



## **ADDENDUM NO. 3**

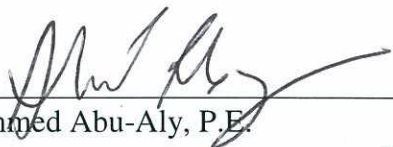
**TO  
BID PROPOSAL  
AND SPECIFICATIONS  
FOR  
Wilbur Avenue Overhead Widening  
P.W. 259-B**

**ISSUED: September 27, 2012**

**This Addendum No. 3 must be signed by the bidder and attached to the CONTRACT PROPOSAL PACKAGE for consideration by the City. The City reserves the right to disregard any proposal, which does not include this Addendum. The City may waive this requirement at its sole discretion.**

**SEE ATTACHED ADDENDUM ITEMS**

Prepared By:

  
Ahmed Abu-Aly, P.E.

**BIDDER'S CERTIFICATION**

**I acknowledge receipt of this Addendum No. 3 and accept all conditions contained herein.**

\_\_\_\_\_  
**Bidder's Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Name of Company**

**ADDENDUM NO. 3: Wilbur Avenue Overhead Widening  
P.W. 259-B**

**ISSUED: September 27, 2012**

*Bid Book:*

**Item 1:** The Bid Item List has been updated, which is attached to this addendum and should replace the Bid Item List from the original Bid Book. The following items have been updated:

1. Item 39: Roadway Excavation - 521 CY
2. Item 42: Earth Retaining Structure (MSE Wall) has been changed to final pay
3. Item 43: Imported Borrow – 4,020 CY
4. Item 102: Repair Spalled Surface Area – 95 SF
5. Item 109: Spot Blast Clean Paint Undercoat – Lump Sum

*Special Provisions:*

**Item 2:** Section 10-1.35 Earth Retaining Structures (MSE Wall)

- a. (pg. 175) a new paragraph after the 2<sup>nd</sup> paragraph shall state:

If the Contractor elects to use an alternative earth retaining system from the list of acceptable alternative systems, the alternative earth retaining system must be finished with a split face texture or equivalent, and the provisions of Section 10-1.36 "Architectural Surface (Textured Concrete)" shall not apply.

- b. (from Addendum #2) Measurement and Payment final paragraph shall be deleted.  
The barrier slab is paid for as Concrete Barrier (Type 26 Modified).

**Item 2:** Section 10-1.46 Repair Spalled Surface Areas (pg. 204) shall be replaced with the following:

**10-1.46: REPAIR SPALLED SURFACE AREAS**

This work consists of repairing concrete surfaces by removing and disposing of unsound portland cement concrete, cleaning concrete surfaces and reinforcing steel, placing reinforcement, and filling spalled areas on the existing bridge deck to the limits designated by the Engineer, and in conformance with the provisions in Sections 15, "Existing Highway Facilities," 51, "Concrete Structures," and 95-1, "Epoxy," of the Standard Specifications and these special provisions.

The Contractor will be permitted to use other methods and filler materials than those listed in Section 51-1.18A, "Ordinary Surface Finish," of the Standard Specifications for filling depressions or pockets. The method of placement shall be determined by the Contractor. The material for filling spalled areas, and any bonding material between the existing concrete and filling material shall conform to the following requirements:

| PROPERTY                         | REQUIREMENT      | TEST METHOD |
|----------------------------------|------------------|-------------|
| Abrasion resistance at 28 days   | 25 grams, max.   | CA Test 550 |
| Modulus of elasticity at 28 days | 10.3 to 24.1 GPa | CA Test 551 |
| Water soluble chlorides          | 500 mg/kg, max.  | CA Test 422 |
| Water soluble sulfates           | 2500 mg/kg, max. | CA Test 417 |

- A. A minimum of one complete unit of all materials for repairing concrete surfaces shall be submitted to the Engineer for testing. The Contractor shall allow 45 days for the testing.
- B. Material for repairing concrete surfaces shall have been previously approved, and shall be accompanied by a Certificate of Compliance as provided in Section 6-1.07, "Certificates of Compliance."

Unsound concrete is generally that concrete which emits a relatively dead or hollow sound when its surface is tapped with a metal tool. Concrete encasing corroded reinforcing steel beyond the limits identified by the dead or hollow sound may be considered as unsound concrete. The Engineer will determine which concrete is unsound and which concrete is sound.

Equipment and tools shall not be used to remove unsound concrete, which, in the opinion of the Engineer, cause the removal of excess quantities of sound concrete along with the unsound concrete.

Operations pertaining to repairing concrete surfaces over or adjacent to railroad tracks shall be stopped while trains are passing beneath the bridge.

After the removal of unsound concrete has been completed, any existing reinforcing steel which has been exposed shall be restored to position and blocked and tied in conformance with the provisions in Section 52, "Reinforcement," of the Standard Specifications.

Reinforcing steel that has been damaged to the extent that its usefulness is destroyed as a result of the Contractor's operations shall be repaired or replaced by the Contractor at his expense, and as directed by the Engineer.

Prior to filling spalled areas, the concrete surfaces and exposed reinforcing steel shall be cleaned of all oil, soot, rust and deleterious material by abrasive blasting.

When instructions for mixing, bonding, or curing are furnished by the filler or bonding material supplier, these instructions shall be followed except as modified in these provisions.

Shotcrete may be applied by a dry mix process with hydration liquid applied separately and immediately following the material.

Within 14 days after placement, the patch shall emit a ringing sound similar to the sound obtained from the adjacent sound concrete when tapped with a metal tool.

Access shall be provided by the Contractor to allow the Engineer to reach the spalled areas to determine limits for removal, and the repaired areas for testing by tapping and measurement.

Removing and disposing of unsound portland cement concrete to the depth as required and filling spalled areas of any depth including full depth of existing deck slab, will be considered as included in the square foot price paid for repair spalled surface areas, and no additional compensation will be made therefor.

The contract unit price paid per square foot for repair of spalled surface areas as identified by the engineer and as required shall include full compensation for furnishing all labor, materials, including reinforcement, tools, equipment, and incidentals, and for doing all the work involved in removing unsound concrete, cleaning, forming, and repairing spalled surface areas, complete in place, including full depth removal and repair, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

**Item 3:** Section 10-1.47 Sealing Joints (*pg. 206*) shall be replaced with the following:

**10-1.47: SEALING JOINTS**

Joints in concrete bridge decks and joints between concrete structures and concrete approach slabs must be sealed in conformance with the details shown on the plans, the provisions in Section 51, "Concrete Structures," of the Standard Specifications, and these special provisions.

When ordered by the Engineer, a joint seal larger than called for by the Movement Rating shown on the plans must be furnished and installed. Payment to the Contractor for furnishing the larger seal and for saw cutting the increment of additional depth of groove required will be determined as provided in Section 4-1.03, "Changes," of the Standard Specifications.

The contract price paid per linear foot of joint seals shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals; and for doing all the work involved in installing types of materials shown on plans, including installation per product manufacturer's recommendations, protection thereof, complete in place, as shown on the plans, as required, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

**Item 4:** Section 10-1.55 Clean and Paint Structural Steel (*pg. 225*) shall be replaced with the following:

### **10-1.55 CLEAN AND PAINT STRUCTURAL STEEL**

New metal surfaces and connections to existing steel shall be cleaned and painted in conformance with the provisions in Section 59-2, "Painting Structural Steel," Section 59-3, "Painting Galvanized Surfaces," and Section 91, "Paint," of the Standard Specifications and these special provisions.

#### **GENERAL**

The existing paint systems consist of materials listed in "Existing Highway Facilities" of these special provisions.

Before performing any painting or paint removal, the Contractor shall submit to the Engineer, in conformance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications, 3 copies of a separate Painting Quality Work Plan (PQWP) for each item of work for which painting or paint removal is to be performed. As a minimum, each PQWP shall include the following:

1. The name of each Contractor or subcontractor to be used.
2. One copy each of all current ASTM and "SSPC: The Society for Protective Coatings" specifications or qualification procedures applicable to the painting or paint removal to be performed. These documents shall become the permanent property of the Department.
3. A copy of the coating manufacturer's guidelines and recommendations for surface preparation, painting, drying, curing, handling, shipping, and storage of painted structural steel, including testing methods and maximum allowable levels for soluble salts.
4. Proposed materials, methods, and equipment to be used.
5. Proof of each of any required certifications, SSPC-QP 1, SSPC-QP 3.
  - 5.1. In lieu of certification in conformance with the requirements in SSPC-QP 2 for this project, the Contractor may submit written documentation showing conformance with the requirements in Sections 4.2 through 4.6 of SSPC-QP 2, Category A.
6. Proposed methods to control environmental conditions in accordance with the manufacturer's recommendations and these special provisions.
7. Proposed methods to protect the coating during curing, shipping, handling, and storage.
8. Proposed rinse water collection plan.
9. A detailed paint repair plan for the repair of damaged areas.
10. Procedures for containing blast media and water during application of coatings and coating repair of erected steel.
11. Examples of proposed daily reports for all testing to be performed, including type of testing, location, lot size, time, weather conditions, test personnel, and results.

Before submitting the PQWP, a prepainting meeting between the Engineer, the Contractor, and a representative from each entity performing painting for this project shall be held to discuss the requirements for the PQWP.

The Engineer shall have 20 days to review the PQWP submittal after a complete plan has been received. No painting or paint removal shall be performed until the PQWP for that work is approved

by the Engineer. Should the Engineer fail to complete the review within this time allowance and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in reviewing the PQWP, the delay will be considered a right of way delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

The Engineer's approval of the Contractor's PQWP shall not relieve the Contractor of any responsibility under the contract for the successful completion of the work in conformity with the requirements of the plans and specifications.

The Contractor shall provide enclosures to permit cleaning and painting during inclement weather. Provisions shall be made to control atmospheric conditions inside the enclosures within specified limits during cleaning and painting operations, drying to solvent insolubility, and throughout the curing period in accordance with the manufacturer's recommendations and these special provisions. Full compensation for providing and maintaining such enclosures shall be considered as included in the prices paid for the various contract items of work requiring paint and no additional compensation will be allowed therefor.

Fresh, potable water with a maximum chloride content of 75 ppm and a maximum sulfate content of 200 ppm shall be used for water rinsing or pressure washing operations. No continuous recycling of rinse water will be permitted. If rinse water is collected into a tank and subsequent testing determines the collected water conforms to the specified requirements, reuse may be permitted by the Engineer if no collected water is added to the tank after sample collection for determination of conformance to specified requirements.

## **CLEANING**

New metal surfaces and areas of connections to existing steel, except where galvanized, shall be dry blast cleaned and dry spot blast cleaned, respectively, in conformance with the requirements in SSPC-SP 10, "Near White Blast Cleaning," of the "SSPC: The Society for Protective Coatings." Blast cleaning shall leave surfaces with a dense, uniform, angular anchor pattern of no less than 1.5 mils nor more than 3.5 mils as measured in conformance with the requirements in ASTM Designation: D 4417.

The areas of connections to existing steel to be dry spot blast cleaned shall consist of, as a minimum:

1. New and existing contact surfaces and existing member surfaces under bolt heads, nuts or washers of high-strength bolted connections,
2. Exposed bare surfaces of existing steel remaining after trimming, cutting, drilling or reaming, and
3. Areas of existing steel within a 4-inch radius measured in any direction from the point of application of heat for welding or flame cutting.

The inside surfaces of bolt holes shall be cleaned in conformance with the requirements in SSPC-SP 1, "Solvent Cleaning," of the "SSPC: The Society for Protective Coatings," and visible rust shall be removed.

Mineral and slag abrasives used for blast cleaning steel surfaces shall conform to the requirements for Class A, Grade 2 to 3 abrasives contained in SSPC-AB 1, "Mineral and Slag Abrasives," of the "SSPC: The Society for Protective Coatings," and shall not contain hazardous material.

Steel abrasives used for blast cleaning steel surfaces shall comply with the requirements of SSPC-AB 3, "Ferrous Metallic Abrasive," of the "SSPC: The Society for Protective Coatings." If steel abrasive is recycled through shop or field abrasive blast cleaning units, the recycled abrasive shall conform to the requirements of SSPC-AB 2, "Specification for Cleanliness of Recycled Ferrous Metallic Abrasive," of the "SSPC: The Society for Protective Coatings."

A Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications and a Material Safety Data Sheet shall be furnished before use for each shipment of blast cleaning material for existing steel.

Abrasive blast cleaned surfaces shall be tested by the Contractor for soluble salts using a Class A or B retrieval method as described in Technology Guide 15, "Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates," of the "SSPC: The Society for Protective Coatings," and cleaned so the maximum level of soluble salts does not exceed the lesser of the coating manufacturer's written recommendations or 10 micrograms per square centimeter. Areas of abrasive blast cleaned steel shall be tested at the rate of 3 tests for the first 1,000 square feet prepared per day, and one test for each additional 1,000 square feet or portion thereof, at locations selected by the Engineer. When less than 1,000 square feet of surface area is prepared in a shift, at least 2 tests shall be performed. If levels of soluble salts exceed the maximum allowed by these special provisions, the entire area represented by the testing will be rejected. The Contractor shall perform additional cleaning and testing of rejected areas until soluble salt levels conform to these requirements.

Corners shall be chamfered to remove sharp edges.

Thermal cut edges (TCEs) to be painted shall be conditioned before blast cleaning by shallow grinding or other method approved by the Engineer to remove the thin, hardened layer of material resulting from resolidification during cooling.

Visually evident base metal surface irregularities and defects shall be removed in accordance with ASTM Designation: A 6 or AASHTO Designation: M 160 before blast cleaning steel. When material defects exposed by blast cleaning are removed, the blast profile shall be restored by either blast cleaning or by using mechanical tools in accordance with SSPC-SP 11, "Power Tool Cleaning to Bare Metal," of the "SSPC: The Society for Protective Coatings."

## **PAINTING**

Blast cleaned surfaces shall receive a single undercoat consisting of an inorganic zinc rich primer conforming to the requirements in AASHTO Designation: M 300, Type I or Type II.

Inorganic zinc rich primer shall be selected from the Department's Pre-Qualified Products List.

The inside surfaces of bolt holes shall be painted with one application of a zinc rich primer (organic vehicle type) after the application of the undercoat of inorganic zinc on adjacent steel. The steel

surfaces adjacent to the bolt holes shall be kept clean and protected from drippings during the application of the primer.

Inorganic zinc rich primer shall be used within 12 hours of initial mixing.

Application of inorganic zinc rich primer shall conform to the provisions in Section 59-2.13, "Application of Zinc-Rich Primer," of the Standard Specifications.

The single undercoat of inorganic zinc rich primer shall be applied to the required dry film thickness in 2 or more applications within 8 hours of the start of blast cleaning. Abrasive blast cleaned steel shall not be exposed to relative humidity exceeding 85 percent before application of inorganic zinc coating.

The total dry film thickness of all applications of the inorganic zinc undercoat, including the surfaces of outside existing members within the grip under bolt heads, nuts and washers, shall be not less than 4 mils nor more than 8 mils, except that the total dry film thickness on each faying (contact) surface of high strength bolted connections shall be between one mil and the maximum allowable dry film thickness for Class B coatings as determined by certified testing in conformance with Appendix A of the "Specification for Structural Joints Using ASTM A325 or A490 Bolts" of the Research Council on Structural Connections (RCSC Specification). Unless otherwise stated, all inorganic zinc rich primer used on faying surfaces shall meet the slip coefficient requirements for a Class B coating on blast-cleaned steel, as specified in the RCSC Specification. The Contractor shall provide results of certified testing showing the maximum allowable dry film thickness for the Class B coating from the qualifying tests for the coating chosen, and shall maintain the coating thickness on actual faying surfaces of the structure at or below this maximum allowable coating thickness.

Areas where mudcracking occurs in the inorganic zinc coating shall be blast cleaned and repainted with inorganic zinc rich primer to the specified thickness.

Steel surfaces coated with Type II inorganic zinc rich primer shall be protected from conditions that may cause the coating film to dissolve. The Contractor, at the Contractor's expense, shall repair areas where the coating has dissolved by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness.

Dry spray, or overspray, as defined in the Steel Structures Painting Manual, Volume 1, "Good Painting Practice," of the "SSPC: The Society for Protective Coatings," shall be removed before application of subsequent coats or final acceptance. Removal of dry spray shall be by screening or other methods that minimize polishing of the inorganic zinc surface. The dry film thickness of the coating after removal of dry spray shall be in conformance with the provisions for applying the single undercoat, as specified herein.

For damaged areas of the undercoat, the following apply:

1. If the Engineer determines the damaged area is more than 2 percent of the total undercoated surface, the Contractor shall blast clean and repaint damaged areas with inorganic zinc to the specified thickness before erection.

2. If the Engineer determines the damaged area is 2 percent or less of the total undercoated surface, the Contractor may wire brush the damaged surfaces to remove loose or cracked coating and apply 2 coats of organic zinc-rich primer before erection.

The Contractor shall test the inorganic zinc undercoat before application of finish coats. The locations of the tests will be determined by the Engineer. The Contractor shall determine the sequence of the testing operations. The testing for adhesion and hardness shall be performed no sooner than 72 hours after application of the single undercoat of inorganic zinc coating. Satisfactory access shall be provided to allow the Engineer to determine the location of the tests.

The inorganic zinc coating shall pass the following tests:

1. The undercoat shall have a minimum adhesion to steel of 600 psi when measured using a self-aligning adhesion tester in conformance with the requirements in ASTM Designation: D 4541. The Engineer will select 3 locations per girder or 1,000 square feet of painted surface, whichever is less, for adhesion testing. If less than 1,000 square feet of steel is painted in a work shift, the Engineer will select 3 areas painted during the work shift for testing. If 2 or more of the locations tested fail to meet adhesion requirements, the entire area represented by the tests will be rejected. If one of the locations tested fails to meet adhesion requirements, an additional 3 locations shall be tested. Should any of the additional locations fail to meet adhesion requirements, the entire area represented by the tests will be rejected. The Contractor, at the Contractor's expense, shall repair the rejected area by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness. Test locations for areas of inorganic zinc meeting adhesion testing requirements shall be repaired by application of organic zinc primer as specified in Section 91-1.04, "Materials," of the Standard Specifications to the specified minimum dry film thickness.
2. Areas where finish coats are to be applied shall be tested for soluble salts using a Class A or B retrieval method as described in Technology Guide 15, "Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates," of the "SSPC: The Society for Protective Coatings," and cleaned so the maximum level of soluble salts does not exceed the lesser of the manufacturer's written recommendations or 10 micrograms per square centimeter. Areas of inorganic zinc undercoat shall be tested at the rate of 3 tests for the first 1,000 square feet to be painted per day and one test for each additional 1,000 square feet or portion thereof at locations selected by the Engineer. When less than 1,000 square feet of surface area is painted in a shift, at least 2 tests shall be performed. If levels of soluble salts exceed the maximum allowed by these special provisions, the entire area represented by the testing will be rejected. The Contractor shall perform additional cleaning and testing of rejected areas until soluble salt levels conform to these requirements.
3. The inorganic zinc undercoat shall exhibit a solid, hard, and polished metal surface when firmly scraped with the knurled edge of a quarter. Inorganic zinc coating that is powdery, soft, or does not exhibit a polished metal surface, as determined by the Engineer, shall be repaired by the Contractor, at the Contractor's expense, by blast cleaning and repainting with inorganic zinc coating to the specified thickness.

### **Additional Requirements for Water Borne Inorganic Zinc Primers**

1. The surface pH of the inorganic zinc undercoat shall be tested by wetting the surface with de-ionized water for a minimum of 15 minutes but no longer than 30 minutes and applying pH paper with a capability of measuring in increments of 0.5 pH units. At least 2 surface pH readings shall be taken for every 500 square feet or portion thereof. If less than 500 square feet of steel is coated in a single shift or day, at least 2 surface pH readings shall be taken for primer applied during that period. Application of finish coats will not be permitted until the surface pH is less than or equal to 7.
2. Dry to solvent insolubility for water borne inorganic zinc primers shall be determined in conformance with the requirements in ASTM Designation: D 4752, except that water shall be the solvent. The resistance rating shall be not less than 4. Areas of inorganic zinc undercoat shall be tested for solvent insolubility at the rate of one test per 500 square feet or portion thereof. Inorganic zinc undercoat represented by the tested area that does not meet the solvent insolubility requirements will be rejected. The Contractor, at the Contractor's expense, shall repair rejected areas by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness.

### **Additional Requirements for Solvent Borne Inorganic Zinc Primers**

1. Dry to solvent insolubility for solvent borne inorganic zinc primers shall be determined in conformance with the requirements in ASTM Designation: D 4752. The resistance rating shall be not less than 4. Areas of inorganic zinc undercoat shall be tested for solvent insolubility at the rate of one test per 500 square feet or portion thereof. Inorganic zinc undercoat represented by the tested area that does not meet the solvent insolubility requirements will be rejected. The Contractor, at the Contractor's expense, shall repair rejected areas by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness.
2. Surface hardness of solvent borne inorganic zinc undercoat shall be a minimum 2H when measured in conformance with the requirements in ASTM Designation: D 3363. Areas of inorganic zinc undercoat shall be tested at the rate of one test per 500 square feet or portion thereof. Inorganic zinc undercoat that fails to meet the surface hardness requirements shall be repaired by the Contractor, at the Contractor's expense, by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness.

The Contractor, at the Contractor's expense, shall retest all rejected areas of inorganic zinc undercoat after repairs have been completed.

Finish coats shall not be required for the following work:

1. The connections between existing steel members and new members
2. The widening portions of the bridge and new members

Cleaning and painting of existing contact surfaces of high strength bolted connections that contain rust, loose paint, or other foreign substances, except loose dirt and dust, as identified by the Engineer in field, will be considered as extra work as specified in Section 4-1.03D, "Extra Work," of the

Standard Specifications. Cost of repair of damage to existing paint caused by the Contractor's operations shall be borne by the Contractor.

### **MEASUREMENT AND PAYMENT**

Dry spot blast cleaning and undercoat painting of blast cleaned areas of existing surfaces will not be measured.

The contract lump sum price paid for spot blast clean and paint undercoat shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in dry spot blast cleaning and painting undercoat on the existing surfaces complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### *Project Plans:*

##### **Item 1:** Sheet RW-2 (42 of 59):

MSE Retaining Wall Payment Details has been updated.

##### **Item 2:** Sheet Q-1 (50 of 59):

Earthwork Quantities Table has been updated.

##### **Item 3:** Sheet S1 of 56:

Item 17 in the legend has been updated to read "Clean and paint existing structural steel where new steel construction connects and/or disconnects the existing steel construction."

##### **Item 4:** Sheet S4 of 56:

Added Note 12 under Construction Notes.

Updated Quantities for Repair Spalled Surface Area and Spot Blast Clean Paint Undercoat

# ADDENDUM NO. 3 SEPTEMBER 27, 2012

## BID ITEM LIST

| Item No. | Unit     | P-F-S | Description                                     | Unit Price in Figures | Unit Price Extended |
|----------|----------|-------|---|-----------------------|---------------------|
|          |          |       | <b><u>ROADWAY CONSTRUCTION</u></b>              |                       |                     |
| 1        | LS       |       | Mobilization                                    | \$                    | \$                  |
| 2        | LS       |       | Progress Schedule (Critical Path Method)        | \$                    | \$                  |
| 3        | LS       |       | Construction Staking                            | \$                    | \$                  |
| 4        | 874 LF   |       | Temporary Fence (Type CL-6)                     | \$                    | \$                  |
| 5        | 1,879 LF |       | Temporary Fence (Type ESA)                      | \$                    | \$                  |
| 6        | LS       |       | Construction Site Management                    | \$                    | \$                  |
| 7        | LS       |       | Prepare Storm Water Pollution Prevention Plan   | \$                    | \$                  |
| 8        | 1,139 LF |       | Temporary Fiber Roll                            | \$                    | \$                  |
| 9        | 434 LF   |       | Temporary Silt Fence                            | \$                    | \$                  |
| 10       | 2 EA     |       | Temporary Concrete Washout Facility             | \$                    | \$                  |
| 11       | 2 EA     |       | Temporary Construction Entrance                 | \$                    | \$                  |
| 12       | 4 EA     |       | Temporary Drainage Inlet Protection             | \$                    | \$                  |
| 13       | 1,116 SY |       | Temporary Hydraulic Mulch (Bonded Fiber Matrix) | \$                    | \$                  |
| 14       | LS       |       | Street Sweeping                                 | \$                    | \$                  |
| 15       | 1,116 SY |       | Temporary Hydroseed                             | \$                    | \$                  |
| 16       | LS       |       | Construction Area Signs                         | \$                    | \$                  |
| 17       | LS       |       | Traffic Control System                          | \$                    | \$                  |
| 18       | 6 EA     |       | Type III Barricade                              | \$                    | \$                  |
| 19       | 8,811 LF |       | Temporary Traffic Stripe (Paint)                | \$                    | \$                  |
| 20       | 201 EA   |       | Channelizer (Surface Mounted)                   | \$                    | \$                  |
| 21       | 436 EA   |       | Temporary Pavement Marker                       | \$                    | \$                  |

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|    |           |   |   |    |    |
|----|-----------|---|---|----|----|
| 22 | 3,680 LF  |   | Temporary Railing (Type K)                  | \$ | \$ |
| 23 | 22 EA     |   | Temporary Crash Cushion Module              | \$ | \$ |
| 24 | 118 LF    |   | Remove Chain Link Fence                     | \$ | \$ |
| 25 | 2 EA      |   | Remove Pedestrian Barricade                 | \$ | \$ |
| 26 | 276 LF    |   | Remove Metal Beam Guard Rail                | \$ | \$ |
| 27 | 1,600 LF  |   | Remove Thermoplastic Traffic Stripe (White) | \$ | \$ |
| 28 | 134 SF    |   | Remove Thermoplastic Pavement Marking       | \$ | \$ |
| 29 | 1,278 EA  |   | Remove Pavement Marker                      | \$ | \$ |
| 30 | 6 EA      |   | Remove Roadside Sign                        | \$ | \$ |
| 31 | 7 EA      |   | Remove Roadside Sign (SSBM)                 | \$ | \$ |
| 32 | 46 SY     |   | Remove Concrete Pavement (Median paving)    | \$ | \$ |
| 33 | 1,088 CY  |   | Remove Base and Surfacing                   | \$ | \$ |
| 34 | 3 EA      |   | Relocate Roadside Sign - One Post           | \$ | \$ |
| 35 | LS        |   | Adjust Frames, Covers and Grates to Grade   | \$ | \$ |
| 36 | 1,880 SY  |   | Cold Plane AC Pavement                      | \$ | \$ |
| 37 | 388 LF    |   | Remove Concrete Curb                        | \$ | \$ |
| 38 | LS        |   | Clearing and Grubbing                       | \$ | \$ |
| 39 | 521 CY    |   | Roadway Excavation                          | \$ | \$ |
| 40 | 210 CY    |   | Roadway Excavation (Type Z-2)               | \$ | \$ |
| 41 | LS        |   | Lead Compliance Plan                        | \$ | \$ |
| 42 | 12,910 SF | F | Earth Retaining Structure (MSE Wall)        | \$ | \$ |
| 43 | 4,020 CY  |   | Imported Borrow                             | \$ | \$ |
| 44 | 4 EA      |   | Move In/Move Out (Erosion Control)          | \$ | \$ |
| 45 | 1,204 CY  |   | Class 4 Aggregate Subbase                   | \$ | \$ |

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## SEPTEMBER 27, 2012

|    |           |   |   |    |    |
|----|-----------|---|---|----|----|
| 46 | 1,215 CY  |   | Class 2 Aggregate Base                                      | \$ | \$ |
| 47 | 1,809 TON |   | Hot Mix Asphalt (Type A)                                    | \$ | \$ |
| 48 | 468 LF    |   | Place Asphalt Concrete Dike (Type F)                        | \$ | \$ |
| 49 | 106 SF    |   | Furnish Single Sheet Aluminum Sign (0.063" – Unframed)      | \$ | \$ |
| 50 | 11 EA     |   | Roadside Sign (One Post)                                    | \$ | \$ |
| 51 | 6 EA      |   | Install Sign (SSBM)   | \$ | \$ |
| 52 | 2 EA      |   | Install Roadside Sign Panel on Existing Post                | \$ | \$ |
| 53 | LS        |   | Work Area Monitoring  | \$ | \$ |
| 54 | 685 SF    |   | Paint Curb  | \$ | \$ |
| 55 | 27 LF     |   | 12" Plastic Pipe  | \$ | \$ |
| 56 | 156 LF    |   | Remove 14" Sanitary Sewer Force Main                        | \$ | \$ |
| 57 | 122 LF    |   | 14" Ductile Iron Pipe (Polyethylene Lined) (Sanitary Sewer) | \$ | \$ |
| 58 | 2 EA      |   | Catch Basin (Type 'C' City of Antioch CD-29B)               | \$ | \$ |
| 59 | 1 CY      |   | Rock Slope Protection (Backing No. 2)                       | \$ | \$ |
| 60 | 5 SY      |   | Rock Slope Protection Fabric                                | \$ | \$ |
| 61 | 30 SF     |   | Curb Ramp Detectable Warning Surface                        | \$ | \$ |
| 62 | 33 CY     | F | Minor Concrete (Median Curb)                                | \$ | \$ |
| 63 | 27 SY     | F | Minor Concrete – Median Paving (Stamped Concrete)           | \$ | \$ |
| 64 | 26 CY     | F | Minor Concrete (Monolithic Sidewalk, Curb and Gutter)       | \$ | \$ |
| 65 | 90 LF     |   | Chain Link Fence (Type CL-6)                                | \$ | \$ |
| 66 | 1 EA      |   | Temporary 20' Chain Link Gate (Type CL-6)                   | \$ | \$ |
| 67 | 19 EA     |   | Guard Railing Delineator                                    | \$ | \$ |
| 68 | 5 EA      |   | Object Marker (Type P)                                      | \$ | \$ |
| 69 | 2 EA      |   | Object Marker (Type L-1)                                    | \$ | \$ |

# ADDENDUM NO. 3

## SEPTEMBER 27, 2012

|    |           |   |  |    |    |
|----|-----------|---|--|----|----|
| 70 | 965 LF    |   | Metal Beam Guard Railing                     | \$ | \$ |
| 71 | 312 SY    |   | Vegetation Control (Minor Concrete)          | \$ | \$ |
| 72 | 1 EA      |   | Pedestrian Barricade                         | \$ | \$ |
| 73 | 547 LF    |   | Tubular Hand Railing                         | \$ | \$ |
| 74 | 547 LF    | F | Concrete Barrier Type 26a Mod                | \$ | \$ |
| 75 | 84 LF     |   | Cable Railing                                | \$ | \$ |
| 76 | 2 EA      |   | Transition Railing (Type WB)                 | \$ | \$ |
| 77 | 2 EA      |   | Alternative In-Line Terminal System          | \$ | \$ |
| 78 | 2 EA      |   | Alternative Flared Terminal System           | \$ | \$ |
| 79 | 4,673 LF  |   | 6" Thermoplastic Traffic Stripe              | \$ | \$ |
| 80 | 196 LF    |   | 8" Thermoplastic Traffic Stripe              | \$ | \$ |
| 81 | 394 SF    |   | Thermoplastic Crosswalk and Pavement Marking | \$ | \$ |
| 82 | 304 LF    |   | 6" Thermoplastic Traffic Stripe (Broken 8-4) | \$ | \$ |
| 83 | 1,048 EA  |   | Pavement Marker (Non-Reflective)             | \$ | \$ |
| 84 | 214 EA    |   | Pavement Marker (Retroreflective)            | \$ | \$ |
| 85 | 6 EA      |   | Portable Changeable Message Sign             | \$ | \$ |
| 86 | LS        |   | City Street Lighting                         | \$ | \$ |
| 87 | LS        |   | Modify Signal (Wilbur Ave/Minaker Dr)        | \$ | \$ |
|    |           |   | <b>Subtotal Roadway Construction:</b>        | \$ | \$ |
|    |           |   | <b><u>BRIDGE CONSTRUCTION</u></b>            |    |    |
| 88 | LS        |   | Mobilization                                 | \$ | \$ |
| 89 | 15,536 SF | F | Methacrylate Seal Concrete Surface           | \$ | \$ |
| 90 | LS        | F | Bridge Removal (Portion)                     | \$ | \$ |
| 91 | LS        | F | Crash Wall Removal (Portion)                 | \$ | \$ |

# ADDENDUM NO. 3 SEPTEMBER 27, 2012

|     |            |       |   |    |    |
|-----|------------|-------|---|----|----|
| 92  | 992 CY     | F     | Structure Excavation (Bridge)               | \$ | \$ |
| 93  | 635 CY     | F     | Structure Excavation (Crash Wall)           | \$ | \$ |
| 94  | 719 CY     | F     | Structure Backfill (Bridge)                 | \$ | \$ |
| 95  | 274 CY     | F     | Structure Backfill (Crash Wall)             | \$ | \$ |
| 96  | 5,810 LF   | F     | Furnish Steel Piling (HP 14 X 132)          | \$ | \$ |
| 97  | 172 EA     | S     | Drive Steel Pile (HP 14 X 132)              | \$ | \$ |
| 98  | 467 CY     | F     | Structural Concrete (Bridge Footing)        | \$ | \$ |
| 99  | 1,170 CY   | F     | Structural Concrete (Bridge)                | \$ | \$ |
| 100 | 990 CY     | F     | Structural Concrete (Crash Wall)            | \$ | \$ |
| 101 | 121 CY     | F     | Minor Concrete (Median)                     | \$ | \$ |
| 102 | 95 SF      |       | Repair Spalled Surface Area                 | \$ | \$ |
| 103 | 936 LF     | P-S   | Joint Seal (Type A)                         | \$ | \$ |
| 104 | 626 LF     | P-S   | Joint Seal (Type AL)                        | \$ | \$ |
| 105 | 258 LF     | P-S   | Joint Seal (Type B)                         | \$ | \$ |
| 106 | 423,159 LB | P-F-S | Bar Reinforcing Steel (Bridge + CW)         | \$ | \$ |
| 107 | 921,700 LB | P-F-S | Structural Steel (Bridge)                   | \$ | \$ |
| 108 | LS         | S     | Clean and Paint Structural Steel            | \$ | \$ |
| 109 | LS         | F     | Spot Blast Clean and Paint Undercoat        | \$ | \$ |
| 110 | 13,738 LB  | P-F-S | Miscellaneous Metal (restrainer - Rod Type) | \$ | \$ |
| 111 | 36,203 LB  | P-F-S | Miscellaneous Metal (Bridge)                | \$ | \$ |
| 112 | 1,141 LF   | P-F-S | Chain Link Railing (Type 7)                 | \$ | \$ |
| 113 | 645 LF     | F     | Concrete Barrier (Type 26 Modified)         | \$ | \$ |
| 114 | 488 LF     | F     | Concrete Barrier (Type 732 Modified)        | \$ | \$ |
|     |            |       | <b>Subtotal Bridge Construction:</b>        | \$ | \$ |

|  |  |  |                         |           |
|--|--|--|-------------------------|-----------|
|  |  |  | <b>TOTAL BASE BID :</b> | <b>\$</b> |
|--|--|--|-------------------------|-----------|

**TOTAL BID: \$**

---

NOTE: **"TOTAL BID"** is only on the last page if the Bid Item List.

GRAND TOTAL AMOUNT: \_\_\_\_\_  
(Written in Words)

All costs associated with the work required in the Plans and Specifications must be included in the bid items. This certifies that the prices in the proposal include all work as shown in the Plans and Specifications necessary to complete the work, in place and in full working order.

\_\_\_\_\_  
**Signature of Bidder**

\_\_\_\_\_  
**Company Name Printed**

\_\_\_\_\_  
**Date**

**ADDENDUM NO. 3  
SEPTEMBER 27, 2012**



MINOR CONCRETE (Misc CONSTRUCTION)

| STATION LIMITS                 | Loc | MONOLITHIC<br>SIDEWALK,<br>CURB & GUTTER | CURB<br>TYPE A1-6 | MEDIAN<br>PAVING | CI 4<br>ASB | CURB RAMP DETECTABLE<br>WARNING SURFACE |
|--------------------------------|-----|--|-------------------|------------------|-------------|---|
|                                |     | CY                                       | CY                | SQYD             | CY          | SQFT                                    |
| "L1" 43+80.60 TO 43+82.16      | Rt  |  | 0.2               |                  | 0.1         |   |
| "L1" 47+96.06 TO 51+75.84      | Rt  |  | 19.8              |                  | 5.9         |   |
| "L1" 49+62.69 TO 51+75.84      | Rt  | 25.5                                     |                   |                  | 17.8        |   |
| "L1" 58+00.78 TO 60+55.18      | Rt  |  | 13.3              |                  | 4.0         |   |
| "L1" 58+00.78 TO 62+71.13      | Rt  |  |                   |                  | 34.4        |   |
| "L1" 47+95.06 TO 49+14.29      | Rt  |  |                   | 27               | 3.0         |   |
| "L1" 43+78.16                  | Rt  |  |                   |                  |             | 15                                      |
| "L1" 43+72.95                  | Lt  |  |                   |                  |             | 15                                      |
| SUBTOTAL TO ROADWAY QUANTITIES |     |  |                   |                  | 65.2        |   |
| TOTAL                          |     | 25.5                                     | 33.3              | 27               |             | 30                                      |

PAINT CURB

| STATION LIMITS            | PAINT CURB |
|---------------------------|------------|
|                           | SQFT       |
| "L1" 49+62.69 TO 51+75.93 | 214        |
| "L1" 58+00.75 TO 62+71.13 | 471        |
|                           |            |
|                           |            |
| TOTAL                     | 685        |

REMOVE PAVEMENT

| STATION LIMITS            | REMOVE BASE<br>& SURFACING |
|---------------------------|----------------------------|
|                           | CY                         |
| "L1" 47+96.11 TO 51+47.42 | 415                        |
| "L1" 56+92.94 TO 67+38.91 | 674                        |
|                           |                            |
|                           |                            |
| TOTAL                     | 1089                       |

ROADWAY QUANTITIES

| STATION LIMITS                          | HMA<br>(TYPE A)<br>TON | CI 2<br>AB<br>CY | CI 4<br>ASB<br>CY |
|---|------------------------|------------------|-------------------|
| "L1" 47+96.11 TO 51+75.93               | 346                    | 291.4            | 274.8             |
| "L1" 56+92.90 TO 67+38.91               | 1122                   | 922.7            | 863.5             |
|   |                        |                  |                   |
| FROM MINOR CONCRETE (Misc CONSTRUCTION) |                        |                  | 65.2              |
| FROM PLACE HMA (DIKE)                   | 7                      |                  |                   |
| FROM HMA OVERLAY                        | 334                    |                  |                   |
|   |                        |                  |                   |
| TOTAL                                   | 1809                   | 1215             | 1204              |

EARTHWORK QUANTITIES

| STATION LIMITS            | ROADWAY<br>EXCAVATION | ROADWAY<br>EXCAVATION<br>(TYPE Z-2) | MSE WALL<br>EXCAVATION<br>(N) | MSE WALL<br>BACKFILL<br>(N) | STRUCTURE<br>EXCAVATION<br>(BRIDGE) | STRUCTURE<br>EXCAVATION<br>(CRASH WALL) | TOTAL<br>EMBANKMENT<br>(N) | IMPORT<br>BORROW |
|---------------------------|-----------------------|-------------------------------------|-------------------------------|-----------------------------|-------------------------------------|---|----------------------------|------------------|
|                           | CY                    | CY                                  | CY                            | CY                          | CY                                  | CY                                      | CY                         | CY               |
| "L1" 47+96.11 TO 51+47.42 | 289                   |                                     |                               |                             |                                     |   | 2,488                      | 2,488            |
| "L1" 56+92.94 TO 67+38.91 | 232                   | 210                                 | 4,009                         | 9,803                       |                                     |   | 11,334                     | 1,531            |
| FROM STRUCTURES           |                       |                                     |                               |                             | 992                                 | 635                                     |                            |                  |
|                           |                       |                                     |                               |                             |                                     |   |                            |                  |
| TOTAL                     | 521                   | 210                                 | 4,009                         | 9,803                       | 992                                 | 635                                     | 13,822                     | 4,020            |

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

IMPORT BORROW = TOTAL EMBANKMENT - MSE WALL BACKFILL

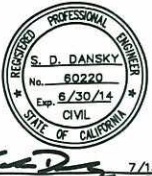
| No. | REVISIONS   |    |         |
|-----|-------------|----|---------|
|     | Description | By | DATE    |
| △   | ADDENDUM #3 | CB | 9/26/12 |

Q-2



**MARK THOMAS & COMPANY, INC.**  
Providing Engineering, Surveying, and Planning Services

3000 Oak Road, Suite 650  
Walnut Creek, CA 94597 925.938.0383



DATE ACCEPTED: \_\_\_\_\_  
INSPECTED BY: \_\_\_\_\_  
AS BUILT REVISIONS: \_\_\_\_\_  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_

|                 |  |
|-----------------|--|
| DESIGNED BY: CB | APPROVED BY: <i>Don Bul</i>            |
| DATE: 7/13/12   | DIRECTOR OF PUBLIC WORKS/CITY ENGINEER |
| CHECKED BY: SD  | DATE: C.E. 57124                       |
| DATE: 7/13/12   |  |
| FIELD BOOK: PG. |  |
| REVISIONS:      | NO. BY DATE                            |
| PER ADDENDUM #3 | 1 CB 9/26/12                           |
|                 |  |
|                 |  |

ENGINEERING DIVISION  
CITY OF ANTIOCH

**WILBUR AVE.  
QUANTITIES**

|                                   |
|-----------------------------------|
| SCALE:                            |
| PUBLIC WORKS<br>PROJECT NO. 259-B |
| BNSF POST MILE<br>1150.3          |
| SHEET <u>50</u>                   |
| OF <u>59</u> SHEETS               |

y NOTES:

1. Contractor shall verify all controlling field dimensions and conditions before ordering or fabricating any material.
2. For 'Design Notes' see "Deck Elevation" sheet (S5).
3. For 'Pile Data', see " Index To Plans, Abbreviations & Pile Data" sheet (S3).
4. For Symbols and Quantities, see "Symbols and quantities" sheet (S4).

|       |        |       |                             |              |                |
|-------|--------|-------|-----------------------------|--------------|----------------|
| DIST. | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>NO. | TOTAL<br>SHEET |
| 04    | CC     |       |                             | 60           | 115            |

*P.K. Chen* 7/13/12


REGISTERED STRUCTURAL ENGINEER DATE

7/13/12

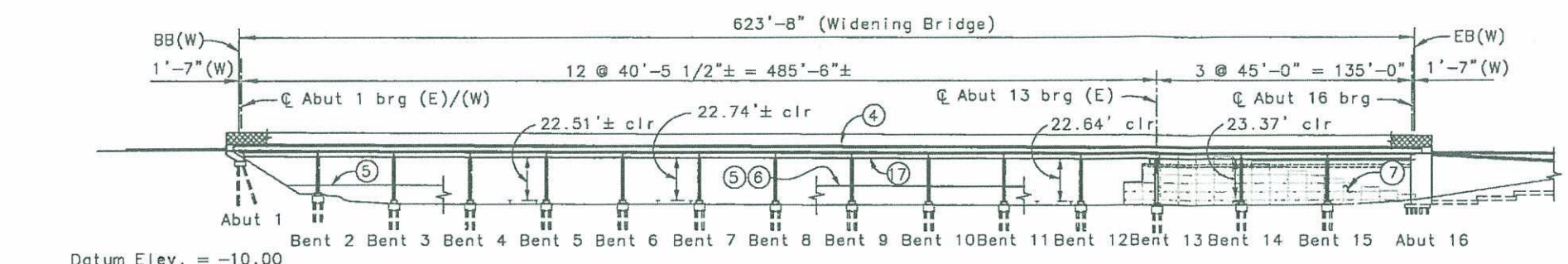
PLANS APPROVAL DATE

MARK THOMAS & CO. INC.  
3000 OAK ROAD, SUITE 650  
WALNUT CREEK, CA 94597

CITY OF ANTIOCH  
ENGINEERING DIVISION  
P.O. BOX 130  
ANTIOCH, CA 94509

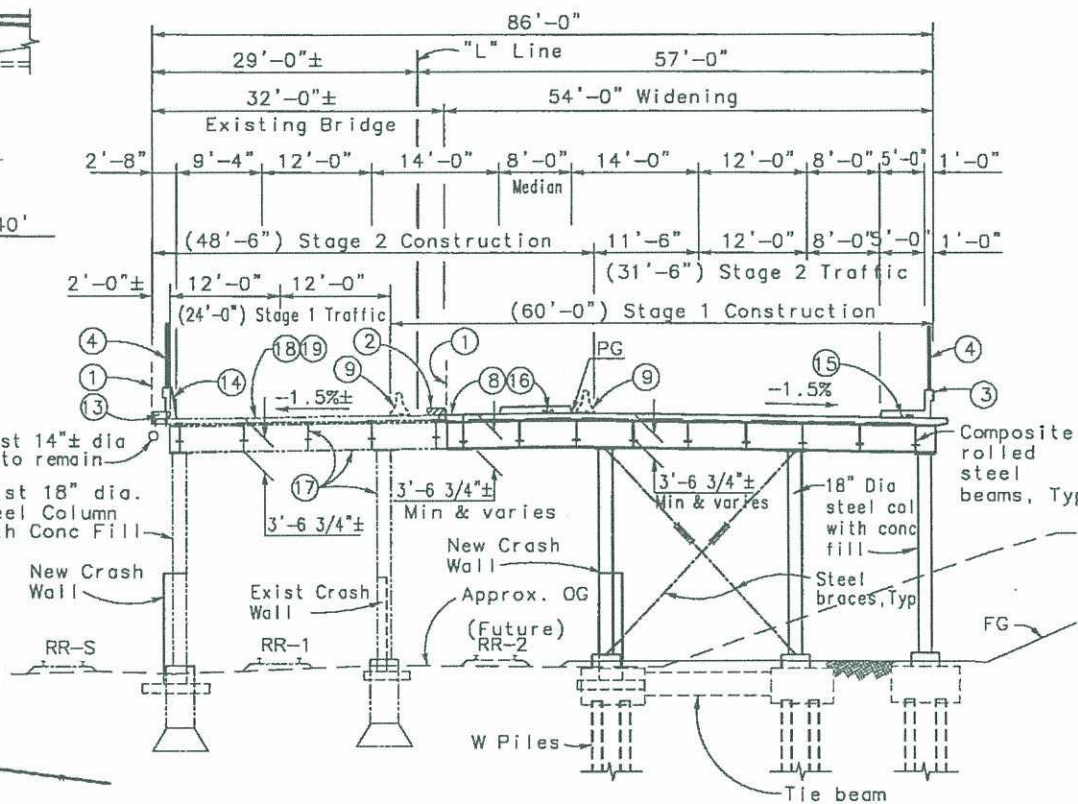
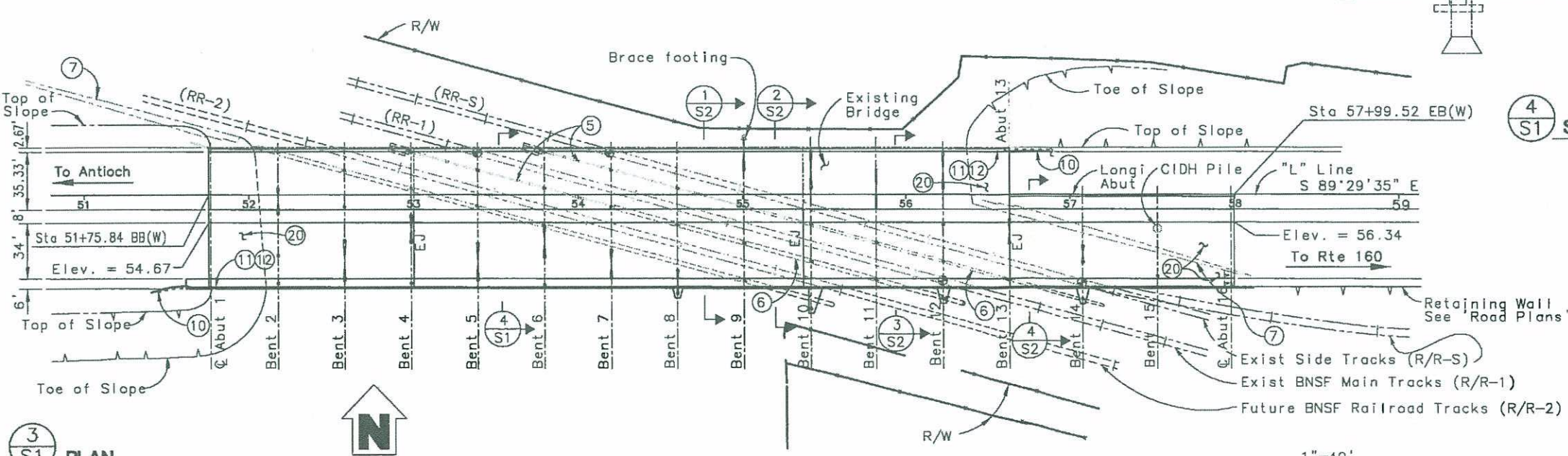


REGISTERED PROFESSIONAL ENGINEER  
PO-KANG CHEN  
No. S 3112  
Exp. 9/30/13  
STRUCTURAL  
STATE OF CALIFORNIA



- LEGEND**

|   |  |   |  |
|---|--|---|--|
| ① | Remove Existing Steel Railing          | ⑫ | Paint "28C-0054" & "20—"   |
| ② | Remove existing Conc Curb              | ⑬ | Existing Conc Curb to remain   |
| ③ | Concrete Barrier (Type 26 Modified)    | ⑭ | Concrete Barrier (Type 732 modified)   |
| ④ | Chain Link Railing (Type 7)            | ⑮ | 2" PVC conduit   |
| ⑤ | Existing Concrete Crash Walls          | ⑯ | Two 1 1/2" and one 2" PVC conduit  |
| ⑥ | New Concrete Crash Walls               | ⑰ | Clean and paint existing structural steel where new steel construction connects and/or disconnects the existing steel construction |
| ⑦ | Existing Metal Bin Type Retaining Wall | ⑱ | Remove loose concrete and repair existing deck with polyester concrete   |
| ⑧ | Closure Pour                           | ⑲ | Prepare and treat existing deck with Methacrylate Resin & sand Treatment   |
| ⑨ | Temporary Railing (Type K)             | ⑳ | 1.5H:1.0V concrete slope paving  |
| ⑩ | MBGR, see "Road Plans"                 |   |  |
| ⑪ | Paint "Wilbur Avenue Overhead"         |   |  |



| No. | REVISIONS   |    |         |
|-----|-------------|----|---------|
|     | DESCRIPTION | By | DATE    |
| 1   | Addendum #3 | HM | 9/27/12 |
|     |             |    |         |

|   |  |                  |              |                  |                    |  |                          |   |                                  |  |                                |          |                    |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |       |    |
|---|--|------------------|--------------|------------------|--------------------|--|--------------------------|---|----------------------------------|--|--------------------------------|----------|--------------------|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|-------|----|
| APPROVED BY:                                  |  | DESIGN           | By H. MISTRY | Checked P. CHEN  | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD |                          | PREPARED FOR THE<br>CITY OF ANTIOCH<br>ENGINEERING DIVISION | PO-KANG CHEN<br>Project Engineer | BRIDGE NO.                                       | WILBUR AVE OVERHEAD (WIDENING) |          |                    |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |       |    |
| CITY ENGINEER                                 |  | REGISTRATION No. |              | DETAILS          | By H. MISTRY       | Checked P. CHEN  | LAYOUT                   |   |                                  | By H. MISTRY                                     | Checked P. CHEN                | 28C-0054 | GENERAL PLAN NO. 1 |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |       |    |
| SIGN OFF DATE                                 |  | QUANTITIES       | By J. SONU   | Checked E. FELIX | SPECIFICATIONS     | By P. CHEN   | PLANS AND SPECS COMPILED |   |                                  | POST MILE  |                                |          |                    |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |       |    |
| ORIGINAL SCALE IS IN INCHES FOR REDUCED PLANS |  |                  |              |                  |                    |  |                          | 0 1 2 3   | CU<br>EA                         | DISCARD PRINTS BEARING EARLIER REVISION DATES →  |                                |          |                    |  |  |  |  |  |  | REVISION DATES (PRELIMINARY STAGE ONLY) |  |  |  |  |  |  |  |  |  | SHEET | OF |
|   |  |                  |              |                  |                    |  |                          |   |                                  | 7/3/98 8/12/98 8/24/98 10/13/98 12/7/98 12/12/98 |                                |          |                    |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  | S1    | 56 |

STRUCTURAL GENERAL NOTES

1. All work shall be performed by a California licensed Contractor(s) in accordance with these plans, specifications, applicable latest national and local codes, as directed by the Engineer and as necessary to complete the work.
2. Contractor shall be solely responsible for complying with current federal, state and local safety and health standards, laws, ordinances and regulations.
3. Do not scale drawings, unless otherwise noted. Overall dimensions shown on plans are for the reference. Contractor shall be responsible to coordinate all dimensions, details and information with plans by other trades along with the field dimensions and field conditions, prior to construction or fabrication of any material. Any discrepancy found shall be reported to the Engineer and resolved prior to further construction in relation to the discrepancy.
4. Dimensions such as concrete thickness, slab thickness, footing size, clearances to reinforcing bar etc. shall be net (not nominal), unless otherwise noted. Contractor shall observe them strictly. Any variation, if required, must be requested in writing by the Contractor and be approved by the Engineer in writing prior to implementing them.
5. Where no construction details are shown or noted for any part of the work, such details shall be same as for similar work shown on the drawing upon verification with the Engineer.
6. Contractor shall solely be responsible for temporary shoring for the existing & new structure and trenches; their selection, design, installation, safe maintenance and removal as required and to complying with the requirements of BNSF in their Right-of-Way. The excavations and shoring for pile caps and crash wall footings shall be as tight as practical to keep away as far as possible from the live tracks.
7. Contractor shall retain a California licensed Civil or Structural Engineer to prepare design calculations & shop drawings for the items listed below per specifications and as required by the Engineer. Submit design calculations and shop drawings, wet signed by the Contractor's Design Engineer for the review by the City and BNSF, prior to purchase or fabrication of any material. Review time shall be minimum twelve (12) weeks.
- (a) Trench excavation shoring,
- (b) Temporary shoring at footings for pile caps, abutments, retaining walls, crash walls, etc. and where required,
- (c) Temporary shoring of existing framing where indicated and/or required.
8. Contractor shall comply with the RAILROAD RELATIONS AND INSURANCE REQUIREMENTS section(s) of the Special Provisions. For clearances to tracks, see 'Regulatory Template For Tangent Tracks' on 'deck Elevations' sheet (S5).
9. All anchors, imbeds and opening in floors and walls shall be planned and cast in concrete, unless otherwise noted. Coring, cutting or drilling of openings shall not be allowed, except where shown or approved by the Engineer in writing.
10. Contractor shall coordinate all inspections with appropriate parties with minimum 3-days notice. All items must be completed in place at the scheduled time of inspection. Re-inspection cost due to incomplete items at time of scheduled inspection shall be paid by the contractor.
11. All construction shall be considered new unless it is described as existing (E, Exist) or identified with line type of existing construction shown under 'Symbols'.

CONSTRUCTION NOTES

1. Contractor shall coordinate all plans and perform all construction work per these plans, specifications to meet all safety requirements and to meet all construction standards.
2. Demolition of existing structure shall not damage the structure to remain. Any damages caused during construction shall be repaired or restored to its original integrity per Engineer's direction, at Contractor's cost.
3. Utilities and their locations shown on structural drawings are for reference only. Contractor shall not use those information for construction. Contractor shall be solely responsible for coordinating structural plans with Utility-Plans and plans of other disciplines, identifying and locating all utilities, shoring them, so as not to interfere or damage any utility. If any damage occurs during construction, utility shall be repaired by the Contractor per Utility Owner's direction to restore its original integrity at Contractor's cost.
4. All Excavations around structure and loose materials under the Pile Caps and Ties Beams shall be back filled with clean native material free of debris and organic matters per Geotechnical Engineer's recommendations and be compacted to 90% relative compaction. Contractor shall observe necessary measures to protect all utilities at all excavations and backfills.
5. All concrete work shown shall be in forms full height, unless otherwise noted. All exposed edges shall have 1" chamfer, unless otherwise show or noted. All exposed concrete shall have Class - A concrete finish, except bridge deck top; and as noted elsewhere.
6. Top of footing elevations shown for idealized conditions only. Contractor shall coordinate all elevations in relation to all project drawings. Any variations needed at field driven special conditions, should be reported to the Engineer for verification and/or updates, prior to further construction at such conditions.
7. At all construction joints, previously hardened concrete shall be roughened to 1/4" amplitude and cleaned per specifications prior to following concrete pour, unless otherwise noted. Where existing concrete found to be poured against the soil, for the matter for providing 1/4" roughened concrete, remove 1" surface of concrete to exposed firmly set coarse aggregate.
8. All reinforcing steel shall have hooks as shown. Where short hook lengths not shown, Caltrans standard hook lengths or shorter to fit in with appropriate concrete cover shall be used. All Epoxy Coated (EC) reinforcing bars and ends shall be epoxy coated per specifications.
9. All anchor bolts (AB) assemblies shall be hot dipped galvanized, unless otherwise noted. Bar reinforcing shall be straddled at interferences at other reinforcing bars and/or any other imbeds. Do not cut or discontinue any reinforcing bars or imbeds without written permission from the Engineer.
10. Concrete surface in contact with grout under base/bearing plates shall be sandblasted and cleaned for proper adherence, prior to installing framing. Clean and grout under all column base plates & bearing plates prior to placement of bridge deck slab concrete. Grout must fill entire void under the base plates and be compacted.
11. Irrespective of shown dimensions, all steel fabrication shall be based on field measured dimensions, elevation and configurations. All high strength Bolts (HSB) and A307 bolts including nuts and washers shall be hot dipped galvanized or with approved equal rustproof treatment. All steel fabrication shall be per latest AISC and AWS standards. Contractor shall take measures so as not to damage existing steel to remain by overheating where field removal or installation of gussets, etc are required. All unwelded lengths of welded connections shall be seal welded.

12. Existing structural steel shall be cleaned and painted only at all the areas where new steel construction connects and/or disconnects the existing steel constructions with bolts and/or welds, including diaphragms, diagonal braces, bent caps, bar type restrainers, columns at removal of existing cover plates at crash walls, etc. The areas to be cleaned and painted shall be 6"± beyond the connections and kept to minimum and neat so as not to appear like messy patch works.

SYMBOLS

- Indicates existing structure
- Indicates new construction
- ▨ Indicates existing concrete removal
- ⊕ Indicates approximate location of vertical clearance over BNSF tracks
- ⊕ Indicates exist vertical caissons
- I Indicates new vertical Steel Piles
- I Indicates new battered Steel Piles
- X SX Section/Detail/Elevation Number
- X SX Sheet no. where Section/-Detail/Elevation is drawn
- X SX Section/Elevation
- BO-1 1-3 Caltrans Standard Plans sheet no.
- BO-1 1-3 Caltrans Detail no.

CONTRACT ITEM

| CONTRACT ITEM                                     | QUANTITY   |
|---|------------|
| 1. BRIDGE REMOVAL (PORTION)                       | 1 LS       |
| 2. CRASH WALL REMOVAL (PORTION)                   | 1 LS       |
| 3. STRUCTURAL EXCAVATION (BRIDGE)                 | 992 CY     |
| 4. STRUCTURAL EXCAVATION (CRASH WALL)             | 635 CY     |
| 5. STRUCTURAL BACKFILL (BRIDGE)                   | 719 CY     |
| 6. STRUCTURAL BACKFILL (CRASH WALL)               | 274 CY     |
| 7. FURNISH STEEL PILING (HP 14 X 132)             | 5,810 LF   |
| 8. DRIVE STEEL PILE (HP 14 X 132)                 | 172 EA     |
| 9. STRUCTURAL CONCRETE, BRIDGE FOOTING            | 467 CY     |
| 10. STRUCTURAL CONCRETE, (BRIDGE)                 | 1,170 CY   |
| 11. STRUCTURAL CONCRETE (CRASH WALL)              | 990 CY     |
| 12. MINOR CONCRETE (MEDIAN)                       | 121 CY     |
| 13. REPAIR AND SPALLS SURFACE AREA                | 95 SF      |
| 14. JOINT SEAL (TYPE A)                           | 936 LF     |
| 15. JOINT SEAL (TYPE AL)                          | 626 LF     |
| 16. JOINT SEAL (TYPE B)                           | 258 LF     |
| 17. BAR REINFORCING STEEL (BRIDGE + CURTAIN WALL) | 423,159 LB |
| 18. METHACRYLATE SEAL CONCRETE SURFACE            | 15,536 SF  |
| 19. STRUCTURAL STEEL (BRIDGE)                     | 921,700 LB |
| 20. CLEAN AND PAINT STRUCTURAL STEEL              | 1 LS       |
| 21. SPOT BLAST CLEAN AND PAINT UNDERCOAT          | 1 LS       |
| 22. MISCELLANEOUS METAL (RESTRAINER-BAR TYPE)     | 13,738 LB  |
| 23. MISCELLANEOUS METAL (BRIDGE)                  | 36,203 LB  |
| 24. CHAIN LINK RAILING (TYPE 7)                   | 1,141 LF   |
| 25. CONCRETE BARRIER (TYPE 26 MODIFIED)           | 645 LF     |
| 26. CONCRETE BARRIER (TYPE 732 MODIFIED)          | 488 LF     |

| No. | DESCRIPTION | By | DATE    |
|-----|-------------|----|---------|
| 1   | Addendum #3 | HM | 9/27/12 |

|       |        |       |                          |           |              |
|-------|--------|-------|--------------------------|-----------|--------------|
| DIST. | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 04    | CC     |       |                          | 63        | 115          |

P.K. Chen 7/13/12  
REGISTERED STRUCTURAL ENGINEER DATE

7/13/12  
PLANS APPROVAL DATE

MARK THOMAS & CO. INC.  
3000 OAK ROAD, SUITE 650  
WALNUT CREEK, CA 94597

CITY OF ANTIOCH  
ENGINEERING DIVISION  
P.O. BOX 130  
ANTIOCH, CA 94509

REGISTERED PROFESSIONAL ENGINEER  
PO-KANG CHEN  
No. S 3112  
Exp. 9/30/13  
STATE OF CALIFORNIA

|                |                       |                  |   |   |                                |
|----------------|-----------------------|------------------|---|---|--------------------------------|
| APPROVED BY:   | DESIGN BY H. MISTRY   | CHECKED P. CHEN  | PREPARED FOR THE CITY OF ANTIOCH ENGINEERING DIVISION | BRIDGE NO. 28C-0054                             | WILBUR AVE OVERHEAD (WIDENING) |
| QTY ENGINEER   | DETAILS BY H. MISTRY  | CHECKED P. CHEN  | PO-KANG CHEN Project Engineer                         | POST MILE                                       | NOTES, SYMBOLS & QUANTITIES    |
| SIGN OFF DATE: | QUANTITIES BY J. SONU | CHECKED E. FELIX | CU EA   | REVISION DATES (PRELIMINARY STAGE ONLY)         |                                |
|                |                       |                  | ORIGINAL SCALE IS IN INCHES FOR REDUCED PLANS         | DISREGARD PRINTS BEARING EARLIER REVISION DATES | S4 56                          |