

CALL NO. 405
CONTRACT ID. 192028
LETCHER COUNTY
FED/STATE PROJECT NUMBER 067GR19P003-FD51
DESCRIPTION LETCHER (KY 588 AND KY 3402)
WORK TYPE SLIDE REPAIR
PRIMARY COMPLETION DATE 9/30/2019

LETTING DATE: January 25,2019

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME January 25,2019. Bids will be publicly announced at 10:00 AM EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

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PART I SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 12

CONTRACT ID - 192028 067GR19P003-FD51

COUNTY - LETCHER

PCN - MP06705881901 FD51 067 0588 001-011

HIGHWAY 588 (KY 588) (MP 1.749) BEGINNING 0.961 MILES WEST OF JUDY BRANCH/ELWOOD ROAD AND EXTENDING EAST TO A POINT 0.151 MILES WEST OF KY 931 (MP 11.046), A DISTANCE OF 09.29 MILES.SLIDE REPAIR

GEOGRAPHIC COORDINATES LATITUDE 37:07:06.00 LONGITUDE 82:54:27.00

PCN - MP06734021901 FD51 067 3402 000-002

DRY FORK ROAD (KY 3402) (MP 0.219) BEGINNING 0.219 MILES NORTH OF KY 15 AND EXTENDING NORTH TO A POINT 0.034 MILES SOUTH OF BILL CORNETT ROAD (MP 1.452), A DISTANCE OF 01.23 MILES.SLIDE REPAIR GEOGRAPHIC COORDINATES LATITUDE 37:08:46.00 LONGITUDE 82:50:44.00

COMPLETION DATE(S):

COMPLETED BY 09/30/2019

APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by KRS 14A.9-010 to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under KRS 14A.9-030 unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in KRS 14A.9-010, the foreign entity should identify the applicable exception. Foreign entity is defined within KRS 14A.1-070.

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at https://secure.kentucky.gov/sos/ftbr/welcome.aspx .

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other pregualification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

April 30, 2018

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the electronic bidding software. Submittal of the Affidavit should be done along the bid in Bid Express.

April 30, 2018

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

SPECIAL NOTES SLIDE REPAIR PROJECT

I. DESCRIPTION

This work shall be performed in accordance with the Department's Current Standard Specifications and applicable Special Provisions except as hereafter specified. Article references are to the Standard Specifications.

This work shall consist of: (1) Clear and grub, install temporary erosion control, temporary pollution control, seed and protect disturbed area, and final dress area, as needed; (2) Do necessary excavation; (3) Furnish and install railroad rails; (4) **Install wall cribbing furnished by the Department of Highways;** (5) Excavate, place geotextile material, and backfill the area around the railroad rails and on the fill slope; (6) Reconstruct shoulder area; (7) Furnish and install channel Lining, as applicable; (8) Furnish and Install guardrail and guardrail end treatments, as applicable, *Remove and relocate guardrail, as required;* (9) Maintain and control traffic; and (10) any other work as specified by this contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

- **A.** Railroad Rails. Use recycled (used) railroad rails classified with a nominal weight of 130 lb./yd (pounds per yard) size or greater. Use only visibly straight recycled railroad rails with no splices. The Engineer will verify rail nominal weights (Manufacturer's Stamp with lb./yd, date, etc.). Provide Certification for nominal weight if the Manufacturer's Stamp is unidentifiable.
- **B.** Wall Cribbing. Use wall cribbing: recycled (used) steel "W" beam guardrail. Cribbing material will furnished by the Department of Highways. The Department will make the materials available to the Contractor at the Bailey Bridge Lot between the hours of 8:00 a.m. and 3:30 p.m. Monday through Friday.
- **C. Backfill material for Drilled Sockets.** Use the following for backfill material for Drilled sockets: concrete; free flowing sand; pea gravel, crushed limestone, or crushed sandstone. Use backfill material with one hundred percent (100%) passing a one-half (1/2) inch sieve. Do not use auger tailings. Engineer will use visual inspection and/or material testing, as applicable to determine acceptability.

- **D. Fill Material for CRIBBING.** Use one of the following backfill materials: Kentucky Aggregate Gradation No. 2's or larger. Backfill material shall meet requirements of Section 805. The Engineer will use visual inspection and/or material testing, as applicable to determine acceptability.
- **E. DGA.** Furnish Dense Graded Aggregate as per Section 805. Do not use Crushed Stone Base.
- **F. Final Dressing, Seed and Protection.** Use Seed Mixture No. 1.
- G. Silt Trap A, B or C. Furnish Silt traps as per Std Drawings and Section 213.
- **H. Silt Fence.** Furnish Temporary Silt Fence as per Section 213 and Section 827.
- **I. Geotextile Fabric.** Furnish Geotextile Fabric Type 1V as per Section 843.
- J. Guardrail Posts. See Special Notes for Guardrail.

III. CONSTRUCTION METHODS

- **A. Maintain and Control Traffic.** See Traffic Control Plan.
- **B.** Staking. Establish proper slope elevations and ratios, shoulder widths, existing ditch profile and final ditch profile to insure positive drainage. Be responsible for field layout. Positive drainage is required upon completion of the project and is the responsibility of the Contractor.
- **C. Site Preparation.** Prepare flood repair sites. This includes clearing and grubbing, if necessary. Remove all obstructions. Sweep and remove debris, if necessary. The area to be cleared has not been measured by the Department and the bidder must draw his own conclusions. Construct silt checks and Temporary silt fence at locations directed by the engineer. The Engineer shall approve all site preparation. The Department will not make direct payment for site preparation.
- **D. Installation of Railroad Rails.** See attached summary for site locations and estimated quantities of materials required. <u>Contrary to the attached tables and drawings for drilled railroad rails, Install only 1 Row of RR Rails on 3 foot centers unless otherwise shown on the summary or mentioned in these notes. The depth to rock shown on the</u>

<u>location summary is approximate.</u> The embankment failures at these sites are caused by erosion.

NOTE TO ENGINEER AND CONTRACTOR: ABSOLUTELY NO CHANGE IN SCOPE OF WORK OR INCREASE IN QUANTITIES WILL BE ALLOWED ON THIS PROJECT WITHOUT PRIOR WRITTEN APPROVAL FROM THE DISTRICT PROJECT DELIVERY AND PRESERVATION BRANCH MANAGER.

THE DEPARTMENT SHALL NOT BE LIABLE FOR PAYMENTS DUE TO ADDITIONAL WORK THAT HAS NOT BEEN AUTHORIZED BY THE AFOREMENTIONED PERSONS.

Install used railroad rail piling in drilled sockets in rock or stable material under the landslides (see figure 1) or the eroded areas (see figure 2) as project location dictates or as directed by the Engineer.

Drill the socket, furnish, and install the railroad rails into holes at slide locations. If the Engineer determines from the sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as "Railroad Rail-Drilled". Drill sockets into solid rock, if possible. The Department will monitor each hole, which will serve as a sounding for the rail to be installed in it. Embed the railroad rail into solid rock no less than one-half the free end length of the rail. (See figure 1 and figure 2). If solid rock cannot be obtained, the Engineer will determine the length of embedment required in other stable foundation. Allow adequate size of the drilled socket to allow free insertion of the railroad rail, but the maximum socket size is 1 foot in diameter.

After each hole is drilled, install railroad rail immediately with the flanges positioned perpendicular to the direction of the landslide or break (see figure 3). Determine the height of rail that is needed to reestablish pavement and shoulder typical section. Cut off excess rail flush with the proposed ground line that is not needed. Use cutoffs elsewhere in the project if possible; unusable cutoffs remain the property of the Contractor.

After railroad rail is installed, immediately backfill the drilled hole with the approved materials. Shovel the backfill material into the hole in small amounts. Avoid bridging between the rail and the sides of the hole. Do not use Auger tailings as backfill material.

When double or triple rows are required, stagger the rows to obtain the required spacing. Keep the spacing between the rows of rails as close as is practical; do not space between LETCHER COUNTY 067GR19P003-FD51 Contract ID: 192028 Page 13 of 57

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the rows of more than 2 feet, if possible. See figure 3 (Case II and Case III) for the diagrams showing two (2) or three (3) rows of rails. Select the spacing as per Table 1 for all 130 pound per yard rail or greater. The Department shall approve the selection prior to work being performed.

Crib any exposed portion of railroad rail before placing backfill.

E. Excavation and Backfill for Embankment Repair. Excavate each embankment/flood repair area to provide a platform for drilling the used railroad rails, if necessary. Excavate for roadway ditches as necessary for slope, shoulder and pavement drainage. Place geotextile fabric, then construct embankment behind railroad rails, cribbing and on slope, as per Section 206. Construct embankment up to the approximate existing pavement elevation.

Reconstruct the shoulder area with DGA up to the approximate existing elevation and width of the surrounding typical section or to a minimum width of <u>2 Feet</u> at each slide location. Do not pond water on the shoulder area or at the shoulder edge. Reconstruct the shoulder before installing guardrail. Asphalt paving will not be part of the contract. If necessary, asphalt paving will be done by state forces at a later date.

DO NOT USE EXCAVATED MATERIAL FROM THE SITE AS FILL MATERIAL. Excess excavation may be wasted at sites on the right-of-way, ONLY if approved by the Engineer. Material may NOT be wasted in flood prone areas or in streams.

If the Engineer deems no suitable sites are available within the right-of-way, the Contractor will be required to waste excess material off the right-of-way at sites obtained by the Contractor at no cost to the Department.

- **F. Installation of Wall Cribbing**. Install Cribbing as shown on Figure 1 or Figure 2 as slide location dictates or as directed by the Engineer. Extend wall cribbing 2 feet below the existing ground line. If bedded rock is encountered, install the cribbing to the bedded rock only. If necessary, the Engineer will direct changes to this procedure. Furnish all labor and equipment to deliver and install wall cribbing on the recycled (used) railroad rail piling. Wall cribbing shall be lapped, bolted, and attached solid to the drilled railroad rails.
- **G. Final Dressing, Seeding and Protection**. Apply Final Dressing; Class A to all disturbed areas, both on and off the right-of-way. Sow with Seed Mixture No. 1. The Department will NOT make direct payment for final dressing, or seeding and protection.

- **H.** Guardrail. See Special Notes for Guardrail.
- I. On-Site Inspection. Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize themselves with the existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made.
- **J. Right-of-Way Limits.** Right-of-Way and easement limits shown on the plans are approximate only. The Contractor shall make every effort to limit his activities to obvious right-of-way and permanent or temporary easements and shall be responsible for encroachments onto private lands.
- **K. Property Damage.** The Contractor will be responsible for all damage to public and/or private property resulting from his work.
- L. **Utility Clearance** NOTICE: Utility locations are not shown on plans or in the proposal for this project and have not been located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Notify the Engineer and the utility owner(s) immediately when it is discovered or anticipated that any utility conflict could delay the Contractor's operations. Do not disturb existing overhead or underground utilities. Be responsible for repairing all utility damage that occurs as a result of the work It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Working days will not be charged for those days on which work on the controlling item is delayed, as provided in the Specifications. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified. Comply with applicable sections of Chapter 107.
- **M. Asphalt Patching.** Asphalt paving will not be part of the contract. If necessary, asphalt paving will be done by state forces at a later date.

IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic. See Traffic Control Plan.
- **B.** Railroad Rail-Drilled. The Department will measure this item in Linear Feet finished in-place length: Laps, cutoffs, excess and waste will not be measured for payment. If the Engineer determines from the sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as "Railroad Rail-Drilled".
- **C. Wall Cribbing** The Department will measure this item in square feet finished inplace area. Laps, cutoffs, excess and waste will not be measured for payment.
- **D.** Excavation and Backfill. The Department will measure this item in cubic yards. The Department will measure the quantity in the field as per Section 204 (Roadway Excavation) or other accepted methods of measurement as directed by the Engineer. The following items will not be measured directly by the Department: Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste removal, and Disposal, but will be incidental to "Excavation and Backfill" as applicable to each project.
- E. Site Preparation, Clearing and Grubbing, Seeding and Protection, Fertilizer, Temporary Erosion Control, Temporary Pollution Control, Waste Disposal. The Department will NOT MEASURE for payment these items. They include Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste Disposal, and other items not expressly bid as individual items. These items shall be incidental to the bid item "Excavation and Backfill" as applicable to each project.
- **F. Guardrail.** See Special Notes for Guardrail.

V. BASIS OF PAYMENT

- **A. Maintain and Control Traffic.** See Traffic Control Plan.
- **B.** Railroad Rail-Drilled. The Department will pay for the completed and accepted quantities under the bid item of "Railroad Rail-Drilled". The Department will consider

payment full compensation for all work required in these notes and elsewhere in the Contract.

- C. Excavation and Backfill. The Department will pay for the completed and accepted quantities under the bid item: Excavation and Backfill. Payment will be based on quantity measured in the field. The Department will consider payment full compensation for all work required on the project. The following items are incidental to "Excavation and Backfill" and will not be measured directly by the Department. These items include Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste removal and Disposal.
- **D.** Wall Cribbing. The Department will pay for the completed and accepted quantities under the bid item of "Cribbing". Payment will be based on the quantity installed in the field. The Department will not make separate payment for the hauling of the wall cribbing to the slide site. The Department will consider payment full compensation for all work required on the project.
- E. Site Preparation, Clearing and Grubbing, Seeding and Protection, Fertilizer, Temporary Erosion Control, Temporary Pollution Control, Waste Disposal. The Department will NOT make direct payment for operations for which bid items do not exist. They include items listed here: Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste removal and Disposal. These activities shall be incidental to the bid item "Excavation and Backfill" as applicable to each project.
- **F. Guardrail.** See Special Notes for Guardrail.

REFERENCES

- 1. Kentucky Transportation Cabinet, Department of Highways, Current Standard Specifications for Road and Bridge Construction.
- 2. Manual On Uniform Traffic Control Devices.

SPECIAL NOTES FOR GUARDRAIL

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Remove existing guardrail systems; (3) Resetting an installing guardrail systems; (4) Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (5) Delineators for guardrail; (6) Maintain and control traffic; and (7) all other work specified as part of this contract.

II. MATERIALS

Except as specified herein, provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual and make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

- A Maintain and Control Traffic. See Traffic Control Plan.
- **B. Guardrail.** Furnish guardrail system components according to section 814 and the Standard Drawings; except use steel posts only, no alternates.
- **C. Delineators for Guardrail.** Furnish white and/or yellow Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.
- **D. Erosion Control.** See Special Notes for Erosion Control.

III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic. See Traffic Control Plan.
- **B. Site Preparation.** Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; temporary pollution and erosion control; disposal, of excess and waste materials and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

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C. Remove and Reset Guardrail system, including Concrete Posts and Existing Guardrail End Treatments. Remove existing guardrail system including the guardrail end treatments, Bridge End connectors and all other elements of the existing guardrail system as per Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way.

Dispose of all existing concrete off the right of way at locations approved by the Engineer. Salvage existing material as per Section 719.03.06, except that salvaged guardrail and guardrail end treatments shall be reused and reset in locations designated by the Engineer. Remove any existing guardrail with a lane closure in place. Do not leave the area unprotected. After the guardrail is removed, a shoulder closure shall remain in place until the guardrail is replaced in that area.

Reset and install guardrail systems as per Section 719. Steel guardrail posts are required. No alternate is allowed. The shoulder width shall be a minimum of 2 Ft unless otherwise directed by the Engineer. Grade slopes and shoulders as per applicable guardrail standard drawings. Guardrail locations shown on summary and/or drawing are approximate only. The Engineer will determine the exact termini for guardrail installations at time of construction. Construct radii at entrances and road intersections as per applicable Standard Drawings.

D. Guardrail. Except as specified herein, construct guardrail system according to Section 719 and the Standard Drawings. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

Erect guardrail to the lines and grades shown on current Standard Drawings or as directed by the Engineer by any method approved by the Engineer which allows construction of the guardrail to the true grade without apparent sags.

When installing guardrail, do not leave the blunt end exposed where it would be hazardous to the public. When it is not practical to complete the construction of the guardrail and the permanent end treatments and terminal sections first, provide a temporary end by connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, place a drum with bridge panel in advance of the guardrail end and maintain during use.

- **E. Delineators for Guardrail.** Construct Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.
- **F. Property Damage.** Be responsible for all damage to public and/or private property

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resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.

- **G. Coordination with Utility Companies.** Locate all underground, above ground and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.
- **H. Right of Way Limits**. The Department has not established exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.
- **I. Disposal of Waste.** Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See Special; Note for Waste and Borrow.
- **J. Final Dressing, Clean Up, and Seeding and Protection.** Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas according to the Special Notes for Erosion Control.
- **K. Erosion Control.** See Special Notes for Erosion Control.

IV. METHOD OF MEASUREMENT

- **A. Maintain and Control Traffic.** See Traffic Control Plan.
- **B. Site preparation.** Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections as applicable.
- **C. Remove and Reset Guardrail.** The Department will measure the quantity in Linear Feet.
- **D. Guardrail.** See Section 719.04.
- **E. Delineators for Guardrail.** See Delineators for Guardrail Sepia Drawing.
- **F. Erosion Control.** See Special Notes for Erosion Control.

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V. BASIS OF PAYMENT

- A. Maintain and Control Traffic. See Traffic Control Plan.
- **B. Guardrail.** See Section 719.05.
- **C. Remove and Reset Guardrail.** The Department will make payment for the completed and accepted quantities of Remove and Reset Guardrail. The Department will consider payment as full compensation for furnishing all materials, equipment, labor, other expenses and all incidentals necessary to complete this work to remove and reset the Guardrail.
- **D. Delineators for Guardrail.** See Delineators for Guardrail Sepia Drawing.
- **E. Erosion Control.** See Special Notes for Erosion Control.

1-3415 New Guardrail 1/02/2012

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SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions 01/02/2012

TRAFFIC CONTROL PLAN FOR SLIDE CORRECTION DRILLED RAILROAD RAIL PILING

TRAFFIC CONTROL GENERAL

Except as specified herein, maintain and control traffic in accordance with the Standard and Supplemental Specifications and the Standard and Sepia Drawings, current editions. Except for the roadway and traffic control bid items listed, furnish all other items necessary to maintain and control traffic incidental to the Contract lump sum price Maintain and Control Traffic.

Contrary to Section 106.01, furnish new, or used in like new condition, traffic control devices, at the beginning of the work and maintain the devices in like new condition until completion of the work.

PROJECT PHASING & CONSTRUCTION PROCEDURES FOR KY 588

At the discretion of the Engineer, the Department may specify days and hours when lane closures will not be allowed. Prior to beginning work, provide a proposed lane closure and work schedule for the approval of the Engineer. The Department will provide public notification. Notify the Engineer immediately and obtain prior approval of any proposed deviations from the approved schedule.

Maintain alternating one way traffic during construction. Unless directed otherwise by the Engineer, provide a minimum clear lane width of $\underline{7}$ feet. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, immediately make provisions for the passage of the bus.

If the Engineer determines that work site conditions require all traffic be stopped while drilling operations are in progress, stop traffic for the length of time required to drill and set one rail. Allow all waiting traffic to pass before starting the next hole. If an emergency vehicle or school bus is present in the queue, stop drilling and allow traffic to pass immediately.

PROJECT PHASING & CONSTRUCTION PROCEDURES FOR KY 3402

At the discretion of the Engineer, the Department may specify days and hours when lane closures will not be allowed. Prior to beginning work, provide a proposed lane closure and work schedule for the approval of the Engineer. The Department will provide public notification. Notify the Engineer immediately and obtain prior approval of any proposed deviations from the approved schedule.

Maintain alternating one way traffic during construction. Unless directed otherwise by the Engineer, provide a minimum clear lane width of <u>7</u> feet. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, immediately make

Traffic Control Plan for Slide Correction Page 2 of 3

provisions for the passage of the bus.

If the Engineer determines that work site conditions require all traffic be stopped while drilling operations are in progress, stop traffic for the length of time required to drill and set one rail. Allow all waiting traffic to pass before starting the next hole. If an emergency vehicle or school bus is present in the queue, stop drilling and allow traffic to pass immediately.

LANE CLOSURES

Except as permitted by the Engineer, do not leave lane closures in place during non-working hours. If permitted, the Engineer may require additional additional signing and/or traffic control devices.

CHANGEABLE MESSAGE SIGNS

If deemed necessary by the Engineer, the Department will furnish, operate, and maintain Changeable Message Signs.

SIGNS

Contrary to section 112.04.02, the Department will measure only long term signs (signs intended to be continuously in place for more than 3 days) for payment. The Department will not measure; short term signs (signs intended to be left in place for 3 days or less) for payment, but shall be incidental to Maintain and Control Traffic. Contrary to Section 112.04.02, the Department will measure individual signs only once for payment, regardless of how many times they are erected or relocated.

BARRICADES

The Department will not measure Barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01. The Department will measure Barricades used for protection of pavement removal areas according to Section 112.04.04. Retain possession of the barricades upon completion of the work.

PAVEMENT EDGE DROP-OFFS

Do not allow a difference in elevation of a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation greater than 1½". Place warning signs ((MUTCD W8-9, W8-9A, or W8-11) in advance of and at 1500 feet intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge transverse transitions between newly surfaced pavement and the existing pavement areas that traffic may cross with asphalt mixture for leveling and wedging. Remove wedges prior to placement of the final surface

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course.

Treat pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. The Engineer will allow cones to be used in lieu of plastic drums, panels, and barricades during daylight working hours only. Wedge drop-offs within 10 feet of traffic with DGA or asphalt mixture for leveling and wedging as directed or approved by the Engineer with a 1:1 or flatter slope in daylight working hours, or 3:1 or flatter slope during nighttime hours or when work is not active in the drop-off area.

Greater than 4" – Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing on coming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings.

1-3802 Traffic Control Plan Slide Correction 01/02/2012

SPECIAL NOTE FOR EROSION CONTROL

I. DESCRIPTION

Except as provided herein, perform all erosion and water pollution control work in accordance with the Department's Standard and Supplemental Specifications, and Standard and Sepia Drawings, current editions, and as directed by the Engineer. Section references are to the Standard Specifications. This work shall consist of:

(1) Developing and preparing a Best Management Practices Plan (BMP) tailored to suit the specific construction phasing for each site within the project; (2) Preparing the project site(s) for construction, including locating, furnishing, installing, and maintaining temporary and/or permanent erosion and water pollution control measures as required by the BMP prior to beginning any earth disturbing activity on the project site; (3) Clearing and grubbing and removal of all obstructions as required for construction; (4) Removing all erosion control devices when no longer needed; (5) Restoring all disturbed areas as nearly as possible to their original condition; (6) Preparing seedbeds and permanently seeding all disturbed areas; (7) Providing a Kentucky Erosion Prevention and Sediment Control Program (KEPSC) qualified inspector; and (8) Performing any other work to prevent erosion and/or water pollution as specified by this contract, required by the BMP, or as directed by the Engineer.

II. MATERIALS

Except as provided herein, furnish all materials for erosion and water pollution control work in accordance with the Department's Standard and Supplemental Specifications, and Standard and Sepia Drawings, current editions, and as directed by the Engineer.

Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

III. CONSTRUCTION

Except as provided herein, construct all erosion and water pollution control work in accordance with the Department's Standard and Supplemental Specifications, and Standard and Sepia Drawings, current editions, and as directed by the Engineer.

Erosion Control Page 2 of 3

Be advised, these Erosion Control Plan Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site specific BMP plan for each drainage area within the project in accordance with Section 213 and the supplemental specifications. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, and the construction phasing, methods and techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality Certification, and applicable state and local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between theses notes, the Standard Specifications, interim Supplemental Specifications, Special and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

Conduct operations in such a manner as to minimize the amount of disturbed ground during each phase of the construction and limit the haul roads to the minimum required to perform the work. Preserve existing vegetation not required to be removed by the work or the contract. Seed and/or mulch disturbed areas at the earliest opportunity. Use silt fence, silt traps, temporary ditches, brush barriers, erosion control blankets, sodding, channel lining, and other erosion control measures in a timely manner as required by the BMP and as directed or approved by the Engineer. Prevent sediment laden water from leaving the project, entering an existing drainage structure, or entering a steam.

Provide for erosion control measures to be in place and functioning prior to any earth disturbance within a drainage area. Compute the volume and size of silt control devices necessary to control sediment during each phase of construction. Remove sediment from silt traps before they become a maximum of ½ full. Maintain silt fence by removing accumulated trappings and/or replacing the geotextile fabric when it becomes clogged, damaged, or deteriorated, or when directed by the Engineer. Properly dispose of all materials trapped by erosion control devices at approved sites off the right of way obtained by the Contractor at no additional cost to the Department (See Special Note for Waste and Borrow).

As work progresses, add or remove erosion control measures as required by the BMP applicable to the Contractor's project phasing and construction methods and techniques. Update the volume calculations and modify the BMP as necessary throughout the duration of the project. Ensure that an updated BMP is kept on site and available for public inspection throughout the life of the project.

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer's concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right of-Way) as nearly as possible to its original condition, or as directed by the Engineer. Prepare the seed bed areas and sow all exposed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

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Erosion Control Page 3 of 3

IV. MEASUREMENT

Contrary to Section 212.04 and 213.04, the Department will not measure Erosion Control items for separate payment, but shall be incidental to other items of work.

MATERIAL SUMMARY

CONTRACT ID: 192028	067GR19P003-FD51	MP06705881901
CONTRACT ID: 192028	067GR19P003-FD51	MP06705881901

HIGHWAY 588 (KY 588) BEGINNING 0.961 MILES WEST OF JUDY BRANCH/ELWOOD ROAD AND EXTENDING EAST TO A POINT 0.151 MILES WEST OF KY 931 SLIDE REPAIR, A DISTANCE OF 9.29 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	02562	TEMPORARY SIGNS	512.00	SQFT
0010	02650	MAINTAIN & CONTROL TRAFFIC - (KY 588)	1.00	LS
0015	02014	BARRICADE-TYPE III	2.00	EACH
0020	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	40.00	EACH
0025	02351	GUARDRAIL-STEEL W BEAM-S FACE	1,562.50	LF
0030	02396	REMOVE GUARDRAIL END TREATMENT	1.00	EACH
0035	02371	GUARDRAIL END TREATMENT TYPE 7	14.00	EACH
0040	02599	FABRIC-GEOTEXTILE TYPE IV	4,051.00	SQYD
0045	03234	RAILROAD RAILS-DRILLED	23,369.00	LF
0050	03235	EXCAVATION AND BACKFILL	1,950.00	CUYD
0055	03236	CRIBBING	13,124.00	SQFT
0060	02383	REMOVE & RESET GUARDRAIL	225.00	LF
0065	00001	DGA BASE	252.00	TON
0070	02460	REMOVE TREES OR STUMPS	2.00	EACH
0075	02360	GUARDRAIL TERMINAL SECTION NO 1	1.00	EACH
0080	02569	DEMOBILIZATION	1.00	LS

MATERIAL SUMMARY

CONTRACT ID: 192028	067GR19P003-FD51	MP06734021901
CONTRACT ID: 192028	067GR19P003-FD51	MP06734021901

DRY FORK ROAD (KY 3402) BEGINNING 0.219 MILES NORTH OF KY 15 AND EXTENDING NORTH TO A POINT 0.034 MILES SOUTH OF BILL CORNETT ROAD SLIDE REPAIR, A DISTANCE OF 1.23 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0085	02562	TEMPORARY SIGNS	256.00	SQFT
0090	02650	MAINTAIN & CONTROL TRAFFIC - (KY 3402)	1.00	LS
0095	02014	BARRICADE-TYPE III	2.00	EACH
0100	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	14.00	EACH
0105	02351	GUARDRAIL-STEEL W BEAM-S FACE	275.00	LF
0110	02396	REMOVE GUARDRAIL END TREATMENT	3.00	EACH
0115	02371	GUARDRAIL END TREATMENT TYPE 7	9.00	EACH
0120	02599	FABRIC-GEOTEXTILE TYPE IV	496.00	SQYD
0125	03234	RAILROAD RAILS-DRILLED	3,078.00	LF
0130	03235	EXCAVATION AND BACKFILL	238.00	CUYD
0135	03236	CRIBBING	1,443.00	SQFT
0140	02383	REMOVE & RESET GUARDRAIL	12.50	LF
0145	02610	RETAINING WALL-GABION	32.00	CUYD
0150	02483	CHANNEL LINING CLASS II	28.00	TON
0155	00001	DGA BASE	43.00	TON
0160	21554EN	EXCAVATION	12.00	CUYD
0165	02569	DEMOBILIZATION	1.00	LS

Letcher County KY 588

Cribbing Excav. & Ge Amount Backfill Fak (SQ FT) Steel (FT) (CU YD) 960 1660.5 143 1608 2754 239 2064 3523.5 306 777 1539 116 816 1417.5 121 2256 3847.5 335 1400 2430 208 576 1012.5 86 2667 5184 396		I											
Begin End Length Depth Width Rock Rows FT SQ FT Steel (FT) 1.749 1.771 120 8 4 27 1 3 960 1660.5 1.791 1.829 201 8 4 27 1 3 2064 3523.5 4.886 4.934 258 8 4 27 1 3 2064 3523.5 6.199 6.221 111 7 4 27 1 3 2064 3523.5 6.199 6.221 111 7 4 27 1 3 2064 3523.5 6.900 6.920 102 8 4 27 1 3 2256 3847.5 7.733 7.787 282 8 4 27 1 3 1400 2430 8.071 8.085 72 8 4 27 1 3 576 <td< td=""><td>Type IV Geotextile Fabric (SQ</td><td>YD)</td><td>293</td><td>491</td><td>631</td><td>247</td><td>249</td><td>689</td><td>428</td><td>176</td><td>847</td><td></td><td>4051</td></td<>	Type IV Geotextile Fabric (SQ	YD)	293	491	631	247	249	689	428	176	847		4051
Begin End Length Depth Width Rock Rows (FT) Cribbing 1.749 1.771 120 8 4 27 1 3 960 1.791 1.829 201 8 4 27 1 3 1608 4.886 4.934 258 8 4 27 1 3 2064 6.199 6.221 111 7 4 27 1 3 2064 6.900 6.920 102 8 4 27 1 3 816 7.733 7.787 282 8 4 27 1 3 2256 7.873 7.907 175 8 4 27 1 3 400 8.071 8.085 72 8 4 27 1 3 576 10.974 11.046 381 7 4 27 1 3 5667 </td <td>Excav. & Backfill</td> <td>(CU YD)</td> <td>143</td> <td>239</td> <td>306</td> <td>116</td> <td>121</td> <td>335</td> <td>208</td> <td>98</td> <td>396</td> <td></td> <td>1950</td>	Excav. & Backfill	(CU YD)	143	239	306	116	121	335	208	98	396		1950
Regin End Length Depth Width Rock Rows (FT) Anner of Spacing 1.749 1.771 120 8 4 27 1 3 1.791 1.829 201 8 4 27 1 3 4.886 4.934 258 8 4 27 1 3 6.199 6.221 111 7 4 27 1 3 6.900 6.920 102 8 4 27 1 3 7.733 7.787 282 8 4 27 1 3 7.873 7.907 175 8 4 27 1 3 8.071 8.085 72 8 4 27 1 3 10.974 11.046 381 7 4 27 1 3		Steel (FT)	1660.5	2754	3523.5	1539	1417.5	3847.5	2430	1012.5	5184		23369
Begin End Length Depth Width Rock Rows 1.749 1.771 120 8 4 27 1 4.886 4.934 258 8 4 27 1 6.199 6.221 111 7 4 27 1 6.900 6.920 102 8 4 27 1 7.733 7.787 282 8 4 27 1 7.873 7.907 175 8 4 27 1 7.873 7.907 175 8 4 27 1 8.071 8.085 72 8 4 27 1 10.974 11.046 381 7 4 27 1			096	1608	2064	777	816	2256	1400	929	2667		13124
Begin End Length Depth Width Rock Rows 1.749 1.771 120 8 4 27 1 4.886 4.934 258 8 4 27 1 6.199 6.221 111 7 4 27 1 6.900 6.920 102 8 4 27 1 7.733 7.787 282 8 4 27 1 7.873 7.907 175 8 4 27 1 7.873 7.907 175 8 4 27 1 8.071 8.085 72 8 4 27 1 10.974 11.046 381 7 4 27 1	Rail Spacing	(FT)	က	က	က	က	က	က	က	က	က	က	TOTALS
Begin End Length Depth Width 1.749 1.771 120 8 4 1.791 1.829 201 8 4 4.886 4.934 258 8 4 6.199 6.221 111 7 4 6.900 6.920 102 8 4 7.733 7.787 282 8 4 7.873 7.907 175 8 4 8.071 8.085 72 8 4 10.974 11.046 381 7 4			_	_	_	_	_	_	_	_	_	~	•
Begin End Length Depth 1.749 1.771 120 8 1.791 1.829 201 8 4.886 4.934 258 8 6.199 6.221 111 7 6.900 6.920 102 8 7.733 7.787 282 8 7.873 7.907 175 8 8.071 8.085 72 8 10.974 11.046 381 7	Depth to	Rock	27	27	27	27	27	27	27	27	27		
Cribbin Begin End Length Depth 1.749 1.771 120 8 1.791 1.829 201 8 4.886 4.934 258 8 6.199 6.221 111 7 6.900 6.920 102 8 7.733 7.787 282 8 7.873 7.907 175 8 8.071 8.085 72 8 10.974 11.046 381 7	Excavation	Width	4	4	4	4	4	4	4	4	4		
Begin End 1.749 1.771 1.791 1.829 4.886 4.934 6.199 6.221 6.900 6.920 7.733 7.787 7.873 7.907 8.071 8.085 10.974 11.046	Cribbing	Depth	8	∞	∞	7	∞	∞	∞	∞	7		
Begin 1.749 1.791 4.886 6.199 6.900 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733 7.733		Length	120	201	258	111	102	282	175	72	381		
		End	1.771	1.829	4.934	6.221	6.920	7.787	7.907	8.085	11.046		
Site 2 2 4 4 4 4 7 10 10 10		Begin	1.749	1.791	4.886	6.199	006.9	7.733	7.873	8.071	10.974		
I		Site	_	7	က	4	9	7	∞	6	10		

					ш.	FD51 067 0588 001-011	=				
			NEW GUARDRAIL	DRAIL				RE	REMOVE GUARDRAIL	RDRAIL	
LANE	END TREAT.	BEGIN MILEPOINT	END MILEPOINT	END TREAT.	LIN FEET	REMARKS	LANE	BEGIN MILEPOINT	END MILEPOINT	LIN FEET	REMARKS
NC	existing	1.749	1.771	Type 7	125.0		NC	1.749	1.749	0.0	remove Type 7
					0.0		NC	1.789	1.831	225.0	remove / reset
NC	Type 7	4.886	4.934	Type 7	262.5					0.0	
O	Type 7	6.199	6.220	Type 7	112.5					0.0	
O	Type 7	6.900	6.920	Type 7	112.5					0.0	
O	Type 7	7.733	7.787	Type 7	287.5					0.0	
O	Type 7	7.873	7.906	Type 7	175.0					0.0	
O	Terminal	8.069	8.087	Type 7	100.0					0.0	
O	Type 7	10.974	11.046	Type 7	387.5					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
Totals				_	1562.5					225	

FEMA DR 4358 Letcher County

Route	Site#	Mile P	oints	
KY 588	1	1.749	1.771	Slide repair using drilled rail steel
	2	1.791	1.829	Slide repair using drilled rail steel
	3	4.886	4.934	Slide repair using drilled rail steel
	4	6.199	6.221	Slide repair using drilled rail steel
	5			Work Complete
	6	6.900	6.920	Slide repair using drilled rail steel
	7	7.733	7.787	Slide repair using drilled rail steel
	8	7.873	7.907	Slide repair using drilled rail steel
	9	8.071	8.085	Slide repair using drilled rail steel
	10	10.974	11.046	Slide repair using drilled rail steel

Letcher County KY 3402

	•					
Type IV Geotextile Fabric (SQ YD)	102	54	73	28	105	133
Excav. & Backfill (CU YD)	46	24	36	10	29	63
Steel (FT)	729	405	445.5	0	648	850.5
Cribbing Amount (SQ FT)	306	162	240	0	315	420
Rail Spacing (FT)	8	က	က	က	က	က
Number of Rows	~	~	~		~	~
Depth to Rock	27	27	27		27	27
Excavation Width	4	4	4	4	2	4
Cribbing Depth	9	9	®	က	7	7
Length	51	27	30	21	45	09
End	0.229	0.273	0.440	0.444	0.532	0.642
Begin	0.219	0.267	0.434	0.440	0.524	0.630
Site	~	7	က	က	4	2

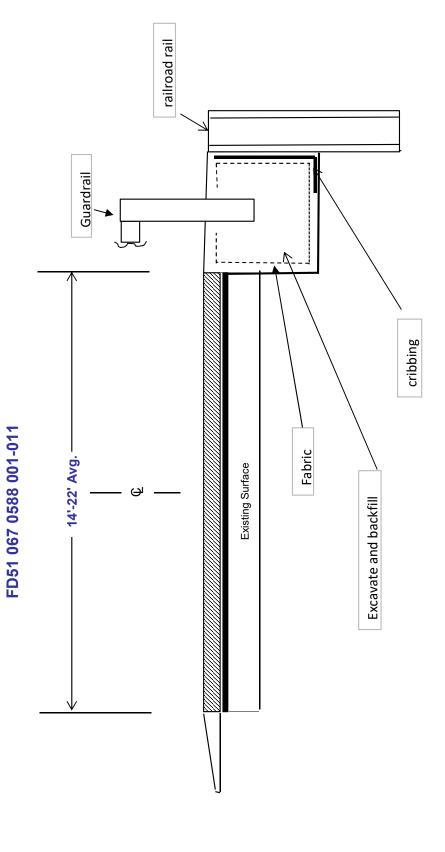
						FD51 067 3402 000-002	2				
			NEW GUARDRAIL	DRAIL				RE	REMOVE GUARDRAIL	RDRAIL	
LANE	END TREAT.	BEGIN MILEPOINT	END MILEPOINT	END TREAT.	LIN FEET	REMARKS	LANE	BEGIN MILEPOINT	END MILEPOINT	LIN FEET	REMARKS
					0.0		С	0.219	0.219	0.0	Remove Type 7
					0.0		С	0.219	0.221	12.5	remove / reset
၁	existing	0.221	0.230	Type 7	50.0					0.0	
ပ	Type 7	0.267	0.273	Type 7	37.5					0.0	
ပ	existing	0.434	0.434	Type 7	0.0	Remove / Replace	С	0.434	0.434	0.0	Remove Type 7
C	existing	0.434	0.446	Type 7	75.0		С	0.440	0.440	0.0	Remove Type 7
NC	Type 7	0.524	0.532	Type 7	50.0					0.0	
NC	Type 7	0.630	0.641	Type 7	62.5					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
					0.0					0.0	
Totals					275.0					12.5	

FEMA DR 4358 Letcher County

Route	Site#	Mile P	oints	
KY 3402	1	0.219 0.229		Slide repair using drilled rail steel
	2	0.267	0.273	Slide repair using drilled rail steel
	3	0.434	0.440	Slide repair using drilled rail steel
		0.440	0.444	Repair existing
	4	0.524	0.532	Slide repair using drilled rail steel
	5	0.630	0.642	Slide repair using drilled rail steel
	6	1.448	1.452	Slide repair using gabion baskets
I				

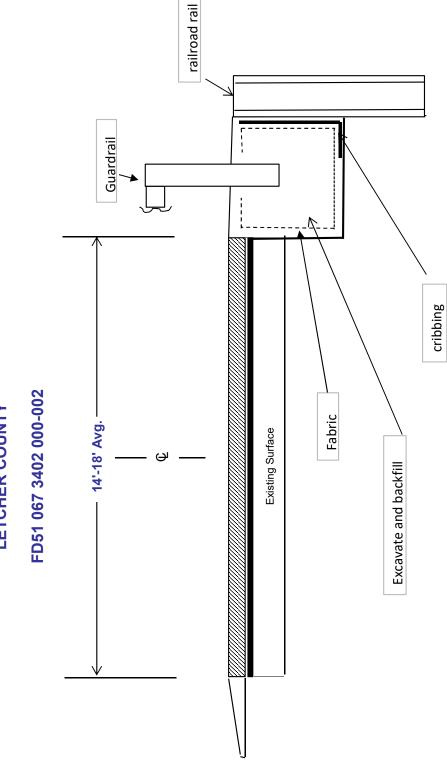
TYPICAL SECTION

LETCHER COUNTY

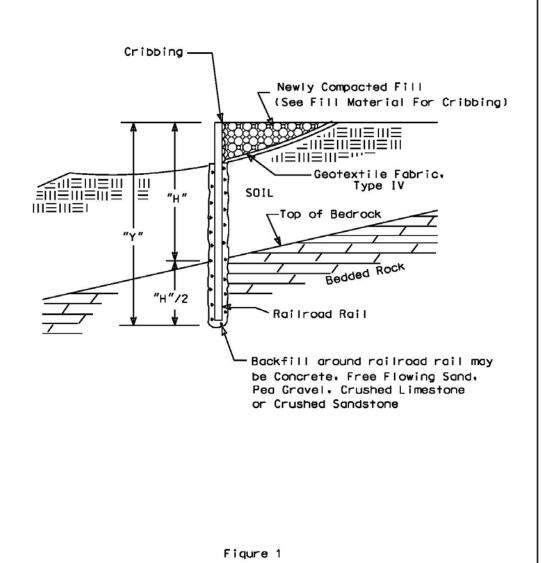


TYPICAL SECTION

LETCHER COUNTY

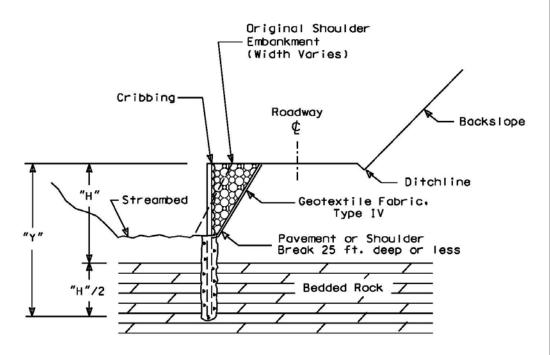


TYPICAL SECTION DEPICTING INSTALLATION OF RECYCLED RAILROAD RAIL PLACED IN DRILLED SOCKET FOR LANDSLIDE CORRECTION



TYPICAL CROSS SECTION OF ROADWAY REPAIRS UTILIZING RECYCLED RAILROAD RAILS IN DRILLED SOCKETS FOR EMBANKMENT EROSION CORRECTION

NOTE: Spacing from edge to edge of drilled socket: 3 ft. max.



NOTE:
"H"/2 Depth of Rail into bedded rock =
1/3 total length where rock is present.

Figure 2

ALTERNATE SCHEMES FOR INSTALLING RAILROAD RAILS IN DRILLED SOCKETS

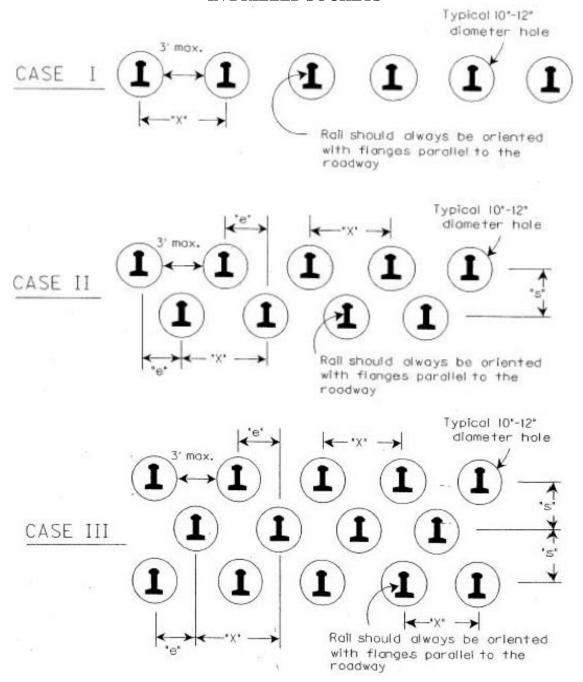


FIGURE 3

DESIGN CHART FOR 130LBS/YD TO 133 LBS/YD RECYCLED (USED) RAILROAD RAILS **FACTOR OF SAFETY = 1**

Effective Spacing	between Rows of Rails "e" (Inches)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24	22	18	14	12	11	9.5	N/A
Maximum Spacing Between	Kalls A (Max. 48") (Inches)	48	48	48	48	48	48	32	48	44	36	28	24	33	28.5	N/A
Required Number of Rows		1	1	1	1	1	1	1	2	2	2	2	2	3	3	N/A
Total Length of Installed Railroad	Kall I (Feel)	12	13.5	15	16.5	18	19.5	21	22.5	24	25.5	27	28.5	30	31.5	N/A
Minimum Embedment into	"H/2" (Feet)	4	4.5	5	5.5	9	6.5	7	7.5	8	8.5	6	9.5	10	10.5	N/A
Soil Depth to Bedded Rock "H"	(reel)	8	6	10	11	12	13	14	15	16	17	18	61	20	21	>21

1. REFER TO FIGURES 1, 2, & 3 FOR DIMENSIONS SHOWN
2. FOR SOIL DEPTHS "H" GREATER THAN 21 FEET CONTACT THE ENGINEER. NOTES:

TABLE I

IDENTIFICATION OF RAILROAD RAIL SIZES

Typically classified in units of lbs-per-yard.

Examples:

155 lbs/yd, 140 lbs/yd, 132 lbs/yd, 90 lbs/yd

Each rail has a classification stamped in web: ٥į

Example:

≣ 1935 NSA ILLINOIS HO RE 112 25

Weight in Ibs/yd

LETCHER COUNTY 067GR19P003-FD51

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract ID: 192028 Page 45 of 57

Contract Id:		Contractor:							
Section Engineer:		_ District & County: _							
<u>DESCRIPTION</u>	<u>UNIT</u>	QTY LEAVING PROJECT	QTY RECEIVED@BB YARD						
GUARDRAIL (Includes End treatments & crash cushions) STEEL POSTS	LF EACH								
STEEL BLOCKS	EACH								
WOOD OFFSET BLOCKS	EACH								
BACK UP PLATES	EACH								
CRASH CUSHION	EACH								
NUTS, BOLTS, WASHERS	BAG/BCKT								
DAMAGED RAIL TO MAINT. FACILI	TY LF								
DAMAGED POSTS TO MAINT. FACI	LITY EACH								
*Required Signatures before	e Leavina Proje	act Sita							
Printed Section Engineer's R	epresentative_		_ & Date						
Signature Section Engineer's	Representativ	e	_& Date						
Printed Contractor's Represe	entative		& Date						
Signature Contractor's Repre	esentative		& Date						
*Required Signatures after aguantity received column co			on truck must be counted & the						
Printed Bailey Bridge Yard Re			& Date						
Signature Bailey Bridge Yard									
Signature Contractor's Repre									
•	ent will not be	made for guardrail removal	uantities shown in the Bailey Bridge until the guardrail verification sheets se Yard Representative.						
Completed Form Submitted to	Section Enginee	r Date:	By:						

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications* for Road and Bridge Construction and Standard Drawings are superseded by Standard Specifications for Road and Bridge Construction, Edition of 2012 and Standard Drawings, Edition of 2016.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link:

http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

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TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

LABOR AND WAGE REQUIREMENTS APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

- I. Application
- II. Nondiscrimination of Employees (KRS 344)

I. APPLICATION

- 1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.
- 2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.
- 3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. NONDISCRIMINATION OF EMPLOYEES

AN ACT OF THE KENTUCKY GENERAL ASSEMBLY TO PREVENT DISCRIMINATION IN EMPLOYMENT KRS CHAPTER 344 EFFECTIVE JUNE 16, 1972

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

- 1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- 2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

- 3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.
- 4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under *Vendor Information*, *Standard Attachments and General Terms* at the following address: https://www.eProcurement.ky.gov.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

IPLOYEE RIGH DER THE FAIR LABOR STANDARDS ACT Contract ID: 192028 Page 53 of 57

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE

BEGINNING JULY 24, 2009

OVERTIME PAY

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR

An employee must be at least 16 years old to work in most non-farm jobs and at least 18 to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths 14 and 15 years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than

- 3 hours on a school day or 18 hours in a school week;
- 8 hours on a non-school day or 40 hours in a non-school week.

Also, work may not begin before 7 a.m. or end after 7 p.m., except from June 1 through Labor Day, when evening hours are extended to 9 p.m. Different rules apply in agricultural employment.

TIP CREDIT

Employers of "tipped employees" must pay a cash wage of at least \$2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least \$2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to \$1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to \$11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to \$50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to \$100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- · Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- · Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid \$4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- · Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.



PART IV

INSURANCE

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INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

- 1) Commercial General Liability-Occurrence form not less than \$2,000,000 General aggregate, \$2,000,000 Products & Completed Aggregate, \$1,000,000 Personal & Advertising, \$1,000,000 each occurrence.
- 2) Automobile Liability- \$1,000,000 per accident
- 3) Employers Liability:
 - a) \$100,000 Each Accident Bodily Injury
 - b) \$500,000 Policy limit Bodily Injury by Disease
 - c) \$100,000 Each Employee Bodily Injury by Disease
- 4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
 - a) "policy contains no deductible clauses."
 - b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
- 5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

PART V

BID ITEMS

PROPOSAL BID ITEMS

192028

Page 1 of 1

Report Date 12/26/18

Section: 0001 - ROADWAY

LINE	BID CODE	ALT DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001	DGA BASE	295.00	TON		\$	
0020	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	54.00	EACH		\$	
0030	02014	BARRICADE-TYPE III	4.00	EACH		\$	
0040	02351	GUARDRAIL-STEEL W BEAM-S FACE	1,837.50	LF		\$	
0050	02360	GUARDRAIL TERMINAL SECTION NO 1	1.00	EACH		\$	
0060	02371	GUARDRAIL END TREATMENT TYPE 7	23.00	EACH		\$	
0070	02383	REMOVE & RESET GUARDRAIL	237.50	LF		\$	
0800	02396	REMOVE GUARDRAIL END TREATMENT	4.00	EACH		\$	
0090	02460	REMOVE TREES OR STUMPS	2.00	EACH		\$	
0100	02483	CHANNEL LINING CLASS II	28.00	TON		\$	
0110	02562	TEMPORARY SIGNS	768.00	SQFT		\$	
0120	02599	FABRIC-GEOTEXTILE TYPE IV	4,547.00	SQYD		\$	
0130	02610	RETAINING WALL-GABION	32.00	CUYD		\$	
0140	02650	MAINTAIN & CONTROL TRAFFIC (KY 3402)	1.00	LS		\$	
0150	02650	MAINTAIN & CONTROL TRAFFIC (KY 588)	1.00	LS		\$	
0160	03234	RAILROAD RAILS-DRILLED	26,447.00	LF		\$	
0170	03235	EXCAVATION AND BACKFILL	2,188.00	CUYD		\$	
0180	03236	CRIBBING	14,567.00	SQFT		\$	
0190	21554EN	EXCAVATION	12.00	CUYD		\$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT DESCRIPTION	QUANTITY	UNIT	UNIT PRIC FP	AMOUNT
0200	02569	DEMOBILIZATION	1.00	LS	\$	