



TRANSPORTATION CABINET

Frankfort, Kentucky 40622
www.transportation.ky.gov/

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

October 18, 2011

CALL NO. 308
CONTRACT ID NO. 112307
ADDENDUM # 1

Subject: Butler County, FD51 016 2713 002-003
Letting October 21, 2011

- (1) Revised - Special Notes - Pages 10-19 of 85
- (2) Revised - Typical Section - Page 44 of 85

Proposal revisions are available at <http://transportation.ky.gov/contract/>.

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

Sincerely,

A handwritten signature in blue ink that reads "Ryan Griffith".

Ryan Griffith
Director
Division of Construction Procurement

RG:ks
Enclosures



An Equal Opportunity Employer M/F/D

SPECIAL NOTES FOR SLIDE REPAIR

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's 2008 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:

(1) Maintain and Control Traffic; (2) Site Preparation; (3) Erosion Control; (4) Drilled railroad rail piling with cribbing; (5) Base Failure repair and Pavement Restoration; (6) Guardrail; and (7) All other work specified as part of this contract.

II. MATERIALS

Provide for materials to be sampled and tested in accordance with the Department's Sampling Manual. Make materials 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. Maintain and Control Traffic. See Traffic Control Plan.

A. Railroad Rails. Use new or used railroad rail with a nominal weight of 130 pounds per yard or greater. See Typical Identification of Railroad Rail Sizes Classification Stamp. If the manufacturer's classification stamp is unidentifiable, provide certification for nominal weight. Furnish only visibly straight and structurally sound rails with no splices. Obtain the Engineer's approval of the rails prior to use.

B. Cribbing. The Department will furnish used steel beam guardrail for cribbing. The Department will make the cribbing available to the Contractor at the Department's Bailey Bridge Yard located on Wilkinson Boulevard in Frankfort, Kentucky. Schedule pickup of cribbing with the Engineer and load and deliver the cribbing to the project work site.

C. Backfill. For backfill around the railroad rails in the drilled sockets, use concrete, free flowing sand, pea gravel, or crushed limestone or crushed sandstone meeting gradation sizes No. 8, No. 9-M, No. 10 or No. 11. Do not use auger tailings.

For interior backfill behind cribbing use Crushed Limestone Aggregate, Size #2 or Size No. 23. Do not use excavated spoil from the existing roadway.

D. Geotextile Fabric. For interior backfill wrap, furnish Type IV Geotextile Fabric.

E. Guardrail. See Special Notes for Guardrail.

F. Erosion Control. See Special Note for Erosion Control.

G. Base Failure Repair and Pavement Restoration. See Special Note for Base Failure repair and the typical sections.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Special Note for erosion Control.

C. Site Preparation. Be responsible for all site preparation, including but not limited to, clearing and grubbing, trenching, roadway and special excavation, embankment and embankment in place, saw cutting pavement and pavement and shoulder removal, removal of obstructions or any other items; disposal of materials; and final dressing and restoration. Clear and grub the minimum areas required to perform the other items of work; the Department estimates that clearing and grubbing will be less than one (1) acre; however, the Department has not measured or determined the exact acreage of clearing and grubbing and the bidder must draw his own conclusions. Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction. Perform all site preparation only as approved or directed by the Engineer. Dispose of excess excavation, 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.

D. Railroad Rails (Drilled). Install railroad rail in drilled sockets in rock or stable material under the landslides (see Fig. 1 and Fig. 2) at the specified locations. Drill rail sockets of adequate size, but not more than 12 inches in diameter, to allow free insertion of the railroad rails, parallel to the centerline of the roadway in a double row; however contrary to Fig. 2 space the sockets at thirty inches on centers Drill sockets to allow installation of the railroad rails such that the pavement and shoulder widths approximate the widths shown on the typical section. Use each drilled socket as a sounding for the rail to be installed in it. Unless directed otherwise by the Engineer, install no less than one-half the free end length as embedment into solid rock (See Fig. 1). If sufficient solid rock cannot be obtained using 30 foot length of railroad rails, the Engineer will determine the length of embedment required in other stable foundation. Continue the installation of the railroad rails on both sides of the existing railroad rails (Site 1) or throughout the slide area (Site 2) and extend fifteen feet on either side of pavement breaks. The locations and termini shown on the drawings are approximate only; the Engineer will determine exact locations and termini at the time of construction.

Slide Repair
Page 3 of 10

After each hole is drilled, immediately install the railroad rail with the flanges positioned parallel to the center of the roadway (see Fig. 3), unless directed otherwise by the Engineer. Set height of rail to approximately one (1) foot below the roadway level or as directed by the Engineer as needed to reestablish pavement and shoulder typical section. Immediately after the railroad rail is installed, backfill the drilled hole. Shovel the material into the hole in small amounts so as to avoid bridging between the rail and the sides of the hole. Do not use auger tailings for backfilling the socket. Cut off any excess rail length flush with the proposed ground line. If possible, use cutoffs elsewhere in the project; retain possession of unusable cutoffs.

E. Cribbing. Excavate a trench between the rows of the existing railroad rails and behind the new drilled railroad rails as shown on the typical section or as directed by the Engineer to expose the railroad rail before backfilling. On the same day the trench is excavated, install cribbing to restrain the proposed backfill as shown on Figure 1. Attach the cribbing to the guardrail by welding to the railroad steel with a minimum of three welded connections per section of guardrail, placed so that the guardrail ends align with and overlap at the installed railroad rail, and are not spliced between installed railroad rails. Extend cribbing 2 feet below existing ground line. If solid rock is encountered, extend cribbing to solid rock line. Return any unused recycled guardrail to the Bailey Bridge Yard.

F. Backfill. On the same day the trench is excavated and the cribbing installed, backfill the excavated trench behind the installed cribbing with Crushed Limestone Size No. 2 completely wrapped in Type IV Geotextile Fabric to approximate the existing roadway and shoulder widths as shown on the typical section or as directed by the Engineer. Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction.

G. Restoration. Use suitable excavated earth and/or borrow material aerated to proper moisture content prior to use for embankment and restoration. Construct embankments and slopes as shown on the drawings. Warp and tie the slopes into the adjacent existing roadway to match existing slopes and ditches. Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction. Obtain approval of the Engineer prior to reuse of the excavated soil. If sufficient quantities of excavation are not available to construct embankments, obtain borrow for embankment in place from approved sources off the right of way obtained by the Contractor at no additional cost to the Department. Waste excess excavation and excavation unsuitable for reuse 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. Warp slopes and ditches to match the adjacent areas outside the slide area. Use suitable excavated earth and/or borrow material aerated to proper moisture content prior to use for embankment, backfilling, and restoration. Provide positive drainage of pavement,

Slide Repair
Page 4 of 10

shoulders, slopes, and ditches at all times during and upon completion of construction.

H. Base Failure Repair and Pavement Restoration. Saw cut existing pavement prior to removal to create smooth vertical and longitudinal joints. Remove broken pavement and shoulders, and restore according to the Special Note for Base Failure Repair and as shown on the typical sections.

I. Guardrail. See Special Note for Guardrail.

J. Final Dressing, Clean Up, and Seeding. After all work is completed, perform Class A Final Dressing on all disturbed areas, both on and off the Right of-Way. Dispose of all 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 and Special Note for Erosion Control for additional requirements.

K. Property Damage. Be responsible for all damage to public and/or private property resulting from his work. Restore all damaged property and other disturbed areas in like kind materials and design or as directed by the Engineer.

L. Disposal of Waste. Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at sites off the right of way obtained by the Contractor at no additional cost to the Department. See Special Note for Waste and Borrow.

M. On-Site Inspection. Prior to submitting bid, make a thorough inspection of the site and become thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made. The Department will not honor any claims resulting from site conditions.

N. Right-of-Way Limits. The Department has not established exact limits of Right-of-Way. Limit work activities to obvious Right-of-Way and the minimum work feasible on areas secured by the Department through Consent and Release of the adjacent property owners. Be responsible for all encroachments onto private lands.

O. Utility Clearance. 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 or relocated overhead or underground utilities. The Department anticipates that utilities to be relocated will be completed prior to October 1, 2011; however, if utility relocation is not completed by that time or is required during construction, the utility companies will work concurrently with the Contractor while relocating their facilities. See Special Notes for Utility Clearance

Slide Repair
Page 5 of 10

and Impact on Construction. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

P. Caution. Consider the information in this proposal and shown on the plans and the type of work listed herein to be approximate only and do not take the information as an accurate evaluation of the materials and conditions to be encountered during construction. Be aware that any reference to rock, earth, or any other material on the drawings, whether in numbers or words, letters, or lines, is solely for the Department's information and is not to be taken as an indication of classified excavation or the quantity of either rock, earth, or any other material involved. The bidder must draw his own conclusions. The Department does not give any guarantee as to the accuracy of the data and will not consider any claims for money or time extensions if the conditions encountered are not in accordance with the information shown.

Q. Control. The Department will perform Staking. Perform all work under this contract under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with each other's work will be reduced to a minimum. By submitting bid, the Contractor agrees to make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the work in general harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.

IV. METHOD OF MEASUREMENT

The Department will measure only the bid items listed for payment. The Department will consider all other items required to complete the work incidental to the listed items.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Other than the bid item listed, the Department will measure Site Preparation as one Lump Sum.

C. Railroad Rail-Drilled. The Department will measure drilled railroad rails in linear feet of finished in-place length. The Department will not measure cutoffs not used elsewhere in the work, rails rejected by the Engineer, excess, and waste. The

Slide Repair
Page 6 of 10

Department will not measure the drilled sockets for separate payment, but shall be incidental to railroad Rails-Drilled; however, if the Engineer determines from the sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, 50% of the drilled depth will be measured for payment as Railroad Rail-Drilled.

D. Cribbing. The Department will measure installed cribbing furnished by the Department in square feet for finished in-place area. The Department will not measure laps, cutoffs, excess, and waste.

E. Backfill. The Department will measure crushed limestone aggregate behind cribbed railroad rails in tons. The Department will measure Geotextile Fabric Type IV behind cribbed railroad rail in square yards of finished in place area. The Department will not measure laps, cutoffs, excess, and waste.

F. Erosion Control. See Special Note for Erosion Control.

G. Guardrail. See Special Notes for Guardrail.

H. Base Failure Repairs. See Special Note for Base Failure Repairs.

V. BASIS OF PAYMENT

The department will not make direct payment other than for the bid items listed. The Department will consider payment for all other items required to complete the work incidental to the listed items

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Payment at the Contract lump sum price for Site Preparation shall be full compensation for all labor, equipment, materials, and incidentals for staking, clearing and grubbing, trenching, roadway and special excavation, embankment and embankment in place, saw cutting pavement and pavement and shoulder removal, removal of obstructions or any other items; disposal of materials; and final dressing and restoration.

C. Railroad Rail-Drilled. Payment at the Contract unit price per linear foot of finished in place length shall be full compensation for all labor, equipment, materials, and incidentals necessary to drill the hole and socket, furnish and install the railroad rail, and backfill the hole and socket.

D. Cribbing. Payment at the contract unit price per square foot of finished in place area shall be full compensation for all labor, equipment and materials and incidentals necessary to load cribbing furnished by the Department, deliver to the project site, install on the railroad rail piling, and return of unused cribbing.

Slide Repair
Page 7 of 10

E. Backfill. Payment at the contract unit price per ton of crushed limestone and per square yard for geotextile fabric shall be full compensation for all labor, equipment, and materials and incidentals for furnishing and placing crushed limestone backfill wrapped in geotextile fabric behind the cribbed railroad rails.

F. Erosion Control. See Special Note for Erosion Control.

G. Guardrail. See Special Notes for Guardrail.

H. Base Failure Repairs. See Special Note for Base Failure Repairs.

IDENTIFICATION OF RAILROAD RAIL SIZES

1. Typically classified in units of lbs-per-yard.

Examples :

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

2. Each rail has a classification stamped in web:

Example :

112 25 RE OH ILLINOIS USA 1935 IIIII



Weight in lbs/yd

Slide Repair
Page 9 of 10

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

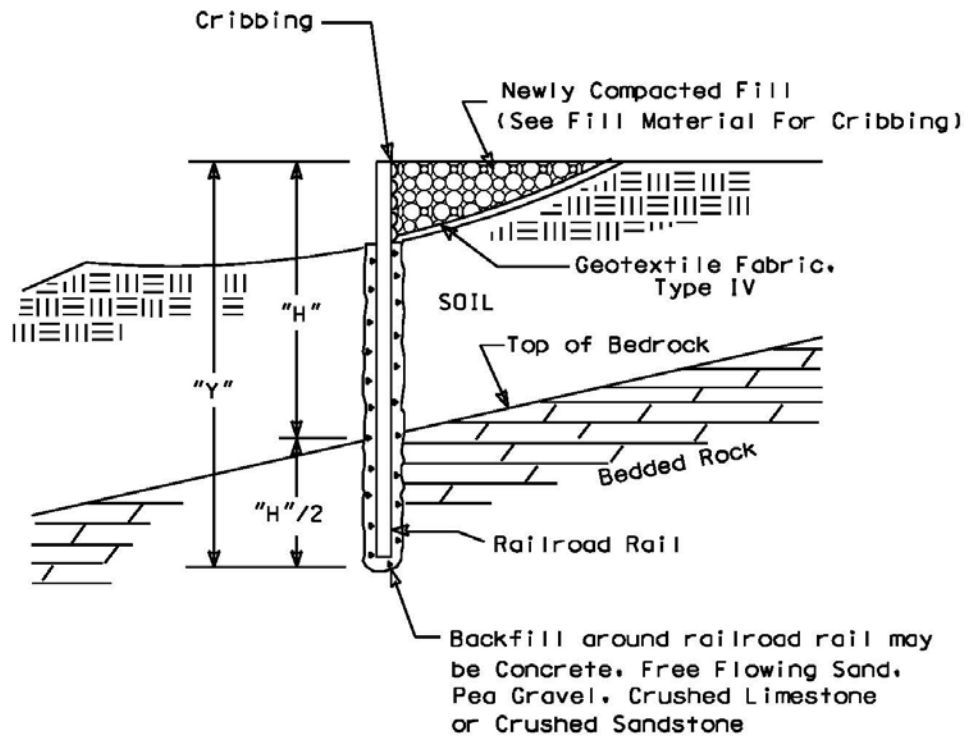


Figure 1

ALTERNATE SCHEMES FOR INSTALLING RAILROAD RAILS IN DRILLED SOCKETS

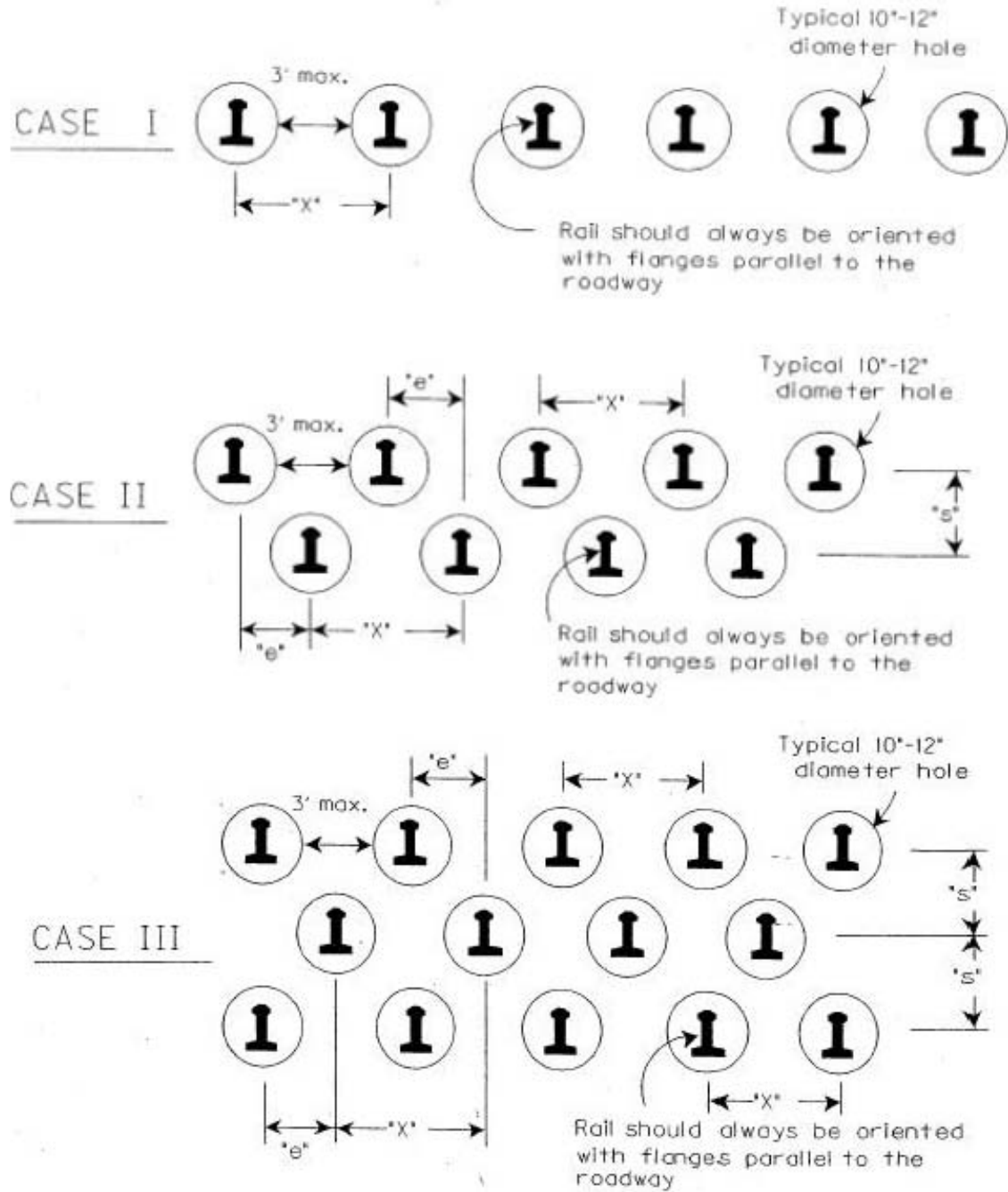
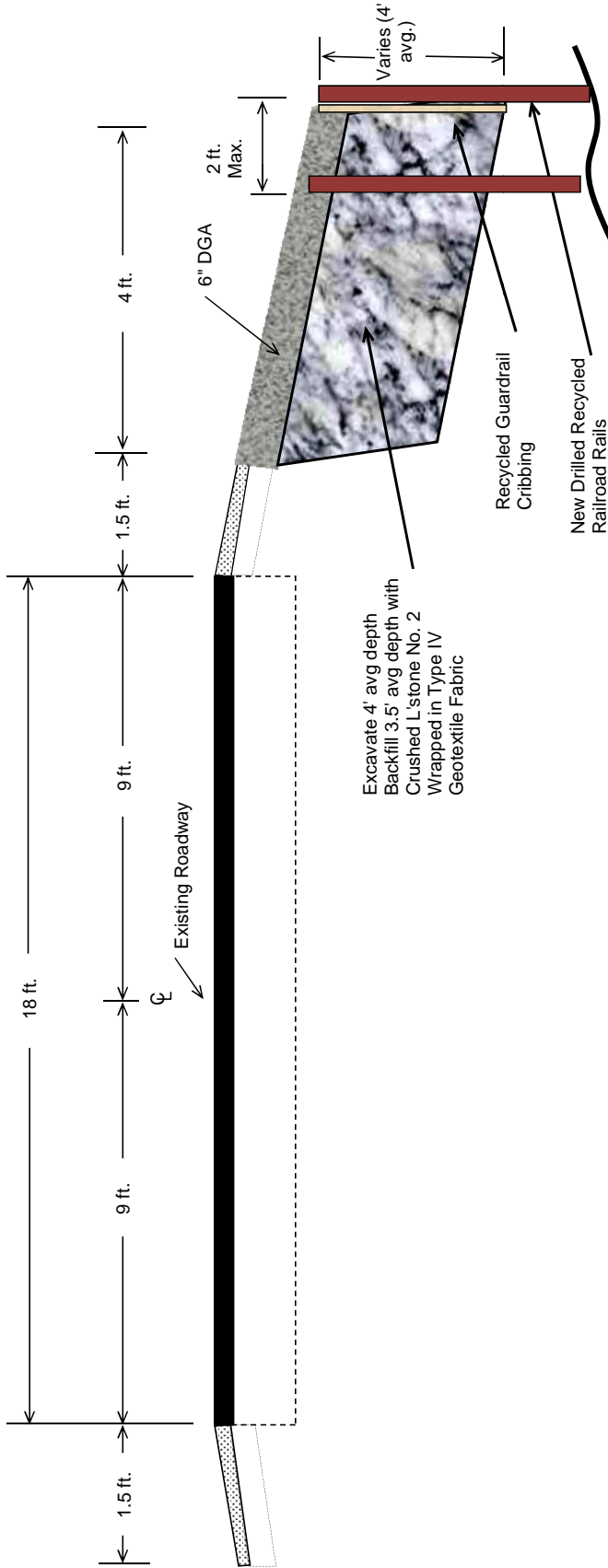


Figure 2

**TYPICAL SECTION FOR SLIDE REPAIR
(NEW DRILLED RAILROAD RAILS)**



N.T.S.