

**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 **five percent (5%) of total bid** 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   1/13/2012        ADDENDUM NO.        DATED         
 ADDENDUM NO.        DATED             ADDENDUM NO.        DATED       

| Number | Description  |
|--------|--|
| 1      | Revised NTB 3703; Revised Wage Rates; Revised SP 907-809-1; Revised Bid Sheets; Amendment EBS Download Required. |

TOTAL ADDENDA:   1    
 (Must agree with total addenda issued prior to opening of bids)

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:

|                    |                  |
|--------------------|------------------|
| _____<br>President | _____<br>Address |
| _____<br>Secretary | _____<br>Address |
| _____<br>Treasurer | _____<br>Address |

The following is my (our) itemized proposal.

Revised 09/21/2005

STP-2175-00(012) / 106194301      Pike County(ies)

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3703

DATE: 1/13/2012

SUBJECT: Specialty Items

PROJECT: STP-2175-00(012) / 106194301 - Pike County

Pursuant to the provisions of Section 108, the following work items are hereby designated as "Specialty Items" for this contract. Bidders are reminded that these items must be subcontracted in order to be considered as specialty items.

### CATEGORY: CURBING, SIDEWALKS, GUTTERS

---

| Line No | Pay Item | Description  |
|---------|----------|--|
| 0230    | 609-D006 | Combination Concrete Curb and Gutter Type 1 Modified |

### CATEGORY: PAVEMENT STRIPING AND MARKING

---

| Line No | Pay Item     | Description   |
|---------|--------------|---|
| 0390    | 627-K001     | Red-Clear Reflective High Performance Raised Markers      |
| 0400    | 627-L001     | Two-Way Yellow Reflective High Performance Raised Markers |
| 0550    | 907-626-B003 | 6" Thermoplastic Traffic Stripe, Continuous White         |
| 0560    | 907-626-C008 | 6" Thermoplastic Edge Stripe, Continuous White            |
| 0570    | 907-626-E003 | 6" Thermoplastic Traffic Stripe, Continuous Yellow        |
| 0580    | 907-626-G001 | Thermoplastic Detail Stripe, Blue-ADA                     |
| 0590    | 907-626-G004 | Thermoplastic Detail Stripe, White                        |
| 0600    | 907-626-G005 | Thermoplastic Detail Stripe, Yellow                       |
| 0610    | 907-626-H002 | Thermoplastic Legend, Blue-ADA Handicap Symbol            |
| 0620    | 907-626-H004 | Thermoplastic Legend, White                               |
| 0630    | 907-626-H005 | Thermoplastic Legend, White                               |

### CATEGORY: TRAFFIC CONTROL - TEMPORARY

---

| Line No | Pay Item      | Description  |
|---------|---------------|--|
| 0250    | 619-A1001     | Temporary Traffic Stripe, Continuous White                     |
| 0260    | 619-A2001     | Temporary Traffic Stripe, Continuous Yellow                    |
| 0270    | 619-A5001     | Temporary Traffic Stripe, Detail                               |
| 0290    | 619-A6002     | Temporary Traffic Stripe, Legend                               |
| 0300    | 619-D1001     | Standard Roadside Construction Signs, Less than 10 Square Feet |
| 0310    | 619-D2001     | Standard Roadside Construction Signs, 10 Square Feet or More   |
| 0320    | 619-F1001     | Concrete Median Barrier, Precast                               |
| 0330    | 619-F1002     | Portable Median Barrier  |
| 0340    | 619-G4001     | Barricades, Type III, Single Faced                             |
| 0350    | 619-G4005     | Barricades, Type III, Double Faced                             |
| 0360    | 619-G5001     | Free Standing Plastic Drums                                    |
| 0370    | 619-G7001     | Warning Lights, Type "B"                                       |
| 0530    | 907-619-A5001 | Temporary Traffic Stripe, Detail Blue ADA                      |
| 0542    | 907-619-A6002 | Temporary Traffic Stripe, Legend Blue ADA                      |

CATEGORY: UTILITY ITEMS

---

| Line No | Pay Item     | Description                                      |
|---------|--------------|--|
| 0450    | 907-265-B002 | 6" Ductile Iron Pipe, With Joint Restraint       |
| 0460    | 907-265-C002 | Ductile Iron Fittings                            |
| 0470    | 907-265-D003 | 6" Gate Valve and Value Box                      |
| 0480    | 907-265-F002 | Fire Hydrant Assembly, 3-Way, With Box and Cover |

General Decision Number: MS120163 01/06/2012 MS163

Superseded General Decision Number: MS20100206

State: Mississippi

Construction Type: Highway

Counties: Claiborne, Jefferson and Pike Counties in Mississippi.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

|                     |                  |
|---------------------|------------------|
| Modification Number | Publication Date |
| 0                   | 01/06/2012       |

\* ELEC0480-007 07/01/2011

|                  | Rates    | Fringes |
|------------------|----------|---------|
| ELECTRICIAN..... | \$ 23.10 | 8.12    |

-----  
SUMS2008-124 09/04/2008

|                                   | Rates    | Fringes |
|-----------------------------------|----------|---------|
| CARPENTER, Includes Form Work.... | \$ 11.42 | 0.12    |
| CEMENT MASON/CONCRETE FINISHER... | \$ 10.82 | 0.00    |
| IRONWORKER, REINFORCING.....      | \$ 11.30 | 0.00    |
| LABORER: Common or General.....   | \$ 8.64  | 0.00    |
| LABORER: Pipelayer.....           | \$ 9.68  | 0.00    |
| OPERATOR: Backhoe.....            | \$ 11.32 | 0.00    |
| OPERATOR: Broom.....              | \$ 10.17 | 0.00    |
| OPERATOR: Bulldozer.....          | \$ 10.77 | 0.00    |
| OPERATOR: Crane.....              | \$ 14.57 | 0.00    |
| OPERATOR: Grader/Blade.....       | \$ 12.46 | 0.00    |
| OPERATOR: Loader.....             | \$ 10.15 | 0.00    |
| OPERATOR: Mechanic.....           | \$ 12.04 | 0.00    |
| OPERATOR: Oiler.....              | \$ 12.33 | 0.48    |
| OPERATOR: Roller.....             | \$ 9.31  | 0.00    |

|  |          |      |
|--|----------|------|
| OPERATOR: Scraper.....                               | \$ 10.00 | 0.00 |
| OPERATOR: Tractor.....                               | \$ 7.79  | 0.00 |
| OPERATOR: Asphalt Paver and<br>Asphalt Spreader..... | \$ 10.00 | 0.00 |
| TRUCK DRIVER.....                                    | \$ 9.22  | 0.00 |

---

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

---

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

---

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

#### Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters, PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the

survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

-----

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board

U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-809-1**

**CODE: (SP)**

**DATE: 01/10/2012**

**SUBJECT: Temporary Shoring Wall Systems**

**PROJECT: STP-2175-00(012) / 106194301 – Pike County**

Section 809, Retaining Wall Systems of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable for the Temporary Shoring Wall Systems Only.

## **SECTION 907-809 – TEMPORARY SHORING WALL SYSTEMS**

**907-809.01--Description.** This work shall consist of the designing, furnishing, installing, maintaining, and removing (if required by the Engineer), the temporary shoring walls described herein in accordance with the lines, grades and dimensions shown in the plans and specifications. A temporary shoring wall shall be as shown in the plans or may be, but is not limited to one of the following types:

1. Steel sheet pile wall – cantilevered, braced or tieback
2. Steel soldier piles with lagging – cantilevered, braced or tieback
3. Temporary Mechanically Stabilized Earth (MSE) wall with welded wire form facing and geosynthetic wrap for fill situations.

This item is designated as “temporary” due to its limited service life that is typical until construction of a permanent structure (i.e. embankment, bridge abutment, box culvert, etc.) is completed. Even though the shoring is “temporary” it may remain in place at the end of construction due to the impracticality of removing the shoring components (i.e. soldier piles, tie backs, soil reinforcement, or portions thereof, etc.) or the potential of damage to the permanent structure that may exist during extraction of the shoring components.

**907-809.01.1--General.** Temporary shoring wall systems shall comply with all material, fabrication and construction requirements found in the Standard Specifications and the construction plans. All costs associated with the design and construction of the wall system selected by the Contractor shall be included in the bid price for the wall. The Contractor may select different wall types for different sites, as provided for on the plans.

The time required for preparation and review of wall shop drawings has been included in the allowable contract time. No additional compensation will be made for any additional material, equipment, or other items found necessary to comply with the project specifications as a result of review by the Department. All submittals shall be submitted to the State Bridge Engineer, with



copies to the State Geotechnical Engineer and Project Engineer, for approval prior to construction.

The temporary shoring wall system shall follow the lines, grades, and location as shown in the plans. In the event that plan dimensions are revised due to field conditions or other reasons, the Contractor shall be responsible for revising the wall plans, design calculations, and summary of quantities.

**907-809.01.2--Submittals.** The Temporary Shoring Wall System installation submittal shall include a construction sequence manual, the name and address of the Prime Contractor and Wall Subcontractor, the Wall Installer personnel and experience levels of each on past projects similar to the chosen wall system.

The Contractor shall submit documentation for the Superintendent assigned to this project verifying employment with the Wall Installer and a minimum of five (5) years of experience with the chosen wall system. The Contractor shall include past projects of scope and complexity similar to that anticipated for this project. Documentation should include resumes, references, certifications, project lists, experience descriptions and details, etc.

All work performed shall be with the Superintendent submitted and accepted. If a different Superintendent is required during construction, wall construction shall be suspended until the name of a replacement Superintendent is submitted and accepted.

The Contractor shall submit a detailed project specific construction sequence and a field construction manual describing with illustrations the step-by-step wall construction process for the chosen Temporary Shoring Wall System.

**907-809.01.2.1--Initial Design Submittal.** The initial design submittal shall include three sets of wall plans and three sets of design calculations and notes. The wall plans and design calculations and notes shall clearly state the wall type chosen. The wall plans and design calculations will be returned to the Contractor after review by the Department within fifteen (15) calendar days of receipt.

The calculations shall include, but not be limited to, those items listed below. The designer/supplier furnishing the plans and calculations for the wall system proposed shall be responsible for the internal and external stability of the wall system. All final design calculations and plans shall be prepared, stamped and signed by a Professional Engineer licensed to practice in the State of Mississippi.

The drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the wall. The wall system plans shall include, but not be limited to, the following items:

1. A plan and elevation sheet or sheets for each wall shall contain the following:
  - a. The elevation view of the wall which shall indicate the elevation/stations at the top and bottom of the wall, at all horizontal and vertical break points, and at all

whole stations and 25-foot station increments along the wall, including elevations at the top of leveling pads and footings, and the original and final ground line.

- b. The plan view of the wall shall show the offset from the construction centerline to the face of the wall at all changes in horizontal alignment. Also included should be the limits of the soil reinforcement and any drainage structures or pipes lying behind or extending through or under the wall.
  - c. The general notes and design parameters portion shall include design soil characteristics and all other pertinent notes required for construction of the walls. The factored bearing resistance and factored bearing pressure for each wall height increment shall be provided.
  - d. All horizontal and vertical curve data affecting the wall shall be included.
  - e. A list of all required materials and the required quantity of each shall be provided on the elevation sheet of each wall.
2. All bracing or tieback details shall be included, if required.
  3. All details for foundations and leveling pads shall be shown including steps in the footings or leveling pads. Foundations and leveling pads shall have a minimum cover of two feet.
  4. All wall facing, coping, and lagging shall be detailed. The details shall include all dimensions necessary to construct the element.
  5. Details should be included for the walls around any existing drainage facilities.
  6. All details concerning the appearance of the wall face shall be included.

The plans that are submitted with the initial design submittal shall be prepared on standard 24-inch by 36-inch sheets. Each sheet shall have a title block in the lower right hand corner. The title block shall include the sheet number of the drawing, type of wall designated, the project number, and the Contractor.

The design calculations and notes shall contain the project number, type of wall designated, date of preparation, and the name of the designer. The package shall have a clear index outlining the design notes and shall include an explanation of the design procedure, explanation of any symbols, and technical documentation of any computer programs used. The design calculations shall clearly state the factors of safety for sliding, pullout, rupture, and overturning. In addition, the bearing pressures beneath the wall footing used in the calculations shall be noted.

**907-809.01.2.2--Final Plan Submittal.** All final construction plans shall be submitted on 24-inch by 36-inch reproducible mylar sheets. In addition the plans shall be accompanied by a Compact Disks containing the plans in Tagged Image File Format (TIFF) for archive purposes. The final construction plans shall reflect all changes made on the plans submitted for the design

submittal. The final construction plans will be returned to the Contractor after review and approval by the Department within fifteen (15) calendar days of receipt.

**907-809.01.3--Design Criteria.** The design for any proposed temporary shoring wall shall consider the internal and external stability of the wall including the bearing pressure, overturning and sliding. The wall shall be designed to safely support all loads without allowing undesirable deflections and settlement. The design shall consider all dead and live loadings (earth pressures, hydrostatic pressures, traffic loads, construction loads, point loads, line loads, and surcharge loads), including any applicable lateral earth pressures that the retaining system may experience during the service life of the structure. In addition, the following general guidelines shall be followed.

1. The chosen wall system shall be designed in accordance with the current accepted version of the *AASHTO LRFD Standard Specifications for Highway Bridges*.
2. Temporary MSE walls shall be designed using either the simplified or Meyerhof coherent gravity approach of determining maximum reinforcement loads. Steel components including reinforcement and connection hardware for non-aggressive backfill with corrosion losses shall be designed in accordance with the currently accepted version of the *AASHTO LRFD Standard Specifications for Highway Bridges*. Also, temporary MSE walls shall be designed with a minimum reinforcement length of eight feet (8') unless shown otherwise on the plans
3. Temporary shoring walls are not required to resist seismic forces from earthquake events.
4. Design Life: All temporary shoring walls shall be designed for a minimum of three (3) years design life. Temporary shoring walls that will be in use for more than five (5) years shall be designed as permanent retaining wall structures.
5. Soil Design Parameters: Temporary shoring walls shall be designed using appropriate soil properties relative to the anticipated service life. Temporary shoring that will be in-place for a period where excess pore pressures have not dissipated (typically less than 4 to 6 months) shall be designed using total (undrained) soil shear strength parameters. Effective (drained) soil shear strength parameters should be used when temporary shoring walls are in service sufficiently long (typically more than 4 to 6 months) for excess pore pressures to dissipate.
6. Prior to the design of the wall system, the designer/supplier shall be required to perform an in-house geotechnical review of the available geotechnical information with the Geotechnical Branch of Materials Division. The purpose of the geotechnical review will be to obtain the pertinent design information relating to global stability as well as answer questions concerning any of the geotechnical information provided in the plans. The final design shall take into account any global stability issues that are brought forth by the geotechnical review. A generic analysis for global stability using limit equilibrium methods of analysis will be conducted by the Department and the results provided to the Temporary Shoring Wall System Designer at the geotechnical review. Any allowed changes to the wall lines and grades or stabilized soil mass that affect the global stability

calculations will require the wall supplier to include a global stability analysis with the final design. The Geotechnical Engineer may be contacted to schedule an appointment by calling (601) 359-1795.

7. The minimum factors of safety to be used in design are as listed below. As per the AASHTO LRFD Standard Specifications for Highway Bridges commentary, Resistance Factors may be calculated to be a direct correlation to the ASD Factor of Safety presented below unless a more stringent requirement exists in the currently accepted version.

- a. External Stability
  - Sliding @ the Base 1.5
  - Sliding @ the Reinforcement 1.5
  - Overturning 2.0
  - Eccentricity, e, at Base <math><L/6</math> for MSEW, where L is the length of the reinforced soil mass
  - Bearing Capacity 2.5
  - Temporary Slopes 1.2
  - Global Stability 1.3
- b. Internal Stability
  - Pullout Resistance for MSEW 1.5
  - Reinforcement Rupture for MSEW 1.5

8. The wall design shall take into account all appurtenances behind, in front of, under, mounted upon, or passing through the wall and supply the appropriate construction details. These items should be accounted for in the internal and external stability calculations.

9. Leveling pads, foundations, or footings shall have a minimum cover of two feet. For design purposes, passive pressure in front of the wall shall be assumed to be zero.

10. Temporary facing with welded wire form and geosynthetic wrap shall be designed in a manner which prevents the occurrence of bulging in excess of two inches (2”) when backfill behind the facing elements is compressed due to compaction stresses or self weight of the backfill. Bulging shall be measured as the maximum displacement from the theoretical vertical or sloped face of the temporary MSE wall that extends over a section of one (1) foot or more along the theoretical wall face. The temporary facing shall be designed to the same structural requirements as the other components of the temporary MSE wall.

11. The retaining wall system shall be designed to limit deformations (vertical and lateral displacements) that would affect the stability or performance of any adjacent structures (Bridge foundations, Traffic Barriers, Pavement Structure, Approach Slabs, Embankment, etc.). Deformations that must be limited shall include vertical settlement, sliding, bulging, bowing, bending, and buckling. Regardless of the type of structure being retained, the deformation criteria shall not exceed two (2) inches without approval from the State Bridge Engineer.

An instrumentation plan for monitoring deformations of the temporary shoring and any adjacent structure shall be submitted along with the shop drawings. The instrumentation plan shall indicate the maximum allowable deformations of the temporary shoring and adjacent structures. Typical instrumentation used for monitoring deformations are survey targets, settlement monuments, crack gages, inclinometers, and tilt monitors. The monitoring locations shall be established in a manner that they can be monitored consistently and obtain repeatable measurements for the entire construction period.

**907-809.02--Materials.** Material requirements will vary depending on the type of wall system chosen. Specific material requirements for each wall type are given below.

**907-809.02.1--Steel Sheet Pile Wall.** Materials for Steel Sheet Pile Walls shall meet the following minimum standards set forth in Section 802.

**907-809.02.2--Steel Soldier Pile Wall.** Materials for Steel Soldier Pile Walls shall meet the following minimum standards.

**907-809.02.2.1--Steel Soldier Piles.** Soldier Piles shall be of high strength low-allow steel for welding, conforming to the requirements of Subsection 717.01.6. Welds shall conform to the requirements of Subsection 810.03.5.

**907-809.02.2.2--Timber Lagging.** Untreated timber lagging shall conform to the requirements of Subsection 718.02. Use timber lagging with a minimum allowable bending stress of 1500 p.s.i. The thickness shall be a minimum of four (4) inches, stated as actual measured thickness. For design procedures of timber lagging see AASHTO LRFD 2010 Section 8.6 or the currently accepted version The Timber Lagging shall consider a wet service factor.

**907-809.02.2.3--Concrete.** For drilled-in soldier piles, Class B concrete (minimum  $f'_c = 3000$  p.s.i.) shall be used providing a slump of 6 to 8 inches using an approved high-range water reducer to achieve slump. Class B concrete shall be placed from the pile tip elevation to the excavation elevation shown on the plans and allowed to reach a minimum of 2500 p.s.i. prior to any earthwork excavation taking place.

**907-809.02.2.4--Flowable Fill.** Flowable fill shall conform to the requirements of Subsection 907-631.01. Flowable fill shall be used for drilled-in soldier piles from the planned excavation elevation to the top of pile or ground surface, whichever is the lower.

**907-809.02.2.5--Aggregate.** A size 57 stone shall be used for backfill behind timber lagging.

**907-809.02.3--Mechanically Stabilized Earth Walls (MSEW).** Materials for Mechanically Stabilized Earth Walls shall meet the following minimum standards.

**907-809.02.3.1--Base Leveling Pad Material.** Base leveling pad material shall be constructed using non-reinforced concrete and be a minimum of six inches thick by 12 inches wide. Class C concrete shall be used for the base leveling pad material unless otherwise noted in the plans.

**907-809.02.3.2--Unit Infill or Drainage Fill.** Unit Infill or Drainage Fill shall consist of clean, free draining crushed stone or gravel with a one inch maximum particle size and shall meet the gradation listed below.

| <u>Sieve Size</u> | <u>Percent Passing</u> |
|-------------------|------------------------|
| 1"                | 100                    |
| 3/4"              | 75 – 100               |
| # 4               | 0 – 10                 |
| # 40              | 0 – 5                  |

The Engineer shall approve the gradation of the Unit Infill or Drainage Fill. Pea gravel shall not be used. If required, a minimum of 1.5 cubic foot of drainage fill shall be used for each square foot of wall face. Drainage fill may be placed between, behind, and within the cores of units to meet this requirement. In no case will a geotextile or geocomposite be used as a substitute for the drainage fill.

**907-809.02.3.3--Reinforced Backfill for Mechanically Stabilized Earth Walls.** Reinforced backfill shall be free of debris and meet the following requirements in addition to the gradation requirements set forth in Subsection 703.07.2 for Class 9 Group C.

The maximum aggregate size shall be limited to ¾-inch unless field tests have been performed to evaluate potential strength reductions to the geogrid design due to damage during construction.

The plasticity index (P.I.) as determined by AASHTO Designation: T 90 shall not exceed 6.

The backfill material, when compacted to 95% of Standard Proctor, AASHTO Designation: T 99, at optimum moisture content, shall exhibit an angle of internal friction of not less than 34° as determined by a standard direct shear test, AASHTO Designation: T 236, or triaxial test, AASHTO Designation: T 296. In addition, the in-place density shall be within 5% of the assumed density used in wall design calculations.

When metallic reinforcing strips are used, all backfill material shall conform to the following electrochemical requirements:

| <u>Electrochemical Properties</u> | <u>Requirements</u>    | <u>Test Method,<br/>AASHTO Designation</u> |
|-----------------------------------|------------------------|--|
| pH                                | 5 – 10                 | T-289                                      |
| Resistivity                       | >3,000 ohms/cm minimum | T-288                                      |
| Chlorides                         | <100 ppm maximum       | T-291                                      |
| Sulfates                          | <200 ppm maximum       | T-290                                      |
| Organic Content                   | <1%                    | T-267                                      |

Contractor shall submit reinforced backfill sample and laboratory test results to the Engineer for approval prior to the use of any of the proposed reinforced backfill material.

**907-809.02.3.4--Metallic Reinforcing and Attachment Devices.** All reinforcing and attachment devices shall be inspected to insure they are true to size and free from defects that may impair their strength and durability, and shall meet the following conditions.

1. **Reinforcing Strips.** Reinforcing strips shall be hot rolled from bars to the required shape and dimensions. Their physical and mechanical properties shall conform to ASTM Designation: A 36 or A 572, Grade 65 or equal. Galvanization shall conform to the minimum requirements set forth in AASHTO Designation: M 111.
2. **Reinforcing Mesh.** Reinforcing mesh shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of AASHTO Designation: M 32M/M and shall be welded into the finish mesh fabric in accordance with AASHTO Designation: M 55M/M. Galvanization shall be applied after the mesh is fabricated and conform to the minimum requirements of AASHTO Designation: M 111.
3. **Tie Strips.** The tie strips shall be shop fabricated of a hot rolled steel conforming to the minimum requirements of ASTM Designation: A 572, Grade 50 or equivalent. Galvanization shall conform to AASHTO Designation: M 111.
4. **Fasteners.** Fasteners shall consist of 1/2-inch diameter, hexagonal cap screw bolts and nuts, which are galvanized and conform to the requirements of AASHTO Designation: M 164 or equivalent.
5. **Connector Pins.** Connector pins and mat bars for the MSEW system shall be fabricated from A36 steel and welded to the soil reinforcement mats as shown on the plans. Galvanization shall conform to AASHTO Designation: M 111.

**907-809.02.3.5--Geogrid Reinforcement for Mechanically Stabilized Earth Walls.**

**907-809.02.3.5.1--General.** A geogrid is defined as a geosynthetic formed by a regular network of integrally connected elements with apertures greater than 0.25 inch to allow interlocking with surrounding soil, rock, earth and other surrounding materials to function primarily as reinforcement.

The geogrid(s) to be utilized in the Temporary Shoring Wall System shall be creep tested in accordance with ASTM Designation: D 5262. The long term design strength ( $T_{CR}$  – Creep Limited Strength) shall be obtained from tests run on representative samples for no less than 10,000 hours. The long term design strength shall be defined as the load at which no more than 10% strain occurs over a 100-year design life.

The geogrid shall be mildew resistant and inert to biological degradation and naturally encountered chemicals, alkalis and acids. The geogrid shall contain stabilizers and/or inhibitors, or a resistance finish or covering to make it resistant to deterioration from direct sunlight, ultraviolet rays, and heat.

**907-809.02.3.5.2--Marking, Shipment and Storage.** Each roll or container of geogrid shall be visibly labeled with the name of the manufacturer, trade name of the product, lot number, and

quantity of material. In addition, each roll or container shall be clearly tagged to show the type designation that corresponds to that required by the plans. During shipment and storage the geogrid shall be protected from direct sunlight, and temperatures above 120°F or below 0°F. The geogrid shall either be wrapped and maintained in a heavy duty protective covering or stored in a safe enclosed area to protect from damage during prolonged storage.

**907-809.02.3.5.3--Manufacturer's Certification.** The Contractor shall furnish the Engineer three copies of the manufacturer's certified test reports indicating that the geogrid furnished conforms to the requirements of the specifications and is of the same composition as that originally approved by the Department.

**907-809.02.3.5.4--Acceptance Sampling and Testing.** Final acceptance of each shipment will be based upon results of tests performed by the Department on verification samples submitted from the project, as compared to the manufacturer's certified test reports. The Engineer will select one roll or container at random from each shipment for sampling. A sample extending full width of the randomly selected roll or container and being at least five (5) square yards in area will be obtained and submitted by the Engineer. The sample from each shipment shall be provided at no cost to the State.

**907-809.02.3.6--Geotextile Fabric Wrap.** The geotextile to be used in the construction of the temporary shoring wall system shall conform to the guidelines set forth in Subsection 714.13 of the Standard Specifications. The geotextile shall meet or exceed the criteria for a Type V Geotextile Fabric as outline in Table 1 of Subsection 714.13.12 of the Standard Specifications.

**907-809.03--Construction Requirements.** Before starting wall construction, a preconstruction meeting shall be conducted to discuss the construction and inspection of the temporary shoring wall system. This meeting shall be scheduled after all wall submittals have been accepted. The Resident Engineer, Geotechnical Engineer, Contractor and Wall Installer Superintendent will attend this preconstruction meeting. The Contractor shall notify the State Geotechnical Engineer at least three (3) calendar days prior to the start of construction of the temporary shoring wall.

All wall elements and components shall be installed in strict accordance with the plans and the manufacturer's recommendations as shown on the approved shop drawings. Work on the structures on this project requires excavation in the immediate vicinity of adjacent properties. Therefore, the risk of a failure occurring in the excavation requires that extreme caution be exercised. It shall be the Contractor's responsibility to place bracing, shoring, or ground support system deemed necessary to prevent a failure and protect the persons working near the excavation as well as the public that may be above the excavation or any structures adjacent to the excavation. Once a section, segment, or full length wall is started, it shall be completed without interruption, except where required by the plans or the Engineer to build only a portion of the wall.

Control drainage during construction in the vicinity of the temporary shoring wall system. Run off away from the wall facing and wall backfill shall be collected and directed. Wall backfill material shall be contained, maintained, and protected from erosion.



All cost for any protection measures including the materials and labor for designing, drawing and constructing the facility shall be included in the price bid for contract items.

**907-809.03.1—Steel Sheet Pile Walls.** Construction for Steel Sheet Pile Walls shall meet the following minimum standards set forth in Section 802.

**907-809.03.2—Steel Soldier Pile Wall.** Construction for Steel Soldier Pile Walls shall meet the following minimum standards.

**907-809.03.3—Soldier Pile Wall Installation.** Piles shall be installed in accordance with the accepted submittals and this provision. Piles shall be installed within one (1) inch horizontally and vertically of plan location, with no negative batter (piles leaning forward). Do not splice piles. The Contractor shall use drilled-in piles for soldier pile walls with timber lagging facing unless required otherwise on the plans.

For drilled-in piles, pile holes shall be pre-formed by excavating holes with diameters that result in at least three inches (3") of clearance all around the pile at locations with the dimensions shown in the accepted submittals. A maximum H pile spacing of eight (8) feet shall be used. If over-excavation occurs, the Contractor shall fill to required elevations with No. 57 stone before setting piles. The soldier piles shall be supported and centered in the pre-formed pile hole excavations and any fluid shall be removed from the drilled holes before placing concrete. After placing soldier piles in holes, concrete shall be filled around piles to the elevations shown in the accepted submittals. Any fluid above the concrete shall be removed and the remaining portions of holes shall be filled with flowable fill. Concrete for drilled-in soldier piles shall have a minimum cure strength of 2500 p.s.i. before proceeding with soldier pile wall construction.

1. **Pre-formed Pile Hole Excavation.** The Contractor shall use equipment of adequate capacity and capable of drilling through soil, rock, boulders, debris, man-made objects and any other materials encountered. Vibratory methods or Pile Driving Hammers is not permitted to advance excavations. Drilling spoils shall be disposed of as directed by the Engineer. Drilling spoils consist of all excavated materials including fluids removed from excavations by pumps or drilling tools.
2. **Concrete Placement.** The water inflow rate at the bottom of the holes shall be checked. If the inflow rate is less than six inches per half hour (6"/hr), the Contractor shall remove any fluid and immediately free fall concrete into excavations. Concrete shall be placed in a continuous manner, ensuring concrete flows completely around the soldier piles. Class B concrete shall be placed from the pile tip elevation to the excavation elevation shown on the plans and allowed to reach a minimum of 2500 p.s.i. prior to any earthwork excavation taking place.
3. **Flowable Fill.** At the completion of the concrete placement, flowable fill will be placed into the pre-formed soldier pile hole from the planned excavation elevation to the top of the soldier pile or ground surface, whichever is the lower.
4. **Excavation.** Soldier pile wall shall be constructed from the top down by removing material in front of walls and in between piles as needed. Excavation shall be in

accordance with the accepted submittals and in staged horizontal lifts not to exceed 50 feet and heights not to exceed five (5) feet or the short-term stand-up capability of the soil, whichever is less. Along the lagging line, the soil shall be removed to the back of lagging location plus a tolerance of one inch (1") maximum over excavation behind the lagging location. Flowable fill shall be removed as necessary to install timber lagging and ensure at least three inches (3") of contact in the horizontal direction between the lagging and pile flanges. The Contractor shall ensure all voids between piles, lagging, and the excavation face are filled with No. 57 stone. The stone shall be compacted to the satisfaction of the Engineer.

If the excavation face becomes unstable at any time, soldier pile wall construction shall be suspended and the face temporarily stabilized by immediately placing an earth berm against the unstable face. Soldier pile wall construction may not proceed until remedial measures are proposed by the Contractor and accepted by the Engineer. A revised soldier pile wall construction plan submittal may be required. Do not excavate the next lift until the temporary support of excavations for the preceding lift is installed. The Contractor shall continue stepwise excavation to plan elevation.

**907-809.03.4--Mechanically Stabilized Earth Wall Systems.** All components of the MSE wall system shall be installed in strict accordance with the plans and the manufacturer's recommendations. A representative of the wall manufacturer shall be present at the start of construction of the wall to train the Contractor in the proper installation procedures for the chosen wall system. If problems are encountered during construction, the Engineer may require the vendor representative to return to the site for a time period determined by the Engineer at no additional cost to the Department.

1. **Foundation Preparation.** The foundation for the structure shall be graded level for a width equal to the length of reinforcement elements plus 1.0 foot or as shown on the plans. Prior to wall construction, except where constructed on rock, the foundation shall be compacted with a smooth wheel vibratory roller. Any foundation soils found to be unsuitable shall be removed and replaced with suitable material obtained from the excavation for the structure or from roadway excavation. The material shall be approved before placement, shall be the best available from the source(s), preferably non-plastic, sandy and shall be free of large lumps, clods, rocks or other objectionable matter.
2. **Wall Erection.** A field representative from the proprietary wall system being used shall be available during the erection of the wall at no additional cost to the State.
  - a. Wall facing units shall be placed so that final position is vertical or battered as shown on the plans. Wall facing units should be placed in successive horizontal lifts in the sequence shown on the plans as backfill placement proceeds. As backfill material is placed behind the wall facing units, the facing units shall be maintained in position by means of temporary wedges or bracing according to the wall suppliers recommendations. Vertical tolerances and horizontal alignment tolerances shall not exceed two (2) inches when measured with a 10-foot straightedge. The final overall vertical plumbness (batter) of the

- wall (top to bottom) shall not exceed one inch per six feet (1"/6') of wall height, not to exceed a total of two (2) inches. These criteria are applicable to both vertical and battered structures.
- b. Reinforcement shall be placed at the locations and elevations shown in the accepted submittals. Reinforcement elements shall be placed normal to the face of the wall, unless otherwise shown on the plans. Prior to placement of the reinforcing elements, backfill shall be compacted in accordance with Backfill Placement shown below.
3. **Backfill Placement.** Backfill placement shall closely follow erection of each course of panels. Backfill shall be placed in such a manner as to avoid any damage or disturbance of the wall materials or misalignment of the facing panels. Any wall material which becomes damaged during backfill placement or compacting shall be removed and replaced at no additional costs to the State. Any misalignment or distortion of the wall facing panels due to placement of backfill outside the limits of this specification shall be corrected by the Contractor at no additional costs to the State. Do not use sheepsfoot, grid rollers or other types of compaction equipment with feet.
- a. Backfill shall be compacted to 95 percent of the maximum density as determined by AASHTO T 99, Method C or D (with oversize corrections as outlined in Note 7 of that test).
  - b. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer. Backfill materials shall have a placement moisture content less than or equal to the optimum moisture content. Backfill material with a placement moisture content in excess of the optimum moisture content shall be removed and reworked until the moisture content is uniformly acceptable throughout the entire lift.
  - c. Shoring backfill shall be placed in 8 to 10-inch thick lifts and compact in accordance with the Standard Specifications. The maximum lift thickness after compaction shall not exceed eight (8) inches. The Contractor shall decrease this lift thickness, if necessary, to obtain the specified density.
  - d. Reinforcing and retention fabric shall be covered with at least three inches (3") of shoring backfill. The top reinforcement layer shall be placed between 6 and 18 inches below top of wall as shown on the plans or accepted submittals. End dumping directly on the reinforcement is not permitted. Do not operate heavy equipment on reinforcement until it is covered with at least 10" of shoring backfill.
  - e. Compaction within three (3) feet of the back face of the wall shall be achieved by at least three passes of a lightweight mechanical tamper, roller, or vibratory system. The wall backfill shall be compacted in a direction parallel to the wall face.

- f. At a distance greater than three (3) feet, the wall backfill shall be compacted with at least four (4) passes of an 8 to 10-ton vibratory roller. The wall backfill shall be compacted in a direction parallel to the wall face.
  - g. Backfill in front of the wall shall be in place for passive resistance by the time the wall system reaches 50% of maximum height.
  - h. Backfill for wall construction outside the reinforced zone shall be in accordance with the Standard Specifications.
  - i. At the end of each day's operation, the Contractor shall slope the last level of backfill away from the wall facing to rapidly direct runoff away from the wall face. In addition, the Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.
4. **Fabric Wrap Placement.** The fabric wrap shall be constructed according to the following guidelines, as shown in the plans, or as directed by the Engineer.
- a. All joints in the Geotextile shall be overlapped a minimum of 18 inches.
  - b. The Geotextile for each lift shall be pulled taught and pinned on the bottom 4-foot length and on the top 4-foot overlap.
  - c. The Geotextile on the wall face shall be tight and the 18-inch overlap of the joints maintained. At no time will any gaps in the Geotextile joints be tolerated. If at any time material is being lost through any gaps in the Geotextile, it will be the Contractor's responsibility to repair the wall to the satisfaction of the Engineer, at no additional cost to the State.
  - d. The Contractor will be responsible for maintenance of the temporary fabric wrap wall for the entire time that the wall is in service. This includes any damage deemed by the Engineer to be unsafe and is not limited to damage caused by the Contractor's operations. The Contractor will be responsible for repairing the wall to the satisfaction of the Engineer.

**907-809.03.5--Excavation.** The Contractor shall excavate to the lines and grades shown on the final wall plans. The Contractor shall be careful not to disturb the embankment and foundation materials beyond the lines shown. The Engineer will inspect the excavation and give approval prior to placement of the base leveling pad. Soils that the Engineer deems to be unstable or unsuitable shall be excavated and replaced with select borrow material.

Excavation for the wall system shall be as directed by the plans or as directed by the Engineer. Where excavation is required in the immediate vicinity of adjacent structures and/or properties, extreme caution should be exercised. It shall be the Contractor's responsibility to place what bracing, shoring, or ground support system deemed necessary to prevent a failure and protect the persons working near the excavation. The soil supporting the wall system shall be inspected and

approved by the Engineer to confirm that the actual foundation soil conditions meet or exceed the assumed design conditions. Over-excavated areas shall be backfilled with select borrow material.

**907-809.03.6--Backfill Material.** All backfill material shall be compacted in accordance with Section 203 of the Standard Specifications unless otherwise noted on the wall plans. Unless otherwise noted all backfill material shall be placed in non-compacted lifts not to exceed eight inches and be compacted to at least 95% density as determined by AASHTO Designation: T 99. Compaction of the backfill within three feet of the back face of the wall shall be accomplished by making at least three passes with a lightweight mechanical tamper, roller, or vibratory system.

At the end of each day's operation, the Contractor shall slope the last level of backfill away from the wall facing to rapidly direct runoff away from the wall face. In addition, the Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

**907-809.04--Method of Measurement.** The temporary shoring wall system will be measured by the square foot of accepted vertical face area of the completed structure, constructed as directed by these specifications. The area measured for payment will be computed from the horizontal length of the wall segments and the average wall height between the bottom of the wall or top of the base leveling pad and the top of the wall. In the case of a battered wall, either specified in the plans or battered at the Contractor's option, the vertical distance will be used in the area calculation and not the slope distance along the face of the wall.

**907-809.05--Basis of Payment.** The temporary shoring wall system, measured as prescribed above, shall be paid for at the contract unit price per square foot, which price will be full compensation for the design, submittals, providing site assistance, furnishing labor, tools, equipment and materials, leveling pads, facing elements, fabric, soil reinforcement, performing any excavation, installing piles, backfill, No. 57 stone, undercut, and providing temporary support of excavations, all the materials for a wall drainage system, coping and any incidentals necessary to complete the work as directed by the Engineer to construct "Temporary Shoring Wall Systems" in accordance with this provision. If necessary, also include in this unit bid price all costs for barrier rail coping with moment slabs and any other miscellaneous components necessary.

Payment will be made under:

907-809-A: Temporary Shoring Wall System

- per square foot

Box replacement on US 51 at Robb Street in Summit, known as Federal Aid Project No. STP-2175-00(012) / 106194301, in Pike County.

I (We) agree to complete the entire project within the specified contract time.

**\*\*\* SPECIAL NOTICE TO BIDDERS \*\*\***

**BIDS WILL NOT BE CONSIDERED UNLESS BOTH UNIT PRICES AND ITEM TOTALS ARE ENTERED.  
 BIDS WILL NOT BE CONSIDERED UNLESS THE BID CERTIFICATION LOCATED AT THE END OF THE BID SHEETS IS SIGNED**

**\*\*\*BID SCHEDULE\*\*\***

| Line No.             | Item Code | Adj Code | Quantity | Units       | Description  | Unit Price |    | Item Amount |    |
|----------------------|-----------|----------|----------|-------------|--|------------|----|-------------|----|
|                      |           |          |          |             |  | Dollar     | Ct | Dollar      | Ct |
| <b>Roadway Items</b> |           |          |          |             |  |            |    |             |    |
| 0010                 | 202-B035  |          | 47       | Square Yard | Removal of Concrete Sidewalk                                 |            |    |             |    |
| 0020                 | 202-B038  |          | 5        | Linear Feet | Removal of Curb, All Types                                   |            |    |             |    |
| 0030                 | 202-B057  |          | 1        | Each        | Removal of Inlets, All Sizes                                 |            |    |             |    |
| 0040                 | 202-B064  |          | 16       | Linear Feet | Removal of Pipe, 8" And Above                                |            |    |             |    |
| 0050                 | 202-B076  |          | 808      | Linear Feet | Removal of Traffic Stripe                                    |            |    |             |    |
| 0060                 | 202-B080  |          | 14       | Linear Feet | Removal of Box Culvert                                       |            |    |             |    |
| 0070                 | 202-B097  |          | 191      | Square Yard | Removal of Concrete Overlaid w/ Asphalt Pavement, All Depths |            |    |             |    |
| 0080                 | 202-B238  |          | 50       | Linear Feet | Removal of Water Line, All Sizes, All Types                  |            |    |             |    |

| Line No. | Item Code | Adj Code | Quantity | Units       | Description   | Unit Price |  | Bid Amount |  |
|----------|-----------|----------|----------|-------------|---|------------|--|------------|--|
| 0090     | 206-A001  | (S)      | 412      | Cubic Yard  | Structure Excavation                                    |            |  |            |  |
| 0100     | 206-B001  | (E)      | 24       | Cubic Yard  | Select Material for Undercuts, Contractor Furnished, FM |            |  |            |  |
| 0110     | 406-A001  |          | 7,368    | Square Yard | Cold Milling of Bituminous Pavement, All Depths         |            |  |            |  |
| 0120     | 503-C007  |          | 240      | Linear Feet | Saw Cut, Full Depth                                     |            |  |            |  |
| 0130     | 602-A001  | (S)      | 620      | Pounds      | Reinforcing Steel                                       |            |  |            |  |
| 0140     | 603-CA002 | (S)      | 4        | Linear Feet | 18" Reinforced Concrete Pipe, Class III                 |            |  |            |  |
| 0150     | 603-CA003 | (S)      | 8        | Linear Feet | 24" Reinforced Concrete Pipe, Class III                 |            |  |            |  |
| 0160     | 603-CE003 | (S)      | 4        | Linear Feet | 36" x 23" Concrete Arch Pipe, Class A III               |            |  |            |  |
| 0170     | 603-PA014 | (S)      | 96       | Linear Feet | 4' x 4' Precast Concrete Box Culvert                    |            |  |            |  |
| 0180     | 603-SB003 | (S)      | 1        | Each        | 18" Branch Connections, Stub into Concrete Box Culvert  |            |  |            |  |
| 0190     | 603-SB004 | (S)      | 1        | Each        | 24" Branch Connections, Stub into Box Culvert           |            |  |            |  |
| 0200     | 603-SB014 | (S)      | 1        | Each        | 36" x 23" Branch Connections, Stub into Box Culvert     |            |  |            |  |

| Line No. | Item Code        | Adj Code | Quantity | Units       | Description  | Unit Price |     | Bid Amount |  |
|----------|------------------|----------|----------|-------------|--|------------|-----|------------|--|
| 0202     | 603-SB061        | (S)      | 1        | Each        | 32" x 24" Branch Connections, Stub into Box Culvert            |            |     |            |  |
|          | Added 01/13/2012 |          |          |             |  |            |     |            |  |
| 0210     | 604-B001         |          | 450      | Pounds      | Gratings   |            |     |            |  |
| 0220     | 608-B001         | (S)      | 40       | Square Yard | Concrete Sidewalk, With Reinforcement                          |            |     |            |  |
| 0230     | 609-D006         | (S)      | 68       | Linear Feet | Combination Concrete Curb and Gutter Type 1 Modified           |            |     |            |  |
| 0240     | 618-A001         |          | 1        | Lump Sum    | Maintenance of Traffic   | XXXXXXXXX  | XXX |            |  |
| 0250     | 619-A1001        |          | 2,542    | Linear Feet | Temporary Traffic Stripe, Continuous White                     |            |     |            |  |
| 0260     | 619-A2001        |          | 3,611    | Linear Feet | Temporary Traffic Stripe, Continuous Yellow                    |            |     |            |  |
| 0270     | 619-A5001        |          | 1,900    | Linear Feet | Temporary Traffic Stripe, Detail                               |            |     |            |  |
| 0280     | 619-A6001        |          | 1,234    | Linear Feet | Temporary Traffic Stripe, Legend                               |            |     |            |  |
| 0290     | 619-A6002        |          | 395      | Square Feet | Temporary Traffic Stripe, Legend                               |            |     |            |  |
| 0300     | 619-D1001        |          | 59       | Square Feet | Standard Roadside Construction Signs, Less than 10 Square Feet |            |     |            |  |
| 0310     | 619-D2001        |          | 265      | Square Feet | Standard Roadside Construction Signs, 10 Square Feet or More   |            |     |            |  |



| Line No. | Item Code                      | Adj Code | Quantity | Units       | Description   | Unit Price |     | Bid Amount |  |
|----------|--------------------------------|----------|----------|-------------|---|------------|-----|------------|--|
| 0320     | 619-F1001                      |          | 220      | Linear Feet | Concrete Median Barrier, Precast                          |            |     |            |  |
| 0330     | 619-F1002                      |          | 400      | Linear Feet | Portable Median Barrier                                   |            |     |            |  |
| 0340     | 619-G4001                      |          | 72       | Linear Feet | Barricades, Type III, Single Faced                        |            |     |            |  |
| 0350     | 619-G4005                      |          | 24       | Linear Feet | Barricades, Type III, Double Faced                        |            |     |            |  |
| 0360     | 619-G5001                      |          | 24       | Each        | Free Standing Plastic Drums                               |            |     |            |  |
| 0370     | 619-G7001                      |          | 3        | Each        | Warning Lights, Type "B"                                  |            |     |            |  |
| 0380     | 620-A001                       |          | 1        | Lump Sum    | Mobilization  | XXXXXXXXXX | XXX |            |  |
| 0390     | 627-K001<br>Changed 01/13/2012 |          | 19       | Each        | Red-Clear Reflective High Performance Raised Markers      |            |     |            |  |
| 0400     | 627-L001<br>Changed 01/13/2012 |          | 56       | Each        | Two-Way Yellow Reflective High Performance Raised Markers |            |     |            |  |
| 0410     | 907-242-PP003                  |          | 1        | Lump Sum    | Construction of Northeast Walkway Cover                   | XXXXXXXXXX | XXX |            |  |
| 0420     | 907-242-PP003                  |          | 1        | Lump Sum    | Construction of Southeast Walkway Cover                   | XXXXXXXXXX | XXX |            |  |
| 0430     | 907-242-PP005                  |          | 1        | Each        | Removal Northeast Walkway Cover                           |            |     |            |  |

| Line No. | Item Code     | Adj Code | Quantity | Units       | Description                                      | Unit Price |     | Bid Amount |     |
|----------|---------------|----------|----------|-------------|--|------------|-----|------------|-----|
| 0440     | 907-242-PP005 |          | 1        | Each        | Removal Southeast Walkway Cover                  |            |     |            |     |
| 0450     | 907-265-B002  | (S)      | 45       | Linear Feet | 6" Ductile Iron Pipe, With Joint Restraint       |            |     |            |     |
| 0460     | 907-265-C002  |          | 310      | Pounds      | Ductile Iron Fittings                            |            |     |            |     |
| 0470     | 907-265-D003  |          | 3        | Each        | 6" Gate Valve and Value Box                      |            |     |            |     |
| 0480     | 907-265-F002  |          | 1        | Each        | Fire Hydrant Assembly, 3-Way, With Box and Cover |            |     |            |     |
| 0490     | 907-407-A001  | (A2)     | 397      | Gallon      | Asphalt for Tack Coat                            |            |     |            |     |
| 0500     | 907-601-A001  | (S)      | 2        | Cubic Yard  | Class "B" Structural Concrete                    |            |     |            |     |
| 0510     | 907-601-B003  | (S)      | 3        | Cubic Yard  | Class "B" Structural Concrete, Minor Structures  |            |     |            |     |
| 0520     | 907-611-B001  | (S)      | 152      | Square Feet | Brick Pavers                                     |            |     |            |     |
| 0530     | 907-619-A5001 |          | 280      | Linear Feet | Temporary Traffic Stripe, Detail Blue ADA        |            |     |            |     |
| 0540     | 907-619-A6001 |          |          |             | Deleted 01/13/2012                               | XXXXXXXXXX | XXX | XXXXXXXXXX | XXX |
| 0542     | 907-619-A6002 |          | 4        | Each        | Temporary Traffic Stripe, Legend Blue ADA        |            |     |            |     |
|          |               |          |          |             | Added 01/13/2012                                 |            |     |            |     |

| Line No.                           | Item Code                          | Adj Code | Quantity | Units       | Description  | Unit Price |  | Bid Amount |  |
|------------------------------------|------------------------------------|----------|----------|-------------|--|------------|--|------------|--|
| 0550                               | 907-626-B003                       |          | 172      | Linear Feet | 6" Thermoplastic Traffic Stripe, Continuous White  |            |  |            |  |
| 0560                               | 907-626-C008                       |          | 1,208    | Linear Feet | 6" Thermoplastic Edge Stripe, Continuous White     |            |  |            |  |
| 0570                               | 907-626-E003<br>Changed 01/13/2012 |          | 1,673    | Linear Feet | 6" Thermoplastic Traffic Stripe, Continuous Yellow |            |  |            |  |
| 0580                               | 907-626-G001                       |          | 280      | Linear Feet | Thermoplastic Detail Stripe, Blue-ADA              |            |  |            |  |
| 0590                               | 907-626-G004                       |          | 1,504    | Linear Feet | Thermoplastic Detail Stripe, White                 |            |  |            |  |
| 0600                               | 907-626-G005<br>Changed 01/13/2012 |          | 684      | Linear Feet | Thermoplastic Detail Stripe, Yellow                |            |  |            |  |
| 0610                               | 907-626-H002                       |          | 4        | Each        | Thermoplastic Legend, Blue-ADA Handicap Symbol     |            |  |            |  |
| 0620                               | 907-626-H004<br>Changed 01/13/2012 |          | 2,190    | Linear Feet | Thermoplastic Legend, White                        |            |  |            |  |
| 0630                               | 907-626-H005                       |          | 395      | Square Feet | Thermoplastic Legend, White                        |            |  |            |  |
| 0640                               | 907-631-A001                       |          | 456      | Cubic Yard  | Flowable Fill, Excavatable                         |            |  |            |  |
| 0650                               | 907-809-A004 (S)                   |          | 2,450    | Square Feet | Temporary Shoring Wall System                      |            |  |            |  |
| <b>ALTERNATE GROUP AA NUMBER 1</b> |                                    |          |          |             |  |            |  |            |  |

| Line No.                           | Item Code    | Adj Code | Quantity | Units | Description                           | Unit Price |  | Bid Amount |  |
|------------------------------------|--------------|----------|----------|-------|---------------------------------------|------------|--|------------|--|
| 0660                               | 907-403-A011 | (BA1)    | 21       | Ton   | Hot Mix Asphalt, ST, 12.5-mm mixture  |            |  |            |  |
| 0670                               | 907-403-A012 | (BA1)    | 47       | Ton   | Hot Mix Asphalt, ST, 19-mm mixture    |            |  |            |  |
| 0680                               | 907-403-A015 | (BA1)    | 624      | Ton   | Hot Mix Asphalt, ST, 9.5-mm mixture   |            |  |            |  |
| <b>ALTERNATE GROUP AA NUMBER 2</b> |              |          |          |       |                                       |            |  |            |  |
| 0690                               | 907-403-M001 | (BA1)    | 624      | Ton   | Warm Mix Asphalt, ST, 9.5-mm mixture  |            |  |            |  |
| 0700                               | 907-403-M003 | (BA1)    | 21       | Ton   | Warm Mix Asphalt, ST, 12.5-mm mixture |            |  |            |  |
| 0710                               | 907-403-M004 | (BA1)    | 47       | Ton   | Warm Mix Asphalt, ST, 19-mm mixture   |            |  |            |  |

\*\*\* BID CERTIFICATION \*\*\*

TOTAL BID.....\$\_\_\_\_\_

\*\*\* DBE/WBE SECTION \*\*\*

Complete item nos. 1, 2, and/or 3 as appropriate. See Notice to Bidders addressing Disadvantaged Business Enterprises in Highway Construction.

1. I/We agree that no less than \_\_\_\_\_ percent shall be expended with small business concerns owned and controlled by socially and economically disadvantaged individuals (DBE and WBE).
2. Classification of Bidder: Small Business (DBE)\_\_\_\_\_ Small Business (WBE)\_\_\_\_\_
3. A joint venture with a Small Business (DBE/WBE): \_\_\_\_\_

\*\*\* SIGNATURE STATEMENT \*\*\*

BIDDER ACKNOWLEDGES THAT HE/SHE HAS CHECKED ALL ITEMS IN THIS PROPOSAL FOR ACCURACY AND CERTIFIED THAT THE FIGURES SHOWN THEREIN CONSTITUTE THEIR OFFICIAL BID.

\_\_\_\_\_  
BIDDER'S SIGNATURE

\_\_\_\_\_  
BIDDER'S COMPANY

\_\_\_\_\_  
BIDDER'S FEDERAL TAX ID NUMBER