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Michael W. Hancock, P.E. Secretary

January 15, 2013

CALL NO. 400 CONTRACT ID NO. 132044

ADDENDUM # 1

Subject: Lewis County, 068GR13P016-FD51

Letting January 25, 2013

(1) Revised - Table of Contents - Page 2 of 55

(2) Added - Special Notes - Pages 9(a)-9(f) of 55

(3) Revised - Summary Sheet - Page 19 of 55

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Proposal revisions are available at http://transportation.ky.gov/Construction-
Procurement/.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

Ryan Griffith

Director

Division of Construction Procurement

RG:ks

Enclosures



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<u>SPECIAL NOTES</u> 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 and perform necessary excavation; (2) Furnish and install railroad rails; (3) **Install wall cribbing furnished by the Department of Highways;** (4) Excavate, place geotextile material, and backfill the area around the railroad rails and on the fill slope; (5) Reconstruct shoulder area; (6) Asphalt patching; (7) Install guardrail; (8) Maintain and control traffic; and (9) 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. Wall cribbing will be located at the *Department of Highways Lewis County Maintenance Facility*.
- 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 Kentucky Aggregate Gradation No. 2's for backfill. 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. Geotextile Fabric.** Furnish Geotextile Fabric Type 1V as per Section 843.
- **G. Asphalt.** Furnish CL2 Asph Base 0.75D PG 64-22 for excavated areas and CL2 Asph Surf 0.38D PG 64-22 to overlay slide area as per Section 401.

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 slide 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. 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.</u>

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 TEBM (Transportation Engineering Branch Manager) FOR OPERATIONS OR HIS REPRESENTATIVE IN THE DISTRICT OFFICE.

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 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 the rows of more than 2 feet, if possible. 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.

<u>DO NOT USE EXCAVATED MATERIAL FROM THE SITE AS FILL MATERIAL</u>. 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. 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.
- **H. 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.
- **I. Property Damage.** The Contractor will be responsible for all damage to public and/or private property resulting from his work.
- J. **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 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.
- **K. Asphalt Patching**. Except as specified herein, asphalt according to Section 403 and the Standard Drawings. Place 6" of CL2 Asph Base 0.75D PG 64-22 in excavated areas to reestablish roadway. Level and wedge as needed using CL2 Asph Surf 0.38D PG 64-22. Overlay entire roadway at the slide area with 1" of CL2 Asph Surf 0.38D PG 64-22 or as directed by the Engineer.
- **L. 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.

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 "Roadway Excavation" 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 "Roadway Excavation" as applicable to each project. The Department will measure "Crushed Aggregate Size No. 2" in tons for backfill.
- E. Site Preparation, Clearing and Grubbing, Temporary Pollution Control, Waste Disposal. The Department will NOT MEASURE for payment these items. They include Site Preparation, Clearing and Grubbing, Temporary Pollution Control, Waste Disposal, and other items not expressly bid as individual items. These items shall be incidental to the bid item "Roadway Excavation" as applicable to each project.
- **F. Asphalt Patching.** See Section 403.04.
- **G. Guardrail.** See Section 719.04.

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 items: "Roadway Excavation" and "Crushed Aggregate Size No. 2". Payment for "Roadway Excavation" will be based on quantity measured in the field. The following items are incidental to "Roadway Excavation" 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. Payment for "Crushed Aggregate Size No. 2" will be based on quantity in tons weighed according to Section 109. The Department will consider payment full compensation for all work required on the project.
- **D.** Wall Cribbing. The Department will pay for the completed and accepted quantities under the bid item of "Wall 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, 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, Temporary Pollution Control, Waste removal and Disposal. These activities shall be incidental to the bid item "Roadway Excavation" as applicable to each project.
- **F. Asphalt Patching.** See Section 403.05.
- **G. Guardrail.** See Section 719.05.

Lewis County KY 1306

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Type IV Geotextile	Fabric	(SQ YD)	1800	135
Excav. &	Backfill	(CU YD)	1560	1170
		Steel (FT)	8000	0009
Cribbing	Amount	(SQ FT)	0006	6750
		# of Rails (SQ FT) Steel (FT) (CU YD)	200	150
	Length of	Rail	40	40
Rail	Spacing	(FT)	3	က
	h to Number	of Rows	1	~
	Depth to	Rock	16	15
	Cribbing Excavation Deptl	Width	4.5	4.5
	Cribbing	Depth	15	15
		Length	009	450
		End	2.213	6.185
		Begin End Length	2.100 2.213	6.100
		Site	_	7

3150
2730
14000
15750
OTALS