



CALL NO. 402

CONTRACT ID. 202940

GRAVES - BALLARD - HICKMAN - MARSHALL COUNTIES

FED/STATE PROJECT NUMBER 121GR20M019 - FE02

DESCRIPTION BRIDGE SCOUR COUNTERMEASURES - VARIOUS COUNTIES

WORK TYPE BRIDGE SCOUR MITIGATION

PRIMARY COMPLETION DATE 11/30/2020

LETTING DATE: February 21,2020

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN STANDARD TIME February 21,2020. 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 - 01

CONTRACT ID - 202940

121GR20M019 - FE02

COUNTY - BALLARD

PCN - MB00404732001
FE02 004 0473 B00030N

KY-473 (MP 10.263). BRIDGE OVER UNNAMED STREAMBRIDGE SCOUR MITIGATION

GEOGRAPHIC COORDINATES LATITUDE 37:06:34.00 LONGITUDE 88:54:05.00

COUNTY - GRAVES

PCN - MB04200802001
FE02 042 0080 B00110N

KY-80 (MP 7.803). BRIDGE OVER POWERS CREEKBRIDGE SCOUR MITIGATION

GEOGRAPHIC COORDINATES LATITUDE 36:44:36.00 LONGITUDE 88:42:00.00

PCN - MB04200972001
FE02 042 0097 B00055N

KY-97 (MP 1.19). BRIDGE OVER SAND CREEKBRIDGE SCOUR MITIGATION

GEOGRAPHIC COORDINATES LATITUDE 36:31:03.00 LONGITUDE 88:29:29.00

COUNTY - HICKMAN

PCN - MB05301232001
FE02 053 0123 B00034N

KY-123 (MP 16.03). BRIDGE OVER UNNAMED STREAMBRIDGE SCOUR MITIGATION

GEOGRAPHIC COORDINATES LATITUDE 36:40:47.00 LONGITUDE 89:06:14.00

PCN - MB05302882001
FE02 053 0288 B00006N

KY-288 (MP 2.601). BRIDGE OVER RUSSELL CREEKBRIDGE SCOUR MITIGATION

GEOGRAPHIC COORDINATES LATITUDE 36:43:57.00 LONGITUDE 88:57:15.00

PCN - MB11111752001
FE02 111 1175 B00038N

KY-1175 (MP 0.822). BRIDGE OVER BRANCH OF LITTLE RIVERBRIDGE SCOUR MITIGATION

GEOGRAPHIC COORDINATES LATITUDE 36:50:02.00 LONGITUDE 87:51:07.00

COUNTY - MARSHALL

PCN - MB07900682001
FE02 079 0068 B00024N

US-68 (MP 17.429). BRIDGE OVER BEAR CREEKBRIDGE SCOUR MITIGATION

GEOGRAPHIC COORDINATES LATITUDE 36:51:05.00 LONGITUDE 88:14:48.00

COMPLETION DATE(S):

COMPLETED BY 11/30/2020

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 prequalification 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

SPECIAL NOTES

DISTRICT NO. 1

BRIDGE SCOUR COUNTERMEASURES

VARIOUS COUNTIES

121GR20M019

FE02 004 473 B00030N 10.263

Ballard County ~ KY-473 over Unnamed Stream

Latitude – 37° 06' 34.00''

Longitude – 088° 54' 05.00''

Description

27' - Two span reinforced concrete bridge culvert (30 deg. skew)

FE02 042 097 B00055N 1.19

Graves County ~ KY 97 over Sand Creek

Latitude – 36° 31' 03.00''

Longitude – 088° 29' 29.00''

Description

37' - Two span reinforced concrete bridge culvert (45 deg. skew)

FE02 042 080 B00110N 7.803

Graves County ~ KY 80 over Powers Creek

Latitude – 36° 44' 36.00''

Longitude – 088° 42' 00.00''

Description

24'' - Two span reinforced concrete bridge culvert (13 deg. skew)

FE02 053 288 B00006N 2.601

Hickman County ~ KY 288 over Russell Creek

Latitude – 36° 43' 57.00''

Longitude – 088° 57' 15.00''

Description

27' - Two span reinforced concrete bridge culvert

FE02 053 123 B00034N 16.03

Hickman County ~ KY 123 over Unnamed Stream

Latitude – 36° 40' 47.00''

Longitude – 089° 06' 14.00''

Description

24' - Two span reinforced concrete bridge culvert (45 deg. skew)

FE02 079 068 B00024N 17.429

Marshall County ~ US 68 over Bear Creek

Latitude – 36° 51' 05.00''

Longitude – 088° 14' 48.00''

Description

21' - Two span reinforced concrete bridge culvert (45 deg. skew)

FE02 111 1175 B00038N 0.822

Trigg County ~ KY 1175 over Branch of Little River

Latitude – 36° 50' 02.00''

Longitude – 087° 51' 07.00''

Description

38' - Two span reinforced concrete bridge culvert (30 deg. skew)

SPECIAL NOTES FOR INSTALLATION AND CONSTRUCTION OF SCOUR COUNTERMEASURES

SPECIAL NOTE FOR SPECIFICATIONS FOR SHEET PILES AND STRUCTURAL
CONCRETE

SPECIAL NOTE FOR QUALITY CONTROL

SPECIAL NOTE FOR ENVIRONMENTAL AND WORKER SAFETY REGULATIONS

SPECIAL NOTE FOR PRE-BID CONFERENCE

GENERAL NOTE FOR MAINTAINING AND CONTROLLING TRAFFIC

SPECIAL NOTE FOR CONTRACT COMPLETION DATE AND LIQUIDATED DAMAGES

SUGGESTED PHASES OF CONSTRUCTION

SCOPE OF WORK:

These projects are intended to prevent scour and undermining to the bridge structures. The scour countermeasures will be constructed at the six above referenced bridges in Ballard, Hickman, Graves, Marshall and Trigg Counties in Kentucky. The contractor shall perform all necessary construction activities to properly install the proposed scour countermeasures improvements as indicated in the plans and specifications. All work is to be performed in strict conformance with all Federal, State and local codes and regulations. The contractor shall adhere to the latest edition of the Kentucky Transportation Department of Highways "Standard Specification for Road and Bridge Construction" and all other pertinent specifications noted herein. The completed work shall be representative of the construction plan documents. The workmanship to construct the scour countermeasure improvements shall be sloped correctly, square, plumb, and complete. The contractor shall not pollute the stream water and keep the work area clean. All waste products shall be properly disposed. No tree cutting is permitted between **June 1 to July 31** during the year.

The following are considered incidental to the project are: site access road work, tree and brush removal, debris removal, managing water flow while constructing the scour countermeasures, perform channel maintenance (upstream and downstream from the bridge), dismantling and re-assembling fence/guardrail, installation and removal of sheet pile to support the pavement during construction, borrow material, planning, foundation underpinning, bituminous concrete, waterproofing retaining wall coating, water stops, epoxy adhesive rebar anchoring, sheet pile connectors, construction staging and concrete waste material and all construction debris removal.

MATERIALS AND SPECIFICATIONS:

1. Steel Sheet Pile

The contractor shall furnish hot rolled zee shaped steel sheet pile with interconnecting ball and socket ends. The sheet piles shall be left in place at the completion of the project. The permanent sheet pile should be new and the contractor shall submit the mill inspection and certification reports of all material. The sheet pile material shall conform to ASTM 572, Grade 50 with an elastic section modulus, moment of inertia and section area equal to or greater than indicated below:

Height, $h=12.56$ in

Section Modulus, $S= 56.2$ in³/wft

Moment of Inertia, $I=353$ in⁴/wft

Weight, = 21.7 lb/sqft

Thickness, $t=.375$ in

The extruded steel sheet pile connectors shall be ASTM A-572 Grade 50 to change the angle of the adjoining sheet pile members at approximately 45± degrees.

2. **Concrete:** see Section 601 for concrete and proportioning and placement and finishing requirements. The concrete shall conform to the American Concrete Institute (ACI) latest edition of ACI 318 "Building Code Requirements for Reinforced Concrete". The

strength of the concrete shall attain a minimum strength of 4,000 psi in 28 days. The concrete mix shall be air entrained a minimum of 5% ± 1% air for exterior exposure.

3. **Concrete Reinforcement:** The concrete reinforcement shall be epoxy coated rebar conforming to ASTM A775 grade 60, deformed bars.
4. **Filter Fabric:** See Section 843-Geotextile Fabrics for Type I filter fabric.
5. **Aggregates:** See Section 805 Coarse Aggregates. Class III (modified) channel lining will be graded; such that, 100% pass the 24"x24" sieve, 35% retained on the 18"x18" sieve, and no more than 20% passing the 12"x12" sieve.
6. **Structural Steel:** The contractor shall supply hot rolled H-pile and channel sections. The structural steel members shall conform to ASTM A-588, grade 50 (weathering steel).

B. SUBMITTALS:

The Contractor shall comply with the submittal requirements detailed in Section 108 of the 2012 Standard Specifications for Road and Bridge Construction and submit the following written items to the Project Engineer **14 days** prior to the Pre-Construction Conference:

- A. A detailed Progress of Work Schedule. The Progress of Work Schedule will be reviewed and approved by the KYTC Engineer.
- B. Traffic Control Plan. The Traffic Control Plan will be reviewed and approved by the KYTC Engineer.
- C. Worker Protection Plan. The Worker Protection Plan will be reviewed by the KYTC Engineer.
- D. Environmental Compliance Plan will be reviewed by the KYTC Engineer.
- E. Concrete mix design and reinforcing steel shop drawings.

All submittals must be received, accepted and/or approved prior to beginning any construction work.

C. INSTALLATION:

The contractor shall remove all tree debris, earth, concrete debris, trash and soft loose bearing material down to suitable bearing material to prepare for the construction improvements at each bridge site. After removing the unsuitable bearing material. The retaining wall footings shall be stepped down as per the retaining wall schedule. The contractor can drive sheet pile, construct the perimeter grade beam, install filter fabric and #57 crushed stone for the sloped areas for the concrete slab. The apron elevation where water is released back to the stream is at the streambed elevation. The contractor shall drive the sheet pile to the desired (tip) elevation as indicated on the KYTC drawings. The minimum depth of the sheet pile is 8'-0" below the stream bed elevation. Some sheet pile will be longer than 8'-0" at the sloped portions along the concrete apron.

The sheet pile will slope up with the concrete apron and will be required to be cut-off at the same slope. The concrete apron will be turned down along the top of the perimeter 12" grade beam. The sheet pile members shall be continuous without laps, splices, and joints. **The installed sheet pile material should be coordinated with the downstream cast-in-place concrete apron and perimeter grade beam to join together adequately. The perimeter concrete apron beam should be poured with the sheet pile as one unit.** The concrete apron will be retained by the sheet pile wall along the ends of the apron. The sheet pile will be anchored to the downstream concrete apron and grade beam with 3/4" diameter hot-dipped galvanized anchors, washers and fasteners. The sheet piles should be driven straight and plumb along the ground surface and should align with adjacent sheet pile members.

The sheet pile-connectors should be installed to change the angle of the sheet pile and are incidental to the unit bid for sheet pile. The interlocking sheet piles should be clean of debris and kept free of distortion. A sheet pile log of the driven lengths of sheet pile shall be maintained for KYTC review. The engineer can change the orientation, wall height section and tapering (sloping) of the retaining wall as needed due to existing site conditions.

Scour holes can be filled with placement of filter fabric prior to placement of #57 crush stone or #2 crushed stone. The #57 crush stone will be graded smooth with the streambed. The crushed stone shall be consolidated with a vibratory compactor to fill rock voids along the sloped areas of the concrete apron.

1. DELIVERY, STORING, & HANDLING

The sheet piles should be delivered to the construction site undamaged and be properly stored until installed. Sheet piles should be clean free of dirt, rust and scale and stored on platforms above the ground surface. The sheet piles should be handled as to prevent damage to connecting ball and sockets ends, warping and bending of the structural sections. It is the responsibility of the contractor to adequately brace the installed work as means and methods of construction during all phases of the construction project.

2. EARTH BEARING PRESSURE

The allowable earth bearing pressure shall attain a minimum strength of 2,250. psf for the retaining wall foundations. The earth bearing surfaces shall be suitable to place concrete foundations prior to placing concrete. The bearing soils should be tested prior to placing foundation concrete. Scoured areas can be over-excavated deeper to attain the desired bearing strength and foundations can be extended lower or backfilled with lean concrete that develops a minimum of 2,500 psi in 28 days. The lean concrete pad should be a minimum of 8" thick and 12" wider along each side than the planned foundation.

3. REINFORCED CONCRETE CONSTRUCTION

All structural concrete construction shall be in accordance with the American Concrete Institute (ACI) and the latest edition of ACI 318 "Building Code Requirements for Reinforced Concrete" and per KYTC Section 601/602 CLASS AA concrete. Formed concrete surfaces (apron grade beam, grade beams, stem walls, retaining walls etc.) should be formed with acceptable forming materials that are smooth, straight, and having uniform surfaces. A water-reducing admixture shall be used to provide additional concrete workability during the pour. Provide the engineer product information and admixture dosage amounts. The reinforcing steel shall be grade 60 having a minimum of yield strength of 60,000 psi epoxy coated. The structural reinforcement for the concrete retaining walls, slabs and beams should be properly chaired and formed prior to placing concrete. Concrete reinforcement should be properly bent, placed and securely tied in place before placing the concrete. The epoxy coated rebar should be handled carefully as to not damage the epoxy coating during the installation. Damaged epoxy coatings shall be repaired or replaced at the contractor's expense. Concrete shall be adequately vibrated during placement. Concrete should not be transported using vibrating equipment or dropped/conveyed more than 8'-0" in height without the use of a tremie. Trash and debris shall be removed from the concrete forms prior to placing concrete. A minimum of 4" or 6" diameter concrete test cylinders shall be made 1-7 days, 2-28 days and a spare for 56 day compressive strength cylinders. Concrete test reports for the concrete material shall be sent to KYTC district offices. The fresh ready mixed concrete shall be sampled and tested by an ACI Concrete Field Testing Technician-Grade I (minimum). ACI cold weather (40 F and below) and ACI hot weather concreting requirements will be in affect during seasonal temperature changes. The further concrete specifications on placement, finishing and curing see ACI and KYTC Section 601 concrete specifications.

4. CONSTRUCTION SUPERVISION

The contractor shall have a fully competent full time field superintendent on the project site during construction phase. The field superintendent should supervise construction work, subcontractors, project schedule, material delivery, quality control, and construction safety for the duration of the project. Control and management of stream water to construct the bridge improvements is incidental to this construction.

5. STRUCTURAL CONCRETE (RETAINING WALLS, BEARING WALLS)

A. The concrete retaining walls shall be properly reinforced, tied, and placed according the construction plans. Reinforcement cast to earth shall be chaired up a minimum of 3" clear above the earth. All other finished concrete surfaces with reinforcing steel shall have a minimum 2" of concrete cover. The concrete shall be adequately vibrated to prevent honeycombing and unconsolidated concrete between the formed wall surfaces. Provide a minimum of 42 bar diameter reinforcement lap splice. Dowel bars extending from the footing shall be fully developed and shall have a tension lap splice into the retaining wall (stem wall) equal to 52 bar diameters lap splice. The retaining wall footings shall be placed a minimum of 24" below the frost line for frost protection. Where the existing wing wall footing is undermined and exposed due to scour, the new retaining wall shall underpin the existing wing wall for adequate support. The foundation subgrade for the concrete retaining wall structures

shall have an earth bearing pressure that will adequately support the retaining structures. A layer of water proofing should be troughed along the fill side of the retaining wall before a (min.) 12" layer of free draining #57 crushed stone is backfilled against the wall. The waterproofing layer shall be an exterior below grade, single component elastomeric waterproof membrane coating troweled-on over the wall surface. A minimum of a 4" corrugated drain pipe should be placed at the bottom of the retaining wall to prevent hydrostatic water pressure from developing. The retaining wall may be tapered downward to follow the slope of the finished landscape with the approval of the engineer. The finished contour should be graded to have a maximum 3:1 slope. See the retaining wall schedule for additional information. In addition, the contractor shall stabilize the road pavement as necessary during the construction of the retaining walls through means of sheet piling to maintain traffic. The sheet pile shall be designed by an engineer licensed in the State of Kentucky.

- B. Existing deteriorated turn-down scour culvert slabs shall be removed along the side of the culvert slab and removed. New reinforcing dowels should be epoxy adhesive anchored into the saw cut area and a new concrete stem wall shall be constructed below this location per the drawings. The new footing for the stem wall should have adequate earth bearing capacity.

6. STEEL CONSTRUCTION

The steel members shall be placed according to the construction drawings American Institute of Steel Construction (AISC) and KYTC Section 607. Field welding shall be per the American Welding Society (AWS). Welders shall be certified welders and should submit their welding certificates prior to welding on site.

7. SHEET PILE DRIVING

The sheet pile driving equipment shall have adequate strength to drive and erect the sheet pile members to the plan bottom (tip) elevation. The contractor shall keep accurate sheet pile driving logs and record the depth of sheet piles driven each day. The driving logs should describe any unexpected conditions encountered; such as, but not limited to soft and hard material, early refusal etc. Notify KYTC engineer of early sheet pile refusal. The sheet pile shall be cut off after the member is driven to the desired tip elevation and the KYTC Engineer has approved the driven elevations per the sheet pile logs. The sheet pile should be cut-off straight, square and in a clean manner. Tapered sheet pile shall follow the slope of the finished apron concrete.

8. PLACEMENT OF FILTER FABRIC

The filter fabric (type 1) should extend down along the fill side face of the retaining wall and between the #57 crushed stone and the earth. The contractor should place the filter fabric without ripping, disheveling and tearing the filter fabric material due to heavy equipment. All filter fabric edges should be lapped 12" minimum at joints. Heavy equipment shall not bunch-up, rearrange, and shuffle the fabric material. See Section 843

9. PLACEMENT OF CHANNEL LINING MATERIAL

The contractor shall place the channel lining material per the construction documents and in a uniform thickness. Construction equipment used to place the channel lining material should be placed without damaging and tearing the filter fabric material below. If the filter fabric is damaged, provide a 12" lap minimum of 12" over the damaged area. See Section 805

10. PERMEATION PRESSURE GROUTING:

Permeation pressure grouting operations will be conducted to fill voids spaces between the bridge culvert slab and the soil to stop the flow of water below the existing bridge structure. Additional core holes along the floor (as shown in the drawing) may be required to help confine and stop the flow of water under the bridge structure which is incidental to the project. The pressure grouting should fill any voids spaces under slabs and density the soil, but not cause an excessive ground pressure that would raise or cause movement to the existing concrete bridge structure.

11. DAMAGE TO ADAJCENT STRUCTURES

The contractor shall not damage the existing bridge decks, superstructure and the bridge pier support structures while installing the scour countermeasures. In the event damage does occur to the bridge, the District Bridge Engineer shall be notified immediately. No construction equipment, materials, vehicles, trailers nor any combination thereof shall exceed the KYTC posted load rating capacity of the bridge structure that is placed on or that drives across the bridge structure. If the contractor chooses to stage construction work from the bridge deck, the contractor must submit a plan for approval to the KYTC Engineer showing all equipment placement, erection plans, construction activities; such as, transient loading due to concrete mixers, crane loading, construction equipment traffic and materials. Concentrated construction point loads on the bridge deck shall not cause excessive deflection and damage to the bridge superstructure. If construction work is performed from the bridge deck, a traffic control plan must be submitted and approved by KYTC prior to the starting construction work.

12. DAMAGE TO COMPLETED WORK

The contractor shall ensure that in-place construction work and bridge improvements will not be structurally damaged, rendered unsuitable, altered, discolored, cosmetically damaged, and impaired during the course of the construction project. If damages do occur to the finished in-place work, the District Bridge Engineer shall be notified of such damages. All damages to completed work will be repaired at the contractor's expense.

13. ACCESS ROAD

The contractor will remove and repair the access road back to its like original contour or better and remove any temporary construction improvements. The contractor will properly dispose of any construction debris and crushed stone temporary roads following the construction project. Spread seed and straw along exposed earth areas to re-establish the ground cover.

14. CHANNEL MAINTENANCE

The contractor will remove accumulations of mounted earth and rip-rap debris blocking and narrowing which prohibits natural stream channel flow. Fill-in scour holes with natural surrounding like materials. The contractor will properly dispose debris. Spread seed and straw along exposed earth bank areas to re-establish the ground cover.

D. MEASUREMENT:

Payment for installed work includes furnishing all labor, equipment, materials, and any necessary supplementary items to complete the work.

- A. Installation of continuous sheet pile per the structural drawings. The Department will measure the quantity in horizontal linear feet of acceptable sheet pile installed for the sheet pile scour wall. The sheet pile should be driven to the desired depth. No measurement will be made for sheet pile drops.
- B. Install concrete slabs, grade beams and concrete retaining wall structures. The Department will measure the quantity of concrete in cubic yards.
- C. Earthwork pay unit cubic yards.
- D. Installation of Class III (modified) channel lining and #57 crushed stone in tons.
- F. Type I filter fabric will be in square yards installed.
- E. Pressure grouting under bridge structures quantity in cubic yards.

E. PAYMENT:

- A. Installation of reinforced concrete Class AA. (CY).
- B. Installation of sheet pile is based on the horizontal linear feet (LF).
- C. Earthwork including foundation excavation, backfill, ditching, borrow, and access preparation. (CY)
- D. Class III, (Modified) Channel Lining (tons)
- E. Type I filter fabric (SY)
- F. #57 crushed stone fill material (Tons)
- G. Epoxy coated rebar (lbs)
- H. Pressure grouting along the floor slab bridge barrels (CY)
- I. Flowable fill (YD)
- J. Temporary silt fence (LF)
- K. Temporary traffic signs (SF)
- L. Seeding and protection (SY)
- M. Site preparation (each)
- N. Demobilization (each)
- O. Staking (each)

SPECIAL NOTE FOR QUALITY CONTROL

The contractor shall provide QC inspectors to monitor all construction work, insure that all work is completed in accordance with the plans, Special Notes and Standard Specifications, and record inspection results. The QC inspector(s) shall not perform production work that requires QC/QA inspection. The Department's (QA) inspector shall conduct in-progress reviews of the Contractor's operations and perform follow-up quality assurance (QA) inspections after the QC inspector has certified that a portion of work is complete.

The QC inspector and QA inspector shall jointly assign adjacent control areas consecutive numbers and a short description defining their location. After completion of a phase of work in a control area, the QC inspector shall perform an inspection and shall determine whether the area has been satisfactorily prepared. If work in a control area is unsatisfactory, the QC inspector shall require the contractor to make the necessary corrections. That process shall be repeated as necessary until suitable corrections have been made. All logbooks shall be maintained at the job site at all times during the project, made available, upon request, to the Department's representatives and submitted to the Engineer at the end of the project for his review and records.

SPECIAL NOTE FOR ENVIRONMENTAL AND WORKER SAFETY REGULATIONS

(A) Governing regulations

The existing paint in this project may contain lead, which is classified as a hazardous (toxic) material. Be knowledgeable of and comply with, all **lead-related** environmental and health regulations governing the Contractor's operations. Comply with regulations current at the time the work is performed and all requirements herein. Collect, transport to waste storage sites, and store hazardous wastes in accordance with applicable environmental and health regulations. The contractor is solely responsible for collection, transport, storage and disposal of all industrial wastes.

(B) Liabilities and Obligations

The contractor shall be solely responsible for compliance with all applicable environmental and health and safety regulations to the satisfaction of the applicable government regulatory agencies and the Department. The Department assumes no obligations or liabilities for work stoppages or fines due to enforcement actions by government regulatory agencies or to related delays that the Department deems necessary.

(C) State and Local Regulatory Agencies

State and local regulatory agencies charged with enforcing **most** regulations affecting the generation of hazardous wastes and worker safety issues are:

Kentucky Occupational Safety and Health Program, Labor Cabinet, Commonwealth of Kentucky, Frankfort, Kentucky

Environmental and Public Protection Cabinet, Commonwealth of Kentucky, Frankfort, Kentucky

(D) Groundwater and Surface water Protection

The contractor shall prepare and implement a groundwater and surface water protection plan in accordance with **401 KAR 5:037 (Ground Water), KRS 224.70-110 and 401 KAR 10:031 (Surface water)** with the exception that hazardous waste or hazardous materials container volume is not limited to greater than 55 gallons or weight to 100 pounds.

SPECIAL NOTE FOR PRE-BID CONFERENCE

DISTRICT 1

The Department will conduct a Mandatory Pre-Bid Conference and Mandatory Field Review of the subject project on: **Thursday, February 6, 2020 at 10:00 AM Central Time**

KYTC District #1 Office Building
5501 Kentucky Dam Road
Paducah, KY 42003
270-994-1938

Any company that is interested in bidding on the subject project or being part of a joint venture shall be represented at the conference by at least **one person of sufficient authority to bind the company**. No individual can represent more than one company. At the conference and, during the subsequent field review of the subject bridges, a roster shall be taken of the representatives present during the meeting. **Only companies represented at the conference and during the field review will be eligible to have their bids opened at the date of letting.**

During the field review, the company representatives and The Department of Highways officials will travel to all the project sites. The field review is not intended for bid estimation. **The Contractor shall be required to furnish approved High Visibility Apparel for all of their representatives present at the field review. The Contractor shall be prepared to follow the KYTC representatives to each location and should allow ample time in which to do so.**

The purpose of the conference and field review is to familiarize all prospective bidders with the contract requirements and the location and existing conditions of all structures within the scope of the contract.

Department of Highways officials present at the conference and during the field review will answer questions concerning the projects.

GENERAL NOTE FOR MAINTAIN AND CONTROL TRAFFIC

All lane closures on this project shall be in accordance with Kentucky Department of Highways Standard Drawings No. **TTC-100, TTC-105, TTC-110 and the FHWA Manual for Uniform Traffic Control Devices (Current Editions) unless otherwise specified.** Lane closures should be used only when absolutely necessary and kept to the shortest duration possible in order to minimize disruption to the traveling public. No work will be conducted over unprotected traffic at any location.

The contractor shall be required to submit in writing, to the department, his complete work schedule 14 days prior to the Pre-Construction Conference. The contractor shall be required to coordinate his efforts with those of any other contractor in the construction area so as to eliminate any lane closures which conflict with this traffic note. In the event it becomes necessary to make emergency repairs at this project by state forces or by other outside contractors, the contractor shall agree to alter his work pattern as directed by the engineer so as not to interfere with the emergency work.

The contractor shall be required to furnish all traffic control devices whenever his operations endanger or interfere with vehicular traffic as determined by the engineer. The contractor shall furnish any additional traffic control devices necessary to protect traffic and workmen. Any costs associated with the added traffic control devices (including arrow boards) shall be incidental to the contract lump sum amount for "maintain and control traffic."

Placement of all devices for lane closures shall start and proceed in the direction of flow of traffic. Removal of devices shall start at the end of the construction area and proceed toward oncoming traffic. The contractor shall provide for the installation of all necessary traffic control devices before beginning work and their immediate removal as soon as work is suspended or completed. During the fully operational periods, when no lane closures are permitted, all equipment shall be totally removed from the job site. Traffic control signs shall be removed or covered (if left in a curb lane).

The contractor's vehicles shall always move with and not across or against the flow of traffic. Vehicles shall enter or leave work areas in a manner that will not be hazardous to or interfere with normal roadway traffic. Vehicles shall not park or stop except within designated work areas.

Personal vehicles shall not be permitted to park within the state right-of-way. The contractor's vehicles shall be prohibited from crossing the roadway and all pedestrian movement of the contractor's personnel on the roadway shall be limited to within the closed work area.

Any lane or shoulder closure shall include the use of a TMA placed between oncoming traffic and equipment or vehicles.

Payment

Payment of the contract lump sum amount for "maintain and control traffic" shall be full compensation for all items necessary to maintain traffic. The Engineer may elect to use Variable Message Boards when necessary and control traffic on this project. All traffic control items shall remain the property of the contractor when the work is complete.

SPECIAL NOTE FOR CONTRACT COMPLETION DATE AND LIQUIDATED DAMAGES ON BRIDGE REPAIR CONTRACTS

LIQUIDATED DAMAGES. Liquidated damages will be assessed the Contractor in accordance with the Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction, Section 108.09, when either the allotted number of calendar days or the December 15, 2018 date is exceeded.

Contrary to the Standard Specifications, liquidated damages will be assessed the Contractor during the months of December, January, February and March when the contract time has expired on any individual bridge or bridges. Contract time will be charged during these months.

All construction must be completed in accordance with the weather limitations specified in Section 606 and/or Section 601 as applicable. No extension of Contract time will be granted due to inclement weather or temperature limitations that occur due to starting work on the Contract or a structure late in the construction season.

SUGGESTED PHASES OF CONSTRUCTION SCOUR COUNTERMEASURES PROJECTS

These scour countermeasure projects are located in counties in Ballard, Graves and Trigg Counties in Kentucky to protect and prevent further scour action to the bridge structures.

1. Contact KYTC, D-1 Construction Division to discuss the plans and construction schedule.
2. Obtain contract notice to proceed from KYTC.
3. Check overhead and underground utilities, Call "Before you Dig" (BUD) for each site.
4. Cut down trees in the construction area. No tree cutting allowed between June 1 to July 31.
5. Shop drawings and submittals (concrete mix design, reinforcing steel shop drawings etc)
6. Order construction materials sheet pile, rebar, filter fabric and start traffic control plan.
7. Install silt fence at Maximum Disturbance Limit.
8. Construct an access road either side of bridge, vegetation and impediments for access (temporary dismantle guard rail for access as needed.)
9. Mobilize the construction equipment, and construction materials on project site.
10. Manage stream water under the bridge continuously during the construction project.
11. Demolish the any existing concrete aprons, saw cut and remove existing turn-down slab, rip-rap etc, and remove deteriorated/ damaged concrete. Haul debris away at each project site.
12. Excavate subgrade, remove unsuitable bearing material for the sloped downstream apron, perimeter grade beams, channel lining and retaining walls per earth bearing pressure.

13. **Drill and epoxy dowels at 12”oc into the existing concrete wing walls and turn down slabs.**
14. **Coordinate and construct the perimeter grade beam, sheet pile, stem wall, retaining walls.**
15. **Drive sheet piles to required tip elevation.**
16. **Construct the reinforced stem walls, grade beam, retaining walls.**
17. **Core drill the existing bridge culvert floor and pressure grout as required.**
18. **Install layers of geo-textile filter fabric, install water-proofing material, perimeter drain and backfill with #57 stone all behind the retaining wall.**
19. **Place geo-textile filter fabric, prepare and compact #57 crushed stone subgrade for the downstream concrete apron.**
20. **Install upstream and downstream class three (modified) channel lining.**
21. **Drill and epoxy rebar at 12”oc into the existing concrete culvert floor for the apron slab.**
22. **Install sloped apron slab reinforcement and pour concrete apron slab**
23. **Install energy dissipaters on sloped concrete apron.**
24. **Add compacted earth, redirect drainage ditches, contour/finish grade, add rip-rap and seed the area as needed.**
25. **Re-install guard rails, remove construction debris.**

MATERIAL SUMMARY

CONTRACT ID: 202940

121GR20M019 - FE02

MB00404732001

KY-473 (MP 10.263). BRIDGE OVER UNNAMED STREAM BRIDGE SCOUR MITIGATION.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	00071	CRUSHED AGGREGATE SIZE NO 57	100.00	TON
0010	02187	SITE PREPARATION	1.00	EACH
0015	02220	FLOWABLE FILL	10.00	CUYD
0020	02562	TEMPORARY SIGNS	149.00	SQFT
0025	02596	FABRIC-GEOTEXTILE TYPE I	200.00	SQYD
0030	02650	MAINTAIN & CONTROL TRAFFIC - APPLIES TO 004B00030N	1.00	LS
0035	02701	TEMP SILT FENCE	100.00	LF
0040	02726	STAKING - APPLIES TO 004B00030N	1.00	LS
0045	03235	EXCAVATION AND BACKFILL	100.00	CUYD
0050	05985	SEEDING AND PROTECTION	100.00	SQYD
0055	08104	CONCRETE-CLASS AA	70.00	CUYD
0060	08151	STEEL REINFORCEMENT-EPOXY COATED	6,200.00	LB
0065	21600EN	SHEET PILING	42.00	LF
0070	23864EC	CHANNEL LINING CLASS III-MOD	120.00	TON
0075	02569	DEMOBILIZATION	1.00	LS

CONTRACT ID: 202940

121GR20M019 - FE02

MB04200802001

KY-80 (MP 7.803). BRIDGE OVER POWERS CREEK BRIDGE SCOUR MITIGATION.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0155	00071	CRUSHED AGGREGATE SIZE NO 57	145.00	TON
0160	02187	SITE PREPARATION	1.00	EACH
0165	02220	FLOWABLE FILL	10.00	CUYD
0170	02562	TEMPORARY SIGNS	149.00	SQFT
0175	02596	FABRIC-GEOTEXTILE TYPE I	200.00	SQYD
0180	02650	MAINTAIN & CONTROL TRAFFIC - APPLIES TO 042B00110N	1.00	LS
0185	02701	TEMP SILT FENCE	100.00	LF
0190	02726	STAKING - APPLIES TO 042B00110N	1.00	LS
0195	03235	EXCAVATION AND BACKFILL	150.00	CUYD
0200	05985	SEEDING AND PROTECTION	200.00	SQYD
0205	08104	CONCRETE-CLASS AA	83.00	CUYD
0210	08151	STEEL REINFORCEMENT-EPOXY COATED	7,200.00	LB
0215	21600EN	SHEET PILING	44.00	LF
0220	23864EC	CHANNEL LINING CLASS III-MOD	160.00	TON
0225	02569	DEMOBILIZATION	1.00	LS

MATERIAL SUMMARY

CONTRACT ID: 202940

121GR20M019 - FE02

MB04200972001

KY-97 (MP 1.19). BRIDGE OVER SAND CREEK BRIDGE SCOUR MITIGATION.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0080	00071	CRUSHED AGGREGATE SIZE NO 57	100.00	TON
0085	02187	SITE PREPARATION	1.00	EACH
0090	02220	FLOWABLE FILL	10.00	CUYD
0095	02562	TEMPORARY SIGNS	149.00	SQFT
0100	02596	FABRIC-GEOTEXTILE TYPE I	200.00	SQYD
0105	02650	MAINTAIN & CONTROL TRAFFIC - APPLIES TO 042B00055N	1.00	LS
0110	02701	TEMP SILT FENCE	100.00	LF
0115	02726	STAKING - APPLIES TO 042B00055N	1.00	LS
0120	03235	EXCAVATION AND BACKFILL	90.00	CUYD
0125	05985	SEEDING AND PROTECTION	200.00	SQYD
0130	08104	CONCRETE-CLASS AA	75.00	CUYD
0135	08151	STEEL REINFORCEMENT-EPOXY COATED	5,800.00	LB
0140	21600EN	SHEET PILING	58.00	LF
0145	23864EC	CHANNEL LINING CLASS III-MOD	125.00	TON
0150	02569	DEMOBILIZATION	1.00	LS

CONTRACT ID: 202940

121GR20M019 - FE02

MB05301232001

KY-123 (MP 16.03). BRIDGE OVER UNNAMED STREAM BRIDGE SCOUR MITIGATION.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0305	00071	CRUSHED AGGREGATE SIZE NO 57	110.00	TON
0310	02187	SITE PREPARATION	1.00	EACH
0315	02220	FLOWABLE FILL	10.00	CUYD
0320	02562	TEMPORARY SIGNS	149.00	SQFT
0325	02596	FABRIC-GEOTEXTILE TYPE I	200.00	SQYD
0330	02650	MAINTAIN & CONTROL TRAFFIC - APPLIES TO 053B00034N	1.00	LS
0335	02701	TEMP SILT FENCE	100.00	LF
0340	02726	STAKING - APPLIES TO 053B00034N	1.00	LS
0345	03235	EXCAVATION AND BACKFILL	130.00	CUYD
0350	05985	SEEDING AND PROTECTION	200.00	SQYD
0355	08104	CONCRETE-CLASS AA	75.00	CUYD
0360	08151	STEEL REINFORCEMENT-EPOXY COATED	5,800.00	LB
0365	21600EN	SHEET PILING	42.00	LF
0370	23864EC	CHANNEL LINING CLASS III-MOD	130.00	TON
0375	02569	DEMOBILIZATION	1.00	LS

MATERIAL SUMMARY

CONTRACT ID: 202940

121GR20M019 - FE02

MB05302882001

KY-288 (MP 2.601). BRIDGE OVER RUSSELL CREEK BRIDGE SCOUR MITIGATION.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0230	00071	CRUSHED AGGREGATE SIZE NO 57	180.00	TON
0235	02187	SITE PREPARATION	1.00	EACH
0240	02220	FLOWABLE FILL	10.00	CUYD
0245	02562	TEMPORARY SIGNS	149.00	SQFT
0250	02596	FABRIC-GEOTEXTILE TYPE I	200.00	SQYD
0255	02650	MAINTAIN & CONTROL TRAFFIC - APPLIES TO 053B00006N	1.00	LS
0260	02701	TEMP SILT FENCE	100.00	LF
0265	02726	STAKING - APPLIES TO 053B00006N	1.00	LS
0270	03235	EXCAVATION AND BACKFILL	180.00	CUYD
0275	05985	SEEDING AND PROTECTION	200.00	SQYD
0280	08104	CONCRETE-CLASS AA	80.00	CUYD
0285	08151	STEEL REINFORCEMENT-EPOXY COATED	7,200.00	LB
0290	21600EN	SHEET PILING	44.00	LF
0295	23864EC	CHANNEL LINING CLASS III-MOD	175.00	TON
0300	02569	DEMOBILIZATION	1.00	LS

CONTRACT ID: 202940

121GR20M019 - FE02

MB07900682001

US-68 (MP 17.429). BRIDGE OVER BEAR CREEK BRIDGE SCOUR MITIGATION.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0380	00071	CRUSHED AGGREGATE SIZE NO 57	100.00	TON
0385	02187	SITE PREPARATION	1.00	EACH
0390	02220	FLOWABLE FILL	10.00	CUYD
0395	02562	TEMPORARY SIGNS	149.00	SQFT
0400	02596	FABRIC-GEOTEXTILE TYPE I	200.00	SQYD
0405	02650	MAINTAIN & CONTROL TRAFFIC - APPLIES TO 079B00024N	1.00	LS
0410	02701	TEMP SILT FENCE	100.00	LF
0415	02726	STAKING - APPLIES TO 079B00024N	1.00	LS
0420	03235	EXCAVATION AND BACKFILL	90.00	CUYD
0425	05985	SEEDING AND PROTECTION	200.00	SQYD
0430	08104	CONCRETE-CLASS AA	72.00	CUYD
0435	08151	STEEL REINFORCEMENT-EPOXY COATED	5,800.00	LB
0440	21600EN	SHEET PILING	48.00	LF
0445	23864EC	CHANNEL LINING CLASS III-MOD	120.00	TON
0450	02569	DEMOBILIZATION	1.00	LS

MATERIAL SUMMARY

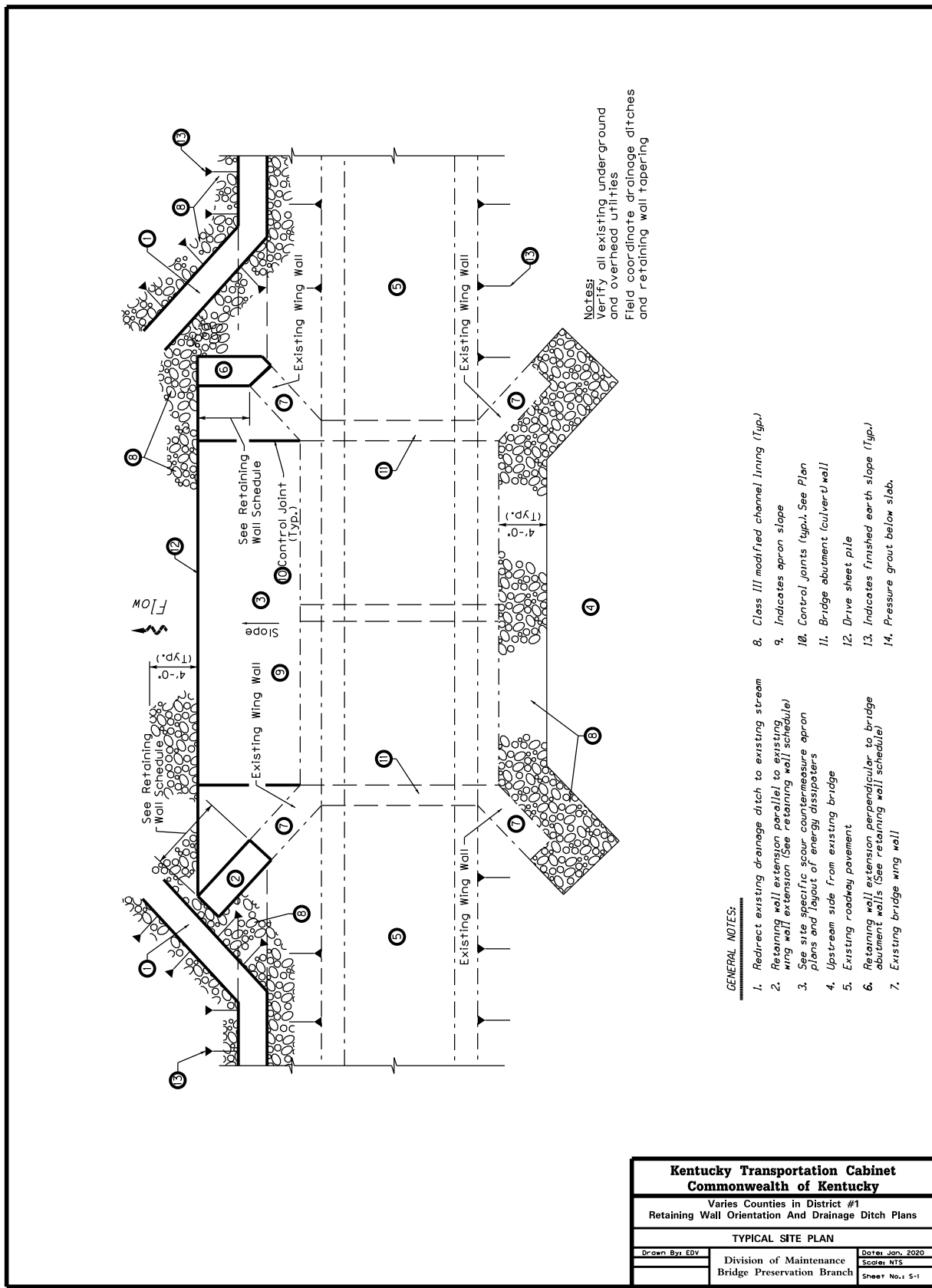
CONTRACT ID: 202940

121GR20M019 - FE02

MB11111752001

KY-1175 (MP 0.822). BRIDGE OVER BRANCH OF LITTLE RIVER BRIDGE SCOUR MITIGATION.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0455	00071	CRUSHED AGGREGATE SIZE NO 57	100.00	TON
0460	02187	SITE PREPARATION	1.00	EACH
0465	02220	FLOWABLE FILL	10.00	CUYD
0470	02562	TEMPORARY SIGNS	149.00	SQFT
0475	02596	FABRIC-GEOTEXTILE TYPE I	200.00	SQYD
0480	02650	MAINTAIN & CONTROL TRAFFIC - APPLIES TO 111B00038N	1.00	LS
0485	02701	TEMP SILT FENCE	100.00	LF
0490	02726	STAKING - APPLIES TO 111B00038N	1.00	LS
0495	03235	EXCAVATION AND BACKFILL	110.00	CUYD
0500	05985	SEEDING AND PROTECTION	200.00	SQYD
0505	08104	CONCRETE-CLASS AA	70.00	CUYD
0510	08151	STEEL REINFORCEMENT-EPOXY COATED	6,200.00	LB
0515	21600EN	SHEET PILING	62.00	LF
0520	23864EC	CHANNEL LINING CLASS III-MOD	125.00	TON
0525	02569	DEMOBILIZATION	1.00	LS



Notes:
 Verify all existing underground
 and overhead utilities
 Field coordinate drainage ditches
 and retaining wall tapering

GENERAL NOTES:

1. Redirect existing drainage ditch to existing stream
2. Retaining wall extension parallel to existing wing wall extension (See retaining wall schedule)
3. See site specific scour countermeasure apron plans and layout of energy dissipaters
4. Upstream side from existing bridge
5. Existing roadway pavement
6. Retaining wall extension perpendicular to bridge abutment walls (See retaining wall schedule)
7. Existing bridge wing wall
8. Class III modified channel lining (Typ.)
9. Indicates apron slope
10. Control joints (typ.). See Plan
11. Bridge abutment (culvert) wall
12. Drive sheet pile
13. Indicates finished earth slope (Typ.)
14. Pressure grout below slab.

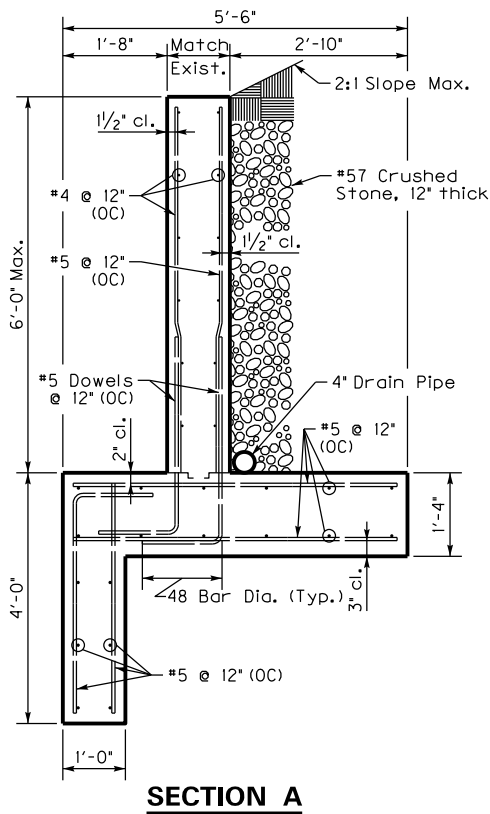
Kentucky Transportation Cabinet		
Commonwealth of Kentucky		
Varies Counties in District #1		
Retaining Wall Orientation And Drainage Ditch Plans		
TYPICAL SITE PLAN		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan, 2020 Scale: NTS Sheet No.: S-1

RETAINING WALL SCHEDULE

Bridge ID #	Culv. Shape	Skew	Wall Section (L.T.)	Wall Section (R.T.)	Wall Direction (L.T.)	Wall Direction (R.T.)	Wall Length (L.T.)	Wall Length (R.T.)	RTW Step DN	Stem Wall	Remarks:
053B00006N	A	0°	Section D	Section D	Parallel to barrel	Parallel to barrel	10'-0"	10'-0"	4'-0"	Yes	Lower apron 2'-0" see section for details. Fill scour hole above existing apron and abutment.
004B000030N	B	30°	Section C	Section C	Parallel to barrel	Parallel to barrel	10'-0"	6'-0"	2'-0"	Yes	Clean out upstream and downstream channel.
042B000055N	B	45°	Section C	Section C	Parallel to barrel	Parallel to barrel	10'-0"	6'-0"	1'-0"	Yes	Clean out upstream and downstream channel. Fill scour hole.
042B000010N	B	13°	Section D	Section D	Parallel to barrel	Parallel to barrel	8'-0"	10'-0"	3'-0"	Yes	Lower apron 1'-6" see section for details. Replace NW wing wall footer but keep existing reinforcement. See cut outlet concrete edge straight.
111B000038N	B	30°	Section C	Section C	Parallel to barrel	Parallel to barrel	10'-0"	6'-0"	1'-0"	None	Clean out upstream and downstream channel.
079B000024N	C	45°	Section C	Section C	Parallel to barrel	Parallel to barrel	6'-0"	10'-0"	2'-0"	Yes	Clean out upstream and downstream channel.
053B000034N	C	45°	Section C	Section C	Parallel to barrel	Parallel to barrel	6'-0"	10'-0"	2'-0"	Yes	Clean out upstream and downstream channel.

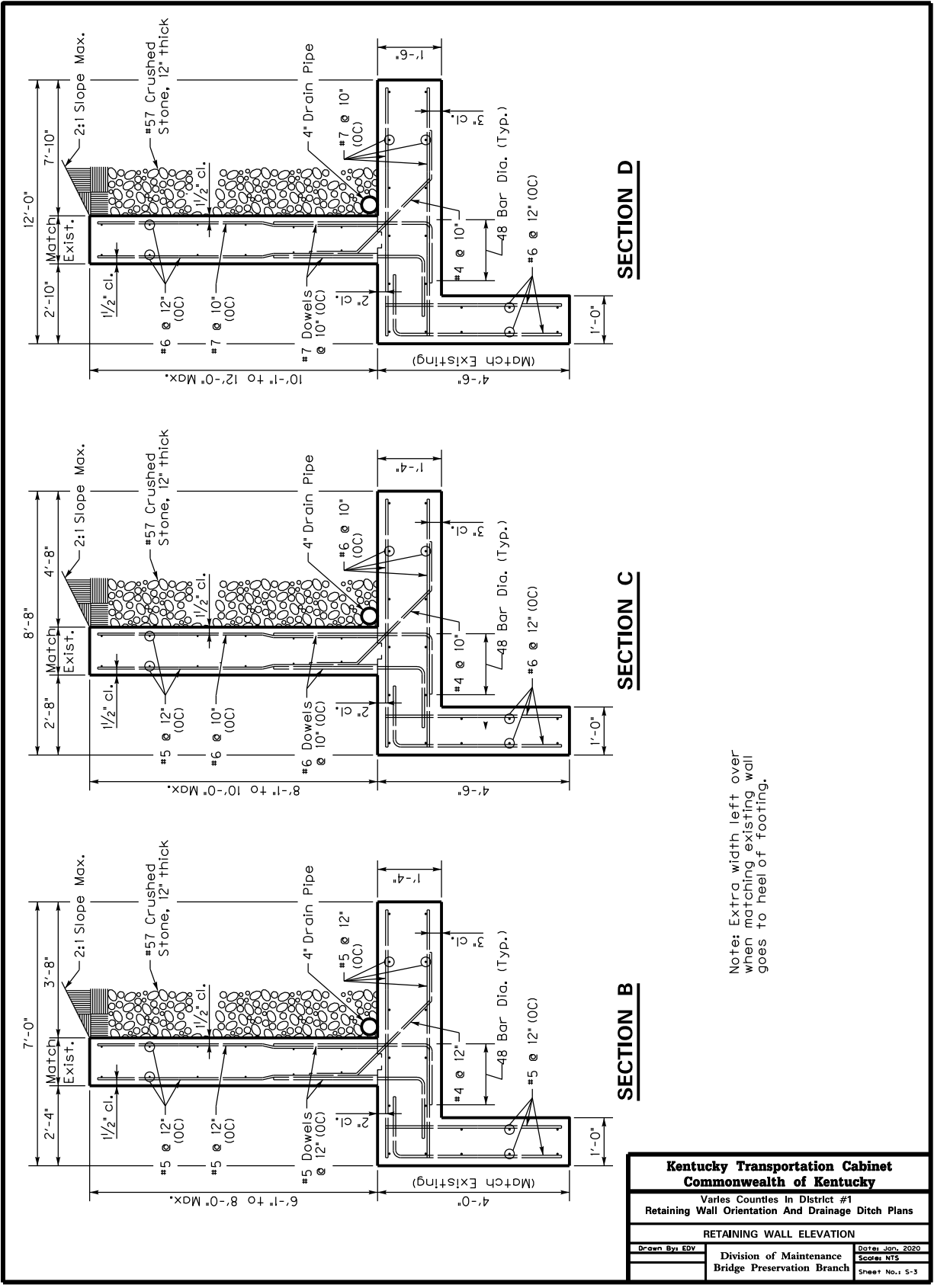
NOTES:
Orientation of bridge, as if standing downstream and looking at the bridge. Step retaining wall footings down the amount in the retaining wall schedule for each culvert below existing wing wall footings. Taper retaining wall to follow the contour of the finished grade. LT=LEFT; RT=RIGHT

Match existing width of wing wall for new Retaining Wall (Typical Min. Width 1'-0").



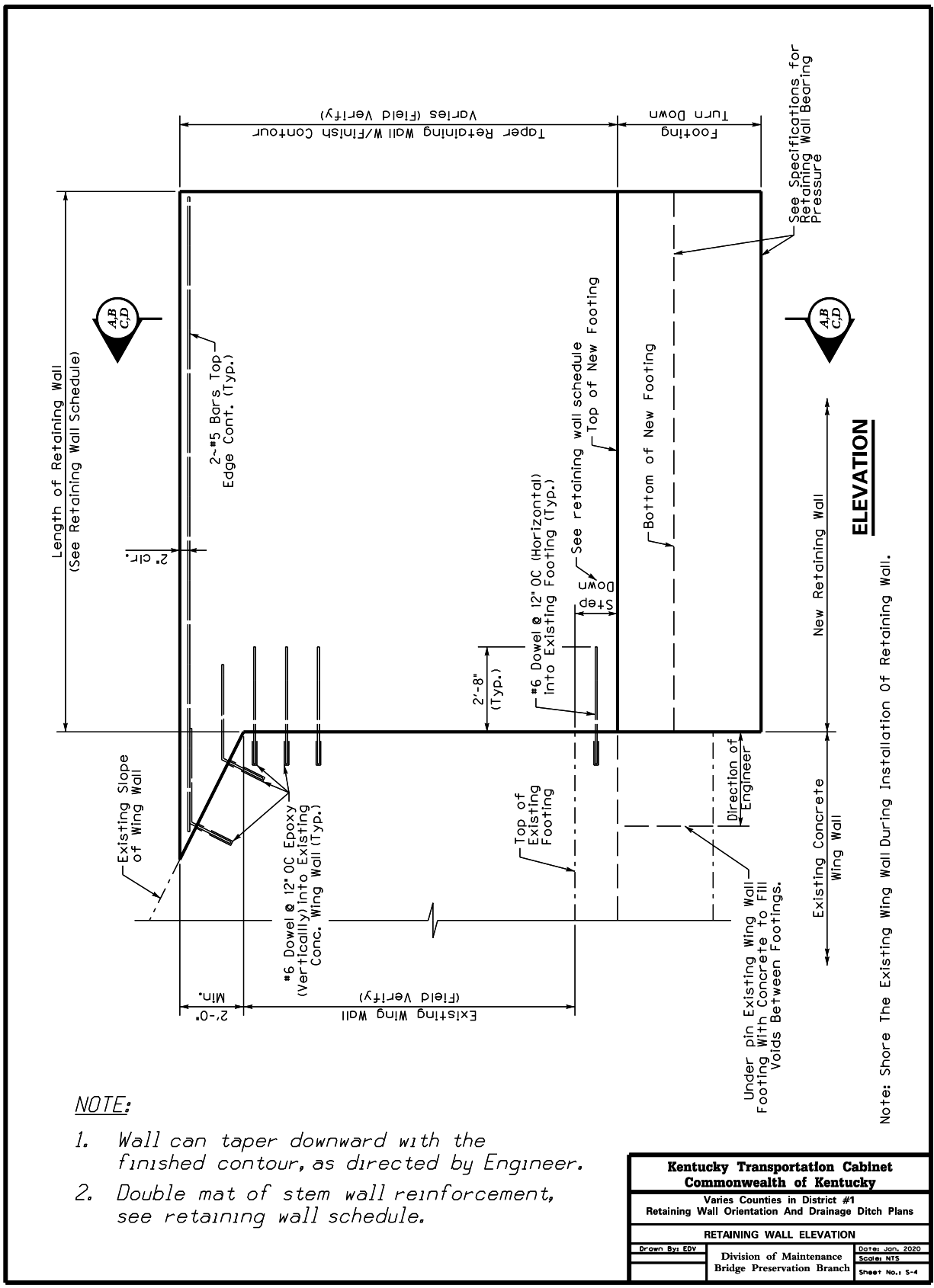
Note: Extra width left over when matching existing wall goes to heel of footing

Kentucky Transportation Cabinet Commonwealth of Kentucky		
Varies Counties in District #1 Retaining Wall Orientation And Drainage Ditch Plans		
RETAINING WALL SCHEDULES		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan. 2020 Scale: NTS
		Sheet No.: 5-2



Note: Extra width left over when matching existing wall goes to heel of footing.

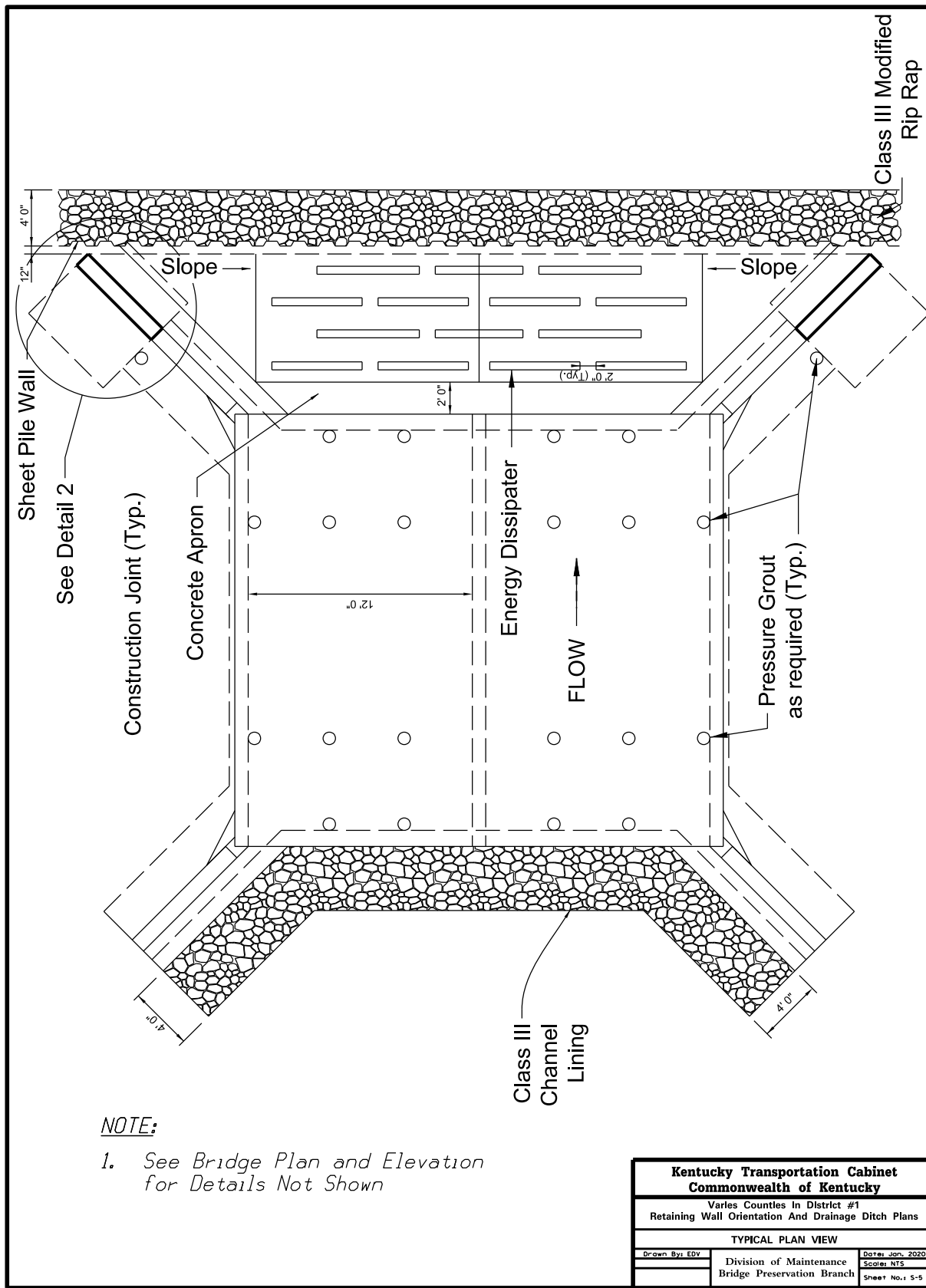
Kentucky Transportation Cabinet		
Commonwealth of Kentucky		
Varies Counties In District #1		
Retaining Wall Orientation And Drainage Ditch Plans		
RETAINING WALL ELEVATION		
Drawn By: EDV	Division of Maintenance	Date: Jan. 2020
	Bridge Preservation Branch	Scale: NTS
		Sheet No. 1 S-3



NOTE:

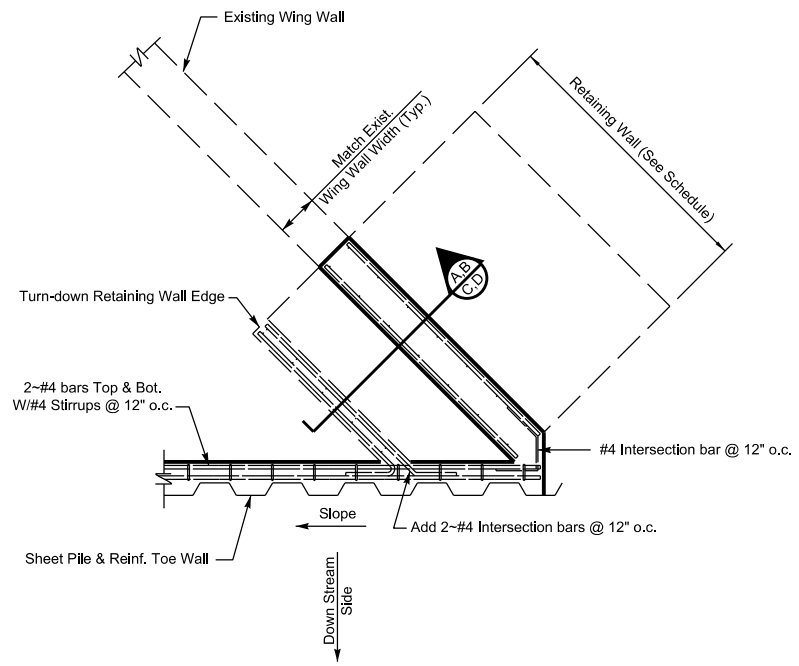
1. Wall can taper downward with the finished contour, as directed by Engineer.
2. Double mat of stem wall reinforcement, see retaining wall schedule.

Kentucky Transportation Cabinet Commonwealth of Kentucky		
Varies Counties in District #1 Retaining Wall Orientation And Drainage Ditch Plans		
RETAINING WALL ELEVATION		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan. 2020 Scale: NTS
		Sheet No.: 5-4



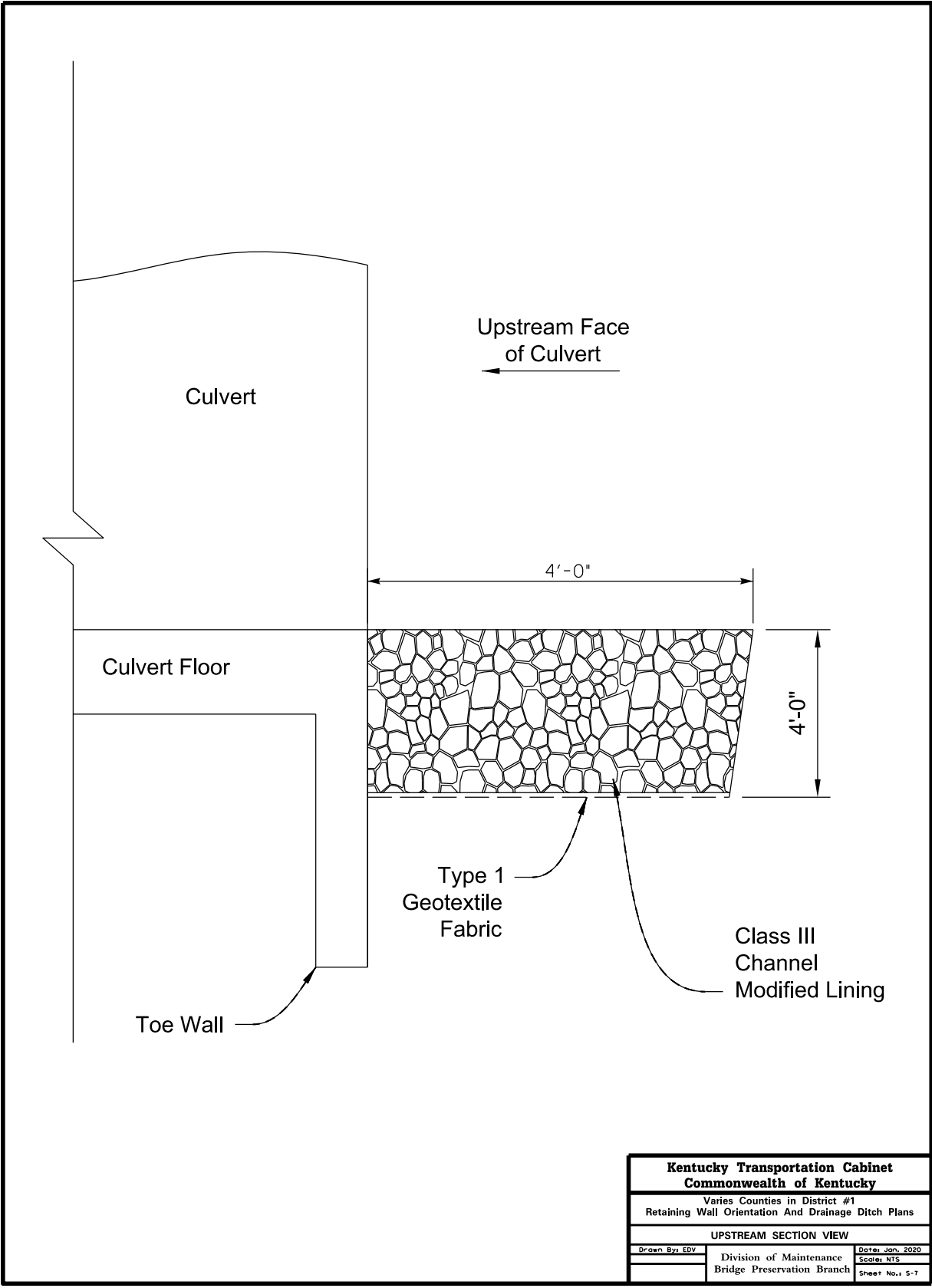
NOTE:
 1. See Bridge Plan and Elevation
 for Details Not Shown

Kentucky Transportation Cabinet Commonwealth of Kentucky		
Varies Counties In District #1 Retaining Wall Orientation And Drainage Ditch Plans		
TYPICAL PLAN VIEW		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan, 2020 Scale: NTS Sheet No.: 5-5

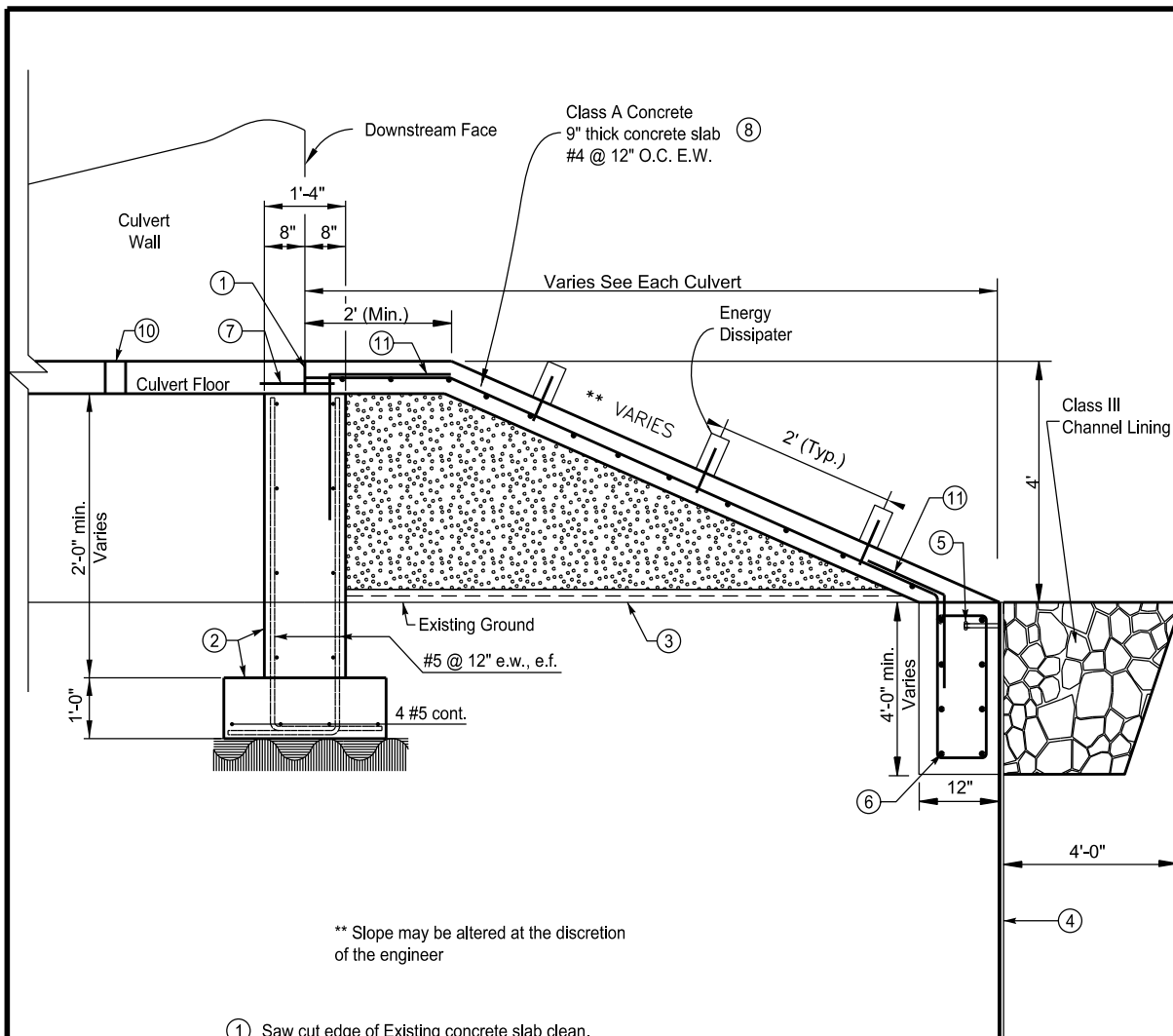


Detail (2)

Kentucky Transportation Cabinet Commonwealth of Kentucky		
Varies Counties in District #1 Retaining Wall Orientation And Drainage Ditch Plans		
PLAN VIEW OF SHEET PILE TOE WALL		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan, 2020 Scale: NTS
		Sheet No.: 5-6



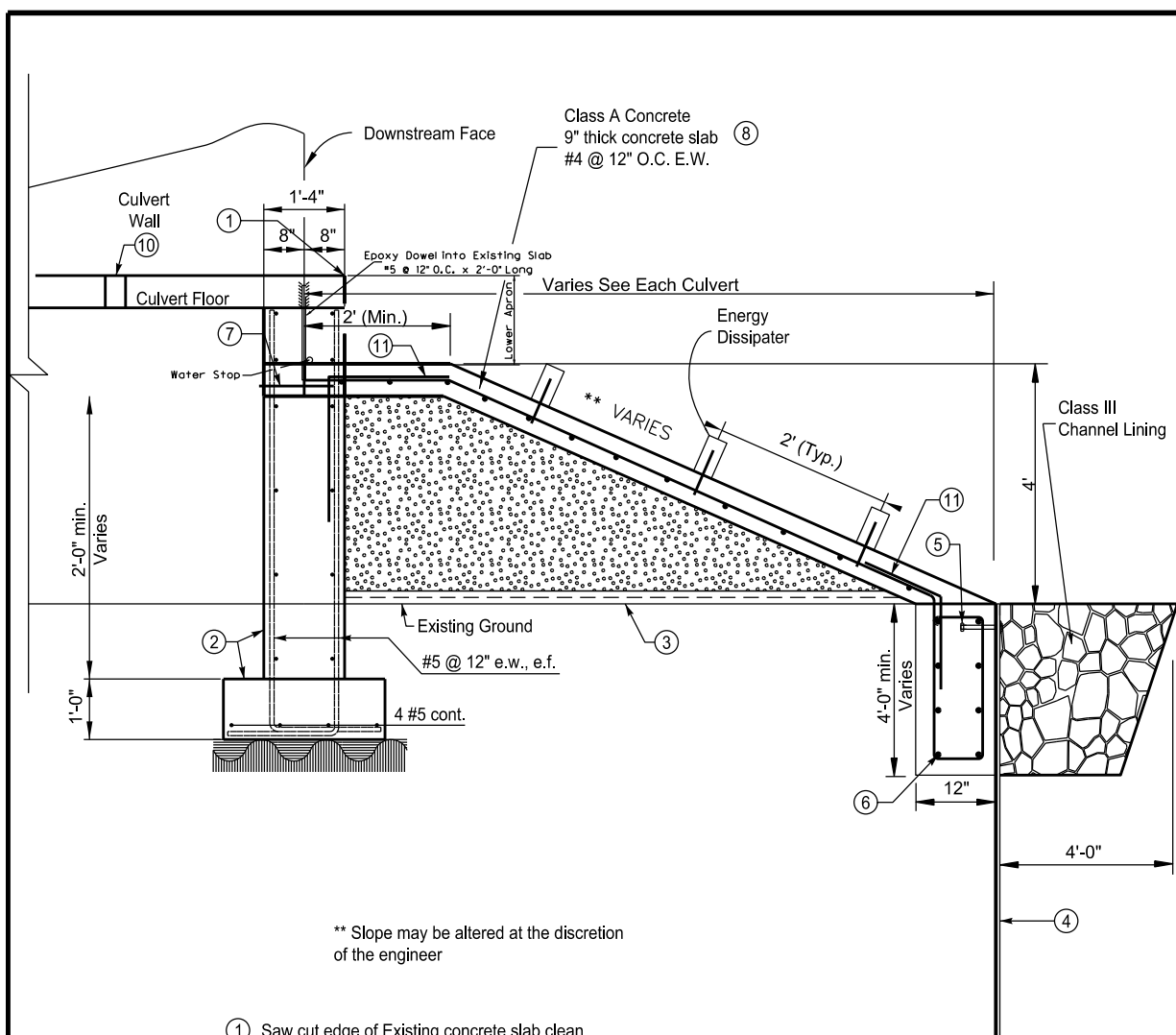
Kentucky Transportation Cabinet Commonwealth of Kentucky		
Varies Counties in District #1 Retaining Wall Orientation And Drainage Ditch Plans		
UPSTREAM SECTION VIEW		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan. 2020 Scale: NTS Sheet No.: 5-7



** Slope may be altered at the discretion of the engineer

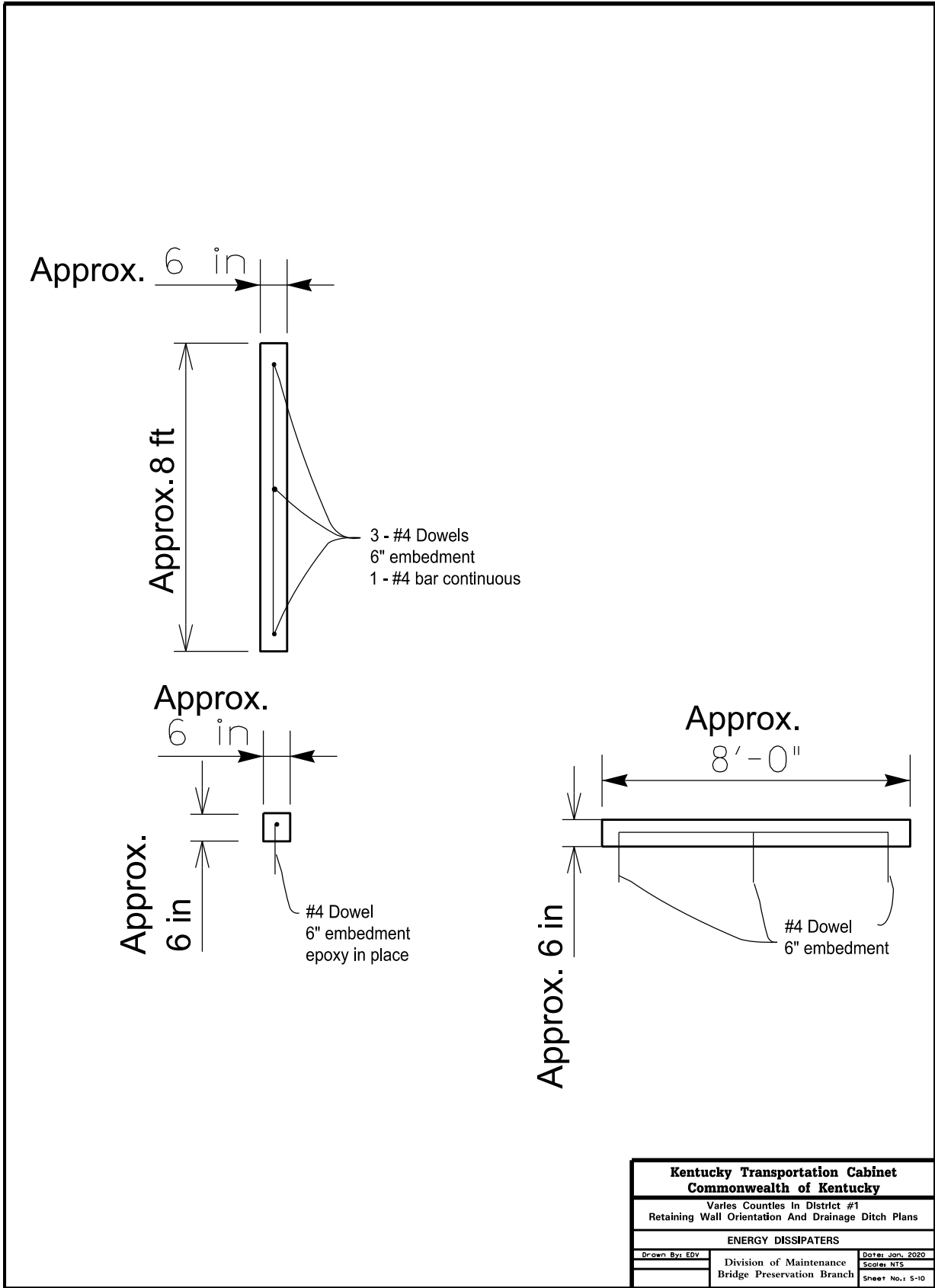
- ① Saw cut edge of Existing concrete slab clean.
- ② Demolish existing and construct new footing & stemwall. Extend down to stable bed material at bridge and wings.
- ③ Filter fabric and #57 crushed stone placed on suitable subgrade depth.
- ④ Drive Sheet pile at toe of apron, extend 8'-0" below stream bed elevation.
- ⑤ 7"x 5/8" diameter anchor bolt placed evenly sheet pile section.
- ⑥ 2-#4 T & B cont. with #4 stirrups @ 12". Intermediate 2-#4 bars @ 12" o.c.
- ⑦ #5 dowel @ 12" o.c. 12" embedment epoxy grout, lap 1'-6".
- ⑧ See note above.
- ⑨ Class III modified channel lining.
- ⑩ Pressure grout below floor slab and behind wing wall. Confine concrete grout as required.
- ⑪ Add #4 corner bar (1'-6"x1'-6") @ 12" o.c.

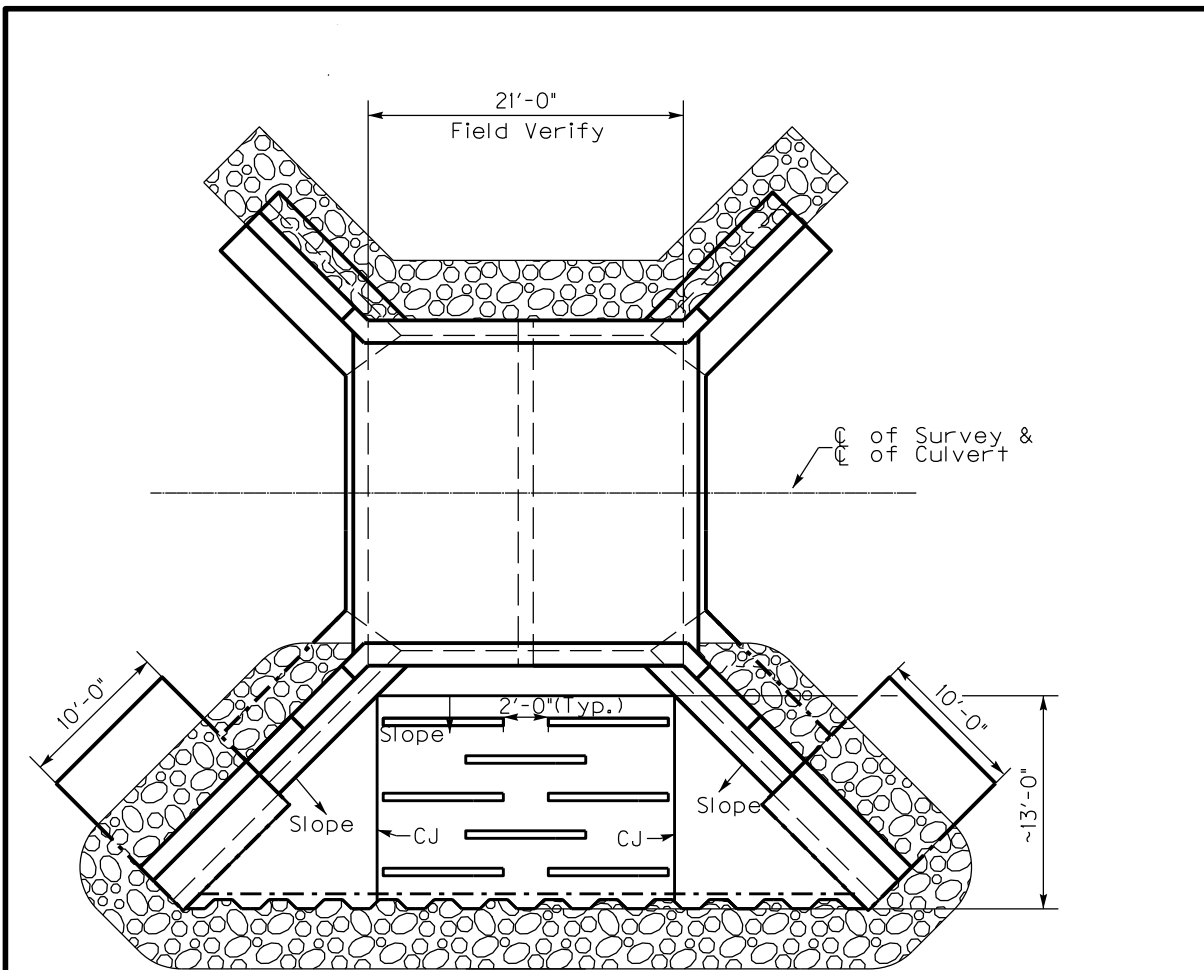
Kentucky Transportation Cabinet		
Commonwealth of Kentucky		
Varies Counties in District #1 Retaining Wall Orientation And Drainage Ditch Plans		
TYPICAL DOWNSTREAM APRON SECTION VIEW		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan, 2020 Scale: NTS Sheet No.: 5-8



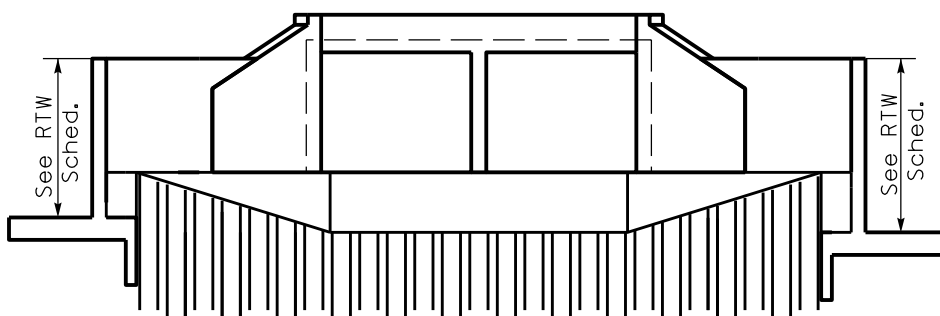
- ① Saw cut edge of Existing concrete slab clean.
- ② Demolish existing and construct new footing & stemwall. Extend down to stable bed material at bridge and wings.
- ③ Filter fabric and #57 crushed stone placed on suitable subgrade depth.
- ④ Drive Sheet pile at toe of apron, extend 8'-0" below stream bed elevation.
- ⑤ 7"x 5/8" diameter anchor bolt placed evenly sheet pile section.
- ⑥ 2-#4 T & B cont. with #4 stirrups @ 12". Intermediate 2-#4 bars @ 12" o.c.
- ⑦ #5 dowel @ 12" o.c. 12" embedment epoxy grout, lap 1'-6".
- ⑧ See note above.
- ⑨ Class III modified channel lining.
- ⑩ Pressure grout below floor slab and behind wing wall. Confine concrete grout as required.
- ⑪ Add #4 corner bar (1'-6"x1'-6") @ 12" o.c.

Kentucky Transportation Cabinet	
Commonwealth of Kentucky	
Varies Counties in District #1	
Retaining Wall Orientation And Drainage Ditch Plans	
LOWERED DOWNSTREAM APRON SECTION VIEW	
Drawn By: EDV	Date: Jan. 2020
Division of Maintenance	Scale: NTS
Bridge Preservation Branch	Sheet No.: 5-9





PLAN

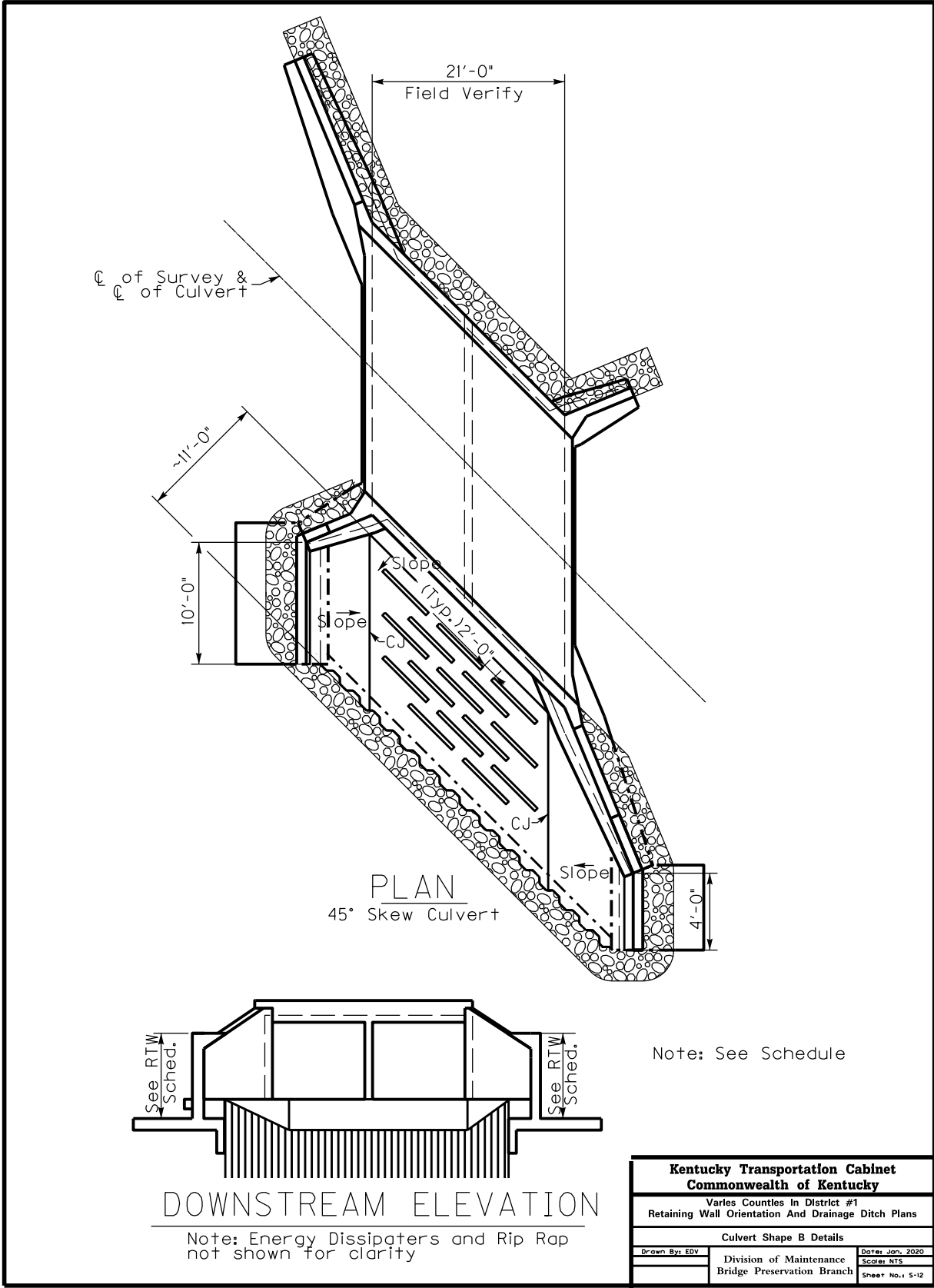


DOWNSTREAM ELEVATION

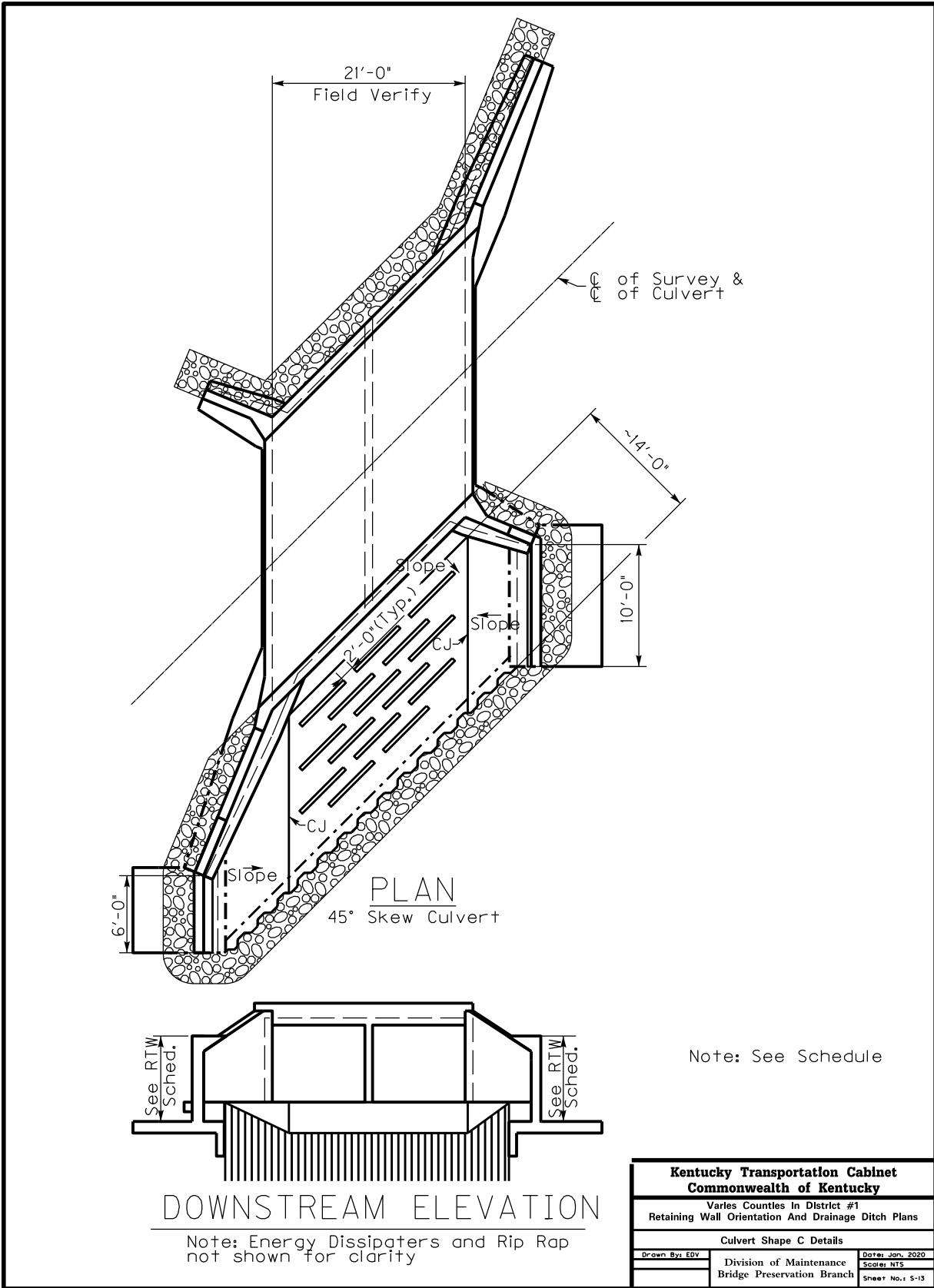
Note: Energy Dissipaters and Rip Rap not shown for clarity

Note: See Schedule

Kentucky Transportation Cabinet Commonwealth of Kentucky		
Varies Counties in District #1 Retaining Wall Orientation And Drainage Ditch Plans		
Culvert Shape A Details		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan. 2020 Scale: NTS
		Sheet No.: S-11



Kentucky Transportation Cabinet		
Commonwealth of Kentucky		
Varies Counties In District #1		
Retaining Wall Orientation And Drainage Ditch Plans		
Culvert Shape B Details		
Drawn By: EDV	Division of Maintenance Bridge Preservation Branch	Date: Jan. 2020 Scale: NTS
		Sheet No.: 5-12



Kentucky Transportation Cabinet		
Commonwealth of Kentucky		
Varies Counties in District #1		
Retaining Wall Orientation And Drainage Ditch Plans		
Culvert Shape C Details		
Drawn By: EDV	Division of Maintenance	Date: Jan, 2020
	Bridge Preservation Branch	Scale: NTS
		Sheet No.: 5-13

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 2019* 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

**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.

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

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.

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.

EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE

\$7.25

 PER HOUR

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.

For additional information:



1-866-4-USWAGE

(1-866-487-9243)

TTY: 1-877-889-5627



WWW.WAGEHOUR.DOL.GOV

PART IV
INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V
BID ITEMS

PROPOSAL BID ITEMS

202940

Page 1 of 1

Report Date 1/28/20

Section: 0001 - BRIDGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00071		CRUSHED AGGREGATE SIZE NO 57	835.00	TON		\$	
0020	02187		SITE PREPARATION	7.00	EACH		\$	
0030	02220		FLOWABLE FILL	70.00	CUYD		\$	
0040	02562		TEMPORARY SIGNS	1,043.00	SQFT		\$	
0050	02596		FABRIC-GEOTEXTILE TYPE I	1,400.00	SQYD		\$	
0060	02650		MAINTAIN & CONTROL TRAFFIC APPLIES TO 004B00030N	1.00	LS		\$	
0070	02650		MAINTAIN & CONTROL TRAFFIC APPLIES TO 042B00055N	1.00	LS		\$	
0080	02650		MAINTAIN & CONTROL TRAFFIC APPLIES TO 042B00110N	1.00	LS		\$	
0090	02650		MAINTAIN & CONTROL TRAFFIC APPLIES TO 053B00006N	1.00	LS		\$	
0100	02650		MAINTAIN & CONTROL TRAFFIC APPLIES TO 053B00034N	1.00	LS		\$	
0110	02650		MAINTAIN & CONTROL TRAFFIC APPLIES TO 079B00024N	1.00	LS		\$	
0120	02650		MAINTAIN & CONTROL TRAFFIC APPLIES TO 111B00038N	1.00	LS		\$	
0130	02701		TEMP SILT FENCE	700.00	LF		\$	
0140	02726		STAKING APPLIES TO 004B00030N	1.00	LS		\$	
0150	02726		STAKING APPLIES TO 042B00055N	1.00	LS		\$	
0160	02726		STAKING APPLIES TO 042B00110N	1.00	LS		\$	
0170	02726		STAKING APPLIES TO 053B00006N	1.00	LS		\$	
0180	02726		STAKING APPLIES TO 053B00034N	1.00	LS		\$	
0190	02726		STAKING APPLIES TO 079B00024N	1.00	LS		\$	
0200	02726		STAKING APPLIES TO 111B00038N	1.00	LS		\$	
0210	03235		EXCAVATION AND BACKFILL	850.00	CUYD		\$	
0220	05985		SEEDING AND PROTECTION	1,300.00	SQYD		\$	
0230	08104		CONCRETE-CLASS AA	525.00	CUYD		\$	
0240	08151		STEEL REINFORCEMENT-EPOXY COATED	44,200.00	LB		\$	
0250	21600EN		SHEET PILING	340.00	LF		\$	
0260	23864EC		CHANNEL LINING CLASS III-MOD	955.00	TON		\$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0270	02569		DEMOBILIZATION	1.00	LS		\$	