



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

Matthew G. Bevin
Governor

Greg Thomas
Secretary

October 21, 2016

CALL NO. 100
CONTRACT ID NO. 161054
ADDENDUM # 1

Subject: Pike County, NHPP 0806 (046)
Letting October 28, 2016

(1) Revised - Plans - S02

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

Plan revisions are available at <http://www.lynnimaging.com/kytransportation/>.

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

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:ks
Enclosures



An Equal Opportunity Employer M/F/D

... \REV1_25271_S02.GENERALNOTES.dgn
 USER: Jeff F
 DATE PLOTTED: October 20, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.357
 10/20/2016 7:59:36 AM
 FILE NAME: J:\XDOT\US460-56\STRUCT\MBONE_REDESIGN_2016\DON\REV1_25271_S02.GENERALNOTES.DGN

SPECIFICATIONS:

All references to the Standard Specifications are to the 2012 edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, with current supplemental specifications. All references to the AASHTO Specifications are to the 2002 edition of the AASHTO Standard specifications for Highway Bridges.

LIVE LOAD:

This bridge is designed for HS25 live load or alternate military loading, whichever produces the greater stress. The HS25 live load is arrived at by increasing the standard HS20-44 truck and lane loads as specified in the AASHTO Specifications by 25%.

WIND LOAD:

This bridge is designed for a wind load based on a wind velocity of 100 mph.

SEISMIC LOAD:

This bridge is designed for Seismic Performance Category A.

DESIGN METHOD:

All reinforced concrete members are designed by the load factor method as specified in the 2002 AASHTO Standard Specifications.

MATERIAL DESIGN SPECIFICATIONS:

For Class 'A' Reinforced Concrete: f'c = 3500 PSI
 For Class 'AA' Reinforced Concrete: f'c = 4000 PSI
 For Steel Reinforcement: fy = 60,000 PSI

CONCRETE:

Class 'AA' concrete is to be used throughout the Slab, Barriers, Pier and Abutment Diaphragms. Prestressed girder concrete shall be in accordance with the plans and Specifications. All other concrete shall be Class 'A' unless otherwise noted.

FOUNDATION DATA:

See Foundation Layout Sheet.

DIMENSIONS:

Dimensions are for a normal temperature of 60 degrees F. Layout dimensions are horizontal measurements. Stationing and elevations are in feet.

REINFORCEMENT:

Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2 inches unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated in accordance with Section 811.10 of the Standard Specifications.

Any reinforcing bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup bar for purposes of bend diameters.

BEVELED EDGES:

All exposed edges shall be beveled 3/4" unless otherwise shown.

COMPLETION OF THE STRUCTURE :

The contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor or anything else required to complete the structure.

SHOP DRAWINGS:

Submit shop drawings that are required by the plans and specifications directly to the Consultant. If changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Consultant. Submit all final, approved shop drawings to the Division of Structural Design.

CONSTRUCTION IDENTIFICATION:

The names of the prime contractor and the sub-contractor shall be imprinted in the concrete with letters at a location designated by the engineer. The contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

ON-SITE INSPECTION:

Each contractor submitting a bid for this work shall make a thorough inspection of the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department of Highways.

MASONRY COATING:

A masonry coating finish shall be applied in accordance with Section 601.03.18 B of the Standard Specifications. This masonry coating shall not be applied until the deck has been completed.

TEMPORARY SUPPORTS:

Temporary supports or shoring will not be permitted under the beams when pouring the concrete floor slab or when taking 'top of beam' elevations.

TEMPORARY BRIDGE FLOORING :

The contractor shall provide temporary bridge flooring during the construction of portions of spans which cross highways and railroads that are open to traffic. The purpose is to provide fall protection to workers in situations where the danger from the fall is compounded from traffic and to provide protection to the traffic. Temporary flooring shall be installed as soon as practicable after the beams are set. The temporary flooring shall extend across the travel way, ramps and usable shoulders of highways. For railroads, the temporary flooring shall extend 8 feet beyond the outer rails of the tracks.

The design load for temporary bridge flooring shall consist of the sum of dead load and live vertical loads. Live loads shall be 50 pounds per square foot for horizontal surfaces plus the weight of any dismantled material which will be allowed to fall on the temporary flooring during demolition of the structure or falsework. The design of temporary flooring shall be submitted with the falsework design and shall be subject to review by the engineer.

No separate measurement or payment will be made for providing and subsequently removing (if required) temporary bridge flooring as this is considered incidental to the contract.

PRESTRESSED CONCRETE I-BEAMS:

Selected beams (see framing plan) to be used on the project have been fabricated and are currently stored at Prestress Services Industries, LLC. The contractor should coordinate with Prestress Services Industries concerning the beams. See the Beam Shop Drawings and Special Note for Fabricated Components for beam details.

STAY IN PLACE DECK FORMS:

The use of stay in place metal formwork is permitted provided the corrugations are filled with expanded polystyrene. Metal inserts were placed in the prestressed girders for use with stay in place (SIP) forms. The contractor may use the existing inserts or may use their own method of forming the concrete slab. Although the Department will allow the use of these inserts, it makes no warranties as to the adequacy of the formwork design. The Department will require a deck slab form design to be submitted by the contractor. There will be no additional payment if the contractor elects to use a different method of deck slab forming. The cost of any additional inserts, SIP forms, overhang forming system, or other materials used in the concrete deck formwork will be considered incidental to Class AA Concrete.

EXISTING STRUCTURE VERIFICATION:

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work but they shall be considered tentative and approximate. Base contract bid prices upon recognition of the uncertainties described above, the knowledge that the beams have been previously fabricated, and upon a prebid examination of the existing structure.

GEOTECHNICAL NOTES:

- Temporary sheeting, shoring, cofferdams, and/or a dewatering method may be required for the installation of the foundations.
- Solid rock excavation will be required for installation of the foundations for this structure.
- Structure excavation shall be completed just prior to structure foundation construction in order to prevent the bedrock from being exposed for an extended period of time and deteriorating. The contractor shall take care during blasting and other excavation methods to avoid over-breakage and damage to the bedrock beneath the footings.
- Footings shall be embedded a minimum of 2 feet into unweathered bedrock. All footing excavations in bedrock shall be cut neat so that no forming or backfilling is necessary in the construction of the portions of footings located in rock. Concrete and steel should be placed directly against the cut rock faces.
- A minimum 2 feet of refill or refill as shown on the plans shall be placed over the top of the pier footings. Additional thickness of refill may be necessary to protect the footings from damage due to equipment traffic. The refill shall have a top size of 4 inches and may be from roadway or structure excavation. The refill shall be graded to provide positive surface drainage away from the footings.
- Permanent casing is incidental to the unit bid price for "Drilled Shaft - 48-inch (Common)" or "Drilled Shaft - 42-inch (Solid Rock)", as applicable.
- Drilled shafts shall be constructed in accordance with the Special Note for Drilled Shafts. Include all costs (labor, equipment, and materials including spiral and longitudinal reinforcement, reinforcement splices, mechanical couplers, concrete, and temporary or permanent casing) associated with the drilled shafts in the unit price bid for Drilled Shaft, Common or Solid Rock, as applicable.
- Boulders or other obstructions may be present in the overburden materials. Boulders or obstructions shall be removed at drilled shaft locations in accordance with Section 3.7 of the Special Note for Drilled Shafts. Removal of boulders or obstructions shall not be measured for separate payment in accordance with Section 4.1 of the Special Note for Drilled Shafts.
- The bedrock at this location may be susceptible to weathering and softening in the presence of water. Water must be kept out of the footing excavations. The footing steel and concrete should be placed the same day as or as soon as practical after the footing excavation is made. If the bedrock becomes softened at bearing elevation, the softened material should be undercut to unweathered material prior to placing the concrete. The base of the footings for the pier shall be placed at/or below the as built existing base of footing elevation.

CONSTRUCTION ACCESS (SEE ROADWAY PLANS FOR BID ITEM):

The contract lump sum price for "Construction Access" shall include the design and submittal of plans for review, and all materials, equipment, and labor to build and maintain safe access to all areas of the project.

Any information shown in the Contract Plans pertaining to construction access or methods is for information only. The Contractor shall be responsible for selecting the means and methods for construction.

Contractor shall submit to the Engineer detailed construction access drawings for review and approval at least 45 calendar days prior to undertaking any work. No work shall begin until the construction access plan has been approved by the Engineer.

Construction access plans shall include, at a minimum, plan and profile drawings showing construction limits, excavation and embankment slopes, elevations of rock benches, temporary drainage, project sequencing, and any staging, laydown, or material storage areas. The plans shall also account for crane placement necessary to construct the bridge. Any disturbance to previously constructed slopes, rock roadbed, ditches, or drainage systems (other than those shown in the Contract Plans) shall be repaired or reconstructed to the satisfaction of the Engineer, and included in the bid price for Construction Access.

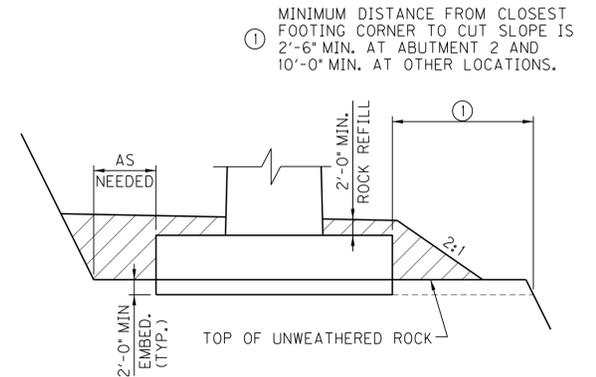
Rock benching scheme shall provide long-term durability so that bridge substructures are not adversely affected. The lithology of the hillside shall be considered in the benching design to reduce potential degradation due to raveling. Footings shall be keyed into rock a minimum depth of 2'-0" and a minimum of 2'-0" of rock refill shall be placed over footings.

As shown in the detail below, a minimum of 10'-0" of sound rock bench shall be left between the edges of all footings and a lower cut slope with the exception of Abutment 2 where a minimum of 2'-6" is required.

For all rock benches at pier and abutment locations, and those below and above them as indicated by the engineer, the following process shall apply. Before the pre-split holes are drilled, the contractor shall clearly mark their locations at least 14 days prior to drilling. The Engineer will direct a survey of the hole locations for review and approval. After drilling, shot, and excavation the Engineer will again direct a survey of the final excavated surface, and approval must be given before commencement of the next set of holes or preparation for the substructure unit may begin. Where excavated benches deviate from prescribed elevations and locations, the contractor shall submit plans for the mitigation and remediation of the benching scheme to the Engineer for approval. That approval must be given before work may continue in the affected area.

Costs to develop the construction access plans, to repair or reconstruct previously constructed slopes, rock roadbeds, ditches, or drainage systems and to provide and place refill shall be incidental to the bid item for Construction Access.

Costs of excavation beyond the scope of what is shown in the Contract Plans and in Section 603 of the Standard Specifications shall be included in the bid item for Construction Access. See the Foundation Layout Drawings for additional information.



① MINIMUM DISTANCE FROM CLOSEST FOOTING CORNER TO CUT SLOPE IS 2'-6" MIN. AT ABUTMENT 2 AND 10'-0" MIN. AT OTHER LOCATIONS.

REVISION		DATE
△	REVISED NOTE	10/29/16
DATE: SEPTEMBER, 2016	CHECKED BY	
DESIGNED BY: D.H. DEITZ	L.A. CARLISLE	
DETAILED BY: J.A. ROSE	L.A. CARLISLE	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY
PIKE

ROUTE **US 460** CROSSING **MARROWBONE CREEK & KY 195**

GENERAL NOTES

PREPARED BY **PALMER ENGINEERING CO.**

SHEET NO.
S02
DRAWING NO.
25271

ITEM NUMBER
12-263.55

10/20/2016 8:00:27 AM
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 USER: Jeff F
 DATE PLOTTED: October 20, 2016
 E-SHEET NAME: MicroStation v8.11.9.357

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WIND LOAD:

This bridge is designed for a wind load based on a wind velocity of 100 mph.

SEISMIC LOAD:

This bridge is designed for Seismic Performance Category A.

DESIGN METHOD:

All reinforced concrete members are designed by the load factor method as specified in the 2002 AASHTO Standard Specifications.

MATERIAL DESIGN SPECIFICATIONS:

For Class 'A' Reinforced Concrete: f'c = 3500 PSI
 For Class 'AA' Reinforced Concrete: f'c = 4000 PSI
 For Steel Reinforcement: fy = 60,000 PSI

CONCRETE:

Class 'AA' concrete is to be used throughout the Slab, Barriers, Pier and Abutment Diaphragms. Prestressed girder concrete shall be in accordance with the plans and Specifications. All other concrete shall be Class 'A' unless otherwise noted.

FOUNDATION DATA:

See Foundation Layout Sheet.

DIMENSIONS:

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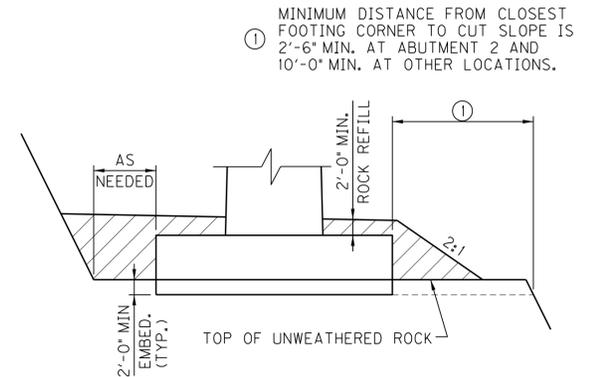
Rock benching scheme shall provide long-term durability so that bridge substructures are not adversely affected. The lithology of the hillside shall be considered in the benching design to reduce potential degradation due to raveling. Footings shall be keyed into rock a minimum depth of 2'-0" and a minimum of 2'-0" of rock refill shall be placed over footings.

As shown in the detail below, a minimum of 10'-0" of sound rock bench shall be left between the edges of all footings and a lower cut slope with the exception of Abutment 2 where a minimum of 2'-6" is required.

For all rock benches at pier and abutment locations, and those below and above them as indicated by the engineer, the following process shall apply. Before the pre-split holes are drilled, the contractor shall clearly mark their locations at least 14 days prior to drilling. The Engineer will direct a survey of the hole locations for review and approval. After drilling, shot, and excavation the Engineer will again direct a survey of the final excavated surface, and approval must be given before commencement of the next set of holes or preparation for the substructure unit may begin. Where excavated benches deviate from prescribed elevations and locations, the contractor shall submit plans for the mitigation and remediation of the benching scheme to the Engineer for approval. That approval must be given before work may continue in the affected area.

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Costs of excavation beyond the scope of what is shown in the Contract Plans and in Section 603 of the Standard Specifications shall be included in the bid item for Construction Access. See the Foundation Layout Drawings for additional information.



① MINIMUM DISTANCE FROM CLOSEST FOOTING CORNER TO CUT SLOPE IS 2'-6" MIN. AT ABUTMENT 2 AND 10'-0" MIN. AT OTHER LOCATIONS.

REVISION NOTE 10/29/16

DATE: SEPTEMBER, 2016	CHECKED BY
DESIGNED BY: D.H. DEITZ	L.A. CARLISLE
DETAILED BY: J.A. ROSE	L.A. CARLISLE

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
PIKE

ROUTE CROSSING
US 460 MARROWBONE CREEK & KY 195

GENERAL NOTES

PREPARED BY
PALMER ENGINEERING CO.

SHEET NO.
S02
 DRAWING NO.
25271

ITEM NUMBER
12-263.55