**SUBMISSION OF
COMPLETION NOTICE
& AS-BUILT PLANS**


After completing installation, the utility company shall submit a statement of project completion along with as-built plans and a final bill, if applicable, to the district utility supervisor. The assigned utility agent shall inspect the completed work and notify the Central Office area coordinator that the work is completed satisfactorily. After a satisfactory amount of time, the authorization may be released. In cases involving an agreement, the agreement shall remain open until a final invoice is paid but no more than one year after completion of the defined work.

Final invoicing and project closeout are issues pertinent to project completion and are addressed in [UR-1400](#) and [UR-1800](#).

MAINTENANCE

Once construction is complete, the utility company shall maintain the facilities at its own expense. The utility company shall follow the standard procedure in procuring an encroachment permit when it performs any maintenance work.



	<p><i>Chapter</i></p> <p>INVOICING</p>
	<p><i>Subject</i></p> <p>Definition & Types</p>

INVOICE DEFINITION An invoice (bill) is a document that a utility company submits to the respective district office requesting payment for costs associated with the relocation or adjustment of their compensable facilities that are impacted by the Transportation Cabinet’s (Cabinet) highway construction and in accordance with an executed agreement with the Cabinet.

INVOICE TYPES Two forms of invoices are submitted for compensation:

- Current bills which are generally defined as partial payments
- Final bills which are defined as the last invoice needed to complete compensation

Utility companies may submit current bills for partial payment of the amount encumbered for keep-cost and engineering services agreements. The Cabinet shall reimburse up to 90 percent of the total agreement amount on current invoices. A 10-percent retainage shall be held until final invoice submission.

The Cabinet prefers compensating utility companies in one complete and final billing for lump sum agreements; however, companies may request partial payment for these agreements with proper justification. Utility companies may need to invoice for preliminary engineering or materials before relocation or adjustment begins, thereby making a partial payment necessary.

Note: Current invoices shall be paid within 30 business days after receipt by the Cabinet, per contractual agreement, unless the invoices must be returned to the utility company for correction. Invoices may be returned to the utility company due to errors or omissions, such as a lack of documentation, incomplete form, or inaccuracies.


INVOICE TYPES

(CONT.)

Utility companies may submit final bills:

- To receive payment for the remaining amount of unbilled work completed for any agreement
- For compensation of the total or remaining amount of the agreement for lump sum agreements
- To recover the retainage costs held



	Chapter INVOICING
	Subject Required Documentation

**UTILITY COMPANY
INVOICE SUBMITTALS**

Utility companies shall submit invoices electronically using the Kentucky Utility and Rail Tracking System ([KURTS](#)). If the utility company submits invoices in hard-copy format, they must be provided in triplicate. All invoices shall contain the following:

- TC 69-8 form, *Utility/Rail Agreement Statement of Charges*
- Company compensation request memorandum
- Company invoice
- A statement certifying economic relocation (if not previously provided)

Note: The TC 69-8 form may be electronically generated and submitted using KURTS. The TC 69-8 form is also available on the Cabinet's utility coordination webpage.

- Supporting documentation detailing reported expenditures invoiced

Note: Supporting documentation is optional for lump sum agreement invoicing and keep-cost current bills. It is a requirement for final keep-cost bills. If the utility company does not provide documentation on current keep-cost bills, the final bill must provide documentation of all compensable costs during the project duration.

Supporting documentation may include the following:

- Costs associated with right-of-way or easement acquisition
- Labor costs which may require man-hours and rates
- Overhead costs
- Materials costs


**UTILITY COMPANY
INVOICE SUBMITTALS
(CONT.)**

- Cost to remove materials
- Equipment costs
- Salvage credit
- Betterment credit
- Service life credit
- Other applicable agreement items
- As-built plans (for final bills)

**INVOICE SUBMITTALS
TO UTILITY COMPANY**

If an invoice to a utility or rail company is necessary for reimbursement of costs to the Transportation Cabinet due to betterment or overcharges, the procedure outlined in [UR-1802-3](#) shall be followed to properly account for the reimbursement.



	Chapter <p style="text-align: center;">INVOICING</p>
	Subject <p style="text-align: center;">District Processing Procedures</p>

**DISTRICT OFFICE
INVOICE REVIEW**

Upon receiving an invoice package from a utility company, the district utility supervisor (US) or utility agent (UA) shall ensure the invoice and documentation is recorded in the Kentucky Utility and Rail Tracking System ([KURTS](#)). The US shall then review the invoice package in detail and perform the following tasks:

- Ensure that the submitted materials contain all required documents detailed in [UR-1402](#)
- Review package for mathematical, technical, and physical accuracy
- Check the TC 69-8 form, *Utility/Rail Agreement Statement of Charges*, to ensure it minimally includes:
 - ◆ Utility company information and signatures
 - ◆ Project title and road
 - ◆ County name
 - ◆ Federal project fund number
 - ◆ State project fund number
 - ◆ Project item number
 - ◆ Contract number
 - ◆ Invoice number
 - ◆ Identification of invoice as current or final
 - ◆ Amount due
 - ◆ Amount invoiced to date
 - ◆ Service dates of invoiced work (beginning and ending)

Note: See “Service Dates” below for more information.
 - ◆ Buy America certification, if applicable

Note: The TC 69-8 form is available for electronic generation in KURTS and on the Cabinet’s utility coordination webpage.

**DISTRICT OFFICE
INVOICE REVIEW
(CONT.)**

- Verify that the information in the utility company invoice, documentation, and TC 69-8 form are in agreement
- Review the supporting documentation to validate that the prices (either bid prices or engineer's set rates) agree with what is stated on the invoice and adhere to the terms of the referenced agreement
- Verify that the invoiced costs are in adherence with the work performed to date

If the reviewed invoice package is acceptable, the US shall:

- Approve the invoice in KURTS
- Ensure approval of the chief district engineer (CDE) or designee in KURTS

If the invoice package is unacceptable, the Utilities Section:

- Shall reject the invoice in KURTS, noting the errors, discrepancies, or omissions in the comments
- Shall immediately communicate those errors, discrepancies, or omissions to the utility company in written form

Note: Communication is recommended to be performed via KURTS rejection notice for quick response capabilities.

- May request a review from the Central Office area coordinator if the outstanding issue is not clearly a matter requiring complete invoice rejection

If the invoice is accepted and approved by the US and CDE or designee, the package shall be electronically reviewed by Central Office staff (if applicable).

Note: Final keep cost invoices and all rail invoices are received by Central Office staff.

SERVICE DATES

An invoice shall be processed for payment only if it has valid beginning and ending service dates. These dates shall be the actual dates that the invoiced work began and ended. The service dates shall be reflected in the entire invoice package.

SERVICE DATES**(CONT.)**

If the invoice package does not indicate the service dates, the US shall contact the utility company to provide the information in writing. An email containing the request is an adequate substitution for mailed correspondence. However, if the project requires swift response which email or mail cannot provide, a call to the vendor may suffice if documented and the invoice is corrected.

Note: The beginning service date may not precede the project authorization letter date. The project authorization letter date may only be used as a beginning date if the attached documentation and invoice show this to be the date the work began.


DISTRICT OFFICE**INVOICE PROCESSING**

If the signed invoice is a current bill or lump sum final bill, the US may process the invoice at the district office. This is initiated when an approved fiscal programmer, typically the administrative support staff, finds an approved invoice in KURTS and then enters the payment into the Cabinet's fiscal processing system. Once the approved invoice payment has been entered into the fiscal system, the fiscal programmer shall enter the accounting payment number into KURTS. Once the fiscal number is saved, the invoice posts to KURTS for the CDE, or designee, to approve in the fiscal system. Then, the CDE or designee may submit the invoice to the Division of Accounts electronically for payment.

If the invoice arrives in hard-copy format, the US retains an original of the invoice package for filing.

If the invoice is a keep-cost final bill, the US and CDE or designee shall approve the invoice package as defined above in KURTS. Central Office staff shall perform additional approvals and execute the remaining tasks as defined above. Final processing, including inputting the invoice into the Cabinet's fiscal processing system and ultimately payment of the invoice, will be addressed by Central Office staff.



	<p><i>Chapter</i></p> <p>INVOICING</p>
	<p><i>Subject</i></p> <p>Central Office Processing Procedures</p>

**CENTRAL OFFICE
INVOICE REVIEW**

After relocation completion, the utility company submits a keep-cost final invoice or an engineering services final invoice to the district utilities supervisor (US). Once a final keep-cost invoice is approved at the district-office level in the Kentucky Utility and Rail Tracking System (KURTS), the Central Office area coordinator (AC) checks the invoice package in the same manner as the US (as detailed in [UR-1403](#)).

If the AC encounters any errors, omissions, or discrepancies, the AC shall reject the invoice, denoting those reasons for rejection in the comments. If the issue is a matter of obvious typographical error or something that is only pertinent to the Cabinet for processing purposes (such as Cabinet’s internal accounting line typo or item number typo) the matter will be conveyed to the utility via email or call.

If the invoice is determined acceptable, the AC approves the invoice. The utility branch manager (UBM) and director shall also review and approve.

**CENTRAL OFFICE
INVOICE PROCESSING**

If the invoice is fully approved, the PC will process it in the Cabinet’s fiscal system.


Upon finding a fully approved invoice in KURTS, the PC enters the payment into the Transportation Cabinet’s fiscal processing system. Once in the system, the Central Office program coordinator (PC) shall enter the payment number into KURTS. The UBM may then approve it in the fiscal system. Then, it is submitted electronically to the workflow of the Division of Accounts for payment.

The PC will monitor the invoice processing status in the fiscal processing system via KURTS updates.

RAILROAD**INVOICE PROCESSING**

Invoices received for railroad work are reviewed, approved, and processed by the Central Office. The Central Office may request field support and review from the district office staff to validate that the work for which reimbursement is requested has been sufficiently executed. Railroad invoices are further detailed in [UR-2007](#), "Railroad Coordination Program: Fiscal Management," and [UR-2103-6](#), "Rail Safety Projects: Invoicing & Change Orders."



	<p><i>Chapter</i></p> <p>INVOICING</p>
	<p><i>Subject</i></p> <p>Auditing</p>

PROCEDURES

If, after review of the invoice package, the Utilities Section or the area coordinator (AC) takes issue with the details and no resolution has been arrived at by consulting with the utility company, an external audit may be requested.

To request an audit, the AC or utilities supervisor (US) shall submit an audit request memorandum through the Kentucky Utilities and Rail Tracking System ([KURTS](#)) indicating that the final bill should be **paid prior to audit** or **audited prior to payment**.

Note: The decision regarding payment is the discretion of the AC, utility supervisor (US), or Utilities and Rail Branch Manager (UBM).


KURTS shall email the request to the External Audit Branch Manager, who may use KURTS data or request access to hard-copy files for investigation.

ANNUAL SAMPLE AUDITS

The External Audit Branch in the Office of Audits conducts annual audits of sample utility company final invoices. They may include specific audit requests in the annual review unless the Cabinet is holding payment until completion of the audit. Requests for audit prior to payment will be coordinated with the Office of Audits and the AC assigned the work.

[UR-1800](#), "Closeouts," provides a more detailed discussion of utilities and rails audits.



	<p><i>Chapter</i></p> <p>CHANGE ORDERS</p>
	<p><i>Subject</i></p> <p>General</p>

OVERVIEW

Transportation Cabinet (Cabinet) utility staff shall carefully monitor all projects on a regular basis to ensure that the work being performed complies with the agreement between the Transportation Cabinet (Cabinet) and the utility company.

When a project requires additional work beyond the original scope of work as defined in the agreement, the utility company shall submit a TC 69-4 form, *Utility/Rail Agreement Change Order*, to be evaluated and approved by the Cabinet before the work is performed and before any compensation is made for the additional work.

Note: This form may be electronically generated in the Kentucky Utilities and Rail Tracking System ([KURTS](#)) but must be printed, signed, and sent to the Cabinet for review. It can also be found on the Cabinet’s utility coordination webpage.

WHEN A CHANGE ORDER IS VIABLE

Utility companies shall request a change order from the utility supervisor (US) for additional work and services performed and materials used on keep-cost agreements or for additional work and services and materials used that are not included and unanticipated in the agreed-upon scope of work for lump sum agreements.

WHEN A CHANGE ORDER IS NOT VIABLE

A change order cannot be approved, nor can its work proceed, until:

- Adequate justification of the additional costs is secured and accepted by appropriate Cabinet staff
- Funding is available to reimburse the costs associated with the change order


Failure to garner prior authorization by the Cabinet may jeopardize payment to the utility company for the work.

ADDITIONAL FUNDING

REQUESTS

If funds are unavailable to cover the change order amount, the Utilities Section shall acquire additional funding by submitting a request in KURTS for additional funds as detailed in [UR-603](#).



	<p><i>Chapter</i></p> <p>CHANGE ORDERS</p>
	<p><i>Subject</i></p> <p>Policy</p>

CHANGE ORDER REQUIREMENTS

The utility company is not authorized to perform additional work until a completed TC 69-4 form, *Utility/Rail Agreement Change Order*, and justifying documentation have been reviewed, processed, and approved by the following authorities:

- Utility supervisor (US), if the amount of the change order is \$25,000 or less
- US and Central Office Utilities and Rail Branch, if the change order amount exceeds \$25,000

Upon written approval by the Transportation Cabinet (Cabinet), the utility company is authorized to proceed with the additional work. Failure of the company to obtain such written approval from the Cabinet prior to proceeding with the additional work specified in the change order may jeopardize compensation of costs.

Note: This form may be electronically generated in the Kentucky Utility and Rail Tracking System ([KURTS](#)) but must be printed, signed, and sent to the Cabinet for review. It can also be found on the Cabinet’s utility coordination webpage.

To be accepted for processing, the change order shall meet the following requirements:

- There must be available non-encumbered funds authorized via a TC 10-1 form, *Project Authorization*, associated with the specified work change by executed agreement to cover the additional change order costs.
- There must be federally approved non-encumbered funds authorized via a PR-1 form, *Federal Reimbursement Authorization*, if the additional work to be completed is part of a federally approved phase of the project.

**CHANGE ORDER
REQUIREMENTS
(CONT.)**

- The additional work to be performed or items presented for inclusion are not covered in the original scope of work or in the costs associated with the original agreement.

In extreme situations where a project requires immediate action on the part of the company and utility funds are unavailable for the change order amount, the US shall contact the Central Office area coordinator for assistance with determining a funding source. The process required to request additional funds is detailed in [UR-603](#).

**HOW CHANGE ORDERS
ARE REPRESENTED ON
INVOICES**

Upon completion of the qualified work presented on the change order, the utility company may submit the documents required for invoicing any additional charges.


Utility companies shall submit all remaining payment requests to the district office following the policies and procedures outlined in [UR-1400](#).

All succeeding TC 69-8 forms, *Utility/Rail Agreement Statement of Charges*, shall reflect the approved change order amount and revised total in the respective lines on the form. Payment requests submitted after approval of a change order will reflect the following:

- The revised amount in the project budget
- The amount of the change order
- The modified agreement amount

Note: This form may be electronically generated and submitted in KURTS. It can also be found on the Cabinet's utility coordination webpage.



	<p><i>Chapter</i></p> <p>CHANGE ORDERS</p>
	<p><i>Subject</i></p> <p>Required Documentation</p>

REQUIRED DOCUMENTATION

When submitting a request for a change order, the utility company shall submit the following completed documents to the utility supervisor (US):

- A letter from the utility company requesting the change order and documenting the necessity and validity of the request
- A completed TC 69-4 form, *Utility/Rail Agreement Change Order*
- Valid justification of additional need such as:
 - ◆ Company estimate of charges for all additional materials, labor, equipment, engineering, and overhead costs
 - ◆ Documentation of quantities, unit costs (as bid by the contractor), and line item subtotals and total cost for all work, equipment, and materials included in the change order
 - ◆ A detailed explanation of the reasons for the additional costs including pertinent factors leading to the request for the change order (such as increased cost of materials or services due to length of a project, unforeseen objects or unmapped utilities encountered, etc.)

Note: The TC 69-4 form may be electronically generated in the Kentucky Utility and Rail Tracking System ([KURTS](#)) but must be printed, signed, and sent to the Cabinet for review. It can also be found on the Cabinet’s utility coordination webpage.


DISTRICT SUBMITTALS TO CENTRAL OFFICE

Upon approval of the change order by the US, the information detailed above shall be submitted to the area coordinator (AC) for review and approvals with the following attachments:

**DISTRICT SUBMITTALS
TO CENTRAL OFFICE
(CONT.)**

- A recommendation memorandum (**Exhibit 9005**) signed by the chief district engineer (CDE) and the US which accomplishes the following tasks:
 - ◆ Verifies the accuracy and reasonableness of the information presented by the company on the change order request
 - ◆ Requests approval
 - ◆ Documents the necessity and validity of the request, if needed
- Three originals of the completed TC 69-4 form, *Utility/Rail Agreement Change Order*, with authorized company signatures and district office signatures
- Three copies of all backup documentation as detailed above



	<p><i>Section</i></p> <p>PROCESSING CHANGE ORDERS</p>
	<p><i>Subject</i></p> <p>Based on Change Order Amount</p>

**PROCESSING
CHANGE ORDERS
\$25,000 OR LESS**

Upon receiving a change order request for an amount of \$25,000 or less from a utility company, the utility supervisor (US) shall do the following to validate the change order request:

- Verify that the company has submitted all required documentation as detailed in [UR-1503](#), “Required Documentation”
- Review the change order request and documentation to verify that:
 - ◆ The additional work and items proposed are absolutely necessary for successful completion of the project or are of added benefit to (or are in the best interests of) the Transportation Cabinet (Cabinet) or the general public
 - ◆ The additional work is of the same type as specified in the original agreement (such as engineering services, materials, labor, etc.)
 - ◆ The proposed work is compensable under the terms of the agreement and state law
 - ◆ The proposed work is the most economic remedy as the project exists
- Determine and verify the availability of existing funds to cover the requested change order amount

Note: [UR-603](#) details the procedure to acquire additional funding.

PROCESSING
CHANGE ORDERS
\$25,000 OR LESS
(CONT.)

If the change order package is acceptable, the Utilities Section shall:

- Compile a memorandum recommending approval ([Exhibit 9005](#)) with a description of the change order and acceptance of the terms
- Sign the TC 69-4 form, *Utility/Rail Agreement Change Order*, and submit the package to the chief district engineer (CDE), or designee, for signature

Note: The TC 69-4 form may be electronically generated in the Kentucky Utility and Rail Tracking System ([KURTS](#)) but must be printed, signed, and sent to the Cabinet for review. It can also be found on the Cabinet's utility coordination webpage.

If the change order package is unacceptable, the Utilities Section shall immediately communicate the errors, discrepancies, or omissions to the utility company in written form.

If the issue is a matter of obvious typographical error or a minor error only pertinent to the Cabinet for processing purposes (such as a Cabinet internal accounting line typo or item number typo), the Cabinet shall notify the utility via email and/or call of the corrective action.

Note: It is recommended that this communication be performed via email to enable a quick response, or by mail when time allows.

If the issue is a more significant item, such as lack of documentation, mathematical errors, etc., the package shall be rejected and returned to the utility company. The package shall further outline the errors, discrepancies, or omissions of the package.

The Utilities Section may request a review from the Central Office area coordinator (AC) if the outstanding issue is not clearly a matter requiring complete change order rejection.

The CDE or designee shall review the change order and supporting documentation, and if approved, sign the TC 69-4 form and return the completed package to the US.

**PROCESSING
CHANGE ORDERS
\$25,000 OR LESS
(CONT.)**

Upon completion of district reviews and signatory approvals, the signed change order, supporting documents, and letter of recommendation shall be sent to the AC.

The AC shall review the memorandum of recommendation, the completed TC 69-4 form, and accompanying supporting documentation for completeness and validity. If the AC accepts the terms, the program coordinator (PC) will be sent the package.

The PC shall enter the change order (sometimes called a modification) into the Cabinet's fiscal processing system. The modification is made to the original agreement amount in the Cabinet's fiscal system. The PC shall save the signed change order electronically in KURTS.

Once in the system, a document is created and attached to the change order package. Once the document is created in the system and a hard copy is attached to the invoice package, the Utilities and Rail Branch Manager (UBM) may approve it in the fiscal system. Then it is submitted into the workflow process to the Division of Accounts for payment.

Upon UBM document approval in the fiscal system, the PC shall monitor the change order until it is fully approved.

Upon full document approval in the fiscal system, the PC shall perform the following actions:

- Mark it approved and date the package
- Distribute the approved TC 69-4 form and accompanying documents as follows:
 - ◆ One original to the Central Office file
 - ◆ One original to the Division of Accounts (federal projects only)
 - ◆ One original to the utility company
 - ◆ One copy to the Utilities Section

**PROCESSING
CHANGE ORDERS
\$25,000 OR LESS
(CONT.)**


It is advised that the AC immediately notify the Utilities Section of the change order approval, who may then notify the utility company. An email containing this notification is an adequate substitution for mailed correspondence.

Change orders are maintained in KURTS to document approval to perform the work as proposed.

For change orders of amounts in excess of \$25,000, the same procedures as outlined for "Processing Change Orders \$25,000 or Less" are followed with the exception of one additional step.

Change order submittal packages exceeding \$25,000 must be approved by the UBM and the Division of Right of Way and Utilities' Director via signature. This takes place after the AC accepts the package terms. The signatory approvals of the UBM and director must take place prior to entering the change order (modification) into the Cabinet's fiscal management system.



	Section PROCESSING CHANGE ORDERS
	Subject Based on Agreement Type

OVERVIEW When a change order is required on a project, the method of determining payment can vary based on the type of agreement in place between the Transportation Cabinet (Cabinet) and the utility company.

**KEEP-COST
(ACTUAL COST)
AGREEMENTS**

Change orders for keep-cost agreements (including construction or engineering services) require separate line items and itemized billing. This requires detailed record keeping on the part of the utility company. Fully compensable charges for labor, materials, and other items shall include complete supporting documentation for each line item:

- Labor
 - ◆ Labor classification and number of workers within classification
 - ◆ Rate of pay
 - ◆ Hours worked on project
- Materials
 - ◆ Description
 - ◆ Quantity
 - ◆ Unit cost
- Miscellaneous costs
 - ◆ Shipping
 - ◆ Administrative costs and overhead
 - ◆ Mileage
 - ◆ Per diem
 - ◆ Lodging
 - ◆ Equipment rentals

LUMP SUM**AGREEMENTS**

Change orders for lump sum agreements may be executed to cover justifiable and substantiated costs for the following conditions:

- The scope of the road project substantially changed
- The road work forced a redesign during construction
- Weather conditions that could not be expected
- Field conflicts that could not be anticipated
- Other costs if they can be justified as items not capable of being anticipated at the time of agreement execution


The utility company is responsible for consideration of all elements of the work proposed when negotiating a lump sum agreement. Therefore, change orders associated with lump sum agreements may be for items that could not be anticipated at the time of the agreement execution. Most change orders on lump sum agreements are a direct result of a change in the road project development or execution after the relocation agreement was executed.

These change orders are based on negotiated costs for the additional scope of work. Supporting documentation, as shown for keep-cost agreement change orders, is required for the purpose of verification by the Cabinet of the company's estimates and the amount requested. The Cabinet may approve lump sum change orders that do not exceed a total cost agreement threshold of \$200,000. Exceptions to this must be made in writing, justified, and approved by all parties.

BETTERMENT**WORK**

Betterment work is not a compensable cost. When changes are made to a utility company's facilities that are not strictly pertinent to facility relocation or adjustment, the cost of such work may be deducted from the change order costs.



	<i>Section</i> PROCESSING CHANGE ORDERS
	<i>Subject</i> Balancing Change Orders

**WHEN A BALANCING
CHANGE ORDER IS
VIABLE**

The utility supervisor (US), or designee, may create a balancing change order to document excess utility funds at the completion of a utility company's relocation. This type of change order cannot be executed in the Transportation Cabinet's (Cabinet) fiscal processing system.


A balancing change order may help document excess funds if all of the following are true:

- The utility company has submitted a final invoice
- Payment for the final invoice has been processed
- All state force work and contingencies have been completed with regard to this facility relocation
- The final submittals of as-built plans are in, thoroughly reviewed, and approved
- Any utility-related payment issues have been addressed and outstanding change orders have been processed

Balancing change orders are used by some USs to closely monitor funding changes (particularly if the road project utility funds as a whole will remain tied up for a significant amount of time). However, balancing change orders are simply a bookkeeping measure for the files and in no way affect the Cabinet's fiscal system. This process is not a requirement and is not necessary.

If the project is fully complete in regards to utility coordination, the project should be closed out. This process will release excess utility phase funding and is fully detailed in [UR-1800](#).



	<p><i>Chapter</i></p> <p>UTILITY & RAIL CERTIFICATION NOTES</p>
	<p><i>Subject</i></p> <p>General</p>

OVERVIEW

Successful road project construction is the primary purpose for utility coordination. Bidders need to know the locations of existing utility facilities, the location of proposed facilities, and the schedule for relocation facility relocations that will occur concurrently during the highway construction process. The Transportation Cabinet’s (Cabinet) goal is to prevent or minimize conflicts, project delays, and service disruptions and ensure the safety of construction personnel and the public during the construction phase of the project.

Utility and rail certification notes are an integral part of such communications and are included in every set of construction bid documents to effectively communicate the presence, location, and relocation of utilities and related structures. They shall fully inform highway construction companies of utility facilities or utility relocations or adjustments that have occurred or are planned and the schedules for planned relocations.


PURPOSE

Contractors use utility and rail certification notes to assist in the bidding process for highway construction projects. Additionally, construction personnel use the notes to plan their project execution, identifying possible hazards during excavation and grading activities, as well as for operations involving the use of cranes, booms, or other equipment that may be of sufficient height or reach to encounter aerial utilities or related structures or encroach upon privately owned rights of way.

FEDERAL REGULATION

The utility and rail certification note is a required deliverable before a federally funded road project may be authorized to bid. The [Federal Highway Administration \(FHWA\)](#) regulation is [23 CFR 635.309](#), and the Cabinet has adopted the utility and rail certification note as a required deliverable for all projects prior to the release of construction funds.



	<p><i>Chapter</i></p> <p>UTILITY & RAIL CERTIFICATION NOTES</p>
	<p><i>Subject</i></p> <p>Type of Data Included</p>

GENERAL

Utility and rail certification notes convey information regarding the presence and relocation of all utility company facilities in the project area. The degree of detail may vary depending upon the highway project needs, complexity of the facilities being described, complexity of the project, and impact potential to the highway project.

Generally, the utility and rail certification note shall include the following pieces of information:

- Utility companies in the project area
- Location and description of utility facilities, including:
 - ◆ Existing facilities
 - ◆ Relocated or adjusted facilities
 - ◆ Facilities to be relocated
 - ◆ Facilities to be installed
- Completion dates and other scheduling information of facility relocations or adjustments
- Statement that the location of facilities as planned is approximate and must be verified in the field
- Any information that the highway contractor may need to fully understand the project needs regarding utility facilities

CATEGORIES

There are four primary categories that a utility facility may be classified as in the body of the utility and rail certification note. These four categories are:

- “Do not disturb” utilities

This category includes utility facilities that do not require adjustment or relocation, but are still within the project limits for the highway construction. The highway contractor is responsible for verifying the location of these facilities and protecting these facilities during highway construction.

CATEGORIES (CONT.)

- Utilities within the project limits being adjusted or relocated by the owner prior to construction

This category includes utility facilities located within the project limits that require relocation or adjustment in advance of the highway construction contract. The relocation or adjustment shall be completed prior to the bid letting and a completion date shall be included in the utility impact note. The utility company or a subcontractor usually performs this work. The highway contractor is responsible for verifying the location of these facilities and protecting these facilities during highway construction.


- Utilities within the project limits being adjusted or relocated by the owner concurrently with the highway construction contract

This category includes utility facilities located within the project limits that are being relocated or adjusted by the utility company or a subcontractor. The relocation duration may overlap the highway construction project, but the relocation work is not specifically included in the highway construction contract. Utility relocations within this classification shall be coordinated with the highway contractor and it shall be verified prior to letting that the relocation work can coincide with the highway construction project without delaying the highway project. A completion date for the utility relocation shall be included in the utility impact note. The highway contractor is responsible for verifying the location of these facilities and protecting these facilities during highway construction.

- Utilities included in the highway construction contract

This category includes utility facilities located within the project limits that are being relocated or adjusted within the highway construction contract. This work is included in the highway construction contract and is usually performed by the highway contractor or their subcontractor under the inspection of a utility company representative and the Transportation Cabinet's construction engineer. This category of utility relocation is typically encountered when the project schedule necessitates, when the utility does not have resources to relocate, or when relocation prior to the roadwork would negatively impact the highway construction.



	<p><i>Chapter</i></p> <p>UTILITY & RAIL CERTIFICATION NOTES</p>
	<p><i>Subject</i></p> <p>Contents of a Utility & Rail Certification Note</p>

GENERAL

Generally, the utility and rail certification note shall include the following pieces of information:

- General notes or advisories to the contractor regarding the presence or absence of utilities in the project area or universal notes with regard to utility construction or abandonment
- Utility companies in the project area
- Location and description of utility facilities:
 - ◆ Existing facilities
 - ◆ Relocated or adjusted facilities
 - ◆ Facilities to be relocated
 - ◆ Facilities to be installed
- Completion date of facility relocation or adjustment
- Statement that the location of facilities as planned is approximate and must be verified in the field
- Any information that the road contractor may need to understand the project needs

**MINIMUM LEVEL
OF DETAIL**

At a minimum, the following basic information shall be provided in the utility and rail certification note for each utility company in the project area. This information is required of utility facilities that fall into the following categories, as detailed in [UR-1602](#):

- “Do not disturb” utilities
- Utilities within the project limits being adjusted or relocated by the owner prior to construction

**MINIMUM LEVEL
OF DETAIL (CONT.)**

- Utilities within the project limits being adjusted or relocated by the owner concurrently with the highway construction contract
- Utilities included in the roadway contract

The utility and rail certification note shall include the following information:

- Owner of the utility
- Description of the utility facilities:
 - ◆ Existing facilities that shall remain at the time of road construction
 - ◆ Relocated or adjusted facilities that will be in existence during road construction
 - ◆ New facilities that will be in existence during road construction

Note: These descriptions shall include the following:

- ◆ Size and type of utility
 - Note:** A range may be listed for a utility with multiple sizes (for example, 2" to 12" water line with appurtenances).
 - ◆ The location of the utility facilities, specified by station and offset, coordinates, distance off right-of-way line, or other reasonable method
 - ◆ A summary of relocation or adjustment work performed to date with a focus on the final location
- Actual or anticipated completion date for utility work

For utility facilities that fall into the category, "Utilities within the project limits being adjusted or relocated by the owner in coordination with the contract" (as detailed in **UR-1602**), the utility and rail certification note shall, in addition to the above information, do the following:

- Describe and locate the work that is expected to overlap the road construction
- Provide a field contact name and phone number if it is not available in the road plan set
- State that the overlapping schedules have been reviewed and it has been verified that the roadwork may commence without delays incurred due to the utility work

**MINIMUM LEVEL
OF DETAIL (CONT.)**

For utility facilities that fall into the category, “Utilities included in the roadway contract,” as detailed in **UR-1602**, the utility and rail certification note shall:

- Clearly state that the scope of the proposed utility work is contained within the road project bid proposal and shall be executed by the road contractor team awarded the project
- Refer to the road project proposal plans and specifications for utility facility information
- Provide any special terms or needs as agreed between the Transportation Cabinet and the utility company that may impact their project execution and is otherwise not provided to the contractor in the proposal; such as if the utility company intends to provide the materials or if bidding contractors require special certification


**KY 811
(BEFORE YOU DIG)**

Each set of utility and rail certification notes shall contain verbiage regarding underground utility location and damage prevention.

**KENTUCKY UTILITY &
RAIL TRACKING SYSTEM
(KURTS)**

A template for the utility and rail certification note is available in [KURTS](#) for use. This template offers up the desired format and many of the commonly used notes. Users may generate a base note which is downloaded for completion. The final note shall be uploaded to KURTS for record retainage and submission for inclusion in the bid package. Details on this process can be found in [UR-1604](#).



	<p><i>Chapter</i></p> <p>UTILITY & RAIL CERTIFICATION NOTES</p>
	<p><i>Subject</i></p> <p>Completion Guidelines</p>

GENERAL

The utility supervisor (US) is the subject matter expert for the Transportation Cabinet (Cabinet) relative to each highway project's utility relocation and adjustment needs. The US shall provide utility and rail certification notes to convey their Utilities Section knowledge to the construction staff. The steps involved in the development of the utility and rail certification note are:

- Generate, compile, and distribute utility and rail certification notes for every project within the district
- Ensure the accuracy and completeness of the notes and project information contained therein

GUIDELINES

The US or assigned utility agent (UA) shall ensure that a complete and accurate utility and rail certification note is made available to the Division of Construction Procurement prior to the compilation and release of bid packages for highway construction projects. These notes shall be saved in the Kentucky Utility and Rail Tracking System ([KURTS](#)) and electronically submitted for inclusion in the bid package.

As early in the project development process as is reasonable, but no later than 2 months prior to the letting date, the US or assigned UA shall:

- Inventory the existing, proposed, relocated, and adjusted utility facilities in the project scope
- Verify that all utility companies are identified and the contact persons are still valid
- Check the road plan set to ensure the contact list provided within the plans is current
- Generate a base note for the utility and rail certification using the KURTS template
- Finalize the utility and rail certification note to contain the minimum information as defined in [UR-1603](#) utilizing the following materials:
 - ◆ Agreements as executed
 - ◆ Permitted relocation plans

GUIDELINES (CONT.)

- ◆ Subsurface Utility Engineering (SUE) data
 - ◆ Road plans
 - ◆ Utility facility relocation inspection reports
- Upload the final note to KURTS for record retainage and submission for inclusion in the bid package

The AC shall ensure the rail coordinator (RC) has provided pertinent railroad data and documentation. The AC shall then submit the final utility and rail certification notes to the Division of Construction Procurement at least 5 weeks prior to the scheduled project letting date. The notes shall be electronically recorded and submitted to the Division of Construction Procurement through KURTS. Once submitted, the note is available for all project team members.

Note: If the project has railroad involvement, the AC shall make sure to submit the railroad notes and railroad project summary sheet, with the utility and rail certification note. If no documents are available in KURTS, the AC shall collect and upload them from the project's assigned rail coordinator (RC). The railroad project summary sheet is the TC 69-11 form, *Summary for KYTC Projects that Involve a Railroad*.

REVIEWS

Draft utility and rail certification notes shall be thoroughly reviewed by the following parties to ensure the notes are complete and accurate:


- Utility Agent (UA)
- Utility Supervisor (US)
- Area Coordinator (AC)
- Rail Coordinator (RC), if railroad involvement is possible
- Project Engineer (PE)

Note: The PE shall review the notes if some utility relocation, rail, or adjustment work will overlap the highway project schedule or will be incorporated into the highway project proposal.

SUBMISSION

After a thorough review and any necessary revisions have been made to the utility and rail certificate notes, the AC shall provide the notes in digital format to the Division of Construction Procurement through KURTS. Then the utility and rail certification note shall be incorporated into the construction contract bid documents, specifications, and plans.



	Chapter UTILITY WORK IN THE ROAD CONTRACT
	Subject Decision-Making Technique

GENERAL

Having a utility relocation or other utility work performed by the highway contractor can be beneficial to the project. The reasons for incorporating utility work into the highway contract can vary. The following serves as a guide in deciding if it is appropriate to include utility relocation or other work in a highway contract.

If the decision is made to incorporate the work into the highway contract, the agreements available are defined in [UR-1104-9](#). Agreement drafting and execution is performed as is defined in [UR-1100](#), "Agreements and Authorizations." [UR-1400](#) can also be valuable, as it details applicable invoicing procedures.

Note: Most utility work incorporated into highway contracts is for the relocation or adjustment of underground utility facilities. This chapter focuses on underground utilities. However, appropriate assumptions can be made to adapt the discussion for overhead utilities.

**DECIDING TO INCLUDE
 UTILITY WORK IN THE
 HIGHWAY CONTRACT**

When road plans have been developed to a point where the utility impacts can be reasonably assessed, the following may be considered:

- Is the utility company willing to allow the Transportation Cabinet (Cabinet) to control a contract for the relocation and construction of their facilities?

Note: If the utility work is incorporated into the highway contract, additional conditions may apply for contractor prequalification ([UR-1702](#)), utility work inspection ([UR-1706](#)), and the recording of pay quantities ([UR-1706](#)).


- Does the road improvement as a whole benefit from including the utility work in the highway contract?

**DECIDING TO INCLUDE
UTILITY WORK IN THE
HIGHWAY CONTRACT
(CONT.)**

Questions to consider include:

- ◆ Does it shorten the overall project time?
 - ◆ Does it shorten the duration of inconvenience to motorists and nearby residents?
 - ◆ Does the motoring public benefit from a reduced delay of daily traffic and potential roadway hazards?
 - ◆ Can temporary utility restoration be eliminated and translated into cost savings to the taxpayer or utility company consumer?
 - ◆ Can the placement of the utility facilities be enhanced by placing the utility facilities in constructed roadway areas, such as new roadway embankment or excavation areas (instead of at the tops of cuts, toes of fills, under fills, or other areas usually inaccessible for maintenance and service connections)?
 - ◆ Will the project realize advantages in the coordination of the work due to coordinated lane closures?
- Other advantages to the utility owner and the Cabinet may include:
- ◆ If the highway contractor places the utility facilities, the facility location is known and the contractor is fully responsible. Therefore, if the utility facility placement is incorrect, creates conflicts with other contract work, or is damaged by the contractor, the contractor shall be responsible to make the proper corrections at no expense to the utility company or Cabinet.
 - ◆ There are reduced coordination needs, as the highway contractor will coordinate personnel and resources for the construction of utility facilities and the highway project.
 - ◆ There should be no complaints by the highway contractor that a utility company contractor is causing delays to the project, and there should be no claims for delays.
 - ◆ New and relocated utility facilities can be completed without a secondary disruption to the community and remain within the highway construction footprint.



	<p><i>Chapter</i></p> <p>UTILITY WORK IN THE ROAD CONTRACT</p>
	<p><i>Subject</i></p> <p>Utility Relocation Contractor Approval</p>

GENERAL


If utility work will be incorporated into the highway contract, the utility company may provide a short list of three or more utility contractors that have been approved by the utility company. This list shall be provided to the utility supervisor (US). The utility company does not have to provide a list of contractors; however, if no list is provided and the utility company does not address the preapproval requirements in their specifications, the utility company shall accept the contractor awarded the highway construction contract.

The Transportation Cabinet (Cabinet) would prefer that the listed utility contractors are prequalified with the Cabinet. If they are identified in Cabinet bid proposal and are not prequalified by the Cabinet, the Cabinet shall consider those services as specialty contracting which does not require prequalification.

If the utility company submits a list of approved contractors, the Cabinet shall:

- Provide this list as a part of the utility company specifications to be included in the highway project's bid proposal
- Allow only a utility contractor included on this list to perform utility construction under the highway contract



	<p><i>Chapter</i></p> <p>UTILITY WORK IN THE ROAD CONTRACT</p>
	<p><i>Subject</i></p> <p>Relocation Design</p>

INTRODUCTION

When utility relocation or other utility work is to be included in the highway contract, three items are needed to accomplish this: plans, specifications, and final construction cost estimate. The need for plans and specifications are evident. The estimate is used to add the utility items to the project bid sheets, for bid review, and to address budgeting for the utility relocation work. (See [UR-604](#) for more information on this subject.)

UTILITY PLAN DEVELOPMENT

The utility company's designer shall provide all utility relocation plan information for review electronically via the Kentucky Utility and Rail Tracking System ([KURTS](#)) or in hard copy to the utility supervisor (US) or assigned utility agent (UA). **The Transportation Cabinet (Cabinet) will ultimately require hard-copy final plans for incorporation into the road project.** Electronic files can also be provided to the US or UA, but only as secondary to the hard-copy plans. Utility designers shall adhere to the following criteria when developing and submitting utility relocation plans:

- When submitting electronic files, the utility designer should develop all utility sheets using Microstation (if the utility designer has this capability). By using Microstation, there is less concern for the loss of data due to program conversion. The utility designer can develop plans in other programs; however, he or she shall assume the liability of lost data in the conversion process.

Note: The US or UA shall not provide the utility designer electronic CADD information in any format other than Microstation.

- The utility designer shall provide the final utility relocation plans to the US or UA in hard-copy Mylar or bond paper.
- The final utility relocation plan sheets shall be 36 inches by 22 inches cut size.

UTILITY PLAN**DEVELOPMENT (CONT.)**

- The utility designer shall provide a summary sheet with utility quantities on the front of the utility relocation plans utilizing the same format as the roadway plan general summary. The heading on the summary should read "Sanitary Sewer Summary," "Water Relocation Summary," or some other heading as appropriate, and text should be entered in the columns with the headings "Bid Item Code," "Description," "Unit," and "Quantity." Bid item codes are discussed below in greater detail. **Exhibit 9003** shows a sample bid summary sheet.
- All sheets shall have the Cabinet's normal sheet block in the top right corner. The block shall have space for the county, item number, and sheet number. The utility designer shall complete the county and item number, leaving the sheet number blank. The Cabinet shall enter the sheet number when the plans are inserted into the roadway plans.
- Bold lettering across the bottom of each sheet shall identify the type of utility to be relocated and the utility owner and shall state that the sheets should be used for that utility purpose only. For example, the lettering could read "WATER RELOCATION FOR THE CITY OF WILLIAMSTOWN ONLY" or "SEWER RELOCATION FOR SANITATION DISTRICT NO. 1 ONLY."
- Each utility plan set shall have a unique set of sheet numbers separate from the sheet numbers assigned by the Cabinet. These are usually printed at the bottom right corner of each sheet; however, this numbering can be placed anywhere on the sheet, as long as it is separate from the Cabinet's numbering block at the top right corner. This separate sheet numbering by the utility designer allows specific referencing to utility concerns. These numbers usually do not change.
- The utility relocation sheets shall be designed to the same scale as the roadway plans whenever possible.
- The scale of the text on the utility relocation plans shall be of sufficient size so that when the sheets are reduced to half scale, the text is still readable.
- Only notes specific to the project and or the sheet shall be shown on the plans. The utility designer shall provide all general specifications on 8.5-inch by 11-inch sheets for insertion into the project proposal.

UTILITY PLAN**DEVELOPMENT (CONT.)**

- Any betterment and new facilities shall be proposed to the US and approved prior to design. All costs associated with such work are noncompensable and should be negotiated prior to incorporation.
- The [Federal Highway Administration \(FHWA\)](#) may need to approve incorporation of betterment and new facilities on federally funded projects; therefore, time shall be allotted to allow for FHWA review and approval. These requests shall be submitted to the US and shall be proposed to FHWA via the area coordinator (AC).

UTILITY SPECIFICATION**DEVELOPMENT**

When developing utility specifications, the utility designer shall adhere to the following guidelines:

- All specifications shall be on 8.5-inch by 11-inch sheets.
- All sheets shall have their own numbering located at the bottom of each sheet. (The top of each sheet is reserved for separate numbering by the Cabinet.)
- All utility relocation bid items shall conform to the Cabinet's items and codes as denoted on the Cabinet's latest bid items list. These items can be found on the Cabinet's construction web page.
- Bid item descriptions shall largely adhere to the Cabinet's descriptions, which are found on the Cabinet's construction web page. Exceptions are made for item codes defined as 'special' and these descriptions may be contained in the utility company supplied specifications.
- Bid item descriptions shall define the units of payment, such as each, linear foot, cubic foot, etc.
- Conflicts between utility specifications and general roadway specifications should be avoided if possible. For example, the utility specifications should not have one set of criteria for flowable fill material and the roadway specifications have another. If conflicts cannot be avoided, the utility designer shall provide a note specific to the project at the beginning of the utility company supplied specifications that states which specifications (utility or roadway) shall take precedence in the resolution of conflicts.

**UTILITY SPECIFICATION
DEVELOPMENT (CONT.)**

- The responsibility of the utility company supplied inspector versus the Cabinet inspector shall be defined at the beginning of the specification and shall state that the Cabinet construction engineer has the final authority in resolution of all conflicts.
- At the beginning of the utility specifications, a definition of “engineer” as referenced in the utility specifications shall be defined as, “The Cabinet construction engineer or his designated representative in consultation with the utility company engineer or his designated representative. The Cabinet construction engineer has final authority in all disputes.”
- Some utility companies have general specifications that comprise numerous sheets and include unnecessary information. The utility designer shall only include information pertinent to the project when submitting specifications for insertion into the road contract.
- Each set of utility specifications shall have its own cover sheet that states:
 - ◆ Type of utility
 - ◆ Utility company
 - ◆ A statement that the following specifications are to be used only for the construction of that utility owned by the identified owner

**FINAL ESTIMATE
DEVELOPMENT**

When developing the final utility estimate, the utility designer shall adhere to the following guidelines:

- The estimate heading shall identify the:
 - ◆ Project
 - ◆ Type of utility
 - ◆ Utility company
- The estimate shall have the following columns:
 - ◆ Item code
 - ◆ Description
 - ◆ Unit
 - ◆ Quantity
 - ◆ Unit cost
 - ◆ Total item

**FINAL ESTIMATE
DEVELOPMENT (CONT.)**

- The item codes, descriptions, units, and quantities on both the plan summary and the estimate must match.
- The estimate shall have a total at the bottom.
- The estimate shall not include any contingencies.
- Betterments and new facility costs shall be clearly defined.

BID ITEM CODES


The Cabinet requires that bid codes be assigned to each bid item based on the wording of the bid item description. The codes are to come from a list of standard bid codes maintained by the Cabinet. The bid code that is recorded for a particular item shall be shown on both the plan summary and on the estimate. The list of standard bid codes is maintained by the Cabinet for various tracking and recordkeeping purposes. These items can be found on the Cabinet's construction web page.

Each bid item on the plans should be matched to a particular item on the Cabinet bid code list. If an exact match can be found, the code shall be used on both the plan summary and estimate. If an item on the plans does not exactly match an item on the bid code list, the utility designer shall determine if the differences are significant enough to use the bid item code defined as 'special' which allows use of a unique bid item description in the utility company supplied specifications. If a bid code is used from the bid code list that is not an exact match, the utility designer needs to be aware that whatever the wording is on the bid code list is what will be used on the bid sheet seen by the contractor.

Bid item descriptions shall largely adhere to the Cabinet's descriptions, which are found on the Cabinet's construction web page.

If no bid item exists in the Cabinet's list that conforms to the plant required, the Cabinet has limited ability to expand the bid item list. Requests for the establishment of a new bid item may be submitted, provided the request is made well in advance. Utility companies are advised to use the existing bid items if at all possible.



	<p><i>Chapter</i></p> <p>UTILITY WORK IN THE ROAD CONTRACT</p>
	<p><i>Subject</i></p> <p>Plans, Specifications, & Estimate Submission</p>

**HARD-COPY
SUBMISSION**

The Mylar plans, bond specifications, and estimate shall be received by the utility supervisor (US) or assigned utility agent (UA), reviewed, and accepted prior to submission for incorporation into the bid package. Then they shall be delivered to the area coordinator (AC) by the assigned plan submittal date for the project.

The submittal date is the same date assigned to the project engineer (PE) for submission of final roadway plans and documents. If utility document submission will be delayed, the US and AC must communicate with the PE, Division of Construction Procurement, and the Division of Highway Design's location engineer so that an exception can be approved.

In the transmittal of the plans, specifications, and estimate, the US shall generate a district memorandum transmitting work in road contract package ([Exhibit 9006](#)) to the AC that:

- Requests the information be forwarded for inclusion in the highway contract
- Details any special handling of any bid items, including, but not limited to, a request to establish a new bid item, with description and request for a bid code
- Details any special handling of the plans, specification, or estimate


Once the submittal is made to the Central Office AC, the AC will review the documents and forward them as appropriate for inclusion in the contract plans and documents.

**ELECTRONIC
SUBMISSION**

The Transportation Cabinet (Cabinet) usually also requests that the plan and specification submission be provided electronically. The US or assigned UA will need to check with the AC or the PE to determine if electronic submittals are needed and in what format they need to be, such as Microstation files or Adobe PDF format.

Usually electronic submittals are placed in an agreed location in ProjectWise on the Cabinet's computer network for retrieval by those in need.



	<i>Chapter</i> UTILITY WORK IN THE ROAD CONTRACT
	<i>Subject</i> Project Plan Changes

POLICY


A change in the Transportation Cabinet (Cabinet) road project plans during construction may impact utility relocations. There are two types of plan changes:

- Changes that the Cabinet contractor proposes for their convenience or for the benefit of the utility company
- Changes proposed to resolve a design error or omission

When a contractor proposes the change as a matter of convenience, the contractor must gain the utility company's acceptance of the change, and any cost responsibility shall be between the contractor and the utility company. The Cabinet shall not bear any additional costs due to such a change nor a change made at the request and solely for the benefit of the utility company.

When the Cabinet or the utility company proposes a change due to some design error in plans or contract documents, the Cabinet or utility company shall bear any additional cost as deemed appropriate by the agreement as executed. If the work is outside of the negotiated terms of the relocation agreement, compensation may be negotiated between the utility supervisor and utility company.



	<p><i>Chapter</i></p> <p>UTILITY WORK IN THE ROAD CONTRACT</p>
	<p><i>Subject</i></p> <p>Contract Administration</p>

INSPECTIONS

The utility company may provide an on-site inspector for viewing the installation as it is being constructed. The utility company inspector may have direct interaction with the contractor and make the contractor aware of concerns with the construction of the utility; however, any changes to construction and any disputes must ultimately be resolved by the Transportation Cabinet (Cabinet) section engineer or designee. Any concern the utility company inspector has with the construction of the utility facility that he or she cannot resolve by direct interaction with the utility contractor should be reported as soon as practical to the section engineer or designee for resolution.

ACCEPTANCE OF WORK

The utility company has the right to refuse to accept any item of work that does not comply with the plans and specifications as long as the utility company has made timely notice to the section engineer or designee of any concerns for correction.

The utility company shall not be responsible for the contractor’s compliance with backfill, restoration, and traffic control requirements. The contractor’s compliance with these items shall be the responsibility of the section engineer or designee.

RECORDING PAY QUANTITIES

The utility company may or may not be responsible for recording pay quantities. If the Cabinet is responsible for most or all of the cost of construction of the utility relocation, usually the section engineer or designee shall record pay quantities. If the utility company is responsible for most or all of the cost of construction of the utility relocation, usually the utility company inspector shall be responsible for recording pay quantities.


The entity responsible for recording pay quantities shall be decided by the section engineer and the utility company before utility construction begins.

RECORDING PAY

QUANTITIES (CONT.)

If the utility company records pay quantities, the utility company shall report the quantities to the section engineer for payment to the contractor. The section engineer shall not adjust any disputable pay quantities without prior consultation with the utility company.



	<p><i>Chapter</i></p> <p>CLOSEOUTS</p>
	<p><i>Subject</i></p> <p>General</p>

DEFINITION & TYPES The term *closeout* is defined by utilities and rails staff as taking specific steps to formally complete work.

The utility coordination process recognizes two specific types of closeouts:


➤ Utility Company Closeout

This is the closure of an individual utility company’s contract. This type of closeout can be performed when the utility company’s construction, relocation, or adjustments have been completed, accepted, and compensated appropriately. It is also recommended to close only after all conflict potential with the highway project is reasonably abated. This type of closure constitutes the formal acceptance of all contractual and permitted work of the utility company covered in the pertinent contract.

➤ Project Closeout

This is the closure of the highway project’s utility coordination process as a whole. This type of closure encompasses the utility and rail business on the project and can be performed when all utility construction, relocation, and adjustments and rail-related work have been completed, accepted, and compensated appropriately. It is also recommended to close only after all conflict potential with the highway project is reasonably abated. This type of closure initiates the release of unexpended funding and initiates the archiving process.



	Section UTILITY COMPANY CLOSEOUTS
	Subject Agreement

GENERAL

Utility company closeouts often involve the completion of compensable utility relocations. Such closures may be called *agreement closeouts* due to the involvement of a legally binding agreement with an individual utility company.

**PROCEDURE FOR
 AGREEMENT
 CLOSEOUT**

Such a closure must be completed when a compensable and legally bound utility company's construction, relocation, and adjustments have been completed, accepted, and compensated. It is also recommended to close only after all conflict potential with the highway project is reasonably abated.

The procedure to perform an agreement closeout involves both the district and Central Office staff. The utility supervisor (US), utility agent (UA), and area coordinator (AC) must agree that the agreement terms have been satisfied and the conflict potential with the highway project is abated. This concurrence may require verification of the following:

- The construction, relocation, and adjustments are complete
- The agreement's final invoicing has been processed and compensated
- Funds owed the Transportation Cabinet (Cabinet) have been paid by the utility company
- The as-built plans have been acquired and are satisfactory
- Any auditing needs prior to closure were requested and completed

After verification of the above items, the Cabinet may formally accept all contractual work of the utility company. The following details the procedure to perform an agreement closeout:

- The US documents concurrence as defined above.

**PROCEDURE FOR
AGREEMENT CLOSEOUT
(CONT.)**

- The AC shall request the agreement be closed out in the Cabinet’s fiscal processing system. This is accomplished by requesting a \$0 invoice be processed by the program coordinator (PC).
- The US or assigned UA may draft an agreement release letter in the Kentucky Utility and Rail Tracking System (**KURTS**) to the utility company stating:
 - ◆ The utility company authorization issued for the agreement is satisfied
 - ◆ The work as performed is formally accepted and compensated per Kentucky statute and as agreed
 - ◆ The terms and conditions remain for the agreement, but the agreement is now closed
 - ◆ No additional costs shall be brought to the Cabinet in association with the agreement
 - ◆ The files associated with the work shall be retained as specified in the agreement terms
- The AC and US shall confirm the agreement’s closure via KURTS’ project closeout page.
- The US or assigned UA shall inform the district Traffic Engineering and Permits Section and project engineer (PE) as necessary.


**BETTERMENT COSTS
COMPENSABLE TO
THE CABINET**

When a utility has work incorporated onto the road project’s bid package which involves betterment work, the utility company owner shall likely be obligated under agreement to reimburse the Cabinet. This reimbursement will be for the Cabinet contractor supplied betterment facilities.

The means by which the Cabinet receives reimbursement for betterment costs from the utility company are defined in **UR-1802-3**, “Utility Company Closeouts: Recovering Receivables.”

Prior to closing out an agreement, these repayments must be recorded in KURTS as defined previously.



	<p><i>Section</i></p> <p>UTILITY COMPANY CLOSEOUTS</p>
	<p><i>Subject</i></p> <p>60-Day Notice of Closure</p>

**FORCING AGREEMENT
CLOSURE**

The Transportation Cabinet (Cabinet) typically does not close a utility relocation agreement without the completion of final invoicing. However, waiting for submission of a final invoice may keep funding tied up for an unacceptable duration if the utility company fails to perform as requested. If no final bill has been submitted within one year of completion of the utility relocation work covered in the agreement, the Cabinet may close out the contract.


A 60-day project closeout letter may be sent to the utility company if the following conditions are met:

- The utility company relocation work has been complete for over one year.
- The utility company relocation work has been compensated based on the invoicing received.
- All requirements for agreement closure have been satisfied, with the exception of a final invoice.

If the conditions are met, the utility supervisor (US) may send such a letter. This letter is available as a template in the Kentucky Utility and Rail Tracking System (**KURTS**) project closeout page. It can be generated and submitted to the utility company electronically.

If no final invoice is received within the timeframe specified in the letter, the agreement shall be closed as defined in **UR-1802-1**. Any invoicing received after the timeframe specified must be returned to the utility company. As indicated in the letter, the utility company may petition the General Assembly for payment.



	Section UTILITY COMPANY CLOSEOUTS
	Subject Recovering Receivables

GENERAL

There are two primary scenarios where the Transportation Cabinet (Cabinet) may be owed funds from a utility or rail company and the recovery of these costs shall take place prior to project closeout:

➤ **Betterment costs**

In cases where utility relocation or rail work is performed by the road contractor and is incorporated into the highway contract, the Cabinet may have allowed new facility installation or another form of betterment to occur. These costs are compensable to the Cabinet and shall be recovered from the utility or rail company.

➤ **Overcharges during billing**

Many utility or rail agreements include multiple billings over the lifetime of the coordination effort. Though overcharging the Cabinet for services or materials should not take place, there may be occasions when this occurs.

If an invoice is required for either of the above, the Division of Accounts is solely responsible for invoicing to ensure accurate reporting in the Cabinet's fiscal management system.

The Division of Account's collection process is dependent upon a cooperative effort of cost data collection and analysis of the following groups:

- District Office Utilities Section
- District Office Project Delivery & Preservation Branch
- Utilities and Rail Branch

BETTERMENT COSTS

There are two instances when invoicing for betterment may be required.

- If an agreement between the Cabinet and a utility or rail company includes both betterment and reimbursable work, and the reimbursable costs to the company less any betterment costs results in a net amount due the Cabinet, an invoice to the company shall be required to recover said costs.

**BETTERMENT COSTS
(CONT.)**

Note: Invoices for a net reimbursable amount are only allowable when both the betterment work performed by the road contractor and reimbursable work completed by a utility or rail company are payable under the same funding source and program number.

- If pure betterment on behalf of a utility or rail company is included in a road contract (federal or state programs), either before or after a letting, an invoice to the company shall be required to recover actual costs as reimbursement for work performed by the Cabinet's road contractor.

In both cases, the area utilities coordinator (AC) shall inform the Program Billing Branch Manager (PBBM) within the Division of Accounts. The Program Billing Branch shall configure the affected fiscal management program account for the betterment and provide the AC with the fund, function, and program code. The AC shall forward this information to the district utilities supervisor (US).

If the betterment (nonreimbursable) costs are larger than the relocation (reimbursable) costs, the US or assigned utility agent (UA) shall complete the following actions:

- Acquire the current or final pay quantities from the district construction engineer or office
- Review the unit costs associated with the utility work
- Calculate the net amount due the Cabinet for services performed to date
- Apply any unit costs negotiated prior to contract
- Submit a request for invoice as detailed in "Invoicing Procedures" below

**OVERCHARGES FROM
PREVIOUS BILLINGS**

If overcharges by a utility or rail company occur, the overcharge amount shall be addressed prior to the next payment due the company for reimbursable costs.

If an overcharge is recognized after final payment has been made to the company, the Cabinet shall recover these costs by following the invoicing procedures detailed below.

INVOICING**PROCEDURES**

When an invoice is required for reimbursement of costs to the Cabinet by a utility or rail company, the US and AC shall obtain the following project-specific information:

- An email or other form of notification specifying the need for establishment of betterment or overcharge costs due from the company
- A complete funding strip for proper invoicing and crediting of received payments
- A billing address for the utility or rail company being invoiced
- A contact name for the utility or rail company representative handling the project billings
- A contact phone number for that utility or rail company representative
- A Federal ID number for the utility or rail company
- A detailed description of the reimbursable services provided and all supporting documentation to be included with the invoice that clearly delineates between reimbursable costs and betterment
- The name and phone number of the AC or US to be listed on the invoice

Note: The AC may request a reimbursement invoice be sent on an interim basis if the project exceeds one fiscal year with no immediate end.

This shall include an estimate of the reimbursement amount, reconciling the construction line items and quantities, and provide this amount in the request to the PBBM. This reconciliation should involve actual items, quantities, and communication with the construction engineer or project manager.

Note: For ease of reconciliation, it is important to set up bid packages with separate line items for in-kind versus betterment costs.

The PBBM will validate the request and present the request to the AC and district utility supervisor (US) by submitting the documentation in [KURTS](#). The PBBM will upload the repayment request in KURTS as a miscellaneous document with a detailed description and indicate that it is to be approved.


INVOICING**PROCEDURES (CONT.)**

The AC and US will utilize the KURTS workflow approval process to review and approve the repayment request. These reviews and approvals will be executed on the project's coordination page in KURTS. Upon receipt of the required approvals, the PBBM shall invoice and collect the reimbursable betterment charges or billing overcharges from the company.

Upon repayment of the funds to the Division of Accounts, the Division of Accounts will load the repayment in KURTS for record keeping. The Division of Accounts will upload the repayment in KURTS as a miscellaneous document, with a detailed description and indicate that it is NOT to be approved. The repayment will be viewable on the project's coordination page in KURTS. This is the Division of Account's notification of the payment receipt for the AC and the US to initiate closure of the agreement.

Note: Prior to closing out an agreement, the US and AC shall ensure that any repayments are recorded in KURTS, as defined previously.



	Section UTILITY COMPANY CLOSEOUTS
	Subject No Charge Authorizations

GENERAL Utility company closeouts often involve the completion of noncompensable utility relocations. Such closures may be called *no charge closeouts* due to the involvement of nonreimbursable work with an individual utility company.


PROCEDURE FOR

NO CHARGE CLOSEOUT Such a closure shall be completed when a utility company's construction, relocation, and adjustments, which are not compensable and are covered by an authorization and not an agreement, have been completed and accepted.

The procedure to perform a no charge closeout primarily involves the district office staff. The utility supervisor (US) and utility agent (UA) must agree that the conflict potential with the highway project is abated. If agreed, they are ready to formally accept all work of the utility company. The procedure to perform a no charge closeout is detailed below:

- The US or assigned UA documents concurrence as defined above.
- The US or assigned UA or district permits engineer may generate a no charge release letter in the Kentucky Utility and Rail Tracking System ([KURTS](#)) to the utility company stating:
 - ◆ The utility company authorized work issued for the agreement is satisfied.
 - ◆ The work as performed is formally accepted per [Kentucky statute](#) and as authorized.
 - ◆ The files associated with the work shall be retained for a minimum of three years.
- The US or assigned UA shall inform the district Traffic Engineering and Permits Section and project engineer (PE) as necessary.



	<p><i>Section</i></p> <p>PROJECT CLOSEOUTS</p>
	<p><i>Subject</i></p> <p>Project Completion</p>

GENERAL

Project closeouts occur after the completion of all compensable and noncompensable utility relocations. All agreement closeouts ([UR-1802-1](#)) and no charge closeouts ([UR-1802-4](#)) must have taken place. Further, rails coordination must also be complete in cases where railroad coordination was required and that work was contracted under utility phase funding.

**PROCEDURE FOR
PROJECT CLOSEOUT**

The procedure to perform a project closeout involves both the district and Central Office staff. The utility supervisor (US), utility agent (UA), area coordinator (AC), and Utilities and Rail Branch Manager (UBM) must agree that the project is ready for closure. This concurrence may require verification that:

- All construction, relocation, and adjustments are complete
- All final invoicing has been processed and compensated or the utility relocation work on a contract has been completed for the period of one year and the utility company has failed to bill for work done
- Any funds owed the Transportation Cabinet (Cabinet) have been paid by the utility company
- All necessary as-built plans have been acquired and are satisfactory
- Any auditing needs prior to closure were requested and completed

Note: If the project involves rail coordination, the rail coordinator (RC) shall be involved in each step throughout the project closeout procedure, as is the US or UA.


**PROCEDURE FOR
PROJECT CLOSEOUT
(CONT.)**

If the above terms are satisfied, the Cabinet is ready to formally close the utilities phase of the project, release the funds, and archive the project files. The following details the procedure to perform a project closeout:

- All agreements must be closed out in the Kentucky Utility and Rail Tracking System ([KURTS](#)) project closeout page.
- Any audit requests shall be requested and resolved.
- All approvers defined above shall document their concurrence to close the project on the KURTS project closeout page.
- KURTS is utilized by the DUS, AC, and UBM for utility project closeout. (Approvals by all three parties must take place before KURTS closes the utility phase of the roadway project.)
- The project is closed and KURTS sends an email to the Division of Accounts requesting funds closure and release.

Note: The auditing process is independent of the project closure and is detailed in [UR-1803-2](#).



	<i>Section</i> PROJECT CLOSEOUTS
	<i>Subject</i> Audits

DEFINING POLICY

There are three primary auditing functions involving utility and rail processes:

- External Audit
- Internal Audit
- Auditor of Public Accounts

The Transportation Cabinet's (Cabinet) Office of Audits performs audits and attestations of Cabinet agreements with external entities and the Cabinet's internal processes. The External Audit Branch (EAB) and Internal Audit Branch perform such audits and attestations.

The Auditor of Public Accounts (APA) is external to the Cabinet and performs the Comprehensive Annual Financial Report audit and the Statewide Single Audit of Kentucky.

**EXTERNAL AUDIT
BRANCH (EAB)**

The EAB performs audits of utility and railroad companies in accordance with [Generally Accepted Government Auditing Standards \(GAGAS\)](#).

The utility supervisor (US), utility agent (UA), or area coordinator (AC) may request an invoice, estimate, or agreement be audited by the EAB before payment, execution, or acceptance. Such requests may be made if any of the following conditions are true:

- The terms in the document are suspect, inconclusive, incomplete, or erroneous.
- There have been many efforts to remedy such suspicions, in writing.
- No resolution has been reached with the utility company.

**EXTERNAL AUDIT
BRANCH (EAB)
(CONT.)**

Audit requests may be made in writing by the AC or US to the EAB via the Kentucky Utility and Rail Tracking System (**KURTS**) project closeout page. The AC and US will assist the EAB with review and coordination as needed. The auditing staff must be informed clearly what the utility staff concerns are and how their assistance may remedy those concerns.

If the utility staff does not request an audit, final invoices may be processed. After the project is closed, the project or the utility company agreement may be selected for audit. A sample audit of Utilities and Rail Branch final payments may be conducted periodically by the EAB. In these audits, the branch shall provide project files to the EAB and respond to all questions. A report will follow the audit, which is submitted to the Utilities and Rail Branch Manager (UBM). The UBM shall provide any items of note to the affected ACs and Utilities Sections. The EAB shall directly address any findings with the utility companies involved.

**INTERNAL AUDIT
BRANCH (IAB)**

The Internal Audit Branch (IAB) conducts audits of Cabinet processes. Regarding the utilities and rails functions, the IAB periodically performs the following actions:

- Evaluates the utilities and rails structure
- Reviews and ensures compliance with written policies and procedures
- Reviews and ensures compliance with laws and regulations
- Confirms that work is consistent with goals and objectives

**AUDITOR OF PUBLIC
ACCOUNTS (APA)**

The APA primarily performs two engagements with the Cabinet:


- Comprehensive Annual Financial Report (CAFR)
- Single Statewide Audit of Kentucky (SSWAK)

The CAFR audit, normally conducted between July and December, primarily looks at internal controls over expenditures (adequate approvals, timely payment, etc.). The SSWAK, normally conducted between January and March, focuses on reviewing transactions to ensure payments were made in compliance with federal laws, regulations, and grant agreements.

**AUDITOR OF PUBLIC
ACCOUNTS (APA)
(CONT.)**

APA audits are very similar in nature to the work performed by the IAB and EAB, with the exception that any discovered deficiencies and any recommendations for corrective action are reported to parties outside of the Cabinet, such as legislators and the media.



	<p><i>Chapter</i></p> <p>RECORDS & RETENTION</p>
	<p><i>Subject</i></p> <p>General</p>

DEFINING POLICY

The Transportation Cabinet (Cabinet) has policies established that define the duration of records retention. These files include all Utilities Section and Utilities and Rail Branch files for:

- Recommended highway plan road projects
- HSIP projects
- Maintenance projects
- [Section 130](#) road and rail safety projects
- Rails coordination projects

The State Archives and Records Commission, Public Records Division, and the [Kentucky Department for Libraries and Archives](#) are the governing authorities regarding records and retention policy. These authorities have formally named utilities and rails files “General Project Files” or “Individual Company Project Files” and have assigned them with official series numbers for storage and archiving purposes.

All records retained digitally via project archiving in the Kentucky Utility and Rail Tracking System ([KURTS](#)) shall adhere to or surpass all durations in the above authorities’ standards. Digital project files are the preferred means of archiving data, but paper archives may still be used as needed.

This chapter is dedicated to records retention and outlines steps to retain both digital and hard-copy files.

**UTILITY HARD COPY FILES
(SERIES 05810)**

All utility coordination hard-copy files are classified as Series 05810. These files include all documents, transactions, and activities associated with utility coordination and relocation projects, including all documents relating to agreements entered into by the Cabinet and utility companies.

**UTILITY HARD COPY FILES
(SERIES 05810) (CONT.)**

This series may contain:

- Official orders
- Project authorization
- Programming documents
- Project cost estimates
- No charge letters and permits
- Contract agreements between Cabinet and utility company
- Statement of charges
- Change orders
- Inspection reports
- Audit reports
- Plans
- Records of negotiation
- Related documents and related correspondence

A road project's Series 05810 (Utility Coordination) hard-copy files may be transferred to the State Records Center one year after payment of all final bills or closeout of all contracts and audit for an additional three years. Total retention is three years after project completion.

When the Utilities Section is not provided an off-site records center in which to archive hard-copy files, the Utilities Section may archive hard copies on site, adhering to the same durations.

**RAILS HARD COPY FILES
(SERIES 04077)**

The 04077 (Rail Coordination and 130 Program) series documents highway construction or reconstruction activities which encroach on rights of way owned by railway companies. These hard-copy files include official documentation of the contracts with railway companies to permit the construction of highway projects. In addition, the series documents railroad crossing safety projects undertaken to improve current safety measures.

**RAILS HARD COPY FILES
(SERIES 04077) (CONT.)**

This series may contain:

- Official orders
- Project authorization
- Programming documents
- Project cost estimates
- Contract agreements between Cabinet and railroad company
- Signal device agreements
- Statement of charges
- Change orders
- Inspection reports
- Audit reports
- Plans
- Records of negotiation
- Related documents and related correspondence


A project's Series 04077 (Rail Coordination and Section 130) hard-copy files shall be maintained for 3 years after final payment and audit in the appropriate files. Cabinet personnel shall transfer the files to the State Records Center where they will be held for an additional 17 years. Total retention is 20 years after project completion and audit.

When the Utilities Section is not provided an off-site records center in which to archive hard-copy files, the Utilities Section may archive hard copies on site, adhering to the same durations.

DIGITAL FILES

All utility and rail files housed in the Kentucky Utility and Rail Tracking System (KURTS) are maintained in digital format. These digital files include any of the documentation defined in the above two series and do not require transfer to the State Records Center. The Cabinet intends to house this digital file data indefinitely, but will conform minimally to the retention durations defined above.



	Chapter RECORDS & RETENTION
	Subject Archiving Process

**ARCHIVING HARD-COPY
RECORDS IN
CENTRAL OFFICE**

The area coordinator (AC) gives closed-out, hard-copy project files to the program coordinator (PC), who adds them to the list of projects to be archived before filing them in the library. Usually, state-funded projects are closed without a notice from the Division of Accounts and can be added to the list as the AC indicates they are to be closed. The Division of Accounts sends a list via email showing the federally funded projects that are closed. The PC adds these records to the list of closed projects.

The following process is only for closed projects that have been determined by the AC and closed by the PC, determined by the Division of Accounts, or processed and closed by the district offices. The AC may receive the information from his or her districts upon closure of projects.

- The PC shall maintain the ongoing list until enough boxes accumulate to send to the State Archives (at least 2 or more).
- To send the files to the State Archives, the PC shall put them into the archive boxes alphabetically by county and then by item number sequence. The list of closed projects to be archived should correspond to this sequence.
- The PC shall number the boxes with 1, 2, 3, 4, etc., on the box in the upper right-hand corner.
- The PC shall contact the Transportation Cabinet (Cabinet) records officer in the Office of Legal Services and ask for an accession number. The PC shall prepare a PRD 70 form, *Records Transmittal to State Archives Center or State Records Center*, that includes:
 - ◆ Accession number
 - ◆ PC's name, location, and phone number
 - ◆ Transmittal number
- The PC shall prepare public records division labels with the required information and affix to each box.

ARCHIVING**HARD-COPY RECORDS****IN CENTRAL OFFICE****(CONT.)**

- The PC shall send the records transmittal form to the Cabinet records officer in the Office of Legal Services for approval and signature. The Cabinet records officer shall forward the PRD 70 form to the Kentucky Department of Libraries and Archives ([KDLA](#)).
- Archives personnel shall pick up the boxes and archive them. KDLA shall complete the PRD 70 form, showing the “Location in Center” and the location number of the archived boxes.
- KDLA shall return the PRD 70 form to the Cabinet records officer, who will send a copy to the PC.

Note: An administrative staff member may also perform these functions at both the branch and sections.

RESTRICTED-ACCESS**HARD-COPY FILES**

Any restricted-access requirements shall be clearly marked on the transmittal form along with the appropriate citing of [Kentucky Revised Statutes](#), [Kentucky Administrative Regulations](#), or [Federal Code of Regulations](#).

DISTRICT OFFICE**HARD COPY ARCHIVING**


The Utilities Section should follow similar archiving procedures, but KDLA is not a likely repository for long-term archiving of district files. Therefore, the district office should archive as defined herein to the degree capable.

At a minimum, records shall be maintained as directed in the *Records Retention Schedule*. District personnel may contact the Central Office Utilities and Rail Branch program coordinator for assistance with long-term archiving through [KDLA](#).

ARCHIVING**DIGITAL RECORDS**

The process by which digital files are archived is defined in [UR-1803-1](#), “Project Closeouts: Project Completion.” It involves the area coordinator (AC), utility supervisor (US), and Utilities and Rail Branch Manager (UBM) approving the closure and archive of the project and subsequently its digital files. Once the project is closed, it is no longer immediately available in the Kentucky Utility and Rail Tracking System ([KURTS](#)) active project list. However, it can be found via an inactive project search. When accessed, the data and documentation is accessible but not editable.



	<p><i>Chapter</i></p> <p>RECORDS & RETENTION</p>
	<p><i>Subject</i></p> <p>Retrieving & Destroying Archives</p>

**RETRIEVING
HARD-COPY ARCHIVES
FROM KDLA**

If an archived file is needed, the program coordinator (PC) shall contact the Kentucky Department for Libraries and Archives ([KDLA](#)) and provide a completed records request form. The archive box's assigned location number must be provided. KDLA personnel shall send the file to the requester and return the file to archives once the requester is finished with it.

**DESTROYING
HARD-COPY ARCHIVES**

The day, month, and year the records are due to be destroyed is the destruction date. To compute the destruction date, use the retention period from the approved retention schedule for the series being transferred and apply it to the latest date of the records in the shipment.

For example, if the retention of the record being transferred is five years and the latest date of the records is 1994, the destruction date would be January 1, 2000.

The program coordinator (PC) shall maintain a record of all transfers, archives, retrievals, and destruction of files.


**RETRIEVING
DIGITAL FILE ARCHIVES**

Digital files archived in the Kentucky Utility and Rail Tracking System ([KURTS](#)) are accessible by searching for inactive projects. Once the project is located and opened, all data and documentation is immediately accessible but not editable.

**DESTROYING
DIGITAL FILE ARCHIVES**

Digital files archived in the Kentucky Utility and Rail Tracking System ([KURTS](#)) are to be retained indefinitely.



	Chapter RAIL COORDINATION PROGRAM
	Subject General

OVERVIEW

Any time a highway project has the potential to impact a railroad, coordination between the Transportation Cabinet (Cabinet) and the railroad company is required. This includes projects that are at-grade, over, or under railroad right of way and, possibly, adjacent to it.

While rail coordination may not be necessary on every highway project, it is an integral factor in the project development process when a railroad is present. Therefore, it is vital that a line of communication be established early between design and maintenance personnel and the rails coordinator (RC) and that this communication is maintained throughout the development process for project plans, as well as the construction process.

PURPOSE

The purpose of the Cabinet's railroad coordination program is to negotiate coordination efforts with railroad companies directly affected by a Cabinet highway construction project. When a highway project adjoins or encompasses a railroad facility (such as a railroad track or railroad right of way), that facility owner becomes an active partner in the project's development.

The Cabinet is obligated to do the following:

- Negotiate the terms of the project's design as it impacts the owner
- Compensate the owner for their involvement in the project as a whole

LAWS, REGULATIONS, & RESOURCES

[Federal Highway Administration \(FHWA\)](#) regulations, policies, and practices dealing with railroad companies are defined in [23 CFR 646](#).

- Subpart A of part 646 addresses the need and applicability of railroad-highway insurance protection.
- Subpart B of part 646 addresses issues related to railroad-highway projects.

**LAWS, REGULATIONS,
& RESOURCES (CONT.)**

There are federal guidelines that may be valuable to the Cabinet's rail coordination program execution, including:

- [23 CFR 140.807](#), which addresses reimbursement for railroad work
- *Railroad-Highway Grade Crossing Handbook* (most recent version)
- *Manual on Uniform Traffic Control Devices* (MUTCD)

The Kentucky Revised Statutes (KRS) cited below are the primary state laws governing the Cabinet's railroad coordination and safety efforts. They are briefly listed here but more fully described in [UR-204](#).

- [KRS 177.110—177.210](#) gives the Cabinet the right to facilitate the elimination of grade crossings of highways and railroads, or facilitate the modification of existing grade separation structures.
- [KRS 277.065](#) defines the allocation of costs of eliminating hazards of crossings between railroads and highways.
- [KRS 277.190](#) establishes the requirements of bells and whistles on trains and the proper usage of such appurtenances.

**PROGRAM
IMPLEMENTATION**

The rail coordination program is overseen by the RC in the Division of Right of Way and Utilities. Duties associated with the role of RC are defined in [UR-302-4](#).

For effective program execution, the RC shall perform these duties:


- Act as liaison between the Cabinet and the various railroad companies
- Provide information about future transportation projects to the railroad companies as part of their long-term and short-term planning ([UR-2002](#))
- Prepare and execute term agreements with railroad companies in Kentucky ([UR-2003-1](#))
- Prepare and execute individual project agreements with railroad companies in Kentucky ([UR-2003-3](#))
- Negotiate rehabilitations to crossings identified as in need of repair ([UR-2008](#))

PROJECT**IMPLEMENTATION**

For effective execution of projects requiring rail coordination, the RC shall perform the following actions:

- Notify the railroad about identified projects (**UR-2002**)
- Provide early and proactive communication in the project's development, encouraging avoidance of rail facilities (**UR-2004**)
- Work to provide the design team information and feedback from the railroad when avoidance of rail facilities is not feasible (**UR-2004**)
- Negotiate details to meet both parties' design requirements (**UR-2003** and **UR 2004**)
- Execute a project-specific addendum to the term agreement (or individual project agreement) that addresses each party's roles, responsibilities, and compensation (**UR-2003** and **UR 2004**)
- Establish appropriate accounting procedures (**UR-2007**)
- Document pertinent decisions and developed documentation in the Cabinet's management system, the Kentucky Utility and Rail Tracking System (**KURTS**)
- Assist as needed during construction to encourage an efficient, safe, and economic project (**UR-2006**)



	<p><i>Chapter</i></p> <p>RAIL COORDINATION PROGRAM</p>
	<p><i>Subject</i></p> <p>Planning</p>

PROJECT TRACKING

The rail coordinator (RC) shall maintain a constant awareness of the status of each of the projects currently being carried in the enacted Biennial Highway Construction Plan utilizing the Cabinet’s database. This database tracks three key pieces of information for Biennial Highway Construction Plan projects, which the RC needs:

- Project item number
- Project letting date
- The title “RAILROAD INVOLVEMENT” for those projects where railroad involvement is expected

Each month, the RC shall run a report from this database and review the status of each project that is scheduled to be let within the following 12 months. This is done to track all projects identified as involving a railroad.

The RC shall consistently monitor the Kentucky Utility and Rail Tracking System ([KURTS](#)) to identify new projects involving railroads and review the status of each project that has already been identified.

From a railroad coordination standpoint, the RC shall monitor outstanding projects that have unresolved issues, such as special notes, legal documents, design terms, negotiations, etc.

PLANNING FUTURE INVOLVEMENT


The RC shall regularly provide updates to Kentucky’s railroad companies, informing them about future transportation projects. It is recommended that the tracking document identified above be provided to the railroad companies. At a minimum, this shall be completed annually. This effort is to assist the railroad companies in their long-term and short-term planning.

PROJECT

PREPARATIONS

When a new project is identified that requires rail coordination, the preliminary plans development phase begins, as detailed in [UR-2004-1](#).



	<p><i>Section</i></p> <p>AGREEMENT PROCESS</p>
	<p><i>Subject</i></p> <p>Term Agreement</p>

OVERVIEW

The Utilities and Rail Branch employs term agreements with most of the railroad companies in Kentucky to facilitate railroad coordination on highway projects. Instead of executing an agreement for each project, the Transportation Cabinet (Cabinet) employs one term agreement with each of the major railroads. The purpose of the term agreement is to minimize the time required to negotiate and formally agree to terms between the Cabinet and the railroad company for highway project execution.

The term agreement procedure includes several documents of interest, such as the following:

- Rail Coordination Term Agreement
- Rail Coordination Project Agreement Addendum
- Special Notes for Protection of Railroad Interests
- CSX Construction Submission Criteria (only for CSX projects)

Note: The Kentucky Utilities and Rail Tracking System ([KURTS](#)) houses the standard templates for some of the above documents, which can be electronically generated.

CONTENT OF AGREEMENT

The term agreement contains all of the static details of rail coordination agreements and does not change from project to project. This includes the various responsibilities of both the Cabinet and railroad company.

TERM OF AGREEMENT

The duration of the term is 10 years, after which the agreement may be renewed. If the terms are still agreeable to both parties, the same language shall be used. If changes are to be made, the document shall be modified and then executed.

EXECUTION OF**TERM AGREEMENT**


When a term agreement needs to be executed, whether for new or renewed agreements, the rail coordinator (RC) shall draft the document. A term agreement should only be executed if one of the following is true:

- Highway projects frequently impact a rail company
- The term agreement is at the end of the term and must be renewed
- There has been a change in the terms that cannot be rectified with an addendum or modification

To execute a term agreement, the RC shall draft the document. The Cabinet's Office of Legal Services shall review and approve the document. A copy of the drafted document shall be transmitted to the respective rail company for their review. The rail company shall make comments, and the RC shall address the comments as necessary. Once the document is agreeable to both parties, the agreement is signed, executed, and put into use.

The formal execution of a term agreement is similar to the execution of the utility agreement as identified in [UR-1103-3](#). The RC shall perform all duties of the area coordinator (AC) as identified in [UR-1103-3](#) and shall execute the term agreement within the fiscal management process following the procedures detailed in the *Utility and Rail Program Coordinator Manual*.



	Section AGREEMENT PROCESS
	Subject Agreement Addendum

OVERVIEW

The rail coordination project addendum contains all of the project-specific information for a highway project. This includes the highway and railroad location information and estimate of compensation due to the railroad. An addendum is executed for each project that requires rail coordination and can be generated by Cabinet or railroad staff via the Kentucky Utilities and Rail Tracking System ([KURTS](#)).

ADDENDUM**PURPOSE**

The purpose of the addendum is to include all of the project-specific details since the term agreement includes only static details. It includes information such as the following:

- Highway project description
- Statement of needs relative to rail coordination
- Estimated cost of railroad services towards project execution
- Description of how coordination work is to be performed
- Identified benefits to the rail company

When a highway project with rail involvement is identified and sufficient plans are available, the rail coordinator (RC) shall submit to the potentially impacted railroad company a package that includes the following items:

- Letter submitting plans to the potentially affected railroad
- Rail coordination project addendum showing project information only
- Preliminary TC 69-11 form, *Summary for KYTC Projects That Involve a Railroad* (Project Summary Sheet)
- Preliminary highway project plans

Note: The Kentucky Utilities and Rail Tracking System (KURTS) houses the standard templates for some of the above documents, which can be electronically generated.

ADDENDUM**PURPOSE (CONT.)**

The letter described above authorizes the railroad company to incur preliminary engineering costs for the project. It acts as the project authorization letter described in [UR-700](#). Therefore, appropriate funding must be available before the issuance of the letter.

Note: This document may be generated, sent, and collected via KURTS.

ADDENDUM**NEGOTIATION**

Once the rail company has a copy of the drafted rail coordination project addendum, they shall routinely start their preliminary engineering work by reviewing the plans and details of the addendum. The rail company may make comments on the plans and details, which shall be addressed to the RC. The RC shall communicate all railroad company comments to the highway project design team, particularly the project engineer (PE).

The railroad company shall give the RC a cost estimate for providing highway project coordination, such as preliminary engineering, final engineering, administration, construction management, flagging, etc. The terms of this estimate shall be dutifully reviewed by the RC as the area coordinator (AC) may do on a utility estimate, as detailed in [UR-1003](#).

ADDENDUM**PREPARATION**

Once both the Transportation Cabinet (Cabinet) and the rail company are satisfied with and agree to the addendum, the rail company may complete the rail coordination project addendum and send it to the RC. This process may shorten the duration to execution. However, it is at the discretion of the RC to resubmit a revised rail coordination project addendum to the railroad company, accompanied by a submittal letter.

The signed addendum will be "Exhibit A" to the term agreement as it pertains to the highway project of interest. The "Special Notes for Protection of Railroad Interests" will become "Exhibit B."

Copies of the rail coordination estimate and all pertinent project plan sheets shall be attached to the addendum for execution.

ADDENDUM**EXECUTION**

Upon receipt of a signed addendum from the railroad company, Cabinet approval signatures include the Director of the Division of Right of Way and Utilities, Utilities and Rail branch manager (UBM), and a representative from the Office of Legal Services.


ADDENDUM**EXECUTION (CONT.)**

The formal execution of a rail coordination project addendum is somewhat similar to the execution of the utility agreement and utility agreement change order as identified in [UR-1103-3](#) and [UR-1504](#). The RC shall perform all duties of the AC and shall execute the addendum within the fiscal management process following the procedures detailed in the *Utility and Rail Program Coordinator Manual*.

The executed addendum constitutes a formal agreement between the Cabinet and the railroad company. It shall be distributed to the railroad company with an approval letter and a copy sent to the district office with an approval memorandum in a manner similar to that of a utility agreement as defined in [UR-1103-3](#).

Note: These documents may be generated, sent, and collected via KURTS.



	Section AGREEMENT PROCESS
	Subject Individual Project Agreement

OVERVIEW Occasionally, there are highway projects that impact railroads wherein the Cabinet does not have a term agreement. In this case, an individual project rail coordination agreement (IPA) needs to be executed. It should include the same general terms and language as the term agreements, but it only addresses a single project.

CONTENT OF AGREEMENT The IPA covers all details of the project, including the project specifics. The IPA shall include compensation and the roles and responsibilities of both the Cabinet and railroad company. It contains sections on the following topics:

- Agreement premises
- Scope of agreement
- Responsibilities of the rail company
- Responsibilities of the Cabinet
- Additional requirements
- Project information sheet
- Special notes for protection of railroad interest

NEGOTIATION OF IPA An IPA always requires a full negotiation effort from the rails coordinator (RC). When a highway project arises and potentially impacts a railroad that the Cabinet does not have a term agreement with, the RC shall submit to the potentially affected railroad company a package that includes the following items:

- Letter submitting plans to the potentially affected railroad
- Preliminary TC 69-11 form, *Summary for KYTC Projects That Involve a Railroad*

**NEGOTIATION
OF IPA (CONT.)**

- Preliminary road project plans
- Special Notes of the Protection of Railroad Interest

Note: The Kentucky Utilities and Rail Tracking System (**KURTS**) houses the standard templates for some of the above documents, which can be electronically generated.

The letter described above authorizes the railroad company to incur preliminary engineering costs for the project. It acts as the project authorization letter described in **UR-700**. Therefore, appropriate funding must be available before the issuance of the letter.

Once the railroad company has this package, they shall routinely start their preliminary engineering work by reviewing the plans and details of the IPA. The rail company may make comments on the plans, special notes, and details, which will be addressed to the RC. The RC shall communicate all railroad company comments to the highway project design team, particularly the project engineer (PE).

The railroad company shall provide the RC a cost estimate for providing highway project coordination, such as preliminary engineering, final engineering, administration, construction management, flagging, etc. The railroad company shall also complete the TC 69-11 form, *Summary for KYTC Projects That Involve a Railroad*.

The railroad company shall submit the following to the RC:

- Estimate for railroad coordination services
- TC 69-11 form, *Summary for KYTC Projects That Involve a Railroad*
- Comments on the *Special Notes for Protection of Railroad Interest*
- Design comments on road project plan

The RC shall use this information to consider, negotiate, and draft the IPA. This package shall be dutifully reviewed by the RC, including the terms of the estimate as the area coordinator (AC) may do for a utility estimate, as detailed in **UR-1003**.


**EXECUTION
OF IPA**

Once both the Cabinet and the rail company are satisfied with and agree to the plans and estimate package, the RC shall draft and submit an IPA and submission letter to the railroad company for signature and execution. KURTS houses standard templates for all agreement types, each of which can be electronically generated, sent, and recorded. KURTS users are recommended to use these templates to be certain of using the most up-to-date version.

Upon receipt of a signed IPA from the railroad company, Cabinet approval signatures include the Director of the Division of Right of Way and Utilities, Utilities and Rail Branch Manager (UBM), and the Office of Legal Services.

The formal execution of an IPA is quite similar to the execution of the utility agreement and as identified in [UR-1103-3](#). The RC shall perform all duties of the AC. It shall be distributed to the railroad company with an approval letter and a copy sent to the district office with an approval memorandum. These documents may be generated using templates housed in KURTS.



	Section PLANS DEVELOPMENT
	Subject Preliminary Plans Development

OVERVIEW A highway project typically begins at the planning level. Determination of the need for a new or reconstructed highway is based upon information provided by other Transportation Cabinet (Cabinet) departments and agencies and outside sources, such as Central Office divisions, district personnel, locally- and state-elected officials, traveling public, school districts, and economic development entities.

PREDESIGN MEETING Once it has been determined that a project is necessary and viable, the project development process begins. The designers develop manuscripts or plans sufficiently to warrant a predesign meeting. It is vital that the rail coordinator (RC) be notified of any predesign meeting. This first contact provides notice to the RC that a conceptual project is being advanced to the preliminary design phase. Notification at this stage allows ample opportunity for provision of reasonable and valuable railroad information to the designers.

ESTABLISHING PROJECT FILES Documentation relative to the decision-making process, pertaining to the project, shall be gathered. The RC shall then create a project file that contains the following:

- County name
- Federal project number (if applicable)
- State project number
- Road name and number
- Descriptive details relative to the physical location
- Railroad company name
- DOT Number of the crossing
- Item number

ESTABLISHING

PROJECT FILES (CONT.) The project folder shall assist preparations for the preliminary line and grade inspection.

The project should also be initialized in **KURTS** to include the railroad company.

**PRELIMINARY LINE &
GRADE INSPECTION**

A representative for rails coordination should attend the preliminary line and grade inspection meeting whenever possible. This representative is typically the RC, if available, or a utility section representative, depending upon RC availability and project complexity.


This initial field assessment of the project location allows for a comprehensive review of the work involved and of the physical and geographical nature of the location. The manner in which the railroad will be affected by the project, both during and after construction, shall be assessed at this time. Railroad factors examined at this meeting include, but are not limited to, the following:

- Track signalization
- Communications services
- Track geometry
- Sight distance issues
- Drainage considerations (railroad property)

The rail coordination representative may also share the following details with designers:

- Railroad requirements
- Type and number of trains per day
- Train speeds
- Railroad company contact information



	<p><i>Section</i></p> <p>PLANS DEVELOPMENT</p>
	<p><i>Subject</i></p> <p>Final Plans Development</p>

**PLAN SUBMITTAL
TO RAILROAD
COMPANIES**

Once sufficient preliminary plans are available, the rail coordinator (RC) shall prepare and submit an appropriate number of copies (typically 3 sets) of roadway plans and structure plans, if applicable, to the affected railroad company for their use in preparing estimates of costs for work by their forces on behalf of the Transportation Cabinet (Cabinet). These plans are part of the rail coordination project addendum package defined in [UR-2003-2](#) or the individual project rail coordination agreement defined in [UR-2003-3](#).

The submission of the plan is the first official contact with the rail company, and the package authorizes the railroad company to incur costs for the project.

**RAILROAD COMPANY
COST ESTIMATE
DEVELOPMENT &
PROJECT REVISIONS**

The railroad company shall prepare cost estimates, provide any additional notes, plan changes, including comments to be incorporated into the project, and state exceptions to roadway plans over railroads or their right of way. The railroad company shall also complete the rest of the TC 69-11 form, *Summary for KYTC Projects That Involve a Railroad* with the railroad information. This information is typically submitted to the RC within 90 days, but in some instances it may take 6 months or more, based upon staff availability or design changes requested.

The RC shall maintain a line of communication with the railroad company to ensure the required rails information, agreement preparation, and agreement execution progresses in a timely manner to prevent delays in the project letting schedule.


FINAL PLAN

REVIEW

Construction plans, once received by the Division of Highway Design's Plan Processing Branch, shall be reviewed by the RC. This is to ensure that the railroad company's comments and requirements, not heretofore addressed, have become a part of the formal plans. Items may include, but are not limited to, the railroad detail sheet and the pavement elevation sheet at the railroad crossing.

It is important to confirm that necessary amendments required by the railroad company or the railroad's consultant have been addressed and incorporated into the project plans. This is the best way to avoid delays in both time and funding during the construction process.



	<p><i>Chapter</i></p> <p>RAIL COORDINATION PROGRAM</p>
	<p><i>Subject</i></p> <p>Road Project Bid Package</p>

OVERVIEW

Special notes or provisions that were made a part of the binding agreement between the Transportation Cabinet (Cabinet) and the railroad company shall be included in the project proposal for the bid letting.

Typically, the Division of Construction Procurement's Plans, Specifications, and Estimates Branch shall have the rail coordinator (RC) electronically submit via [KURTS](#) the following documents:

- *Special Notes for Protection of Railroad Interest*
- TC 69-11 form, *Summary for KYTC Projects That Involve a Railroad*

Note: The Kentucky Utilities and Rail Tracking System (KURTS) houses the standard templates for some of the above documents, which can be electronically generated.

CONTENTS


The *Special Notes for Protection of Railway Interest* is a standard document that is agreed upon by the Cabinet and each railroad company. As such, there is a separate document for each company that contains the company's specific requirements. This document is static and does not generally change from project to project. The only time the document should change is when there is a change in policy.

The TC 69-11 form contains all of the project-specific information. It is filled out by the RC and the railroad company for each project and is provided as part of the bid package.

This form includes the following:

- Flagging rates
- Insurance information
- Number and types of trains per day
- Train speed
- Contact information for the Cabinet and railroad company




	<p><i>Chapter</i></p> <p>RAIL COORDINATION PROGRAM</p>
	<p><i>Subject</i></p> <p>Construction & Inspection</p>

OVERVIEW The rails coordinator (RC) shall coordinate work by the railroad company once the construction of the project begins. Upon request, the district Utilities Section supervisor (US) may assist the RC regarding field issues that the RC cannot attend to due to distance from the project site.

FACILITATION OF CONSTRUCTION The RC shall provide railroad liaison services to the Division of Construction during the road construction. The RC shall be available to negotiate field issues, shop drawing submissions, etc. on behalf of the Transportation Cabinet. The RC shall request verification of work and costs when invoicing is questioned by the district office staff that requires project-specific knowledge.



	<p><i>Chapter</i></p> <p>RAIL COORDINATION PROGRAM</p>
	<p><i>Subject</i></p> <p>Fiscal Management</p>

OVERVIEW

The documentation, policy, and procedures for invoice processing and change order processing of rail coordination work is very similar to utility coordination, as detailed in [UR-1400](#) and [UR-1500](#). For invoicing, the primary variation is that the district utility supervisor (US) position approval identified in the chapters shall instead be the rail coordinator (RC), and the Chief District Engineer (CDE) position approval shall instead be the Utilities Branch Manager (UBM). For change orders, the CDE approval is not required. Further, there is no need for a recommendation letter from the CDE and US.

Generally, closeout procedures for rail coordination work are also quite similar to the processes defined in [UR-1800](#). Rail coordination work can be closed out using the same mechanisms listed in [UR-1802-1](#), "Utility Company Closeouts: Agreement," [UR-1803-1](#), "Project Closeouts: Project Completion," and [UR-1803-2](#), "Project Closeouts: Audits." Further, overdue final invoicing may be addressed following the procedures detailed in [UR-1802-2](#), "Utility Company Closeouts: 60-Day Notice of Closure."

INVOICING

At any time during the construction or relocation period, the railroad company may submit invoices for payment. Progress and final billings are checked for accuracy and reviewed by the RC. The RC ensures the invoice is sent to the Division of Accounts for payment processing. This procedure is similar to utility coordination final keep cost invoices as detailed in [UR-1400](#), "Invoicing."

INVOICING DISTRICT RESPONSIBILITIES

Invoices received for railroad work are reviewed, approved, and processed by the Central Office. The Central Office may request field support and review from the district office staff to validate that the work for which reimbursement is requested has been sufficiently executed.

INVOICING**CENTRAL OFFICE****RESPONSIBILITIES**

The RC shall perform all duties of the US as identified in **UR-1400**. The RC shall review the TC 69-8 form, *Utility/Rail Agreement Statement of Charges*, and all documents in the invoice package as indicated in **UR-1400**. The RC may enlist the guidance of the US, assigned UA, or section engineer as the subject matter experts on the project and railroad company work performed to date.

INVOICE AUDIT

After review of the invoice package for a final bill, the RC may determine that some questionable billing practices have taken place. In such instances, an audit may be necessary. The RC would then prepare an audit request memorandum as detailed in **UR-1405**.

FINAL INVOICING

Upon project completion, the railroad company may then submit a final invoice to the Central Office. Invoicing procedures for rail coordination work is very similar to utility coordination, which is generally defined in **UR-1400**.

Upon payment of a final invoice, the RC shall draft a memorandum to the Division of Accounts, with a copy to the US, requesting that the project be closed.

CHANGE ORDER**DISTRICT****RESPONSIBILITIES**

The US or assigned UA need not be involved in the review and approval of change orders involving rail coordination, though the RC may request guidance for district level questions. The CDE is not required to review or approve change orders involving rail coordination.

CHANGE ORDER**CENTRAL OFFICE****RESPONSIBILITIES**

The RC shall perform all duties of the US as identified in **UR-1500**.

CLOSEOUTS

Once a project is complete, it needs to be closed out. See **UR-1800**, "Closeouts" for details.


AUDITS

An audit is not required on all projects; however, random projects are selected by the audit staff to ensure that governmental accounting standards are being met.

AUDITS (CONT.) Any special requests for audits shall be sent to the External Audit Branch Manager as defined in **UR-1803-2**. These special audits should only be requested if warranted and in cases involving questionable charges with regard to labor rates, materials, etc.

RECORDS RETENTION File archiving and retrieval policies and procedures are detailed in **UR-1900**.



	<p><i>Chapter</i></p> <p>RAIL COORDINATION PROGRAM</p>
	<p><i>Subject</i></p> <p>Highway-Rail Crossing Rehabilitations</p>

OVERVIEW

Over time, just like any pavement, a highway-rail crossing will deteriorate and require rehabilitation work. A severely deteriorated crossing is a potentially hazardous nuisance to the public. It is the duty of the rail coordinator (RC) to coordinate the efforts between the Transportation Cabinet (Cabinet) and the rail companies to restore damaged crossings as safely and economically as possible.

IDENTIFICATION OF TROUBLE CROSSINGS

A crossing in need of rehabilitation may be identified by various parties. A complaint could be placed by a concerned citizen, the district office staff may request a rough crossing be repaired (see policy in *Maintenance Guidance Manual*, [MAIN-402](#)), Central Office staff may identify one, or the railroad company may come forward with a crossing restoration project. When a crossing is identified as needing rehabilitation, the RC shall gather as much information about the crossing as possible, such as the following:

- Crossing identification number (DOT Number)
- Rail line and mile post
- Highway route and mile post
- GPS coordinates
- Current crossing material
- Documentation of the damaged crossing via photography and physical assessment in written form
- Identification of any nearby highway project or maintenance work

FUNDING

As partners with shared involvement and interest in the restoration, the Cabinet and the involved railroad company may enter into a cost-sharing agreement. The Cabinet may provide (or compensate for) the material outside the track itself, including the approaches.

The RC shall determine from where the funding to perform the work will come. The district may provide funding from maintenance or discretionary funds.

ROLE OF DISTRICT The district may work with the railroad company as defined in **MAIN-402**, or they may request that the RC develop a partnering agreement. Such requests shall be submitted in writing (email requests shall be acceptable). If the district initiates the work or provides Cabinet funding for the improvement with the execution via partnering agreement, the district shall be consulted regarding the crossing material and means of rehabilitation.

Crossing panels may be fabricated from the following materials:

- Concrete
- Composite
- Rubber
- Asphalt with rubber or timber flange

The district may also determine if an underlayment shall be installed. The district may seek the recommendation of the RC regarding these design decisions. The district should utilize district maintenance crews for any necessary approach work. The work can also be performed by contractor or contracted to railroad crews; however, this is not recommended.


**NEGOTIATIONS WITH
RAIL COMPANY**

After the funding and material details have been worked out, the RC shall contact the railroad company to solicit their participation in the rehabilitation. This entails an email sent to the respective railroad contact stating the intentions of the project and all details about the crossing, such as an exact location, crossing material preference, and a time frame. Typically the railroad company shall provide the labor needed to install the crossing material, material needed between the cross ties, and all associated flagging and other services.

Note: The railroad company is responsible for rehabilitation costs between the ties, as indicated in **MAIN-402**.

AGREEMENT PROCESS Once scope and cost of the crossing rehabilitation have been agreed to by both the Cabinet and the railroad company, an agreement shall be executed defining costs, roles, and responsibilities of each party. The process for executing agreements can be found in [UR-2003-2](#) and [UR-2003-3](#).



	<p><i>Chapter</i></p> <p>RAILWAY-HIGHWAYS CROSSING PROGRAM (SECTION 130 PROGRAM)</p>
	<p><i>Subject</i></p> <p>General</p>

PURPOSE

The goal of the Railway-Highways Crossing Program is to reduce the number and severity of highway-rail accidents by eliminating hazards to vehicles and pedestrians at existing highway-rail crossings.

This mission statement is fulfilled through the following actions:

- Monitoring the needs by maintaining the Railway-Highways Crossing Program
- Delivering rail safety projects that fulfill the mission

**LAWS, REGULATIONS,
& RESOURCES**

In 1970, the federal government developed the [Federal Railroad Safety Act](#), which created nationally recognized safety regulations. Additional federal rail safety legislation was enacted in 1987 with the Surface Transportation and Uniform Relocation Assistance Act, which established Section 130 of Chapter 23 of the United States Code, giving the Federal-Aid Rail-Highway Grade Crossing Safety Program permanent status for the first time and in 2015 with the Fixing America's Surface Transportation (FAST) Act. This is the foundation of the Railway-Highways Crossing Program.

Title 23 United States Code, Section 130 ([23 USC 130](#)) defines the Federal-Aid Rail-Highway Grade Crossing Safety Program. The program focuses on the following tasks:

- Developing and maintaining an inventory of all public crossings
- Executing safety improvement projects at crossings with the most need

**LAWS, REGULATIONS,
& RESOURCES (CONT.)**

The Federal Railroad Administration ([FRA](#)) regulates alternative improvements for highway-rail crossings and maintains the National Highway-Rail Crossing Inventory database and guidelines for industry standards. The FRA database provides information on highway-rail grade crossings as well as characteristics of the crossing environment. From this information, physical and operational improvements can be made at crossings to enhance the safety and operation of both highway and rail traffic.

While 23 USC 130 addresses the Railway-Highways Crossing Program specifically, additional pertinent [FHWA](#) regulations, policies, and practices dealing with railroad-highway projects are generally included in Subpart B of [23 CFR 646](#).

There are federal guidelines for the Railway-Highways Crossing Program execution and project execution. Some of these resources are listed below:

- [23 CFR 924](#), which establishes the Highway Safety Improvement Program (HSIP) of which the Railway-Highways Program is a facet
- *Railroad-Highway Grade Crossing Handbook* (most recent version), available online at:

https://safety.fhwa.dot.gov/hsip/xings/com_roaduser/07010/sec_04c.cfm

- *Manual on Uniform Traffic Control Devices* (MUTCD), available online at:

<http://mutcd.fhwa.dot.gov/index.htm>

- Surface Transportation and Uniform Relocation Assistance Act of 1987
- Rail Safety Improvement Act of 2008

The Kentucky Revised Statutes (KRS) cited below are the primary state laws governing the Cabinet's railroad coordination and safety efforts.

- [KRS 177.110-177.210](#) gives the Cabinet the right to facilitate the elimination of grade crossings of highways and railroads, or facilitate the modification of existing grade separation structures.
- [KRS 277.065](#) defines the allocation of costs of eliminating hazards of crossings between railroads and highways.

**LAWS, REGULATIONS,
& RESOURCES (CONT.)**

- [KRS 277.190](#) establishes the requirements of bells and whistles on trains and the proper usage of such appurtenances.

UR-204 more fully describes the KRS laws governing the Cabinet's railroad coordination and safety efforts.

PROGRAM**IMPLEMENTATION**

The Railway-Highways Crossing Program is overseen by the rail safety coordinator (RSC) in the Division of Right of Way and Utilities. Duties associated with the role of RSC are defined in [UR-302-3](#).

For effective implementation, the Railway-Highways Crossing Program is composed of the following components:

- Maintaining inventory of Kentucky's crossings ([UR-2102-2](#))
- Recording accident data ([UR-2102-2](#))
- Completing crossing field inventories to gather new data ([UR-2102-3](#))
- Reporting to the FRA and other interested parties ([UR-2102-4](#))
- Identifying crossings in most need of improvement ([UR-2103-1](#))

PROJECT**IMPLEMENTATION**

Identified rail safety projects are also overseen by the RSC. The RSC shall recommend projects for execution based on the program assessment defined above.


For effective project execution, rail safety projects are composed of the following activities completed by the RSC:

- Recommending safety improvement projects ([UR-2103-1](#))
- Obtaining all necessary regulatory and funding approvals ([UR-2103-2](#))
- Preparing and executing agreements among parties ([UR-2103-4](#))
- Oversight of the project design ([UR-2103-3](#))
- Establishing appropriate accounting procedures ([UR-2103-6](#))
- Managing the project construction, thereby reducing hazard potential by eliminating at-grade crossings or installing or upgrading warning devices ([UR-2103-5](#))

**PROJECT
IMPLEMENTATION
(CONT.)**

- Ensuring the installed facilities are maintained and compensating maintenance needs ([UR-2104](#))



	<p><i>Section</i></p> <p>RAIL SAFETY PROGRAM</p>
	<p><i>Subject</i></p> <p>Funding</p>

FUNDING SOURCES

Funding for Railway-Highways Crossing Program improvements comes primarily from the annual apportionment as provided under the Fixing America’s Surface Transportation ([FAST](#)) Act. Other sources of funds for highway-rail grade crossing improvements may include other state agencies and the railroad industry.


Funding is primarily federal with a percentage of the participation by the railroad company. Federal funding includes the following:

- Federal funds authorized in title 23 United States Code ([23 USC 130](#)) and reauthorized in Fixing America’s Surface Transportation (FAST) Act
- Highway Safety Improvement Program (HSIP)

The designation of a safety set-aside in the Surface Transportation Program (STP) funding for each state for categorical safety programs, including the highway-rail grade crossing program, began in 1973 and shifted to the new Highway Safety Improvement Program (HSIP) in 2006. The HSIP has policy and procedures defined in [23 CFR 924](#). The Railway-Highways Crossing Program is an intrinsic aspect of HSIP.

Federal-aid highway funding can also be used. Up to 10 percent of the state’s apportionment of federal-aid highway funding can be designated as G funds, or 100-percent funding, for purposes such as upkeep of the National Highway System, Bridge Replacement, STP funding, and railroad safety projects. (See 23 USC 120.) Pursuant to Fixing America’s Surface Transportation (FAST) Act, annual federal appropriations make funds available for the Section 130 Program to reduce the number of fatalities and injuries at public highway-rail crossings through the elimination of hazards or the installation or upgrade of protective devices at crossings.



	Section RAIL SAFETY PROGRAM
	Subject Statewide Inventory

OVERVIEW

One of the primary functions of the Railway-Highways Crossing Program and the Rail Safety Program is to monitor and update information about all public highway-rail intersections (crossings) in the Commonwealth of Kentucky. This information is necessary to identify crossings that have the greatest need for safety improvements and to make available certain reliable information regarding the physical characteristics of highway-rail crossings.

The Utilities and Rail Branch rail safety coordinator (RSC) is charged with taking an inventory of all public at-grade highway-rail crossings in the state. This inventory is kept current by routinely making on-site inspections of each crossing. These efforts are supported by the Railroad Crossing Inventory (RCI) Database. An in-house application with restricted access, the RCI system maintains the inventory records for state highway-rail crossings. In accordance with [Federal Railroad Administration \(FRA\)](#) requirements, the Utilities and Rail Branch is expected to update each specific crossing's information every 3 years.

The Utilities and Rail Branch uses the information garnered from this RCI Database to evaluate the crossings in most need of repair or attention annually in the spring and recommend improvements. These decisions are driven by “hazard ranking calculations”—formulas recommended by the FRA for calculating those crossings most at risk for accident that can be made safer through upgrade or repair.

**RCI DATABASE:
COMPONENTS**

The RSC uses the RCI Database to record and maintain inventory data for all public at-grade highway-rail crossings in the state. Individual crossing data typically include the following components:

- Official Crossing Identification Number (DOT Number)
- Railroad company owner name
- Names of any other railroad companies operating on the tracks

RCI DATABASE:**COMPONENTS (CONT.)**

- Route number of roadway
- Highway mile point
- Railroad milepost
- Location information of the crossing, to include supporting data as necessary, such as whether a crossing is in or near city limits or is located in a quiet zone
- Latitude and longitude
- An inventory of existing warning devices installed at the crossing
- An estimated volume of highway traffic
- An estimated volume of train traffic
- Physical characteristics of the crossing, such as visibility, surface materials, whether the angle poses a hazard to trucks, etc.
- Approximate train speed
- Approximate vehicle speed
- Collision historical data
- History of inspection updates

The RCI Database features the following capabilities:

- Functionality to view and update existing crossing data
- Historical crossing record information tracking mechanisms
- Spatially based data that can be used for visual inspection and location and shared with other systems
- Mapping functionality capable of specific crossing drill-down
- Accessibility through a web browser
- Easy conversion and transfer of data to FRA, the federal agency charged with oversight which requires all states to submit regular update information

RCI DATABASE:**DATA ACQUISITION**

The collection of data is a primary function of the Railway-Highways Crossing Program. The RSC uses information supplied by the railroad company and field data collection in conjunction with the RCI Database to collect and record data.

➤ Field Data Collection

The Utilities and Rail Branch uses handheld GPS-driven equipment to gather field data during crossing inspections, as detailed in [UR-2102-3](#).

The handheld GPS unit uses ESRI's ArcGIS Mobile Programs. A Geodatabase has been created using the required fields classified by the FRA and US DOT National Highway Rail Crossing Inventory Program. The RSC uses the GPS equipment to electronically collect accurate positional field data (latitude and longitude) that will automatically populate the required fields.

After collecting information in the field, the RSC downloads the captured data into the Central Office system. Using a simple 'sync' tool, field inventories are processed and transferred to the RCI Database within 24 hours of download.

➤ In-Office Data Entry

Whenever a new crossing record is created, the railroad company supplies the Transportation Cabinet with a federal form. The RSC enters this information into the RCI Database using a web browser, where it is validated for accuracy and correctness. The RSC may also enter changes to a crossing that has not been discovered by an inspection using the RCI system.

A crossing can have many different areas of information, and the database application allows a user to:

- See the latest inspection record
- Run a report against all records
- Generate reports to be transmitted to other parties, such as the FRA

While the application has a typical navigational menu, it also allows the user to easily move across records without having to navigate back and forth in the application. Each page of the browser-based application is designed to make it very easy to have any changes made on the page validated for correctness.

**RCI DATABASE:
DATA ACQUISITION
(CONT.)**

Every time the user makes a change and saves the record, the business rules required to properly enter information about a crossing are checked. If any of the information is incorrect, the application details any areas that need to be corrected and how corrections may be addressed.

To access an area of a crossing while working with multiple crossings, the user does not have to return to a main screen, search for and select a specific record, then navigate back to the page in which they are working. The user simply enters the DOT number and uses the search pane to populate the page, as shown below:

Sketch of RCI Application

The screenshot shows a web application interface for the RCI Database. At the top, there is a search bar with the text '123456A' entered and a button labeled 'AARDOT Search'. Below the search bar is a navigation menu with options: 'Crossings', 'Railroads', 'Inspections', 'Authorizations', and 'Reports'. The main content area displays a form titled 'Crossing Physical Details' with various input fields and checkboxes. Three red callout boxes with arrows point to the search process: '1) user types DOT # here' points to the text box containing '123456A', '2) user clicks search button' points to the 'AARDOT Search' button, and '3) page is updated with crossing data' points to the updated form fields.

**RCI DATABASE:
REPORTING**

Various reports may be run against the database to view queries of crossing status and crossing type for each county and district. [UR-2102-4](#) details required reports. Users performing advanced search queries can also sort and print search results as if they were an ad-hoc report.


RCI DATABASE:**REPORTING (CONT.)**

Perhaps the most important report is the annual Hazard Ranking Report. This report lists all of Kentucky's crossings in order of their safety to the public. The calculations used to produce this report come from the Peabody Accident Prediction and New Hampshire Hazard Index mathematical calculations, as recommended by the FRA. Crossings at the top of this list have been evaluated as being the most hazardous to public safety, and it is from this list that decisions for safety upgrades are made.

RCI DATABASE:**ACCESS**

The RCI system is a web-based database application with restricted access. It is managed by the Utilities and Rail Branch in the Division of Right of Way and Utilities. Any requests for access or data shall be directed to the branch.



	<p><i>Section</i></p> <p>RAIL SAFETY PROGRAM</p>
	<p><i>Subject</i></p> <p>Crossing Inspections</p>

INTRODUCTION According to [Federal Railroad Administration \(FRA\)](#) standards, each highway-rail crossing shall be inspected every three years. Each inspection documents specific crossing data, such as location, existing railroad warning devices, pavement markings, advance warning signage, reflectivity, number of tracks, highway speed, etc.

INSPECTION At each crossing, the rail safety coordinator (RSC) shall perform specific steps to perform a crossing inspection.

The RSC shall document the physical characteristics and traffic control devices at the crossing using field data collection equipment or the field inspection sheet ([Exhibit 9007](#)).

Note: When using field data collection equipment to gather information, the RSC shall take the latitude and longitude readings in between the rails (to the left or right of the traffic lane) in the median. If there are multiple tracks, the inspector shall take the readings close to the center of all the tracks and in the same area as above.

While on site, the RSC shall photograph the crossing to produce a minimum of four images, including the following:


- DOT Number sign
- Crossing surface
- View from each direction, looking at the crossing from a distance no farther than 30 yards away

Note: Some crossings may have additional pictures taken if the inspector notices anything atypical or variant since the last inspection, such as cut rails.

INSPECTION (CONT.) Upon returning to the office, the RSC shall enter the information into the Railroad Crossing Inventory (RCI) Database. This is achieved by either uploading the collected data from the field collection device or entering the hard-copy inspection sheet data into the database. The RSC shall attach the pictures to the appropriate crossing record in RCI.

DISTRICT OFFICE District office personnel may be asked to perform site inspections of crossings to determine existing conditions. On occasion, the FRA, railroad company, other state personnel, or the public may ask a question concerning a crossing, and the district may be asked to visit and evaluate the crossing's condition.



	<i>Section</i> RAIL SAFETY PROGRAM
	<i>Subject</i> Reporting

TYPES OF REPORTS Numerous reports are needed for proper execution of the Railway-Highways Crossing Program. Some of the reporting needs are within the Transportation Cabinet (Cabinet) and some are for outside agencies.

The most commonly needed reports are listed below:

- [Federal Railroad Administration \(FRA\)](#) annual report, a requirement as stated in [23 USC 130](#)
- [Federal Highway Administration's \(FHWA\)](#) annual Highway Safety Improvement Program (HSIP) Report, a requirement as stated in [23 CFR 924.15](#)
- Hazard Index Ranking Report, an internal-only report ranking all open public at-grade crossings not equipped with automatic gates, using the Peabody Accident Prediction and New Hampshire Hazard Index mathematical calculations
- Internal Cabinet reports

FRA REPORT Crossing inventories shall be updated at least every three years. The FRA requests crossing data be provided from each state annually so state and federal records match.

The Utilities and Rail Branch personnel work with the Office of Information Technology to send crossing data to the FRA annually. The RCI Database has a simple conversion and transfer process for this data. This data transfer includes all the highway-rail crossings with information of each crossing.

FHWA REPORT A summary and assessment of the executed rail safety projects shall be submitted to the FHWA as a section of the annual HSIP Report. The Division of Traffic Operations develops the annual report and requests a summary from the Utilities and Rail Branch annually.

FHWA REPORT**(CONT.)**

The Railway-Highways Crossing portion of the HSIP Report includes historical data of the crossings improved under the program and an element of monitoring the improved crossings for accidents after project completion.


**CABINET
REPORTS**

Cabinet personnel with access to RCI can run numerous administrative reports within the RCI Database. RCI reports are generated to summarize information about crossings with similar characteristics that are recorded in the database. These reports can show a breakdown of crossings in each county or district, whether at grade or grade separated. Any variety of crossing status (open, closed, abandoned, all, unknown) and crossing type (public, private, pedestrian, all, unknown) may be used, and the RCI Database also can use its mapping functionality to assist in report preparations.

The most common report needed is the ranking report, which is the primary means of selecting rail safety projects. However, other reports can be generated and are often needed for planning or assessing crossings by region.

Reports are sometimes requested by external agencies. If an outside agency requests a report, the Cabinet does not authorize all data to be released; such as ranking or private railroad company data. Such requests shall be considered carefully prior to executing the report.



	Section RAIL SAFETY PROJECTS
	Subject Project Identification & Approval

RCI DATABASE**RANKINGS**

The [Federal-Aid Policy Guide \(FAPG\)](#) specifies that each state shall maintain a priority schedule of crossing improvements. To comply with these requirements, the Utilities and Rail Branch ranks the information compiled in the RCI Database to determine the crossings that have the most need for safety or operational improvements.

A hazard index ranks crossings in relative terms (the higher the calculated index, the more hazardous the crossing). The program uses the [Federal Railroad Administration \(FRA\)](#) formula for determining the hazard-ranking indices. Currently, the Section 130 Program ranks crossings using two different formulas. One formula is based upon the physical characteristics of the crossings, while the other formula applies a factor based upon the number of crashes that have occurred at the crossings within the previous five years.

PROJECT SELECTION

The rail safety coordinator (RSC) is responsible for preparing a list of recommended crossings annually. The selection process of these crossings for consideration as rail safety projects is defined here:

- The RCI Database and FRA formulas are used to calculate the rankings of each crossing. The most hazardous crossings (approximately 50 from each formula) are identified.
- The RSC shall inspect the identified crossings by making a detailed inspection of the individual locations. This inspection consists of analyzing the horizontal sight distance parameters as well as the full extent of visibility along the railway and highway approaches. Additional consideration is given to the vertical sight distance restrictions as well as the differential of the vertical approach (humped crossing).
- At these inspections, other physical characteristics and the existing traffic control devices are validated.

**PROJECT SELECTION
(CONT.)**


- Pictures are taken at each crossing, as is typical of crossing inspections. These pictures become a part of the permanent record for these crossings.
- The data and pictures are examined and discussed, the program budget is considered, and the best candidates for improvement are selected for recommendation.
- The Railway-Highways Crossing Program staff makes a list of crossings to be recommended for safety upgrades. The number of crossings recommended is based on the annual funding expected to be made available (typically 8 to 10 crossings). The RSC then drafts a letter for consideration to the Director of the Division of Right of Way and Utilities.

PROJECT APPROVAL

The following are the steps for approval of crossing safety upgrades:

1. The Director of the Division of Right of Way and Utilities shall forward the RSC's letter, if acceptable, to the State Highway Engineer (SHE) or designee for approval.
Note: In some instances, all projects do not receive approval for the work to be performed.
Note: The amount of crossings that receive approval shall depend upon the amount of available funds.
2. Approved projects are advanced to the estimating phase.
3. Once project approval is received from the SHE or designee, the crossings will be initiated in the project management system. This is a web-enabled system called the Kentucky Utilities and Rail Tracking System ([KURTS](#)).
4. The RSC shall then work with the railroad company and the Division of Program Management to initiate the project as defined in [UR-2103-2](#).
5. The RSC shall file the data, pictures, and SHE or designee approval in the project folders.



	Section RAIL SAFETY PROJECTS
	Subject Estimating & Programming Funds

**PROGRAMMING
PROCESS**

After a project has been approved by the Director of the Division of Right of Way and Utilities and the State Highway Engineer (SHE) or designee for safety upgrades, the following steps shall be completed by the rail coordinator (RC) to secure funding:

1. The RC shall request funds from the Division of Program Management through the Kentucky Utilities and Rail Tracking System ([KURTS](#)).
Note: Funds are requested under utility phase and construction phase. The utility fund covers the agreement amount. The construction fund covers time charged to the project by Central Office and district personnel and work performed by state forces in the field. Work performed by state forces in the field includes installing advance warning signs, putting pavement markings, and traffic control.
2. The Division of Program Management shall authorize the funds and create a TC-10-1 form, *Project Authorization*, with the authorization number for the project and receive a PR-1 form from [FHWA](#) upon their approval.
3. The RC shall then request preliminary engineering from the railroad company in the form of an authorization letter. This letter may be generated and sent through KURTS.
Note: This request document is similar in form and function as defined in [UR-700](#).
4. The railroad company shall return a proposal package with force account estimate, rail safety project plans, and wiring schematic. This process could take anywhere from a few weeks to a few months, depending upon design capabilities of the railroad company. This package is recorded electronically in KURTS.
5. After the force account estimate and project plan are received, the RC shall review the proposal package and determine if the estimate is acceptable and within budget as defined in [UR-2103-3](#).

**PROGRAMMING
PROCESS (CONT.)**

6. If the proposal package is acceptable, the RC shall draft an agreement to submit to the railroad company as defined in [UR-2103-4](#). The agreement may be generated using KURTS templates.

Note: The programming process and associated review of documentation is similar to that found in [UR-603](#) and [UR-1003](#).

**RAILROAD COMPANY
DUTIES**


The railroad company is responsible for production of a railroad company cost estimate (outlining the method of calculating costs) and a project plan. The estimate shall detail the method proposed to complete work, whether by contract or force account. The estimate shall be submitted to the RC in a timely manner to allow the RC to complete the tasks identified.

RSC DUTIES

The RC shall ensure the cost estimate is mathematically correct, viable, economical, and compliant with Transportation Cabinet and federal policy. Specifically, the following processes must occur:

- The RC shall have the estimate reviewed in detail.
- The RC shall review and accept the design. ([UR-2103-3](#))
- The RC shall address questions, errors, or omissions. ([UR-2103-3](#))
- An agreement shall be written and executed. ([UR-2103-4](#))
- Construction work shall be accomplished as agreed. ([UR-2103-5](#))



	<p><i>Section</i></p> <p>RAIL SAFETY PROJECTS</p>
	<p><i>Subject</i></p> <p>Review of Rail Company Submissions</p>

OVERVIEW

Detailed rail safety project plans document the work necessary to construct the safety improvement at the highway-rail crossing. Rail safety project plans are required of involved railroad companies. Prompt submission of these plans is essential for the Transportation Cabinet (Cabinet) to ensure the proposed work achieves the following:

- Addresses the crossing needs
- Avoids conflict with the road functionality
- Adheres to Cabinet and federal policy

REQUIREMENTS OF RAILROAD COMPANIES

The railroad company proposal shall include the following information:

- Plans showing work to be performed, materials to be installed, materials to be transferred or removed, and items planned to be left in place
- Pertinent specifications and standard drawings
- Total project cost estimate, which shall be itemized and divided into engineering, administrative, and construction costs if applicable
- The Cabinet's level of participation
- Engineering service contract package (if applicable and executed as described in [UR-900](#))
- Any special requests on project development or execution, to be posed in written form

**REQUIREMENTS OF
RAILROAD COMPANIES
(CONT.)**

Special requests may be considered by the Cabinet and likely involve additional submission needs, as detailed elsewhere in this manual. Some examples of special requests include:

- Approval of additional expenses incurred due to railroad company policy changes, such as written railroad company policies on construction material or methods
- Non-compensable improvements to the railroad facilities, otherwise defined as “betterments” (similar to those defined in [UR-1004](#) and [UR-1102-2](#))

RC DUTIES

The rail coordinator (RC) is responsible for receipt and diligent review of all railroad company proposals. Proposals shall be reviewed to ensure that the work is necessary, appropriate, and viable both physically and fiscally. The RC shall validate that the packages include all necessary attachments and information, verifying the crossings needs are addressed, the road function is not impaired, budget is viable, and policy is adhered to. The RC shall review all proposals to ensure that the costs are appropriate, compensable, and consistent with the proposed scope of work.

If the submitted documents constituting the proposal are acceptable to the RC, the RC shall approve the submission and communicate approval to the railroad company. The proposal may then be drafted as an agreement. If the RC is not satisfied with the terms of the proposal, additional negotiations must occur. The submissions shall be recorded, approved or rejected, and communicated to the railroad electronically via the Kentucky Utilities and Rail Tracking System ([KURTS](#)).

**DISAGREEMENTS
DURING NEGOTIATION**

Occasionally, the Cabinet and the railroad company fail to agree upon the safety project submissions. In such instances, it may become necessary to turn to more intensive negotiations or possibly legal action. Some potential scenarios of obstructed railroad safety projects are described here.

**DISAGREEMENT
ON COSTS**

When the railroad company and the RC disagree on the proposed cost estimate, the RC shall put the terms of disagreement in writing and request a response from the railroad company within a reasonable timeframe. An electronic rejection containing the reasons of disagreement is an adequate substitution for mailed correspondence. The terms of dispute may be related to many issues, such as compensable costs, quantities, betterment, salvage value, overhead, etc.

**DISAGREEMENT
ON COSTS (CONT.)**

If an agreement cannot be reached and the project schedule allows, the RC should request negotiation support from the Utilities and Rail Branch Manager (UBM). This support is requested of the UBM but may include many support teams, such as the Federal Railroad Administration (FRA), Federal Highway Administration (FHWA), and Cabinet personnel such as construction, planning, audits, legal services, etc.

If the schedule does not allow for further negotiation, or if further efforts are fruitless, the Cabinet may either proceed with litigation or as prescribed by state law.

**DISAGREEMENT ON
DESIGN**

When the railroad company and the RC disagree that the proposed design is adequate, the RC shall put the terms of disagreement in writing and request a response from the railroad company within a reasonable timeframe. An electronic rejection containing the reasons for disagreement is an adequate substitution for mailed correspondence. The terms of dispute may be related to many issues, such as compensable items, construction methodology, materials, etc.

If an agreement cannot be reached and the project schedule allows, the RC should request the UBM to advise and provide negotiation support. This support is requested of the UBM but may include many support teams, such as the FRA, FHWA, and Cabinet personnel such as planning, construction, legal services, etc.

If the schedule does not allow for further negotiation, or if further efforts are fruitless, the Cabinet may either proceed with litigation or as prescribed by state law.

**OWNER REFUSAL TO
PROVIDE
IMPROVEMENT**

When a railroad company refuses to provide compensable safety improvements to a selected crossing, the RC shall request the railroad company refuse to relocate in writing or the RC shall draft a written statement outlining the negotiation process and the railroad company refusal as witnessed by the RC. This written document shall be provided to the UBM and FRA liaison.

If an agreement cannot be reached and the project schedule allows, the RC should request UBM negotiation support. This support is requested of the UBM, but may include many support teams, such as the FRA, FHWA, and Cabinet personnel such as construction, legal services, etc.

**OWNER REFUSAL TO
PROVIDE IMPROVEMENT
(CONT.)**


If the schedule does not allow for further negotiation, or if further efforts are fruitless, the Cabinet may either proceed with litigation or as prescribed by state law.

**DISPUTE RESOLUTION:
QUESTION OF FACT**

Some negotiations are obstructed by differing understandings of specific law or project facts. These issues may involve interpretation of law, property rights disputes, agreement conditions, etc. Such issues should be addressed with the assistance of the Cabinet’s legal services staff.

If resolution cannot be achieved, a court of competent jurisdiction may decide cases involving disputes arising from a difference of opinion, such as ownership rights or the legality of policies and procedures. When a final determination by the courts is expected to require a lengthy amount of time, the Cabinet shall request the railroad company to agree in writing to proceed with the project (in order not to impede necessary safety improvements) with the provision that one of the parties shall institute a suit on the question of law or fact.



	<i>Section</i> RAIL SAFETY PROJECTS
	<i>Subject</i> Agreements

OVERVIEW

After determining that the railroad company's proposal package is valid, the rail coordinator (RC) shall draft a rail safety project agreement detailing the project terms and conditions. This can be done electronically through the Kentucky Utilities and Rail Tracking System ([KURTS](#)).

Rail safety project agreements are developed and executed in a manner very similar to utility coordination agreements. [UR-1103](#) may provide guidance on agreement development and execution. However, while the development and execution is similar, the base language of a rails safety project agreement is quite different from utility coordination agreements.

AGREEMENT COMPONENTS

The rail safety project agreement includes the following components:


- County name
- Federal project number
- State project number
- Crossing location
- DOT number
- Description of work to be done
- Terms of the agreement
- Signature of the Director of the Division of Right of Way and Utilities
- Signature of the railroad company
- Signature of the Office of Legal Services
- Signature of the Utilities and Rail Branch Manager

**AGREEMENT
PROCESSING**

The rail safety project agreement processing procedures are as follows:

- After writing the project agreement, and gathering area coordinator (AC) approval, the RC shall make four copies for original signatures and send all four copies to the Office of Legal Services to review and sign.
- After signature of the Office of Legal Services, the four agreements shall be sent to the railroad company to sign along with a letter discussing the work.
- The railroad company shall sign all four copies and send the signed agreements to the Utilities and Rail Branch.
- The RC shall review and approve the agreement package, then forward it to the Utilities and Rail Branch Manager (UBM) for signature.
- The UBM shall review, sign, and then forward the package to the Director of the Division of Right of Way and Utilities.
- The director shall sign the agreements and forward them to the program coordinator (PC).
- The PC shall process the agreement, recording the signed documents in KURTS, and notify the UBM to approve.
- The UBM shall approve the agreement in the fiscal management system.
- The PC shall link the project agreement to the accounting document.
- The Division of Purchases has final approving authority of branch agreements. Once final approval is garnered, the RC shall inform the district office and the railroad company of agreement execution. The notifications shall state that the proposed work may soon begin. These documents may be submitted electronically.
- The RC shall provide the following:
 - ◆ One original agreement to the district
 - ◆ One original agreement and two copies (with the estimate and plans attached) to the railroad
 - ◆ An original agreement for the files in the Utilities and Rail Branch
 - ◆ An original agreement to the Division of Accounts



	<p><i>Section</i></p> <p>RAIL SAFETY PROJECTS</p>
	<p><i>Subject</i></p> <p>Project Construction</p>

OVERVIEW After securing an agreement with the railroad company and finalizing project plans, the rail safety coordinator (RSC) may prepare for construction.

Rail safety projects are prepared for construction and inspected in a manner very similar to utility coordination. [UR-1200](#) may provide guidance on preparing for rail safety project construction. However, while the preparation for construction and inspection is similar, the actual construction is completely different from utility coordination, so the RSC should use caution when reviewing [UR-1300](#).

**INSPECTION OF
SAFETY UPGRADES**

As the regional representative of the Transportation Cabinet (Cabinet) with knowledge of rail functions and the rail safety project slated, the district utility supervisor (US) or assigned utility agent (UA) shall inspect the crossing while the railroad company is performing the work. These inspections shall be performed generally in accordance with procedures applicable to utility coordination inspection as detailed in [UR-1306](#) or as detailed below. Central Office rail safety coordination staff shall periodically perform a site visit to evaluate or inspect the work on the project. Inspections should be recorded in the Kentucky Utilities and Rail Tracking System ([KURTS](#)).

AGREEMENT REVIEW The Cabinet's RSC, US, or assigned UA shall review:

- The agreement to understand charges that are eligible for compensation
- The latest plans to become familiar with the location and the construction limits

**MEETINGS WITH
RAILROAD
COMPANIES**

The RSC, assigned UA, or US may arrange to meet with the railroad representative for inspections to ensure project effectiveness. [UR-1303](#) includes language on meeting policies that may be pertinent.

**REVIEW &
DOCUMENTATION**

During construction, the inspector reviews any itemized materials or construction reports, inspects the site, and records entries in TC 69-7 form, *Utility Progress Report*, which can be generated in the field or office and recorded in KURTS. The following information shall be recorded:

- Date
- Time
- Definition of the crew
- Vehicles and equipment
- Location of work
- Type of work
- Recently delivered materials and their condition


After construction is complete, the RSC shall perform a site visit to take pictures of the finished product and to check that all work is satisfactory. The RSC shall complete a final *Railroad Project Progress Report* and record it in KURTS.

FIELD INSPECTION

If the RSC has requested assistance, then while in the field, the US or assigned UA shall:

- Observe the number of employees and their duties at the project site
- Verify that the major items of materials utilized are in agreement with the design
- Drive the project vicinity to determine the presence or need for pavement markings, advance warning signs, and any other design elements that may have been overlooked
- Note locations of possible conflict prior to the RSC's final inspection



	<p><i>Section</i></p> <p>RAIL SAFETY PROJECTS</p>
	<p><i>Subject</i></p> <p>Invoicing & Change Orders</p>

OVERVIEW

The documentation, policy, and procedures for invoice processing and change order processing of rail safety projects is very similar to utility coordination, as detailed in [UR-1400](#) and [UR-1500](#). For invoicing, the primary variation is that the district utility supervisor (US) position approval identified in the chapters shall instead be the rails safety coordinator (RSC) and the Chief District Engineer (CDE) approval is instead the Utilities Branch Manager (UBM). For change orders, the CDE approval is not required. Further, there is no need for a recommendation letter from the CDE and US.

Generally, closeout procedures for rail safety project work are also quite similar to the processes defined in [UR 1800](#). Rail safety projects can be closed out using the same mechanisms listed in [UR-1802-1](#), "Utility Company Closeouts: Agreement," [UR-1803-1](#), "Project Closeouts: Project Completion," and [UR 1803-2](#), "Project Closeouts: Audits." Further, overdue final invoicing may be addressed following the procedures detailed in [UR-1802-2](#), "Utility Company Closeouts: 60-Day Notice of Closure."

INVOICING: DISTRICT RESPONSIBILITIES

Invoices received for railroad work are reviewed, approved, and processed by the Central Office. The Central Office may request field support and review from the district office staff to validate that the work requested to be reimbursed has been sufficiently executed.

INVOICING: CENTRAL OFFICE RESPONSIBILITIES


The RSC shall perform all duties of a UC as identified in [UR-1400](#). Additionally, the RSC shall ensure that the invoice documentation on the TC 69-8 form, *Utility/Rail Agreement Statement of Charges*, includes the Highway-Rail Crossing Identification Number (DOT number).

INVOICE AUDIT After review of the invoice package for a final bill, the RSC may determine that some questionable billing practices have taken place. In such instances, an audit may be necessary. The RSC would then prepare an audit request following the audit request procedures detailed in [UR-1405](#).

**CHANGE ORDER:
DISTRICT
RESPONSIBILITIES** The US or assigned UA need not be involved in the review and approval of change orders involving rail coordination, though the RSC may request guidance for district level questions. The CDE is not required to review or approve change orders involving rail coordination.

**CHANGE ORDER:
CENTRAL OFFICE
RESPONSIBILITIES** The RSC shall perform all duties of a UC as identified in [UR-1500](#).



	<p><i>Section</i></p> <p>RAIL SAFETY PROJECTS</p>
	<p><i>Subject</i></p> <p>Closeouts</p>

OVERVIEW Generally, closeout procedures for the rail safety projects are quite similar to the processes defined in [UR-1800](#). Rail safety projects can be closed out using the same mechanisms listed in [UR-1802-1](#), “Utility Company Closeouts: Agreement;” [UR-1803-1](#), “Project Closeouts: Project Completion;” and [UR-1803-2](#), “Project Closeouts: Audits.” Further, overdue final invoicing may be addressed following the procedures detailed in [UR-1802-2](#), “Utility Company Closeouts: 60-Day Notice of Closure.”


FINAL INVOICING Upon project completion, the railroad company shall notify the rail safety coordinator (RSC) that the project is complete.

The railroad company may then submit a final invoice to the Central Office. Invoicing procedures for rail safety program projects is very similar to utility coordination, which is generally defined in [UR-1400](#). Nuances specific to rail safety projects are defined in [UR-2103-6](#).

Upon payment of a final invoice, the RSC shall draft a memorandum to the Division of Accounts, with a copy to the district utility supervisor (US), requesting the project be closed and requesting that any unused funds be returned to the [Section 130](#) funding.

RECORDS RETENTION File archiving and retrieval policies and procedures are detailed in [UR-1900](#).



	<p><i>Chapter</i></p> <p>RAILWAY-HIGHWAYS CROSSING PROGRAM (SECTION 130 PROGRAM)</p>
	<p><i>Subject</i></p> <p>Crossing Protective Device Maintenance</p>

OVERVIEW

Some highway-rail crossings have protective devices installed for the safety of the travelling public. The Transportation Cabinet (Cabinet) shall compensate the railroad company for maintenance of these protective devices which consist of lights, bells, gates, and any combination thereof installed for the Department of Highways subsequent to June 19, 1958, according to a previously agreed schedule. The rail safety coordinator (RSC) shall facilitate the agreement for such maintenance and review, verify, and process the pertinent invoices. The RSC shall rely on the district maintenance staff to provide the data needed for verification.

IDENTIFICATION OF CROSSINGS

The Division of Right of Way and Utilities, Utilities and Rail Branch, shall keep an inventory of crossings for the entire state, as defined in [UR-2102-2](#). This list shall be updated by the RSC and shall include a quantitative description of the protective devices at each crossing. The data management system housing this information shall be capable of generating a report of crossings with protective devices.

The report shall be used by the RSC to determine the specific protective devices at each crossing. The various combinations of protective devices are classified according to four types:

- Type 1 - Lights and bells for a Single Track
- Type 2 - Lights and bells for Multiple Tracks
- Type 3 – Lights, bells, and gates for a Single Track
- Type 4 – Lights, bells, and gates for Multiple Tracks

FUNDING

Maintenance funds for protective devices at crossings shall be included in the Division of Maintenance's annual budget.

ROLE OF DISTRICT When new protective devices are installed or removed, the district office shall notify the following:

- Division of Right of Way and Utilities, Utilities and Rail Branch rail safety coordinator
- Division of Planning
- Division of Maintenance

When an installation is abandoned, the district office shall notify the Division of Right of Way and Utilities, Utilities and Rail Branch and the Division of Maintenance.

ROLE OF CENTRAL OFFICE

The RSC shall keep a current master inventory of crossings for the entire state (**UR-2102-2**).

The RSC shall maintain the term maintenance agreements with the railroad companies and review, verify, and process the pertinent invoices. The agreement drafting and execution process is similar in content and process to that of the term agreement, as detailed in **UR-2003**. The *Utility and Rail Program Coordinator Manual* details the procedures to execute the term maintenance agreement within the fiscal management process.

The compensation of railroad companies via invoice payment is as defined in **UR-1400**.

CONTENT OF AGREEMENT

The term maintenance agreement shall contain the following information:

- All of the static details of protective device maintenance, utilizing the classifications listed above
- Responsibilities of the Cabinet and railroad company

TERM OF MAINTENANCE AGREEMENT

The duration of the term shall be 10 years, after which the term maintenance agreement may be renewed. If the terms are still agreeable to both parties, the same language shall be used. If changes are to be made, the document shall be modified and then executed.

**EXECUTION OF
MAINTENANCE
AGREEMENT**


When a maintenance agreement needs to be executed, whether for new or renewed agreements, the RSC shall draft the document. A term maintenance agreement should only be executed if one of the following is true:

- Crossings exist with protective devices that require compensation
- The term agreement is at the end of the term and must be renewed
- There has been a change in the terms that cannot be rectified with an addendum or modification

The Cabinet's Office of Legal Services shall review and approve the document. A copy of the drafted document shall be transmitted to the rail company for review. The rail company shall make comments, and the RSC shall address the comments as necessary. Once the document is agreeable to both parties, the agreement is signed, executed, and put into use.

The formal execution of a maintenance agreement is quite similar to the execution of the utility agreement, as identified in [UR-1103-3](#). The RSC shall perform all duties of the area coordinator (AC) as identified in [UR-1103-3](#) and shall execute the term maintenance agreement within the fiscal management process following the procedures detailed in the *Utility and Rail Program Coordinator Manual*.



	<p><i>Chapter</i></p> <p>SPECIAL PROJECT PROGRAMS</p>
	<p><i>Subject</i></p> <p>General</p>

OVERVIEW

The Transportation Cabinet’s (Cabinet) utility relocation process is designed to be as flexible as possible to allow utility companies to utilize their own planning, design, construction, and accounting procedures to the greatest extent.

Most of the projects that involve utility and rail coordination are developed from the enacted Highway Construction Plan and are typically subject to the Cabinet’s traditional project development process. However, not all projects undertaken by the Cabinet are subject to the Cabinet’s formal project development process. The following project types may be considered “special programs” in the sense that they do not fully adhere to traditional utility and rail coordination policies:

- Projects developed by outside agencies

These projects are developed and sometimes coordinated by outside entities, such as local public agency (LPA) projects (detailed in [UR-2202-1](#)).

- Projects developed by a specialized program

These projects are the product of a program that has been established to achieve a specific goal. An example would be Highway Safety Improvement Program (HSIP) projects (detailed in [UR-2202-2](#)).

- Projects not included in the enacted Highway Construction Plan


These projects may be undertaken with maintenance funds or other funding types and are not specific to the enacted Highway Construction Plan. An example would be maintenance projects (detailed in [UR-2202-3](#)).

OVERVIEW (CONT.)

Although these projects are not subject to traditional project development processes, the utilities supervisor may be able to provide expertise and support when coordinating utility and rail impacts. The utilization of [KYTC](#) utility sections on such projects may be requested via the *Request for Utilities Involvement for Non-RHP Projects* form, [Exhibit 9009](#). This form, and accompanying documentation, provides needed details to initiate utility coordination.

This chapter outlines procedures to guide Cabinet personnel in utility and rail matters on such atypical projects.



	<p><i>Section</i></p> <p>SPECIAL PROGRAMS</p>
	<p><i>Subject</i></p> <p>Local Public Agency (LPA) Projects</p>

OVERVIEW Local public agency (LPA) projects are projects funded with state or federal funds and administered by local governments. The Transportation Cabinet’s (Cabinet) role in this type of project is to provide technical advice and oversight and to act as a pass-through agency for funds.

The project is initially defined and otherwise established in a memorandum of agreement (MOA) (a legally binding agreement). The MOA defines the roles, responsibilities, and funding budgets of the LPA and the Cabinet. Relative to responsibilities, the MOA specifically assigns project development and delivery tasks, such as responsibility for design, utility and rail coordination, construction oversight, etc.

VARIANCES IN PROCEDURES When the LPA is responsible, via the MOA, for administering the utilities and rail coordination of an LPA project, the LPA shall be responsible for assuming the duties of the Utilities Section and rails coordinator (RC). The LPA shall be responsible for complying with this manual and all federal and state regulations.

When the Cabinet is responsible, via the MOA, for administering the utilities and rail coordination of an LPA project, the Utilities Section and RC shall be responsible for the duties as is typical.

LPA PROCEDURES If directed by the MOA, the LPA shall be responsible for all steps in the administration of the utilities and rail coordination of the project, including the following duties:

- Developing preliminary estimates for the utilities phase
- Contacting utility companies located on or near the project which may be potentially affected by road construction

**LPA PROCEDURES
(CONT.)**

- Authorizing companies to forward plans and other project information to utilities
- Reviewing engineering service contracts and relocation plans and proposals to ensure that the work is consistent with the project scope and is warranted and the associated costs are acceptable
- Reviewing current bills for correctness and submitting them to the LPA's fiscal affairs office for payment

The LPA may submit current bills to the Cabinet for reimbursement of costs the LPA has incurred on the project. The LPA shall submit a final bill to the Cabinet for reimbursement when all utility relocation work on the project is complete.

Note: The Cabinet will only reimburse the state or the [Federal Highway Administration \(FHWA\)](#) portion of funds expended by the LPA for utility relocations.

**UTILITIES SECTION
PROCEDURES**

The Utilities Section shall provide aid to the LPA when requested. The aid should be in the form of technical advice, clarification of state and federal regulations and statutes, and the processing of reimbursement requests.


**AREA COORDINATOR
PROCEDURES**

The area coordinator (AC) duties on LPA projects are very limited if the LPA is performing the utility coordination work. If KYTC staff is coordinating the utility involvement, the AC shall review any needed request for funds and perform project closeout. The AC may become involved in disseminating technical information, forwarding project information from the LPA to Cabinet officials, and coordinating utility relocation work with FHWA and other outside agencies.

**PROJECT
MANAGEMENT**

The LPA may be authorized to use the web-based Kentucky Utilities and Rail Tracking System ([KURTS](#)) to coordinate the utility and rail work. This system is managed by the Cabinet and can be shared to users such as LPAs, provided a user agreement is executed.



	<p><i>Section</i></p> <p>SPECIAL PROGRAMS</p>
	<p><i>Subject</i></p> <p>Highway Safety Improvement Program (HSIP) Projects</p>

OVERVIEW

The Highway Safety Improvement Program (HSIP) is a federally funded program. Kentucky administers the HSIP with appropriate oversight by the Division of Traffic Operations (TO) and the Federal Highway Administration (FHWA) Division Office. A program of projects is produced to address identified safety problems. The program typically focuses on implementing low-cost safety countermeasures, such as signs, markings, flashing beacons, centerline, edge line, rumble strips, high-friction surface treatments, tree removal, shoulder improvements, guardrail, and median barriers.

Occasionally, a project may involve more extensive countermeasures which require excavation. In such cases, and in cases of guardrail and median barrier installation, utility facilities may require field-location during development so that they can be avoided.

Generally, HSIP projects should not require utility relocation. If utility impacts are possible, the HSIP coordinator shall reconsider the design or project scope to avoid utility impacts.

The district HSIP coordinator is the party primarily responsible for HSIP projects in the district. The HSIP coordinator shall evaluate projects for viability, benefit, ROW, utility, environmental, etc., under advisement of the subject matter experts. The utility supervisor (US) is such an expert and provides guidance and support. The HSIP coordinator may enlist active support from the utility section by submitting a *Request for Utilities Involvement for Non-RHP Projects* form ([Exhibit 9009](#)). This form and its supporting documentation should be provided as soon as the need is identified and shall provide enough project details to demonstrate conflict potential.

VARIANCES IN PROCEDURES

Once a utility impact has been identified, the utility coordination process is very similar to the typical process. The HSIP process primarily varies in the early stages, when the US works with the HSIP coordinator to determine if impact potential exists, as detailed below.

VARIANCES IN**PROCEDURES (CONT.)**

HSIP projects should generally not involve railroad coordination due to the cost-prohibitive and time-consuming nature of the coordination.

PROCEDURES TYPICAL**TO HSIP PROJECTS**

The HSIP coordinator shall invite the US to all scheduled HSIP site surveys so utility impact potential is identified as early in the process as possible. Potential HSIP projects are identified by the district HSIP coordinator or TO. Most projects are initiated in the district and are ultimately the responsibility of the HSIP coordinator.

The HSIP coordinator is responsible for ensuring existing utility facilities are identified at the project location by a [KY 811](#) (formerly BUD) design information ticket or other means. The HSIP coordinator shall request the US's support if a conflict concern exists. The HSIP coordinator may submit a *Request for Utilities Involvement for Non-RHP Projects* form (**Exhibit 9009**) and request a field visit and review.

The US shall:

- Determine if a site visit is necessary
- Perform the visit, if needed
- Give the HSIP coordinator an inventory of potential utility impacts, in written form

If utility conflict potential exists, the US shall provide any necessary estimates to be included in the HSIP funding request forms.

The US shall receive a summary of the audit results, whether or not he or she was present at the original audit.

The HSIP coordinator is responsible for creating a proposal for each approved project that may include a few 8.5" x 11" drawings and notes. The HSIP coordinator shall submit all project proposals to TO for approval, and a copy shall be given to the US.

The US shall be notified of all potential locations (and any deadlines) once the HSIP coordinator receives any list of approved projects from the Central Office. The US shall be notified by the HSIP coordinator of any locations with approved TC-10 funding and any deadlines for utility impact notes required in the contract submittals.

**PROCEDURES TYPICAL
TO HSIP PROJECTS
(CONT.)**


Once funding is secured and the project is approved, the following guidelines shall be observed:

- If no utility impacts are anticipated based upon the recommendation of the HSIP coordinator and/or US, the district HSIP coordinator shall provide the memorandum required for funding approval. The district HSIP coordinator or TO may draft a “no impact” utility and rail clearance note ([Exhibit 9008](#)) and incorporate it into the proposal. If the note is drafted by the HSIP coordinator and includes special comments, the note shall be furnished to the Utilities and Rail Branch and US. Typical projects with no impacts include signs, markings, flashing beacons, centerline, edge line, rumble strips, high-friction surface treatments, and tree removal. The utility and rail clearance note may also be drafted and stored in the Kentucky Utilities and Rail Tracking System ([KURTS](#)).

Note: Tree removal projects involving stump removal shall be carefully considered for nearby underground utilities.

- If utility conflicts exist, it is recommended that the project be added to KURTS and then the US may coordinate those activities as is typical. The funding for the utility relocations and state forces charges may be derived using a funding strip of \$25,000 per district under planning to cover those individuals that need a funding source, or TO may establish utility funds specific to the project at hand.



	<p><i>Section</i></p> <p>SPECIAL PROGRAMS</p>
	<p><i>Subject</i></p> <p>Maintenance Projects</p>

OVERVIEW

Not all projects undertaken by the Transportation Cabinet (Cabinet) are included in the enacted Highway Construction Plan. Many projects are undertaken with maintenance funds or other funding types which are not specific to the enacted Highway Construction Plan. Programs that may develop such an atypical project include the following:

- Division of Maintenance
- Department of Rural and Municipal Aid
- Division of Traffic Operations

Although the Utilities Section is part of the project development process, their expertise may be needed to assist in coordinating utility impacts of projects that do not go through the traditional project development process. The project engineers and managers of such projects should solicit the aid of the Utilities Section in assessing and mitigating utility impacts on these nontraditional projects, including the submission of a TC 69-12 form, *Request for Utilities Involvement for Non-RHP Projects (Exhibit 9009)*. This form and its supporting documentation should be provided as soon as the need is identified and shall provide enough project details to demonstrate conflict potential. The process is very similar to that defined for HSIP projects in [UR-2202-2](#).

PROJECT ENGINEER PROCEDURES

The project engineer (PE) or project manager (PM) shall enlist the aid of the Utilities Section early in the development of the project via **Exhibit 9009**. The PE or PM shall provide project plans, manuscripts, or a detailed project description, including project schedule. This submission shall provide the Utilities Section enough detail to review the proposals to assist in identifying utility impact potential. A similar submission to the rails coordinator (RC) shall be made if a railroad facility is in the project scope or immediately adjoining.

PROJECT ENGINEER**PROCEDURES (CONT.)**

The PE or PM shall procure funding for both utility and rail coordination associated with the project, as prescribed by the Utilities Section and RC.

If no utility impacts are anticipated based upon the recommendation of the PE or PM and/or US, the PE or PM shall provide the memorandum required for funding approval. The district PE or PM may draft a “no impact” utility and rail clearance note ([Exhibit 9008](#)) and incorporate it into the bid package. If the note is drafted by the PE or PM and includes special comments, the note shall be furnished to the Utilities and Rail Branch and US. The utility and rail clearance note may also be drafted and stored in the Kentucky Utilities and Rail Tracking System ([KURTS](#)).

Note: Tree removal projects involving stump removal shall be carefully considered for nearby underground utilities.

DISTRICT UTILITIES**SECTION PROCEDURES**

The Utilities Section shall support the project by assisting in identifying and assessing impacts to utility facilities in the project area, contacting utility representatives, authorizing utility coordination activities, reviewing utility engineering and relocation proposals, writing agreements for relocation work, processing bills for payment, and coordinating projects with Central Office utilities personnel.

If utility conflicts exist, it is recommended that the project be added to KURTS, and then the US may coordinate those activities as is typical. The funding for the utility relocations and state forces may be established by the PE or PM.

AREA COORDINATOR**PROCEDURES**

The area coordinator (AC) shall handle such atypical projects in the same manner as Recommended Highway Plan projects, with the exception that the funding will generally originate in the Division of Maintenance, Division of Traffic Operations, Department of Rural and Municipal Aid, or other funding source. If a TC 10-1 form, *Project Authorization*, shows that the funding is generated, the AC shall:

- Authorize the activities of the utility supervisor (US)
- Close out the project when all work has been completed to the satisfaction of the PE or PM
- Ensure all invoicing is paid





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 23 CFR 635.410 1304
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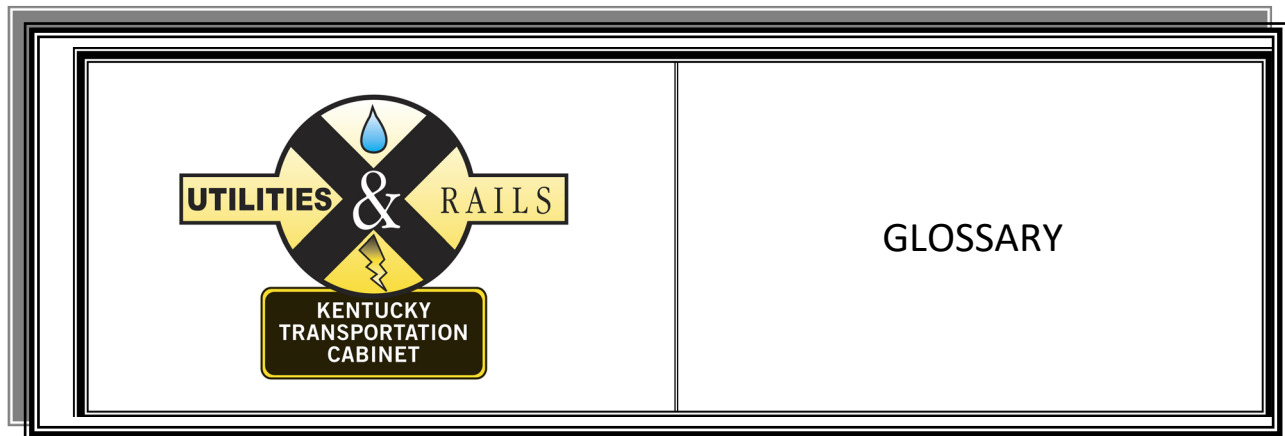
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GLOSSARY

AADT	See <i>Annual Average Daily Traffic</i> .
AASHTO	American Association of State Highway and Transportation Officials, advocates transportation-related policies and provides technical services to support states in their efforts to efficiently and safely move people and goods.
ABANDONMENT	To relinquish voluntarily and absolutely an interest in the right of way or utility therein.
AC	Area utility coordinator; a role established in Central Office to provide support to the district Utilities Section.
ACCESS CONTROL	<p>The systematic management by the Transportation Cabinet (Cabinet) of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a highway; different types of controlled access highways:</p> <ul style="list-style-type: none"> ➤ Fully Controlled Access Highway: gives preference to through traffic, provides for access only at selected public roads or streets, and has no highway grade crossing or intersections. ➤ Partially Controlled Access Highway: gives preference to through traffic, but may provide access to selected public roads and streets, and may provide some highway at-grade intersections and private driveway connections. ➤ Access by Permit Highway: access available by permit from the Cabinet.
ACCOMMODATION	The policy and manner in which the Cabinet controls the proposed use of highway right of way by utility facilities.
ACCRUED DEPRECIATION	The accumulated reductions in the stated value of a facility over a period of time, calculated as the ratio of its current service life to its total expected life, multiplied by the total original cost of the facility.

ADA	See the <i>Americans with Disabilities Act</i> .
ADVERTISEMENT	A public notice published as an announcement in print and/or broadcast media.
AGENCY	An administrative unit of government.
AGREEMENT	Any legally binding instrument between two or more parties creating mutual obligations.
AMERICANS WITH DISABILITIES ACT (ADA)	<p>(ADA, 1990, <i>Public Law 101-336</i>), a broad civil rights statute that prohibits discrimination against people with disabilities in all areas of public life.</p> <p>See also the Rehabilitation Act, Section 504 (<i>Public Law 93-112</i>) which prohibits discrimination on the basis of disability in federally assisted programs. The Federal Highway Administration (FHWA) ensures that recipients of federal aid and state and local entities that are responsible for roadways and pedestrian facilities do not discriminate on the basis of disability in any highway transportation program, activity, service or benefit they provide to the general public; and ensures that people with disabilities have equitable opportunities to use the public right-of-way system.</p> <p>Note: “disability,” with respect to an individual, is defined by the ADA as a physical or mental impairment that substantially limits one or more major life activities of such individual; a record of such impairment; or being regarded as having such impairment.</p>
ANNUAL AVERAGE DAILY TRAFFIC (AADT)	The total volume of vehicle traffic on a highway for a year divided by 365 days; a useful and simple calculation used in transportation planning and engineering to quantify traffic loads; also sometimes reported as “average annual daily traffic.”
APPURTENANCES	Additional parts or supplies (connectors, fittings, etc.) that are required to enable major items of a facility plant (pipelines, mains, conductor, etc.) to function.
ARCHIVING	The protection and storage of certain project records for a period of time prescribed by law or policy to maintain a trail for audit and reference; Cabinet records may be preserved by the Department of Libraries and Archives.
AS-BUILT PLANS	Plans that depict the utility facility as constructed, incorporating all field changes; also referred to as “record plans.”

AUDIT	The process by which the Cabinet Office of Audits or the Office of the State Auditor reviews project processes, personnel, and documentation to evaluate financial and regulatory compliance.
AUTHORIZATION	The approval or endorsement of a course of action, agreement, or expenditure.
AWARD	The notice to a bidding contractor of the acceptance of the submitted bid.
BACKFILL	Noun: the material used to replace an excavation. Verb: to refill (an excavation) usually with excavated material.
BEDDING	The organization of material to support a pipe.
BETTERMENT	Any enhancement of a reconstructed utility facility relative to the original, made solely for the benefit of the utility, whether an increase in functional capacity or an increase in cost over that required for replacement.
BORING & JACKING	A method that installs a pipe simultaneously with the excavation process.
BURY	Depth of an underground facility below grade of roadway or ditch.
CABINET	Kentucky Transportation Cabinet.
CAP	See <i>Communicate All Promises</i> .
CARRIER	A pipe that directly encloses a transmitted liquid or gas.
CASING	A larger pipe enclosing a carrier.
CFR	See <i>Code of Federal Regulations</i> .
CHANGE ORDER	Additions, subtractions, or other changes to the terms of an approved agreement.
CLEAR RECOVERY AREA	That portion of the roadside within the highway right of way set out by the Cabinet to be free of nontraversable hazards and fixed objects.
CLEAR ZONE	An unobstructed, relatively flat area beyond the edge of the traveled way that allows a driver to stop safely or regain control of a vehicle that leaves the traveled way. Defined in AASHTO's <i>Roadside Design Guide</i> as the total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles; may consist of a shoulder, a recoverable slope, a nonrecoverable slope, or a clear run-out area; has a desired minimum width dependent upon traffic volumes and speeds and on the roadside geometry.

CODE OF FEDERAL REGULATIONS (CFR)	The codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government. Divided into 50 titles that represent broad areas subject to federal regulation; updated annually with specific, scheduled titles issued on a quarterly basis.
COMMUNICATE ALL PROMISES (CAP)	Program established to codify the covenant between the Cabinet and property owners affected by the project.
COMPENSATION	Payment of eligible costs incurred by a utility company to accommodate highway construction.
CONDUIT	A pipe or tube used for protecting wires or cables.
CONSULTANT	The person or entity who provides specialized advice or services to a client.
CONTEXT SENSITIVE DESIGN (CSD)	Also called <i>Context Sensitive Solutions</i> ; refers to highway standards and development practices that are flexible and sensitive to community values; allows highway design decisions to better balance economic, social, and environmental objectives.
COST OF RELOCATION	The entire amount paid by or on behalf of the utility company properly attributable to the facility relocation, after deducting from total costs that amount attributable to any increase in value of the new facility and any salvage value derived from the old facility.
COST OF REMOVAL	The amount expended to remove utility property, including the cost of demolishing, dismantling, removing, transporting, or otherwise disposing of the property and of restoring the former facility site to a neat and presentable condition.
COST OF SALVAGE	The amount reasonably expended to restore salvaged utility property to usable condition after its removal.
DEBARMENT	The act of prevention or exclusion by legal means from enjoying certain possessions or rights or practices.
DEPRECIATION CREDIT	An allowance for the decrease in value of property over a period of time.
DIRECT FEDERAL HIGHWAY PROGRAM	Highway projects, such as projects under the Federal Lands Highway Program, which are under the direct administration of the FHWA.

DIRECTIONAL DRILLING	The process of drilling nonvertical wells, typically for the installation of a carrier pipe.
DISTRIBUTION FACILITY	That part of a utility system connecting the transmission line with the individual consumers or with the service lines of the individual consumers.
DUCT	See <i>Conduit</i> .
EASEMENT	The right to use the real property of another for a specific purpose. The easement is itself a real property interest, but legal title to the underlying land is retained by the original owner for all other purposes. Typical easements are for access to another property to, for example, install and maintain utility or sewer lines both under and above ground.
ELIGIBILITY DATE	Date specified by the Cabinet on which a vendor or contractor may begin reimbursable work pursuant to an agreement.
EMPLOYER IDENTIFICATION NUMBER (EIN)	Also known as a Federal Tax Identification Number, it is used to identify a business entity and is assigned by the Internal Revenue Service (IRS) in response to an application.
ENCASEMENT	The enclosing of any utility carrier pipe with a larger pipe (casing) to facilitate the repair of the smaller pipe in order to limit avoidable highway traffic disturbance during repairs.
ENCROACHMENT	Any permissible or impermissible intrusion on or disturbance of highway right of way by a party other than personnel or agents of the Cabinet.
ENGINEERING SERVICE CONTRACT (ESC)	An agreement between a utility company and its consultants, recognizing the Cabinet as a third party that may reimburse the utility company for all or part of the contract engineering costs.
ESC	See <i>Engineering Service Contract</i> .
EXCAVATION	The act of excavating or making hollow by cutting, scooping, or digging out a part of a solid mass.
FACILITY	Includes all property, means, and instrumentalities owned, operated, leased, licensed, used, furnished, or supplied for, by, or in connection with the business of any utility; see KRS 278.010.
FAPG	See <i>Federal Aid Policy Guide</i> .

**FEDERAL-AID POLICY
GUIDE (FAPG)**

An official Federal Highway Administration (FHWA) directive that contains the current policies, regulations, and nonregulatory procedural guidance information related to the FHWA's Federal Aid Highway Program.

**FEDERAL HIGHWAY
ADMINISTRATION
(FHWA)**

An agency within the U.S. Department of Transportation that supports state and local governments in the design, construction, and maintenance of the nation's highway system (Federal Aid Highway Program) and various federally and tribally owned lands (Federal Lands Highway Program). Through financial and technical assistance to state and local governments, the Federal Highway Administration is responsible for ensuring that America's roads and highways continue to be among the safest and most technologically sound in the world.

**FEDERAL RAILROAD
ADMINISTRATION
(FRA)**

An agency within the U.S. Department of Transportation responsible for promulgating and enforcing rail safety regulations, administering railroad assistance programs, conducting research and development in support of improved railroad safety and national rail transportation policy, providing for the rehabilitation of Northeast Corridor rail passenger service, and consolidating government support of rail transportation activities.

**FEDERAL TAX
ID NUMBER**

See *Employer Identification Number (EIN)*.

FHWA

See *Federal Highway Administration*.

FISCAL YEAR

Any 12-month period that a company uses for accounting purposes.

FLOWABLE FILL

Mixture usually comprised of combinations of cement, water, fine aggregate, and fly ash or slag; does not require manual compaction, and provides backfill with minimal voiding; can be returned to traffic in less time than granular backfill; does not trap water under the roadway.

FORCE ACCOUNT

Contracted construction work performed by a utility's employees (not by a contractor), to be paid for on the basis of time taken and material consumed.

**FORCE ACCOUNT
ESTIMATE**

Estimate of the cost of force account project work to be performed.

FRA

See *Federal Railroad Administration*.

**GEOGRAPHIC
INFORMATION
SYSTEM (GIS)**

A system that integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information. Used by governments and business, including utilities, in science, education, natural resource and environmental management and conservation, cartography, remote sensing, land surveying, utility management, photogrammetry, geography, urban planning, emergency management, navigation, and in many other ways.

GRADE

The degree of inclination (gradient, pitch, or rise) of a road or slope including that of topographic landforms and constructed elements where zero indicates gravitational level. Often calculated as the ratio of “rise over run” in which run is the measured horizontal distance and rise is the vertical distance. The larger the grade the higher or steeper the degree of inclination. Also a sloping road.

HCM

See *Highway Capacity Manual*.

**HIGHWAY CAPACITY
MANUAL (HCM)**

A publication of the Transportation Research Board (TRB) that contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various highway facilities, including freeways, highways, arterial roads, roundabouts, signalized and unsignalized intersections, rural highways, and the effects of mass transit, pedestrians, and bicycles on the performance of these systems.

**HIGHWAY
INFORMATION
SYSTEM (HIS)**

System that includes a full line of Highway Advisory Radio (HAR) systems, along with supporting electronics and software, and combines sensors, controllers, communication devices, and software to provide safer traveling environments.

**HIGHWAY SAFETY
IMPROVEMENT
PROGRAM (HSIP)**

Program established by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) as a core federal-aid program with the purpose of significantly reducing traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related highway safety improvements.

HIS

See *Highway Information System*.

HSIP

See *Highway Safety Improvement Program*.

IEEE	<i>See Institute of Electrical and Electronic Engineering.</i>
INDIRECT OR OVERHEAD COST	Expense not readily traceable to specific jobs or processes (generally indirect materials, indirect labor, and all other miscellaneous expenses, such as taxes, insurance, depreciation, supplies, utilities, and repairs) that may be equitably allocated to applicable jobs, processes, accounts, and other functions to which they relate in accordance with generally accepted cost accounting practices.
IN SITU	Situated in the original, natural, or existing place or position.
INSPECTION	The examination of work in progress or completed to determine conformity to plan and contract requirements.
INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERING (IEEE)	An association dedicated to advancing innovation and technological excellence for the benefit of humanity; technical professional society that serves professionals involved in all aspects of the electrical, electronic, and computing fields and related areas of science and technology.
KENTUCKY REVISED STATUTES (KRS)	Laws governing the Commonwealth of Kentucky; uses a decimal numbering system for identification purposes where the broadest subject grouping is referred to as a "title" which is composed of smaller subjects called "chapters."
KENTUCKY TRANSPORTATION CABINET (KYTC)	Executive branch agency responsible for overseeing the development and maintenance of a safe, efficient multimodal transportation system throughout the commonwealth.
KENTUCKY UTILITY & RAIL TRACKING SYSTEM (KURTS)	The web-based utility and rail coordination management system utilized by KYTC. The system houses project record data specific to utility and rail coordination, including items such as relocation plans, agreements, invoices, change orders, and communications. The system also tracks workflow approvals for those files that are subject to review and approval. Other miscellaneous functions of the system include the maintenance of historical cost data, a utility and rail contact database, and electronic document generation.
KRS	<i>See Kentucky Revised Statutes.</i>

KURTS	See <i>Kentucky Utility and Rail Tracking System</i> .
KYTC	See <i>Kentucky Transportation Cabinet</i> .
LET (LETTING; LETTING DATE)	The date that bid packages for a construction contract are opened; precedes the bid package evaluation process and the awarding of the construction contract, which allows the construction phase of a project to begin.
LOCAL PUBLIC AGENCY (LPA)	A municipality, county, state agency, university, or a qualified tribal or military organization authorized by KYTC to undertake transportation-related community projects funded in part through federal or state reimbursement.
LPA	See <i>Local Public Agency</i> .
MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)	Federal Highway Administration (FHWA) publication setting minimum standards and providing guidance by which traffic control devices (including road markings, highway signs, and traffic signals) are designed, installed, and used, including specifications for the shapes, colors, and fonts used in road markings and signs; used by state and local agencies as well as private construction firms to ensure uniformity of traffic control devices across the nation.
MILE POINT	A location designation on a highway, street, road, or railroad that indicates the distance in miles from a specified reference point.
MUTCD	See <i>Manual of Uniform Traffic Control Devices</i> .
NATIONAL ELECTRICAL SAFETY CODE® (NEC®)	A set of standards adopted by utility industries setting the ground rules for practical safeguarding of persons during the installation, operation, or maintenance of electric supply and communication lines and associated equipment.
NEGOTIATED CONTRACT	Contract awarded not through a competitive bidding process but on the basis of direct negotiation with a contractor.
NEC	See <i>National Electrical Safety Code</i> .

NOT TO EXCEED AMOUNT	<i>See Upset Limit.</i>
OCCUPATIONAL SAFETY & HEALTH SERVICES (OSHA)	Federal agency created by Congress with the Occupational Safety and Health Act of 1970 to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.
OFFICE OF LEGAL SERVICES (OLS)	Provides legal services for the Transportation Cabinet and is responsible for: legal matters relating to drafting, review, and approval of Administrative Regulations and guidance manual revisions; review of Official Orders, contracts, and memoranda of agreement; Board of Claims, collections, motor vehicle liability insurance, and property damage claims; general litigation; miscellaneous litigation; and administration of the Cabinet's Workers' Compensation program and related litigation.
OLS	<i>See Office of Legal Services.</i>
OSHA	<i>See Occupational Safety & Health Services.</i>
PAYMENT REQUEST COMMODITY (PRC)	A statement of charges with an invoice and supporting documentation that, once received for final bill, is reviewed for appropriateness and submitted for payment.
PERMIT	A document by which the Cabinet gives legal consent for encroachment upon highway right of way or easements by a party other than Cabinet personnel.
PIPELINE	A conduit made from pipes connected end-to-end for long-distance fluid transport.
PLANS	The approval plans, profiles, typical cross sections, working drawings, and supplemental drawings, or exact reproductions thereof, which show the location, character, dimensions, and details of work to be done.
PLAT	A drawing giving the location and dimensions of a particular piece of property, generally easements or rights of way.
PLG	<i>See Preliminary Line and Grade.</i>
PR-1	Division of Program Management federal project phase funding request and approval form.

PRC	See <i>Payment Request Commodity</i> .
PRELIMINARY ENGINEERING	The work necessary to produce relocations plans, specifications, and estimates to the degree of completeness necessary to determine the scope of work.
PRELIMINARY LINE & GRADE (PLG)	Phase where assessments of a project's environmental impact are developed through the environmental document and critical issues involving rights of way (ROW), utilities, and railroads are identified and discussed in detail; also the phase where alignment and grade are selected, public meetings are conducted, compatibility studies on future projects are performed (where feasible), and the project team verifies that project goals and objectives are being met.
PRIVATE UTILITY OWNERS	Utility companies that are privately owned.
PROGRAMMING	The organizing and allocation of federal or state funds to a specific phase function or project.
PROJECT AUTHORIZATION	The allocation of funds from the Division of Program Management to proceed with a phase of a project.
PROJECT AUTHORIZATION (STATE) LETTER	Conveys the Cabinet's authorization for a utility or rail company to begin reimbursable expenditures in the planning and design of the relocation and reconstruction of their facilities affected by a proposed roadway construction project.
PROJECT LIMITS	The bounds of the roadway construction project, typically defined relative to roadway mile points.
PUBLIC UTILITY OWNERS	Utility companies that are publically owned.
PUMPING STATION	A facility that pumps fluid material from one place to another.

- QUALITY LEVEL (QL-)** For purposes of this manual, a graduated scale of levels of quality of information generated by Subsurface Utilities Engineering that includes the following levels:
- **QL-A** affords the highest level of precision for utility location. It involves visibly exposing existing utilities, by use of minimally intrusive excavation equipment, to determine the precise horizontal and vertical positions of the utilities. The information provided allows mapping of utilities directly onto contract plan documents and should be accurate to applicable horizontal survey and mapping accuracy and within +/- 0.05 feet for vertical information. This level also provides the type, composition, size, condition, and other characteristics of underground features.
 - **QL-B** involves information obtained through the application of appropriate surface geophysical methods to determine the existence and horizontal position of virtually all utilities within the project limits. Data should be reproducible by surface geophysics at any point of the utility's depiction. The locations are surveyed to applicable tolerances and reduced for inclusion on plan documents. Knowledge of the locations of storm drainage systems, footers, foundations, and other design features can be crucial to successfully avoiding conflicts with utilities.
 - **QL-C** is probably the most commonly used level of information. Data is obtained by means of surveying and plotting visible above-ground utility features and using professional judgment to correlate this information with QL-D information.
 - **QL-D** is the most basic level of information for utility locations. It is derived solely from existing utility records or verbal recollections and is primarily used for project planning and route selection.
- RC** Rail coordinator; the role of an individual who works within the Transportation Cabinet and with KYTC staff, outside agencies and railroad companies to facilitate the timely and economical execution of all phases of highway projects that may impact railroad facilities.
- RAILROAD CROSSING INVENTORY (RCI)** Mechanism by which railroad companies and states update the US DOT National Highway-Rail Crossing Inventory File (National File) for all existing open crossings, including the inventorying and numbering of any existing or new crossings that are not in the National File and the transfer of crossings to a new operating railroad when rail lines are sold. **See US Dot Crossing Inventory Form.**
- RCI** See *Railroad Crossing Inventory*.

RECOMMENDED HIGHWAY PLAN	Culmination of decisions and legislation resulting in a schedule of proposed projects for planning, roadway design, right of way, utility, and construction phases within the timeframes specified in the plan; includes projects that result in smoother roads where the pavement is in disrepair, straighter roads in those spots where statistics indicate a crash problem, wider roads or bypasses where congestion is a major concern, and new roads where basic highway system access is lacking.
REHABILITATION ACT	Section 504 of the 1973 Rehabilitation Act (<i>Public Law 93-112</i>) prohibits discrimination on the basis of disability in federally assisted programs. FHWA ensures that recipients of federal aid and state and local entities that are responsible for roadways and pedestrian facilities do not discriminate on the basis of disability in any highway transportation program, activity, service or benefit they provide to the general public; and ensures that people with disabilities have equitable opportunities to use the public rights-of-way system.
REIMBURSEMENT	See <i>Compensation</i> .
RELOCATION &/OR ADJUSTMENT	Modification of the physical location of a utility to accommodate the construction of a proposed highway project.
RIGHT-OF-WAY	Land or property, or interest therein, acquired for or devoted to transportation purposes.
ROADWAY	The portion of a highway, including shoulders, for vehicular use.
RSC	Rail safety coordinator; the role of an individual to coordinate certain activities of the Transportation Cabinet, other state and federal agencies, and railroad companies to facilitate timely, economical, and appropriate projects primarily involving railway-highway crossings and warning devices pursuant to the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA) and the Railway-Highway Crossings Program (23 USC 130).
SALVAGE VALUE	The value received for the sale of utility property that has been removed or the value at which the recovered materials are charged to the utility's accounts if retained for reuse.
SERVICE FACILITY	A carrier line that connects the individual consumer to a distribution line.
SIGHT DISTANCE	The length of roadway that is visible ahead of the driver.
SLEEVE	A tubular part (as in a hollow axle or a bushing) designed to fit over another part; an open-ended flat or tubular packaging or cover; also called a split casing.

SPECIFICATIONS	A part of the contract documents consisting of written requirements for materials, equipment, construction systems, standards, and workmanship.
STANDARD DRAWINGS	Detailed drawings approved for repetitive use on a specific type of construction project.
STATEMENT OF CHARGES FORM (TC 69-8)	Form submitted with a company invoice to request payment for the reimbursable percentage of a utility relocation.
SUBSURFACE UTILITY ENGINEERING (SUE)	Many states utilize consultants to identify the quality of subsurface utility information needed for highway plans, and to acquire and manage that level of information during the development of highway projects. This branch of engineering practice defines processes to manage certain risks associated with highway utility relocation activities involving traditional records research and site surveys, as well as the use of new technologies such as surface geophysical methods and non-destructive vacuum excavation to provide desired "quality levels" of information.
SUE	See <i>Subsurface Utility Engineering</i> .
TC 10-1	Document generated by the Office of Program Management authorizing the expenditure of funds on one or more phases of a highway construction project that details project specific fiscal information, location, project numbers, funding levels of various phases, and approval dates.
TRANSMISSION FACILITY	That portion of a utility system used to transport energy, information, or material over long distances, connecting a main production facility to a remote consumer distribution system.
TRAVELED WAY	The component of the thoroughfare between the curbs including elements such as parking lanes, bicycle lanes, travel lanes and medians. The traveled way also includes midblock bus stops and midblock crosswalks.
UA	District utility agent, a role established in the highway district office to facilitate utility and rail coordination work.
UAP	See <i>Utility Accommodation Policy</i> .
UNITED STATES CODE (USC)	The codification by subject matter of the general and permanent laws of the United States; divided by broad subjects into 50 titles and published by the Office of the Law Revision Counsel of the U.S. House of Representatives; published every six years, with annual cumulative supplements published in between editions to present the most current information.

**UNITED STATES
DEPARTMENT OF
TRANSPORTATION
(US DOT)**

Federal department of the United States government concerned with transportation.

UPSET LIMIT

Maximum compensation for services under an engineering consultant contract; may be exceeded by agreement (usually written) of the parties.

US

District utility supervisor, a role established in the highway district office to facilitate utility and rail coordination work.

US DOT

See *United States Department of Transportation*.

**US DOT CROSSING
INVENTORY FORM**

Form FRA F 6180.71, the mechanism by which railroad companies and states update the US DOT National Highway-Rail Crossing Inventory File (National File) on a regular basis for all existing open crossings, including the inventorying and numbering of any existing or new crossings not in the National File and the transfer of crossings to a new operating railroad when rail lines are sold. Railroads are responsible for public, private, and pedestrian crossings; states are responsible only for public crossings.

USC

See *United States Code*.

USE & OCCUPANCY

The document (written contract or permit) by which the Cabinet approves the use and occupancy of highway right of way by utility facilities or private lines.

**UTILITIES & RAIL
BRANCH**

Cabinet branch designated to administer the utility relocation function, railroad coordination function, and the Highway/Railroad Crossing Inventory Program; provides support for the district utilities agents by reviewing relocation plans, proposals, and agreements submitted by district personnel and by assisting with contracts, paying invoices, and coordinating the work with other agencies and other Cabinet divisions; maintains an inventory of rail crossings of public roads throughout the state, is responsible for prioritizing safety upgrades to public rail/highway crossings and the programming of funds for the work done to maintain and upgrade the crossings, and coordinates highway construction projects with railroad companies.

UTILITY	A privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, crude products, water steam, waste, storm water other than highway drainage, or an alarm which directly or indirectly serves the public.
UTILITY ACCOMMODATION POLICY (UAP)	<p>FHWA’s historic approach to handling utility use of the right of way of federal-aid and direct federal projects (maintained in 23 CFR 645 subpart B) that requires each state to develop its own utility accommodation policy setting forth the manner in which the state will control the use of federal-aid highway right-of-way by utility facilities; also includes longitudinal utility use of freeway right of way.</p> <p>Note: Once the state’s policy is approved by the FHWA, any utility installations proposed to be installed on federal-aid highway projects in accordance with the approved state policy may be approved by the state without referral to the FHWA.</p>
UTILITY AGREEMENT	Standardized contract that establishes the terms by which the Cabinet and the utility company will interact on a highway project if any of the work by either the Cabinet or the utility company is compensable; final version to be comprised of a set of three originals.
UTILITY OR RAILS AGREEMENT MODIFICATION (CHANGE ORDER)	When a utility relocation or rails accommodation requires work, services or materials beyond the original scope of work as defined in the agreement the company may request a contract modification by submitting form TC 69-4, <i>Division of Right of Way & Utilities/Change Order</i> , to the district Utilities or Rails coordinator for consideration.
UTILITY COORDINATION	Process by which utility relocation or adjustment is planned, negotiated, executed, and compensated.
UTILITY FACILITY	Property owned by a utility company that provides a utility product to consumers.
JOINT UTILITY INFORMATION MEETING	A meeting held with potentially affected utility companies in reference to a road project for the express purpose of identifying and planning utility relocation work.

UTILITY RELOCATION**PLANS**

Plans defining the relocation and adjustments needed to address conflicts with the road project, which are produced by a utility company or consultant.

UTILITY VERIFICATION

The verification of existing utility facilities within a project area.

VENDOR NUMBER

See *Employer Identification Number (EIN)*.


VENT

An appurtenance used to discharge gaseous contaminants from a casing.

WORK ORDER SYSTEM

A procedure for accumulating and recording into separate accounts of a utility all costs to the utility in connection with any change in its system or plant.



	<p><i>Chapter</i></p> <p>EXHIBITS</p>
	<p><i>Subject</i></p> <p>Table of Exhibits</p>

<u>EXHIBIT NUMBER</u>	<u>EXHIBIT TITLE & FORM NUMBER</u>	<u>MANUAL REFERENCE</u>
UR-9001	Adjustment of Manholes Memorandum.....	none
UR-9002	Agreement Routing Sheet.....	1103-3
UR-9003	Bid Summary Sheet.....	1703
UR-9004	Design Memorandum 12-4 for Subsurface Utility Engineering.....	506-3
UR-9005	District Change Order Recommendation Memorandum	1503, 1504-1
UR-9006	District Memorandum Transmitting Package for Work in Road Contract	1704
UR-9007	Field Inspection Sheet.....	2102-3
UR-9008	Non-RHP Utility Impact Note with No Impacts.....	2202-2, 2202-3
UR-9009	Request for Utilities Involvement for Non-RHP Projects, TC 69-12 ...	2201, 2202-2, 2202-3
UR-9010	Utility Full Reimbursement Memorandum KRS 177.035(3)-(5)	1003, 1102-1, 1104-11



M E M O R A N D U M

TO: Area Utility Coordinators
Utilities Section

FROM: Donald E. Werner, P.E. *DE Werner*
Branch Manager
Utilities Section
Division of Right of Way

DATE: July 28, 1989

SUBJECT: Adjusting Water & Sanitary Sewer Manholes

If a manhole owned by a utility and covered under KRS 177.035 needs to be adjusted on a new construction or maintenance project that determination will be made by the resident engineer during construction. Adjusting of a manhole as per Section 710.05 Adjusting, in the Kentucky Standards Specifications for Road and Bridge Construction, Edition 1988 page 495 considers adjusting of a manhole not to exceed one (1) foot. Adjusting manholes is then covered by Section 401.18.03, Adjusting Manholes, Page 217 and will be directed by the engineer as to the amount of payment to the contractor.

Manholes raised or lowered to heights in excess of one (1) foot will be covered under Section 710.04, Reconstruction, Page 495 and will be handled as a bid item to the contractor on the plans.

Valve covers for water and gas lines are not included and the Water Company or District, City, Municipality owned Utility or Gas Company will be expected to adjust these items at their expense.

On resurfacing projects the Division of Maintenance may choose to ask Municipalities, Municipally owned Utilities and Water Districts to adjust manholes at no cost to the Department. Our interpretation of the specifications is that the Utilities are eligible for reimbursement under Section 401.18.03, Adjusting Manholes.

DEW:sr
C: Charles Raymer
George Asbury
Tom P. Mason

TC 10-1 _____
DATE: _____

Service Dates From: _____
To: _____

Jennifer McCleve
Keith McDonald
Carrie Morris

AGREEMENT NO. _____

COMPANY : _____

SUBJECT : County _____
Project Number _____
Project Description _____
Item No. _____

AGREEMENTS EXECUTED _____

THIS AGREEMENT _____

TOTAL AGREEMENTS \$ _____ -

TC 10 AUTHORIZED UTILITY FUNDING _____

TOTAL AGREEMENTS \$ _____ -

BALANCE UNOBLIGATED \$ _____ -

Date _____

Signature _____

WATER MAIN CONSTRUCTION ONLY

COUNTY OF CAMPEL, 6-8103 ULS
 JOHN'S HILL ROAD RY 33461
 FROM 019 2345 000-002

ITEM CODE	ITEM	UNIT	TOTALS
01993	6" DUCTILE IRON PIPE, CLASS 50 W/POLYWRAP	LF	12
01995	8" DUCTILE IRON PIPE, CLASS 50 W/POLYWRAP	LF	536
01997	12" DUCTILE IRON PIPE, CLASS 50 W/POLYWRAP	LF	3,853
207949D	8"x6" ANCHORING TEE & BLOCK	EA	1
207949D	12"x12"x6" ANCHORING TEE & BLOCK	EA	9
208151M	12"x12"x6" TEE & BLOCK	EA	1
207949D	12"x12"x8" TEE & BLOCK	EA	2
207949D	12"x12"x12" TEE & BLOCK	EA	6
03426	6" RESILIENT SEATED GATE VALVE	EA	11
03426	12" RESILIENT SEATED GATE VALVE	EA	4
03426	8" RESILIENT SEATED GATE VALVE	EA	29
03426	1" AIR RELEASE VALVE	EA	1
03426	3/4" AIR RELEASE VALVE	EA	2
03426	6" BEND & BLOCK	EA	10
03426	12" BEND & BLOCK	EA	25
03426	12" PLUG & BLOCK	EA	7
03426	CONNECT TO 6"	EA	1
03426	CONNECT TO 8"	EA	4
03426	CONNECT TO 12"	EA	8
03426	RELOCATE FIRE HYDRANT	EA	3
03426	ADJUST WATER VALVE BOXES (ALL SIZES)	EA	10
03426	FIRE HYDRANT ASSEMBLY	EA	7
03426	RECONNECT TO MAIN	EA	6
03426	RECONNECT TO SERVICE	EA	6
03426	RELOCATE WATER METER	EA	6
03426	3/4 INCH COPPER SERVICE	LF	291
03426	1 INCH COPPER SERVICE	LF	177
03426	PROPOSED METER PIT BOX	EA	1
03426	RELOCATE INTERNAL METER PIT PIPING	LS	1
03426	4" P.V.C. Drain Pipe	LF	252

JOHN'S HILL RD/UNIVERSITY DR

WATER MAIN CONSTRUCTION ONLY

- * NOTES *
- Contractor shall supply and install all materials, labor, and equipment for the construction of all water main structures, with existing and proposed.
 - Location of all water main structures shall be shown on the plan sheets and on the bid form and one set of "electronic" copies of the plan sheets shall be provided to the Engineer for review and approval. The Engineer shall be responsible for providing the necessary permits for the construction of all water main structures.
 - Contractor shall be responsible for obtaining all necessary permits for the construction of all water main structures. The Engineer shall be responsible for reviewing and approving all permit applications.
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FOR FURTHER INSTRUCTIONS AND EXPLANATIONS, SEE BID SPECIFICATIONS !!


WATER MAIN PLAN PREPARED BY:



VIOX & VIOX
 Civil Engineers, Surveyors and Landscaping Architects
 499 Prosper Place #400, Memphis, TN 38117
 Tel: (901) 252-1111, Fax: (901) 252-1111, www.viox.com

DESIGN MEMORANDUM NO. 12-04

TO: Chief District Engineers
Design Engineers
Active Consultants

FROM: Gary W. Sharpe, P.E. 
Director
Division of Highway Design

DATE: July 29, 2004

SUBJECT: Underground Utility Location

The relocation of underground utilities is a primary concern during project development. Complete and concise locations of existing utilities shall be obtained early in the design process. Utility company archives may not be sufficient to identify all utilities within the project corridor.

Locating existing utilities to a certain level should occur even during the Planning phase and/or Phase I Design of a project, whenever there are either large concentrations of utilities or the existence of a major utility facility. At any stage of design, the utility companies should be involved in the design process. They should be invited to key meetings, advised, and consulted about impacts of the roadway to their facilities. Utility companies should be invited and encouraged to attend public involvement meetings so as to afford the companies the opportunity to provide input. The choice of alternatives for the proposed roadway should reflect this information in an effort to first AVOID the utility conflict, secondarily MINIMIZE the effect, and thirdly MITIGATE the conflict with the utility company.

The quality level that is utilized in the location of existing utilities should be based on the stage of development for a roadway project. During the corridor study to determine potential alternatives, the use of existing records or verbal information from utility companies typically will suffice. The quality level utilized in locating existing utilities should improve as alternatives are developed and refined. Location of utilities should include the horizontal (and vertical position when appropriate) of the utility, the material of which it is composed, the size, and any other pertinent data concerning the facility. The following is a description of the differing quality levels of utility location:

- Quality Level D (QL D): Information derived solely from existing records or verbal recollections.
- Quality Level C (QL C): Information obtained by surveying and plotting visible aboveground utility features and by exercising professional judgment in correlating this information to Quality Level D information.
- Quality Level B (QL B): Information obtained through the application of appropriate surface geophysical methods to identify the existence and approximate horizontal position of subsurface utilities. "Quality Level B" data should be reproducible by surface geophysics at any point of the utility's depiction. This information is surveyed to applicable tolerances and reduced onto plan documents.

Design Memo No. 12-04

Page 2

July 29, 2004

- Quality Level A (QL A): Information obtained by the actual exposure (or verification of previously exposed and surveyed utilities) of subsurface utilities, using (typically) minimally intrusive excavation equipment to determine their precise horizontal and vertical positions, as well as their other utility attributes. This information is surveyed and reduced onto plan documents. Accuracy should be to applicable horizontal survey and mapping accuracy and should be within ± 0.05 ft. vertical.

All of the above Quality Level work shall be completed in accordance with Section 5: Utility Quality Level Attributes as documented in CI/ASCE 38-02, the *Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data* by the American Society of Civil Engineers.

The project team shall determine the quality level (QL) of utility locations that are appropriate for the various stages of project development. The appropriate level D, C, or B should coincide with surveying activities during initial phases of design (Phase 1). QL A location of utilities will be done as needed, based on potential conflicts. Utilities MUST be identified and located on plan documents. All underground utilities depicted shall be QL B unless the particular utility is labeled "QL C" or "QL D" (See exhibit 300-05.) QL A is applicable only where direct observations of the exposed utility are made. A summary sheet will be included in the plans to document the QL A horizontal and vertical locations. The QL A data shall be documented by station, offset, northing, easting, and elevation. (See exhibit 300-06.)

The following are areas where emphasis and care should be given to complete and accurate location of underground utilities:

- (1) The urban highway construction project with high potential for anticipated utility conflicts;
- (2) Projects with complex utility networks-either aged or of significantly high potential for expensive utility relocations;
- (3) Limited, narrow, and congested existing rights-of-way; and
- (4) High-profile highway projects that have critical schedule.

It may appear to be fiscally advantageous to place the brunt of relocation costs on private companies, while avoiding publicly owned utilities simply to avoid the direct cost of utility relocation by the Cabinet. The ultimate cost in time and money to the public should compel the designer to consider all the impacts of utility relocation whenever decisions are made as to the location of a roadway.

If the project is being designed by consultant, the project team should specify in the Advertisement for Consultant Services that the consultant will be required to locate utilities to the differing levels dictated by the project development stages.

Similar efforts to more adequately and expeditiously define the location of utilities should be exercised on projects being designed by in-house staff.

Design Memo No. 12-04

Page 3

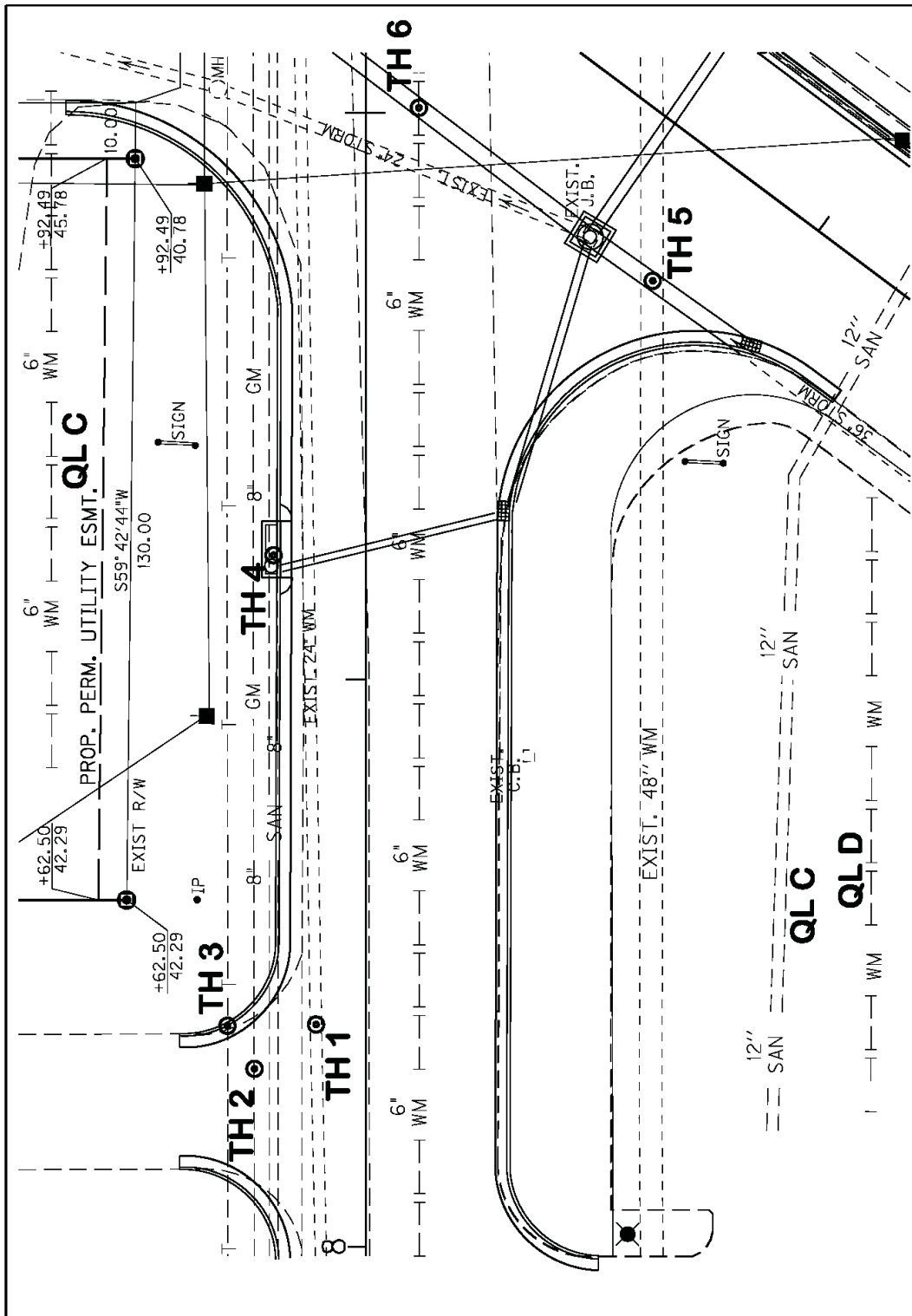
July 29, 2004

Projects let to contract after July 1, 2005, must comply with this memorandum unless otherwise approved by the Director of Highway Design. Projects that will be let to contract prior to July 1, 2005, may implement the policy written in this Design Memorandum if determined necessary or appropriate by the Project Manager/Project Team.

Any questions regarding the implementation of this memorandum should be directed to this office.

GWS:JDJ:JAD

EXAMPLE QUALITY LEVEL PLAN SHEET EXHIBIT 300-05



TEXT REPRESENTING TEST HOLES AND QUALITY LEVELS ARE BOLD FOR EXHIBIT PURPOSES.

DRAWING NOT TO SCALE 7-29-2004

MEMORANDUM

TO: *Name*
 Branch Manager
 Utilities and Rails Branch
 Division of Right of Way and Utilities

ATTENTION: *Name*
 Area Utilities Coordinator
 Utilities and Rails Branch
 Division of Right of Way and Utilities

FROM: *Name*
 District Utility Agent/Supervisor
 District XX

DATE: *Month, day year*

SUBJECT: *County, Federal Project Number*
 State Project Number
 Project Name
 Item No. *XX-XXXX.XX*

Attached is Change Order Number *XX*, from *Utility Company* for an increase of *\$XXX,XXX.XX* on the subject project. This change order was necessary due to *description of justification and need*.

This change order has been checked for reasonableness, accuracy and validity and appears acceptable as reviewed. It is being recommended by the District *XX* Utilities Section for execution and distribution upon review and concurrence.

Attachments

MEMORANDUM

TO: *Name*
Branch Manager
Utilities and Rails Branch
Division of Right of Way and Utilities

ATTENTION: *Name*
Area Utilities Coordinator
Utilities and Rails Branch
Division of Right of Way and Utilities

FROM: *Name*
District Utility Agent/Supervisor
District *XX*

DATE: *Month, day year*

SUBJECT: *County, Federal Project Number*
State Project Number
Project Name
Item No. XX-XXXX.XX

Transmitted herewith is the package of *Company name* relocation materials for incorporation into the road contract.

The package includes the *relocation plans, specifications and estimate*. These documents have been dutifully reviewed by the District and are ready to incorporate into the road project bid package. The District *XX* Utilities Section recommends the package be submitted to the Division of Construction Procurement upon review and concurrence.

Attachments

CC: Division of Construction Procurement, memo only

Kentucky Rail/Highway Crossing Field Inspection

County _____		Crossing Number _____		AAR DOT Number _____	Date(mm/dd/yyyy) _____
Highway Speed _____	AAR DOT Number Plate Installed <input type="checkbox"/> Yes <input type="checkbox"/> No		ENS Sign Installed (1-800) <input type="checkbox"/> Yes <input type="checkbox"/> No		Quiet Zone <input type="checkbox"/> No <input type="checkbox"/> Partial <input type="checkbox"/> 24 hr <input type="checkbox"/> Unknown
Digital Pictures Taken <input type="checkbox"/> Yes <input type="checkbox"/> No					

Physical Characteristics

Latitude (max. 10 char., m.mmmmm)	Longitude (max. 11 char., m.mmmmm)	Smallest Crossing Angle (degrees) <input type="checkbox"/> 0-29 <input type="checkbox"/> 30-59 <input type="checkbox"/> 60-90
Number of Traffic Lanes Crossing Railroad _____	Are Truck Pullout Lanes Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is Highway Paved? <input type="checkbox"/> Yes <input type="checkbox"/> No
Crossing Surface (on Main Line) <input type="checkbox"/> Timber <input type="checkbox"/> Asphalt <input type="checkbox"/> Asphalt & Hange <input type="checkbox"/> Concrete <input type="checkbox"/> Concrete & Rubber <input type="checkbox"/> Rubber <input type="checkbox"/> Metal <input type="checkbox"/> Unconsolidated <input type="checkbox"/> Other _____		
Does Track Run Down a Street? <input type="checkbox"/> Yes <input type="checkbox"/> No	Nearby Intersecting Highway? <input type="checkbox"/> Less than 75 feet <input type="checkbox"/> 75 to 200 feet <input type="checkbox"/> 200 to 500 feet <input type="checkbox"/> N/A	Is it Signalized? <input type="checkbox"/> Yes <input type="checkbox"/> No
Type and Number of Tracks Main _____ Other _____ If Other, Specify _____		
Cut Rails <input type="checkbox"/> Yes <input type="checkbox"/> No	Blind Quadrants <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	Possible Passing of Trains <input type="checkbox"/> Yes <input type="checkbox"/> No

Traffic Control Device Information

No Signs or Signals <input type="checkbox"/> Check if Correct	Type of Warning Devices at Crossing-Signs (Specify Number of Each)				
	Crossbucks Masts _____ Refl. _____	Highway Stop Signs _____	RR Advanced Warning Signs <input type="checkbox"/> Yes <input type="checkbox"/> No	Hump Crossing <input type="checkbox"/> Yes <input type="checkbox"/> No	Hump Sign <input type="checkbox"/> Yes <input type="checkbox"/> No
Pavement Markings <input type="checkbox"/> Stoplines <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None	Reflective Tape on Post <input type="checkbox"/> Yes <input type="checkbox"/> No	Reflective Tape on X-buck Reverse <input type="checkbox"/> Yes <input type="checkbox"/> No	Other Signs Number _____ Specify Type (max. 10 char.) Number _____ Specify Type (max. 10 char.)		
Type of Warning Device at Crossing-Train Activated Devices (Specify Number of Each)					
Gates _____	Four-quadrant (or full barrier) Gates <input type="checkbox"/> Yes <input type="checkbox"/> No	Cantilevered (or Bridged) Flashing Lights Over Traffic Lane (numbers) _____ Not Over Traffic Lane (number) _____		Mast Mounted Flashing Lights (numbers) _____	Number of Flashing Light Pairs <input type="checkbox"/> 8 <input type="checkbox"/> 12 <input type="checkbox"/> LED
Other Flashing Lights Number _____ Specify Type (max. 9 char.)		Highway Traffic Signals (number) _____	Wigwags (number) _____	Bells (number) _____	

INSPECTOR(S): _____

REMARKS: _____

SPECIAL NOTES FOR UTILITY CLEARANCE
IMPACT ON CONSTRUCTION

<p>COUNTY, FEDERAL PROJECT # (Constr. Phase if applicable)</p> <p>UNIFIED PROJECT NUMBER (Fund Program, County #, eMARS #)</p> <p>ROAD NAME (NUMBER)/PROJECT DESCRIPTION</p> <p>SIX YEAR PLAN ITEM NUMBER (if applicable)</p>

*Utility coordination efforts conducted by the project sponsor have determined that **no utility relocation work is required** to complete the project.*

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities. The contractor will conduct activities to minimize and avoid utility facilities. If conflicts with utility facilities are identified and unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. In such an instance, the contractor will be responsible for contacting all utility facility owners on the subject project to coordinate activities, minimize and avoid conflicts. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

The facilities listed may not be inclusive of all utilities in the project. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

BEFORE YOU DIG

The contractor is instructed to contact KY 811, the one-call system, for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

UTILITY COMPANIES WITH SERVICE AREAS OVERLAPPING

PROJECT SCOPE AS PROVIDED BY KY 811

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact</u>
	<u>Information</u>	



Kentucky Transportation Cabinet
Division of Right of Way and Utilities

TC 69-12
 10/2011

REQUEST FOR UTILITIES INVOLVEMENT FOR NON-RHP PROJECTS

INSTRUCTIONS

- This form is intended to request Utilities Section involvement on projects that don't originate in Kentucky's Recommended Highway Plan, and for projects that don't follow typical project development processes. Sample projects include, but are not limited to, HSIP and Project Delivery & Preservation projects.
- Please provide this completed form to the District Utility Supervisor (DUS) with needed project deliverables for Utilities Section involvement to commence.

GENERAL PROJECT INFORMATION

County: _____ Proposed Letting Date: _____ (M/d/yyyy format)
 Route/ Road Name: _____ Billable Funding Line (i.e. FEO1): _____
 Mile Point _____ to Mile Point _____ Brief Project Description: this box will accept up to 45 characters
 Railroad Involvement: Yes No

PROJECT SCOPE

Type of Project (The DUS needs the project purpose and functions. Check all that apply.)

<input type="checkbox"/> Geotechnical	<input type="checkbox"/> Slide Repair	<input type="checkbox"/> Embankment Replacement		
<input type="checkbox"/> Guardrail	<input type="checkbox"/> In Situ Repair	<input type="checkbox"/> Replacement	<input type="checkbox"/> New Construction	<input type="checkbox"/> Relocation
<input type="checkbox"/> Pavement	<input type="checkbox"/> Resurfacing (overlay)	<input type="checkbox"/> Pavement Addition	<input type="checkbox"/> Full Depth Pavement Replacement	
	<input type="checkbox"/> JPC Repair	<input type="checkbox"/> JPC Replacement	<input type="checkbox"/> Partial Depth Pavement Replacement	
<input type="checkbox"/> Drainage	<input type="checkbox"/> Culvert Repair	<input type="checkbox"/> Storm Drain Repair	<input type="checkbox"/> Open Channel Repair	
	<input type="checkbox"/> Culvert Replacement	<input type="checkbox"/> Storm Drain Replacement	<input type="checkbox"/> Open Channel Replacement	
	<input type="checkbox"/> Relocation	<input type="checkbox"/> New Storm Drain/Extension	<input type="checkbox"/> New Open Channel/Extension	
<input type="checkbox"/> Structure	<input type="checkbox"/> Bridge Repair	<input type="checkbox"/> Bridge Replacement	<input type="checkbox"/> Other explain w/ up to 45 characters	
<input type="checkbox"/> Electrical Device	<input type="checkbox"/> In Situ Repair	<input type="checkbox"/> Replacement	<input type="checkbox"/> Relocation	<input type="checkbox"/> New Lighting/Signals
<input type="checkbox"/> Signage	<input type="checkbox"/> In Situ Repair	<input type="checkbox"/> Replacement	<input type="checkbox"/> Relocation	<input type="checkbox"/> New Signage

Notable Project Features (The DUS needs approx. locations of features that may impact utilities in the area. Describe all that apply.)

<input type="checkbox"/> Cut	location: _____	<input type="checkbox"/> Lighting	location: _____	<input type="checkbox"/> Tree Trimming	location: _____
	depth: _____		type: _____		
<input type="checkbox"/> Fill	location: _____	<input type="checkbox"/> Signals	location: _____	<input type="checkbox"/> Tree Removal	location: _____
	depth: _____		type: _____		
<input type="checkbox"/> Signage	location: _____	<input type="checkbox"/> Other	location: _____	<input type="checkbox"/> Grind	
	type: _____		type: _____	<input type="checkbox"/> Stump Removal	

DELIVERABLES (Attach all available items with this form)

- 1. Scope Map** – aerial Plan view with the project bounds, minimally. Location of proposed work and additional detail is desirable. Notable Project Features should be located and defined.
- 2. Site Summary** – a brief description of work proposed that may provide the DUS insight regarding the location of work and impact potential to overhead and underground utilities.
- 3. Estimate** – the project construction estimate

REQUESTS (Work to be performed by the DUS, as requested by Project Manager)

Yes	No		Proposed Date: _____ (M/d/yyyy format)
<input type="checkbox"/>	<input type="checkbox"/>	Site Visit	
<input type="checkbox"/>	<input type="checkbox"/>	Utility Impact Notes	Proposed Submission Date: _____ (M/d/yyyy format)
<input type="checkbox"/>	<input type="checkbox"/>	Inventory of Ex-Utility Facilities in the area	Proposed Date: _____ (M/d/yyyy format)

Sent by: _____ Received by: _____
 Signature: _____ Signature: _____
 Printed Name: _____ Printed Name: _____

MEMORANDUM:

Approved By: XXXX
Deputy State Highway Engineer for Project Development

Through: XXXX
Utilities and Rail Branch Manager

From: XXXX
District X Project Development Branch Manager

Date: XXXX XX, XXXX

Subject: County, Item No.
Project No.
Project Road Name
Project Description
Request for 100% Utility Reimbursement

The subject project is recommended for full reimbursement of ALL Utility engineering and relocation construction expenditures, as prescribed in KRS 177.035 (3-5). This request is based upon the following:

Utility Funding Considerations:

Highway Plan (2012 SPP)	\$XXX,XXX
Current Standard Estimate	\$XXX,XXX
100% Funding Estimate	\$XXX,XXX

Justification of Need and Anticipated Benefits:

Utilities must be relocated by XXXXXXXX letting date in order XXXXXX. There are XXXXX utilities being affected by this project, including XXXXXX. These utilities are critical for the project clearance, and the ability to reimburse 100% will allow the utility companies to meet the agreed-upon clearance date. Additional justifications include XXXXXXXXXXXX.

c: State Highway Engineer, District Utility Supervisor