### **SECTION 905 -- PROPOSAL** (CONTINUED)

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) enclose a certified check, cashier's check or bid bond for <u>five percent (5%) of total bid</u> and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO.	1	DATED	8/14/2013	ADDENDUM NO.	4	DATED	9/19/2013
ADDENDUM NO.	2	DATED	8/19/2013	ADDENDUM NO.		DATED	
ADDENDUM NO.	3	DATED	8/22/2013	ADDENDUM NO.		DATED	

#### Number

Description

TOTAL ADDENDA: <u>4</u>

(Must agree with total addenda issued prior to opening of bids)

- 1 Revised Table of Contents, replace same; Revised NTB No. 2382 & 4587, replace same; Add SP 907-829-2; Revised Bidltems, replace same; Revised or Added Plan Sht. Nos. 2-5, 13, 15, 16, 19, 20, 31, 61, 127-132, & 1007; Amendment EBS Download Required.
- 2 Wage Rates, replace same; Amendment EBS Download Required.
- 3 Revised SP 907-829-2, replaces same; Amendment EBS Download Required.
- 4 Revised Table of Contents, replace same; Revised Advertisement, replaces same; Revised NTB Nos. 4574 & 4585, replace same; SP 907-229-1, replaces SP 907-240-1; Revised SP 907-829-2, replaces same; Bidltems, replace same; Amendment EBS Download Required.

Respectfully Submitted,

DATE \_\_\_\_\_\_
Contractor
BY \_\_\_\_\_\_
Signature
TITLE \_\_\_\_\_\_
ADDRESS \_\_\_\_\_\_
CITY, STATE, ZIP \_\_\_\_\_\_
PHONE \_\_\_\_\_
FAX \_\_\_\_\_
E-MAIL \_\_\_\_\_

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of \_\_\_\_\_\_ and the names, titles and business addresses of the executives are as follows:

President	Address
Secretary	Address
Treasurer	Address

The following is my (our) itemized proposal.

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SECTION 905 - PROPOSAL, PROPOSAL BID ITEMS, COMBINATION BID PROPOSAL, CERTIFICATION OF PERFORMANCE - PRIOR FEDERAL-AID CONTRACTS, CERTIFICATION REGARDING NON-COLLUSION, DEBARMENT AND SUSPENSION, SECTION 902 - CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORMS, PILE DRIVING FORM, OCR-485.

## (REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET OF SECTION 905 AS ADDENDA)

#### **SECTION 901 - ADVERTISEMENT**

Sealed bids will be received by the Mississippi Transportation Commission in the Office of the Contract Administration Engineer, Room 1013, Mississippi Department of Transportation Administration Building, 401 North West Street, Jackson, Mississippi, until <u>10:00 o'clock A.M.</u>, <u>Tuesday, September 24, 2013</u>, and shortly thereafter publicly opened on the Sixth Floor for:

Interchange Construction on I-110 at Popps Ferry Rd. and Boney Ave., known as Federal Aid Project No. NHS-0010-01(145) / 105281302 in Harrison County.

The attention of bidders is directed to the Contract Provisions governing selection and employment of labor. Minimum wage rates have been predetermined by the Secretary of Labor and are subject to Public Law 87-581, Work Hours Act of 1962, as set forth in the Contract Provisions.

The Mississippi Department of Transportation hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, religion or national origin in consideration for an award.

# The award of this contract will be contingent upon the Contractor satisfying the DBE requirements.

Bid proposals must be purchased online at <u>https://shopmdot.ms.gov</u>. Specimen proposals may be viewed and downloaded online at no cost at <u>http://mdot.ms.gov</u> or purchased online. Proposals are available at a cost of Ten Dollars (\$10.00) per proposal plus a small convenience fee. <u>Cash or checks will not be accepted as payment</u>.

Plans must be purchased online at <u>https://shopmdot.ms.gov</u>. Costs of plans will be on a per sheet basis plus a small convenience fee. If you have any questions, you can contact the MDOT Plans Print Shop at (601) 359-7460, or e-mail at <u>plans@mdot.state.ms.us</u>. Plans will be shipped upon receipt of payment. <u>Cash or checks will not be accepted as payment</u>.

Bid bond, signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent, with Power of Attorney attached, a Cashier's check or Certified Check for five (5%) percent of bid, payable to STATE OF MISSISSIPPI, must accompany each proposal.

The attention of bidders is directed to the provisions of Subsection 102.07 pertaining to irregular proposals and rejection of bids.

MELINDA L. MCGRATH EXECUTIVE DIRECTOR

#### SECTION 904 - NOTICE TO BIDDERS NO. 4574

CODE: (SP)

DATE: 09/16/2013

**SUBJECT:** Contract Time

#### **PROJECT:** NHS-0010-01(145) / 105281302 – Harrison County

The calendar date for completion of work to be performed by the Contractor for this project shall be **July 10, 2015** which date or extended date as provided in Subsection 907-108.06 shall be the end of contract time. It is anticipated that the Notice of Award will be issued no later than **October 8, 2013** and the effective date of the Notice to Proceed / Beginning of Contract Time will be **March 13, 2014**.

Should the Contractor request a Notice to Proceed earlier than <u>March 13, 2014</u> and it is agreeable with the Department for an early Notice to Proceed, the requested date will become the new Notice to Proceed / Beginning of Contract Time date.

The available productive days for this project are 240.

#### SECTION 904 - NOTICE TO BIDDERS NO. 4585

CODE: (SP)

DATE: 09/18/2013

**SUBJECT:** Plan Corrections

#### **PROJECT:** NHS-0010-01(145) / 105281302 – Harrison County

Bidders are hereby advised that the Summary of Quantities sheets in the plans do not include pay items no. 223-A001, Mowing and 907-229-A001 Erosion Mat. However, these pay items have been included in the pay items listed in the bid schedule. Bidders are to bid all pay items listed in the bid schedule.

#### SPECIAL PROVISION NO. 907-229-1

CODE: (SP)

DATE: 05/28/2013

#### **SUBJECT:** Erosion Mats

Section 907-229, Erosion Mats, is hereby added to and made part of the 2004 Edition of the Standard Specifications for Road and Bridge Construction as follows.

#### SECTION 907-229 -- EROSION MATS

<u>907-229.01--Description</u>. This work consists of furnishing and installing erosion mats to protect slopes, ditches, etc. from scour and erosion. The mats shall be installed at locations shown on the plans in reasonably close conformity with the lines, grades and dimensions shown on the plans or as directed by the Engineer.

<u>907-229.02--Materials.</u> Erosion mats shall be UV stabilized mat constructed of plastics, composites, polymers, rubber, precast concrete, or cast-in-place concrete. Erosion mats will be used as an erosion preventer for ditches, slopes, and other locations shown on the plans. Erosion mats shall be one of the following, or an approved equal.

Flexamat Motz Enterprises, Inc. 11006 Reading Road, Suite 301 Cincinnati, OH 45241 Phone: 513-772-6689 www.flexamat.com

Enviromat (EL and EB) Linings Synthetex 4151 Ashford Dunwoody Road Suite 510 Atlanta, Georgia 30319 Phone: 800-225-0023 www.hydrotex.com

The mat shall be visually inspected and approved by the Engineer prior to use. Once approved by the Engineer, the mat may be incorporated into the work.

<u>907-229.03--Construction Requirements</u>. Erosion mats shall be installed in accordance with the plans and manufacturer's guidelines including any underlayment. The anchor system shall be sufficient to anchor the mat to the ground surface.

The installation area shall be graded to a level, smooth surface to avoid water concentration and to

create an appropriate base for the erosion mat. Seed and fertilizer shall be placed on the prepared surface prior to the installation of the erosion mat.

907-229.04--Measurement. Erosion Mat will be measured by the square yard.

If required, seed and fertilizer will be measured and paid under their appropriate pay items.

<u>907-229.05--Basis of Payment</u>. Erosion Mat, measured as prescribed above, will be paid for at the contract unit price per square yard, which price shall be full compensation for all labor, materials, tools, equipment, underlayment, anchor system, concrete, and all incidentals necessary to complete the work.

Payment will be made under:

907-229-A: Erosion Mat

- per square yard

#### **SPECIAL PROVISION NO. 907-829-2**

CODE: (SP)

DATE: 09/12/2013

#### **SUBJECT:** Noise Barrier Walls

#### **PROJECT:** NHS-0010-01(145) / 105281302 – Harrison County

Section 907-829, Noise Barrier Walls, is added to and becomes a part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

#### SECTION 907-829 - NOISE BARRIER WALLS

<u>907-829.01--Description</u>. This work consists of furnishing and erecting the noise walls in accordance with these specifications and in reasonably close conformity with the dimensions, lines, and grades indicated on the plans. The walls are to be designed as post-supported. The wall shall be designed according to Chapter 15 AASHTO LRFD Bridge Design Specifications.

<u>907-829.01.1--Wall Unit Design, Performance Requirements and Submittals.</u> Detailed layout, fabrication drawings, and complete engineering calculations based on the general layout in the MDOT plans shall be submitted for approval prior to construction. The submittals shall include and meet, but not to be limited to the following requirements:

- 1) The drawings shall include all information necessary for prefabricating or field constructing wall sections and posts. Drawings shall show shape, dimensions and layout of wall components and details of reinforcing steel, as well as quantity, type size and details of connection and lifting hardware, and any additional details necessary for a complete review.
- 2) The drawings shall include a complete elevation view of each wall section indicating top and bottom elevations as well as roadway grade. The Contractor shall design the top of the barrier to be horizontal and at or above the wall profiles shown on the plan drawings. Change in elevation shall be accomplished by stepping sections at post. Step shall allow for a smooth transition in wall height as determined by the Engineer, and shall not exceed two (2) feet in height. The drawings shall include a numbered wall component layout, and shall show horizontal and vertical alignment of the wall. Panels may be cast in sections and stacked to achieve the design height. All joints shall be lined up and horizontal alignment shall be maintained for the joints continuously for as many bays as practical.
- 3) The drawings shall also include all information needed to erect the wall, including the proposed drill shaft elevations and depths, the details and construction procedure for connecting panels, panels to posts, and posts to foundation shafts, details necessary to account for change of grade, details for any additional drainage structures, details for

spanning or integrating with any existing or new drainage structures or ditches, and any additional details necessary to complete the work.

- 4) All drawings shall be clear and complete, and shall be thoroughly checked before submittal. The Contractor shall be solely responsible for the content of the design plans and shall ensure the details of the wall conform to all requirements of the contract plans and specifications. Six sets of prints of the completed wall design plans shall be submitted for distribution. The prints submitted shall legible and have distinct details of sufficient contrast to be suitable for reproduction. The electronic CADD files for all drawings shall be submitted with the reproducible drawings on 3½-inch floppy disks or CD with the filenames contained thereon listed on the exterior of the disk to the primary Roadway Design Division contact. The CADD files shall be developed with MICROSTATION and shall be in a compressed zipped (.ZIP) format.
- 5) Design calculations shall include a summary of all design parameters used, including material types, strength values and allowable stresses, soil parameters, assumed loads and load combinations. Calculations shall be submitted covering the full range of heights and loading conditions of the noise wall.
- 6) All drawings and design plans submitted for distribution shall be signed, sealed and stamped in accordance with the laws relating to Mississippi State Board of Registration for Professional Engineers and Land Surveyors. The Contractor shall verify the design by the wall system supplier. Information to be verified shall include, but not be limited to soils, ground topography, design loads, location of utilities and other obstructions.
- 7) A sample wall section shall be submitted prior to construction of any wall panels. The section shall be constructed using the identical process for casting the permanent wall panels, including the installation of any hardware that will be used. If changes such as wall texture or color are required, a new sample panel shall be constructed before final approval can be made. The minimum sample panel shall be 4'x4' and include two sample posts and be erected at a location specified by the Engineer. The Engineer will reject wall units and posts not conforming to the approved sample wall section.
- 8) Submit construction sequence and scheme showing method and sequence of assembly of the noise wall, including drilling of shafts, placement of posts, reinforcement and concrete, excavation, bracing for excavation if required, installation of wall units, and placement of backfill.
- 9) Submit manufacturer's color samples for selection by the Engineer.
- 10) The wall shall be designed to limit the deflection in inches at the top of the wall due to wind load to not exceeding height of wall in feet divided by 50.

**<u>907-829.01.2--Qualifications.</u>** The Designer of the wall shall have a minimum of five (5) years of experience in the design of noise walls. The Designer shall document in a list at least five (5) projects which substantiate experience in noise walls. This documentation shall include a brief description of each project and the name and phone number of the owner's representative who is knowledgeable of each project listed.

#### 907-829.02--Blank.

#### 907-829.03--Construction Requirements.

#### 907-829.03.1--Ground Mounted Noise Wall.

<u>907-829.03.1.1--Foundation Design Parameters</u>. The following design parameters for the soil shall be used in design of ground mounted noise wall foundations.

Internal <i>p-y</i> model	γ` Effective Unit Weight (pci)	c <sub>u</sub> Undrained Cohesion (psi)	ε <sub>50</sub> Strain Factor	φ Friction Angle (degrees)	k Soil Modulus (pci)
Soft CLAY	0.026	2.43	0.020		30
SAND (Reese, 1974)	0.032			30	60

#### **LPILE Design Parameters for Noise Walls**

**<u>907-829.03.1.2--Noise Barrier Walls and Posts.</u>** Noise wall panels and posts shall be constructed of pre-cast concrete in accordance with the plans and these specifications and approved shop drawings.

- 1) **General:** Fabricate, transport, and erect panels and posts in such a manner as to prevent damage thereto. Fabricate the panels and posts in accordance with Sections 804, 805 and 806, except as modified below,
  - (a) Use form that is true to the dimensions shown in the approved shop drawings.
  - (b) Place the concrete in one continuous lift resulting in no cold joint.
  - (c) Provide all accessories, materials, and methods which are not specifically specified in the plans and these specifications, but which are essential for installation or construction of the walls and posts commensurate with the best standard practice of the industry, subject to the approval of the Engineer.
- 2) **Materials**: Furnish the Engineer with certification that the pre-cast concrete supplied for the construction of the walls and posts meet the concrete class and strength requirements specified in the plans.

- 3) **Construction**: Noise wall panels and posts shall be constructed as follows.
  - (a) Fill any and all holes on the panels resulting from their fabrication or installation with an approved mortar grout.
  - (b) Cut all exposed bars, etc., used in lifting or assembling the panels and posts flush with the surface. Then clean the bars, and coat the opening with an approved epoxy.
  - (c) Paint all exposed metal fasteners in the finished work with an approved galvanized paint.
  - (d) Do not use panels and posts damaged by improper storing or handling.
  - (e) Posts shall be either pre-cast, reinforced concrete or pre-cast, pre-stressed concrete. Final color shall be as directed by the Engineer. Post attachment to the panels shall be tongue-and-groove connection. Post attachment to the footing may be steel anchor plate or by embedment in poured concrete. Post construction and connection details shall be specified in the shop drawings.
  - (f) Use anchor bolts made of steel meeting the requirements of ASTM Designations: A 305 and A 325 and galvanized in accordance with ASTM Designation: A 153. All structural steel and plates shall be A 36 steel. All exposed metal shall be hot dip galvanized in accordance with ASTM Designation: A 123.

#### 907-829.03.1.3--Cast-In-Place Concrete.

<u>907-829.03.1.3.1--General</u>. All Cast-In-Place concrete shall be in accordance with the plans and these specifications.

907-829.03.1.3.2--Materials. Materials for Cast-In-Place concrete shall meet the following.

- (a) Provide concrete of the class specified in the plans.
- (b) Provide reinforcing steel of deformed bars meeting the requirements of ASTM Designation: A 615, Grade 60.
- (c) Use anchor bolts made of steel meeting the requirements of ASTM Designations: A 305 and A325 and galvanized in accordance with ASTM Designation: A 153. All structural steel and plates shall be A36 steel. All exposed metal shall be hot dip galvanized in accordance with ASTM Designation: A 123

#### 907-829.03.1.4--Drilled Shafts.

<u>907-829.03.1.4.1--Drilled Shaft Design</u>. Design of drilled shafts shall be performed by a qualified representative knowledgeable of the design and construction process. The software for analysis and design of drilled shafts under lateral load such as LPile developed by Ensoft, Inc., LCAP and PYSHEET by Virginia Transportation Research Council (VTRC), or any other program approved by the Engineer may be used in the design of drilled shafts.

<u>907-829.03.1.4.2--Installation of Drilled Shafts</u>. Installation of drilled shafts shall be in accordance with Section 803 of the Standard Specifications, except modified below:

(a) Drilled Shaft Load Tests will not be required.

(b) Drilled Shafts will not be measured and paid as a separate pay item.

<u>907-829.03.1.5--Appearance of Wall System</u>. Architectural aesthetic treatment shall be applied to both sides of panels. A form liner shall be used to create an architectural feature of fractured texture on roadway side and brick texture on non-roadway side. The fractured texture shall be similar to Saint Mary's and the brick texture shall be similar to Old Brick by the Scott System, Inc. or approved equal. Color of panels will be selected from an approved manufacturer's standard color selection chart.

#### 907-829.03.1.6--Construction Methods. Construction methods shall meet the following.

- Prior to beginning earthwork on the project, stake the wall location in the field and establish the final ground line elevations at the noise walls after the roadway has been graded to its final elevation. Use these elevations to develop the shop plans, including a complete elevation view of each wall indicating top and bottom elevations as well as roadway grade. Protect the final ground elevations established in the field for the duration of the project, and do not adjust without prior approval of the Engineer. Keep to a minimum the clearing and grubbing, and trimming of trees as necessary to construct the walls. Any tree trimming or tree removal required shall be considered to be included in the wall contract.
- 2) Secure joints and connections in such a manner as to be structurally sound with no visible openings for sound transmission or light leaks.
- 3) Repair marred, chipped, scratched, or spalled areas of walls at no expense to the Department in accordance with the manufacturer's recommendations or at the Engineer's direction.
- 4) Place trench backfill for wall constructions in accordance with Subsection 203.03.8.6.
- 5) Dispose of all excess excavation in a manner satisfactory to the Engineer.
- 6) Tolerances:
  - (a) Ensure that vertical alignment for walls and posts is:
    - <sup>1</sup>/<sub>2</sub> inch for wall heights to 10 feet;
    - 1 inch for wall heights greater than 10 feet to 20 feet; and  $1\frac{1}{2}$  inches for wall heights greater than 20 feet.
  - (b) Ensure that horizontal alignment for walls is in reasonably close alignment to that shown in the plans so as to prevent panels from slipping out of the post joints.
  - (c) Set post spacing  $\pm \frac{1}{2}$  inch of their intended location.

<u>907-829.03.1.7--Coating for Ground Mounted Noise Walls.</u> The coating for ground mounted noise walls shall meet the following.

1) Description: Coating for color finishing shall be a premium, water-borne, alkali-resistant, pigmented stain formulated with styrene acrylic for concrete surface. Acceptable products shall allow moisture and vapor transmission and shall be formulated for exterior application with resistance to freeze/thaw, moisture, alkali, acid and mildew, mold or fungus, discoloration or degradation. Apply stain in accordance with the manufacturer's recommendations. The stain shall be applied by a manufacturer certified applicator.

- 2) Materials: Coating system shall be based on a high performance acrylic resin and inorganic pigments. It shall be designed to penetrate concrete surfaces while providing a breathable, water repellant and color stable concrete protection. The materials shall be delivered in the original sealed containers, clearly marked with the manufacturer's name, brand type of material, batch number, and date of manufacture. Store materials in accordance with the manufacturer's recommendations.
- 3) Surface Preparation: Surface to which coating is to be applied must be dry and free from dirt, paint, sealers, wax, or other foreign material. In addition, glazed or glossy surfaces must be chemically, acid washed, or mechanically abraded to remove gloss before application of the coating to allow maximum penetration.
- 4) Application: Coating system on roadway side may be applied by brush or roller for small or edging work or airless spray equipment. Coating system on residential side shall be applied by roller or an approved method to produce a 2-tone painted concrete textured panel in a brick pattern. The coating system shall be applied in two coats until color uniformity, intensity, and complete hiding are achieved. Do not apply coating prior to 28-day concrete cure and surface is dry. Coating shall be applied to all exposed surfaces of units and pre-cast concrete posts.

**<u>907-829.03.2--Bridge Mount Noise Walls.</u>** The bridge mounted noise walls shall be Sound Zero system fabricated by Manning Company or approved equal and shall be manufactured with the following.

- General: The bridge mounted noise wall panel shall be a composite, light weight wall system weighting not exceeding 12 PSF intended for structure mounted applications. The panels shall provide a passive restraint system that prevents departure from the structure in the event of an accident.
- 2) Design: The manufacturer of the noise wall system shall take full responsibility of Engineering theory and calculations correctness and ensuring that all design assumptions for the panels are validated in accordance with AASHTO Standard Specifications for Highway Bridges 1996 and 1998 Interim; and meeting the requirements of Guide Specifications for Structural Design of Sound Barriers 1989.
- 3) Material:
  - (a) Wall Posts: Wall posts shall be W shape shop fabricated from A36 steel and hot dip galvanized in accordance with the requirements of ASTM Designation: A 123.
  - (b) Wall panels:

Sound Zero or approved equal steel core: 2-inch, 18 ga. G-60 galvanized ASTM Designation: A 653, yield strength 35 - 99 ksi, ultimate strength 45 - 57 ksi, minimum I=0.679 in. as manufactured by the Manning Company or approved equal in lengths as required. J-Channel:  $1\frac{1}{2}x2^{2}x3^{2}$ , 16 ga. G-60 galvanized grade steel as per ASTM Designation: A 526 in lengths as required as manufactured by the Manning Company or approved equal.

- (c) Passive restraint cables: <sup>1</sup>/<sub>4</sub>-in diameter galvanized wire rope, <sup>1</sup>/<sub>4</sub>-inch diameter 7x19 IPS.RRL.IWRC with a flemish eye loop 3" x 6" at both ends. Cable shall have a minimum one inch of "slack" and a minimum breaking strength of 3.5 tons.
- (d) Lifting insert: <sup>3</sup>/<sub>4</sub>-inch diameter nut, galvanized w/flat plate.

- (e) E.P.S board: one pcf expanded polystyrene shall meet federal specification HH-I-524C Type I.
- (f) Wind-Devil mechanical fastener: A polypropylene washer designed for the mechanical attachment of insulation as manufactured by Wind-Lock Corporation or approved equal.
- (g) Fiberglass reinforcing fabric: 12 oz./sq. yd., with a minimum tensile strength of 300 lbs./in. of width.
- (h) Basecoat: An acrylic, latex modified cement-mix ration: 1:1 by weight used to embed fiberglass reinforcing fabric.
- (i) Finish:
  - A factory mix acrylic texture finish coating with integral color applied to both sides of all panels.
  - Stone aggregate, not greater than 3/8 inch clean and washed.
  - Painting of all structural steel shall be in accordance with the Department's Standard Specifications.
  - Color shall match the color of the ground mounted concrete noise walls.
- (j) Anti-Graffiti Protection shall be applied to both sides of panels and posts meeting the requirements of Subsection 907-829.03.3.
- (k) Architectural texture finish shall be applied to both sides of panels. An architectural feature of flute texture on roadway side and brick texture on residential side shall be created. The flute texture shall be similar to profile of 1-inch Deep Rib and the brick texture shall be similar to Old Brick by the Scott System.
- 4) Construction: As indicated on the design contract drawings, approved shop drawings and as follows:
  - (a) Shop Drawings Before beginning construction, submit, for approval, shop drawings showing fabrication details; and handling, transportations, and construction procedures for all wall elements including connections.
  - (b) Installation Construct structure mounted posts and connections as indicated in the plans and in accordance with manufacturer's recommendations.
  - (c) Fabrication Fabricate the panels in an approved plant in accordance with approved drawings and approved quality control plan.
    - Fabricate, for approval, a 4' x 4' panel and finish as specified for the full height wall system, and erect at a location specified by the Engineer. Fabricate sample wall by the same process that will be used for all production. Panels not conforming to the approved test sample will be rejected.
    - Sound Zero or approved equal steel core units shall be supplied in proper lengths. Each of these units shall be designed to allow an overlap adjustment one to the other to obtain the required overall height of assembled steel core structure. Minimum overlap <sup>3</sup>/<sub>4</sub> inch.
    - Pieces shall be fastened together along the overlapping seams, with screws at 24 inches o.c. max.

- J-Channel shall be placed on both ends to the substrate and secured by welding or screw fastening. All welds shall be "touch-up" with a zinc coating.
- Wire rope with formed loops: 1/4-inch diameter 7 x 19 IPS.RRL.IWRC galvanized wire rope with a minimum breaking strength of 3.5 tons shall be placed as shown on approved shop drawings, with the cables on the community side of the Sound Zero core. Cable shall be a minimum one foot longer than the width of the panel. Loops shall be attached securely to the core by either plastic or steel strapping.
- All surface oils and other foreign materials shall be wiped clean from the steel core structural unit prior to installing panels.
- Insulation, 1 pcf, shall be 2 feet by the full width, perpendicular to the steel core. The insulation shall be fastened using Wind-Devil Fasteners. One per sq. ft.
- Reinforcing fabric: The fiberglass reinforcing mesh shall be embedded into the wet basecoat, to encapsulate all six sides of the panel. The mesh shall be overlapped a minimum of 2<sup>1</sup>/<sub>2</sub> inches on all sides.
- All edges of the panel shall be coated with an elastomeric prior to finishing either face of the panel.
- The approved finish is then applied to each face of the panel.
- Anti-graffiti primer is then applied to the entire panel, all six sides: Finish coat must be fully cured prior to primer applications.
- Fabrication Tolerances:

Panels (inch)					
Height	+1/4				
Length	+1/2				
Thickness	+1/4				

- (d) Handling, storage and transportation: Employ positive means to protect panel edges from damage. Load and ship panels with care as indicated or as per manufacturer's recommendation.
- (e) Lift panels so as to minimize strain, distortion or impact loads.
- (f) Erection Install noise barrier wall as indicated as shown on approved shop drawings, and in accordance with the manufacturer's recommendation.
  - 1. Install neoprene pad between base plates of the steel posts. The pad should compress sufficiently to provide uniform bearing for the full length of the panel.
    - Lift panels by the two (2) <sup>3</sup>/<sub>4</sub>-inch diameter lifting eyes located in the panel. After installation, the lifting eyes shall be removed and replaced with <sup>3</sup>/<sub>4</sub>-inch diameter x <sup>3</sup>/<sub>4</sub>-inch galvanized bolt, and washer to seal insert.
    - Once in place, panels shall be field drilled, at holes in post, to secure 5/8-inch diameter A325 bolts through wire rope loops. Passive restraint system as indicated.
    - Sealant: Use a polyurethane sealant to seal the panel to the post flange. Sealant is only required on one side of panel. Color of sealant shall match with the color of panels
  - 2. Erection Tolerances:

- Vertical alignment for walls and posts to be <sup>1</sup>/<sub>4</sub> inch for all heights to 10 feet, <sup>1</sup>/<sub>2</sub> inch for wall heights to 20 feet, and <sup>3</sup>/<sub>4</sub> inch for wall heights greater than 20 feet.
- Posts to be set with  $+\frac{1}{2}$  inch of the indicated location.
- (g) Reject individual panel for any of the following:
  - 1. Fractures or cracks passing through the panel. All cracked panels will be rejected either at the fabrication shop or at the construction site, even after installation, but prior to acceptance of the project.
  - 2. Defects that indicate proportioning, mixing and molding not in compliance with the specifications, as specified or indicated.
  - 3. Damaged ends, which prevent making a satisfactory joint.
- (h) Repair and repair procedures require approval by the Engineer.
- Technical Assistance: Have a company representative present, full time, at the project site during erection procedures of the noise barriers to assist the fabricator, Contractor, and Engineer. Provide a technical representative to assist in the event unusual problems or special circumstances arise.

#### 907-829.03.3--Graffiti Protection.

<u>907-829.03.3.1--Description</u>. Graffiti protection shall be provided for entire height on both sides of noise walls. The anti-graffiti coating shall be chemically compatible with the sealer coating to be used. Apply clear coatings, unless otherwise specified in the plans or approved by the Engineer. Subject to compliance with manufacturer's recommendations use one of the following or approved equal:

Defacer Erase Graffiti Control; ProSoCo, Inc. Telephone Number: (913) 281-2700

ENVIROSEAL AG; Harris Specialty Chemicals, Inc. Telephone Number: (800) 327-1570

Graffiti Guard Tycote Clear Base Coat with Tex coat Graffiti Guard IIIS-Finish; Texture Coatings of America, Inc. Telephone Number: (305) 581-0771

- 907-829.03.3.2--Application. The application process shall meet the following.
  - (a) Cleaning: Thoroughly clean all surfaces and allow them to dry, according to manufacturer's recommendations, before applying any coatings. Adopt cleaning procedures that will not damage the existing surface texture or coloring.
  - (b) Surface Preparation: Prepare all surfaces, including primer application, according to manufacturer's recommendations.
  - (c) Application Rates: Apply all cleaning, priming, and coating products according to manufacturer's recommendations, so that the finished product meets the requirements stated herein below.

<u>907-829.03.3.3--Environmental Restrictions</u>. Use only products meeting Federal, State, and Local environmental restrictions. Do not use products containing Lead, Cadmium, or Chromium.

- (a) Volatile Organic Compounds (VOC): Do not use products with a VOC greater than 150 g/L.
- (b) Local Condition: Ensure that the humidity and temperature are within acceptable ranges specified by the manufacturer.
- (c) Wind Velocity: Protect vehicles or other property from damage resulting from dispersion of the material. Suspend operation until conditions improve enough to permit work to continue without damage.

<u>907-829.03.3.4--Construction</u>. Apply the product so that the completed product meets the following requirements:

Total product life:Five yearsRemoval delay period:Two months

Follow the application and cure time, specified by the manufacturer, to ensure that the coated surface is capable of withstanding graffiti application, spray paint, removal delay period, and cleaning without damage. Observe the proper cleaning procedures, as well as cleaning products, specified by the manufacturer. Use cleaning products that meet the requirements of the environmental restrictions. Ensure that the cleaned surface displays no sign of graffiti "shadows" or "ghosts".

Submit a copy of the Manufacturer's cleaning procedures and recommended cleaning products to the Engineer, before applying any anti-graffiti coating.

<u>907-829.03.3.5--Certification</u>. Furnish the Engineer with three copies of a test report certifying that the material meets all requirements specified above. The Engineer will consider any marked variation from original test values for a material or evidence of inadequate field performance of material to be sufficient evidence that the properties of the material have changed and the material will be removed from the above product list.

<u>907-829.04--Method of Measurement.</u> Noise barrier wall, of the type specified, will be measured for payment by the square foot. The area of measurement shall be calculated from the top of the wall panel to the bottom of the wall panel, and from center to center of post in accordance with the approved shop drawings. Only one side of the barrier wall will be measured for payment.

No separate payment will be made for posts, drilled shafts, testing, excavations, temporary support of excavation, backfill, cast-in-place concrete, reinforcement, joint materials, noise wall coating, graffiti protection, and other incidentals.

<u>907-829.05--Basis of Payment.</u> Noise barrier wall, measured as prescribed above, will be paid for at the contract unit price per square foot, which prices and payment will be full compensation for designing, furnishing all materials, fabricating concrete panels and posts, including all necessary connecting hardware, and constructing the noise wall in place, including any

excavation and backfill needed for installing the panels and to adjust for the elevation difference between panels. Payment shall include compensation for all labor, materials, equipment and incidental required to install the wall and erect the wall complete in place to the lines and grade shown on the approved shop drawings. No direct payment will be made for clearing and grubbing or tree removal in the areas of the noise wall. No separate measurement or payment will be made for installation of drilled shafts for ground mounted noise walls.

Payment will be made under

907-829-A:	Ground Mounted Noise Barrier Wall, Contractor Designed	-per square foot
907-829-B:	Bridge Mounted Noise Barrier Wall, Contractor Designed	-per square foot

Interchange Construction on I-110 at Popps Ferry Rd. and Boney Ave., known as Federal Aid Project No. NHS-0010-01(145) / 105281302 in Harrison County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price] Roadway Items
0010	201-A001		1	Lump Sum	Clearing and Grubbing
0020	202-B009		1	Each	Removal of Bridge
0030	202-B041		3,723	Linear Feet	Removal of Fence, All Types
0040	202-B057		9	Each	Removal of Inlets, All Sizes
0050	202-B064		885	Linear Feet	Removal of Pipe, 8" And Above
0060	202-B071		80	Square Feet	Removal of Sign Panels Including Hardware
0070	202-B078		21,009	Square Yard	Removal of Pavement, All Types and Depths
0080	202-В087		506	Linear Feet	Removal of Guard Rail, Including Rails, Posts and Terminal Ends
0090	202-B107		27	Each	Removal of Sign, Ground Mounted with Posts
0100	202-B132		1	Each	Removal of Traffic Signal
0110	202-B142		1	Each	Removal of Junction Box
0120	202-B149		4	Mile	Removal of Traffic Stripe
0130	202-B289		783	Linear Feet	Removal of Cable Rail
0140 Chang	203-A003 ed 08/14/2013	(E )	60,800	Cubic Yard	Unclassified Excavation, FM, AH
0150 Change	203-EX013 ed 08/14/2013	(E )	13,334	Cubic Yard	Borrow Excavation, AH, FME, Class B7
0160	206-A001	(S)	3,356	Cubic Yard	Structure Excavation
0170	209-A004		86,756	Square Yard	Geotextile Stabilization, Type V, Non-Woven
0180	211-A001		82,272	Square Yard	Topsoil for Slope Treatment, From Right-of-Way
0190	212-B001		1,709	Square Yard	Standard Ground Preparation
0200	213-B001		1	Ton	Combination Fertilizer, 13-13-13
0210	213-C001		12	Ton	Superphosphate
0220	216-A001		1,709	Square Yard	Solid Sodding
0230	217-A001		10,000	Square Yard	Ditch Liner
0240	219-A001		34	Thousand Gallon	Watering [\$20.00]
0250	220-A001		12	Acre	Insect Pest Control [\$30.00]
0260	221-A001	(S)	12	Cubic Yard	Portland Cement Concrete Paved Ditch
0270	223-A001		1	Acre	Mowing [\$50.00]
0280	234-A001		9,991	Linear Feet	Temporary Silt Fence
0290	236-A004		1	Each	Silt Basin, Type D
0300	239-A001		206	Linear Feet	Temporary Slope Drains

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0310	406-A001		2,328	Square Yard	Cold Milling of Bituminous Pavement, All Depths
0320	501-E001		163	Linear Feet	Expansion Joints, Without Dowels
0330	502-A001	(C)	354	Square Yard	Reinforced Cement Concrete Bridge End Pavement
0340	602-A001	(S)	9,523	Pounds	Reinforcing Steel
0350	603-CA088	(S)	3,008	Linear Feet	18" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets
0360	603-CA089	(S)	864	Linear Feet	24" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets
0370	603-CA090	(S)	100	Linear Feet	30" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets
0380	603-CA091	(S)	76	Linear Feet	36" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets
0390	603-CA125	(S)	568	Linear Feet	30" Reinforced Concrete Pipe, Class V, Jacked or Bored
0400	603-CB001	(S)	2	Each	18" Reinforced Concrete End Section
0410	603-CB002	(S)	10	Each	24" Reinforced Concrete End Section
0420	603-CB003	(S)	4	Each	30" Reinforced Concrete End Section
0430	603-CB004	(S)	2	Each	36" Reinforced Concrete End Section
0440	603-CE042	(S)	220	Linear Feet	44" x 27" Concrete Arch Pipe, Class A III, Flexible Plastic Gaskets
0450	603-CE045	(S)	470	Linear Feet	36" x 23" Concrete Arch Pipe, Class A III, Flexible Plastic Gaskets
0460	603-CF003	(S)	4	Each	36" x 23" Concrete Arch Pipe End Section
0470	603-CF004	(S)	1	Each	44" x 27" Concrete Arch Pipe End Section
0480	604-A001		1,738	Pounds	Castings
0490	604-B001		500	Pounds	Gratings
0500	606-B001		1,645	Linear Feet	Guard Rail, Class A, Type 1
0510	606-B002		509	Linear Feet	Guard Rail, Class A, Type 1, Double Faced
0520	606-B023		190	Linear Feet	Guard Rail, Remove and Replace Guard Rail & Posts
0530	606-C001		5	Each	Guard Rail, Cable Anchor Type 1, Wood Post
0540	606-D008		4	Each	Guard Rail, Bridge End Section, Type H
0550	606-D012		3	Each	Guard Rail, Bridge End Section, Type I
0560	606-E001		12	Each	Guard Rail, Terminal End Section
0570	607-B006		2,710	Linear Feet	60" Type II Chain Link Fence, Class II
0580	607-P1007		163	Each	Line Post, 7' x 1 1/2" Galvanized Steel
0590	607-P1009		33	Each	Line Post, 9' x 2" Galvanized Steel
0600	607-P1010		22	Each	Line Post, 10' x 2" Galvanized Steel
0610	607-P2019		3	Each	Brace Post, 10' x 2" Galvanized Steel
0620	607-P2022		2	Each	Brace Post, 12' x 2" Galvanized Steel
0630	607-P2023		16	Each	Brace Post, 8' x 2" Galvanized Steel
0640	609-D006	(S)	2,916	Linear Feet	Combination Concrete Curb and Gutter Type 1 Modified
0650	609-D007	(S)	194	Linear Feet	Combination Concrete Curb and Gutter Type 2 Modified

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Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0660	614-A002	(S)	136	Square Yard	Concrete Driveway, Without Reinforcement, 6-inch Thickness
0670 Chang	615-A003 ed 08/14/2013	(S)	1,214	Linear Feet	Concrete Type IV Cast-in-Place Median Barrier
0680	615-A018	(S)	40	Linear Feet	Concrete Bridge End Barrier, 33.5"
0690	616-A001	(S)	76	Square Yard	Concrete Median and/or Island Pavement, 4-inch
0700	616-A003	(S)	16	Square Yard	Concrete Median and/or Island Pavement, 10-inch
0710	618-A001		1	Lump Sum	Maintenance of Traffic
0720	619-A1004		3	Mile	Temporary Traffic Stripe, Continuous White, Paint
0730	619-A2004		3	Mile	Temporary Traffic Stripe, Continuous Yellow, Paint
0740	619-A3007		3	Mile	Temporary Traffic Stripe, Skip White, Paint
0750	619-A4007		1	Mile	Temporary Traffic Stripe, Skip Yellow, Paint
0760	619-D1001		1,174	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
0770	619-D2001		942	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
0780	619-D3001		19	Each	Remove and Reset Signs, All Sizes
0790	619-E1001		4	Each	Flashing Arrow Panel, Type C
0800	619-F1001		5,588	Linear Feet	Concrete Median Barrier, Precast
0810	619-F2001		1,000	Linear Feet	Remove and Reset Concrete Median Barrier, Precast
0820	619-G4001		526	Linear Feet	Barricades, Type III, Single Faced
0830	619-G4004		12	Linear Feet	Barricades, Type III, Single Faced, Permanent, Red/White
0840	619-G5001		162	Each	Free Standing Plastic Drums
0850	619-G7001		15	Each	Warning Lights, Type "B"
0860	619-J1003		2	Unit	Impact Attenuator, 60 MPH
0870	619-J2002		2	Unit	Impact Attenuator, 60 MPH, Replacement Package
0880	620-A001		1	Lump Sum	Mobilization
0890	627-K001		460	Each	Red-Clear Reflective High Performance Raised Markers
0900	627-L001		394	Each	Two-Way Yellow Reflective High Performance Raised Markers
0910	630-A001		109	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
0920	630-A002		224	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
0930	630-B001		337	Square Feet	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Ground Mounted
0940	630-B002		2,369	Square Feet	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Overhead Mounted
0950	630-C003		378	Linear Feet	Steel U-Section Posts, 3.0 lb/ft
0960	630-D009		78	Linear Feet	Structural Steel Beams, W10 x 26
0970	630-E003		67	Pounds	Structural Steel Angles & Bars, 4" x 4" x 5/16" Angles
0980	630-E004		246	Pounds	Structural Steel Angles & Bars, 7/16" x 2 1/2" Flat Bar
0990	630-F001		55	Each	Delineators, Guard Rail, White

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1000	630-F002		23	Each	Delineators, Guard Rail, Yellow
1010	630-F006		34	Each	Delineators, Post Mounted, Single White
1020	630-F007		28	Each	Delineators, Post Mounted, Single Yellow
1030	630-F008		103	Each	Delineators, Post Mounted, Double White
1040	630-F009		21	Each	Delineators, Post Mounted, Double Yellow
1050	630-K002		252	Linear Feet	Welded & Seamless Steel Pipe Posts, 3 1/2"
1060	640-A016		8	Each	Traffic Signal Heads, Type 1 LED
1070	640-A020		1	Each	Traffic Signal Heads, Type 5R LED
1080	640-A036		3	Each	Traffic Signal Heads, Type 5L, LED
1090	640-A045		1	Each	Traffic Signal Heads, Type 3L, LED
1100	642-A001		2	Each	Solid State Traffic Actuated Controllers, Type 8M
1110	644-A001		6	Each	Optical Detector
1120	644-B001		296	Linear Feet	Optical Detector Cable
1130	644-C002		2	Each	Phase Selector, 4 Channel
1140	647-A002		2	Each	Pullbox, Type 3
1150	647-A005		1	Each	Pullbox, Type 2
1160	648-A001		2	Each	Radio Interconnect, Installed in New Controller Cabinet
1170	653-A001		18	Square Feet	Traffic Sign, Encapsulated Lens
1180	653-B001		24	Square Feet	Street Name Sign, Encapsulated Lens
1190	666-B022		250	Linear Feet	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 8, 2 Conductor
1200	666-B054		329	Linear Feet	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 8 Conductor
1210	666-C017		232	Linear Feet	Electric Cable, Aerial Supported, IMSA 20-1, AWG 14, 8 Conductor
1220	668-A018		45	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 2"
1230	668-A020		31	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 3"
1240	668-B025		109	Linear Feet	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 3"
1250	815-A009	(S )	728	Ton	Loose Riprap, Size 300
1260	815-F002	(S )	38	Ton	Sediment Control Stone
1270	907-225-A001		23	Acre	Grassing
1280	907-225-B001		12	Ton	Agricultural Limestone
1290	907-225-C001		48	Ton	Mulch, Vegetative Mulch
1300	907-226-A001		23	Acre	Temporary Grassing
1305 Added	907-229-A001 09/18/2013		500	Square Yard	Erosion Mat
1310	907-234-D001		13	Each	Inlet Siltation Guard
1320	907-237-A003		2,070	Linear Feet	Wattles, 20"

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1330 Deletee	907-240-A001 1 09/18/2013				
1340	907-246-A002		500	Each	Sandbags
1350	907-249-A001		200	Ton	Riprap for Erosion Control
1360	907-403-8004		3	Mile	Joint Sealant
1370	907-407-A001	(A2)	10,956	Gallon	Asphalt for Tack Coat
1380	907-601-B001	(S )	99	Cubic Yard	Class "B" Structural Concrete, Minor Structures, Per Plans
1390	907-603-ALT01	(S)	40	Linear Feet	18" Type A Alternate Pipe
1400	907-606-H001		4	Each	Cable Barrier Terminal Section
1410	907-619-E3001		10	Each	Changeable Message Sign
1420	907-619-L001		500	Linear Feet	Construction Safety Fence
1430	907-626-A005		2	Mile	6" Thermoplastic Double Drop Traffic Stripe, Skip White
1440	907-626-C003		4	Mile	6" Thermoplastic Double Drop Edge Stripe, Continuous White
1450	907-626-D005		1,068	Linear Feet	6" Thermoplastic Double Drop Traffic Stripe, Skip Yellow
1460	907-626-E006		2	Mile	6" Thermoplastic Double Drop Traffic Stripe, Continuous Yellow
1470	907-626-F003		2	Mile	6" Thermoplastic Double Drop Edge Stripe, Continuous Yellow
1480	907-626-G006		4,160	Linear Feet	Thermoplastic Double Drop Detail Stripe, White
1490	907-626-G007		375	Linear Feet	Thermoplastic Double Drop Detail Stripe, Yellow
1500	907-626-H010		1,119	Square Feet	Thermoplastic Double Drop Legend, White
1510	907-630-I001		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 1, Contractor Designed
1520	907-630-I002		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 2, Contractor Designed
1530	907-630-I003		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 3, Contractor Designed
1540	907-639-A033		1	Each	Traffic Signal Equipment Pole, Type IV, 30' Shaft, 35' & 35' Arms
1550	907-639-A036		1	Each	Traffic Signal Equipment Pole, Type IV, 30' Shaft, 40' & 40' Arms
1560	907-639-A046		1	Each	Traffic Signal Equipment Pole, Type III, 17' Shaft, 35' & 45' Arms
1570	907-639-C002		13	Cubic Yard	Pole Foundations, 36" Diameter
1580	907-639-D001		41	Linear Feet	Slip Casing, 36" Diameter
1590	907-649-A004		6	Each	Video Detection System, 1 Sensor, Type 2
1600	907-699-A002		1	Lump Sum	Roadway Construction Stakes
1610	907-906001		1,040	Hours	Trainees [\$5.00]
1615 Added	907-829-A002 08/14/2013	(S)	9,092	Square Feet	Ground Mounted Noise Barrier Wall, Contractor Designed
				ALTERNAT	TE GROUP AA NUMBER 1
1620	907-304-F003	(GT )	20,806	Ton	3/4" and Down Crushed Stone Base
				ALTERNAT	TE GROUP AA NUMBER 2

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]			
1630	907-304-F004	(GT )	20,806	Ton	Size 825B Crushed Stone Base			
				ALTERNATE GROUP AA NUMBER 3				
1640	907-304-F002	(GT )	20,806	Ton	Size 610 Crushed Stone Base			
				ALTERNAT	TE GROUP BB NUMBER 1			
1650	907-403-A002	(BA1)	) 23,793	Ton	Hot Mix Asphalt, HT, 19-mm mixture			
				ALTERNAT	TE GROUP BB NUMBER 2			
1660	907-403-M011	(BA1)	) 23,793	Ton	Warm Mix Asphalt, HT, 19-mm mixture			
				ALTERNAT	TE GROUP CC NUMBER 1			
1670	907-403-A012	(BA1)	) 8,897	Ton	Hot Mix Asphalt, ST, 19-mm mixture			
				ALTERNAT	TE GROUP CC NUMBER 2			
1680	907-403-M004	(BA1)	) 8,897	Ton	Warm Mix Asphalt, ST, 19-mm mixture			
					TE GROUP DD NUMBER 1			
1690	907-403-D001	(BA1)	) 6,676	Ton	Hot Mix Asphalt, HT, 12.5-mm mixture, Polymer Modified			
1500	005 400 0000	(7) 4 1			TE GROUP DD NUMBER 2			
1700	907-403-P002	(BA1)	) 6,676	Ton	Warm Mix Asphalt, HT, 12.5-mm mixture, Polymer Modified			
1710	007 402 0004	/D A 1	4 7 7 7		FE GROUP EE NUMBER 1			
1710	907-403-D004	(BA1)	) 4,727	Ton	Hot Mix Asphalt, HT, 9.5-mm mixture, Polymer Modified			
1720	907-403-P001	(BA1	) 4,727	Ton	Warm Mix Asphalt, HT, 9.5-mm mixture, Polymer Modified			
1720	207 405 1 001	(BIII)	) 4,727	1011	Bridge Items			
1730	501-K001		3,000	Square Yard	-			
1740	803-B002	(S)	2	Each	Conventional Static Pile Load Test [\$5,000.00]			
1750	803-C003	(S)	2,250	Linear Feet	16" x 16" Prestressed Concrete Piling			
1760	803-I001	(S)	2,230	Each	PDA Test Pile			
	803-J001			Each	Pile Restrike			
1770		(S)	2					
1780	803-N001	(S)	66	Linear Feet	Exploration			
1790	803-0009	(S)	600	Linear Feet	Temporary Casing, 54" Diameter			
1800	805-A001	(S)	331,680	Pounds	Reinforcement			
1810	813-A001	(S)	729	Linear Feet	Concrete Railing			
1820	815-D001	(S )	172	Cubic Yard	Concrete Slope Paving			
1830	907-803-K003	(S)	915	Linear Feet	Drilled Shaft, 54" Diameter			
1840	907-803-L005	(S)	1	Each	Test Shaft, 54" Diameter			
1850	907-803-M003	(S)	76	Linear Feet	Trial Shaft, 54" Diameter			
1860	907-804-A001	(S)	1,352	Cubic Yard	Bridge Concrete, Class AA			
1870	907-804-C252	(S)	683	Linear Feet	69' Prestressed Concrete Beam, Type BT-54			
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Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1880	907-804-C253	(S )	1,883	Linear Feet	95' Prestressed Concrete Beam, Type BT-54
1890	907-804-C254	(S)	1,053	Linear Feet	106' Prestressed Concrete Beam, Type BT-54