



**ADDENDUM NO. 1**  
**TO THE PLANS, SPECIFICATIONS, PROPOSAL AND CONTRACT**  
**FOR CITY OF LACEY**  
**GREG CUIOIO PARK – PHASE 1A**  
**LACEY CONTRACT NO. PW 2022-06**

This addendum is made part of these contract documents as though it was originally included in the Contract. The Contractor shall note the location of the Addenda Receipt Acknowledgement on Page B-4 of the Contract Proposal.

Issued this 10th day of January 2025.

**Specifications**

**ITEM NO. 1-1: REPLACE BID SHEETS IN THE SPECIAL PROVISIONS**

Replace Bid Sheets B-1 through B-4 in the Special Provisions with Bid Sheets B-1A1 through B-4A1. Bid items A-32, A-40 and A-62 have been updated.

**ITEM NO. 1-2: EDIT TO SECTION D 1-08.4(1) ORDER OF WORK**

Replace the first bullet point of Special Provisions Section D 1-08.4(1) with the following:

“With exception of approved long lead items, which are expected to include portions of Bid Items A-55 and A-69 through A-72 (per section D 1-08.6), all physical work shall be completed by June 30th, 2025. After this date, liquidated damages will apply. Special care shall be provided to minimize disruption of constructed items.”

**ITEM NO. 1-3: EDIT TO SECTION D 2-03.4**

Replace the sentence in Special Provisions Section D 2-03.4 - Measurement that begins, "A digital copy of the survey" with the following:

“A digital copy of the survey is available to the Contractor from the Contracting Agency at the Contractor’s request.”

**ITEM NO. 1-4: EDIT TO SECTION D 8-02 MEASUREMENT AND PAYMENT**

Replace the sentence in Special Provisions Section D 8-02.4 Measurement that states ““Soil Amendment” and “Bark or Wood Chip Mulch” will be measured by the cubic yard.” and replace with the following:

“Soil Preparation” will be measured by the acre along the grade and slope of the area completed.  
“Bark or Wood Chip Mulch” will be measured by the cubic yard.

Replace the sentence in Special Provisions Section D 8-02.5 Payment that states ““Soil Amendment”, per cubic yard,” and replace with the following:

“Soil Preparation”, per acre.

**ITEM NO. 1-5: EDIT TO SECTION E 01 56 00 TEMPORARY BARRIERS AND ENCLOSURES**

Replace Section E 01 56 00 Temporary Barriers and Enclosures of the Technical Specifications with the attached revised pages. Clarification has been provided regarding temporary chain link fence and gate requirements.

**ITEM NO. 1-6: EDIT TO SECTION E 05 50 00 METAL FABRICATIONS**

Replace Section E 05 50 00 Metal Fabrications of the Technical Specifications with the attached revised pages. Added requirements for galvanized coatings and vandal resistant fasteners.

**ITEM NO. 1-7: EDIT TO SECTION E 09 97 13 STEEL COATINGS**

Replace Section E 09 97 13 Steel Coatings of the Technical Specifications with the attached revised pages to include changes to coating application requirements.

**Plans**

**ITEM NO. 1-8: REPLACE GENERAL SERIES SHEETS**

Replace G-02 and G-04 with the attached revised G-02 and G-04 to include references to structural drawings. Supplemental structural drawings and a Geotech Report Executive Summary will be included in a forthcoming addendum regarding necessary improvements to soil bearing capacity to allow for support of structures.

**ITEM NO. 1-9: REPLACE HORIZONTAL CONTROL SHEET HZ-01**

Replace HZ-01 with the attached revised version

**ITEM NO. 1-10: REPLACE TESC & DEMO SHEETS**

Replace sheets CE-01, CE-03, CE-05, CE-12 and CE-16 with the attached revised versions.

**ITEM NO. 1-11: REPLACE SITE PLAN SHEETS**

Replace sheets CP-01, CP-08, CP-12, CP-17 and CP-18 with the attached revised versions.

**ITEM NO. 1-12: REPLACE GRADING AND DRAINAGE SHEETS**

Replace sheets CG-01, CG-06, CG-12, CG-22 and CG-24 with the attached revised versions.

**ITEM NO. 1-13: REPLACE ELECTRICAL SHEET**

Replace sheet CU-03 with the attached revised version.

**ITEM NO. 1-14: REPLACE HARDSCAPE AND SITE FURNISHINGS SHEETS**

Replace sheets LS-00, LS-01, LS-17, LS-19 and LS-21 with the attached revised versions.

**ITEM NO. 1-15: REPLACE PLANTING SHEETS**

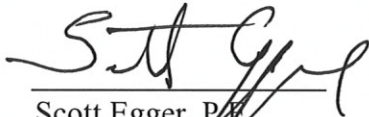
Replace sheets LP-15 and LP-16 with the attached revised versions.

**ITEM NO. 1-16: REPLACE DISC GOLF SHEETS**

Replace sheets DG-00 and DG-02 with the attached revised versions.

**ITEM NO. 1-17: REPLACE ARCHITECTURAL SIGNAGE SHEETS**

Replace sheets A-01, A-02, A-03 and A-04 with the attached revised versions.

  
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Scott Egger, P.E.  
Public Works Director

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# CITY OF LACEY

Greg Cuoio Park - Phase 1A

Addendum 1

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Lacey Contract Number: PW 2022-06

Federal Aid Project Number:

WSDOT Contract Number:

TIB Contract Number:

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## Contract Proposal

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DATE: \_\_\_\_\_

The undersigned, as bidder, has examined the bid documents as prepared by the Public Works Department, City of Lacey.

The undersigned, as bidder, proposes to furnish all material and perform all labor in accordance with the bid documents at the following prices.

Bidder must fill in unit prices in figures for each item and total.

Bidder shall sign this proposal form and submit all required paperwork with the bid.

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### A General

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No.	Quantity	Unit	Item ID	Item Description	Unit Price	Extended Price
A1	200000	MC	104-010	Minor Change	\$1.00	\$200,000.00
A2	1	LS	107-010	SPCC Plan	LUMP SUM	
A3	1	CALC	107-020	Apprenticeship Incentive	\$5,000.00	\$5,000.00
A4	1	CALC	107-025	Apprenticeship Penalty	(\$5,000.00)	(\$5,000.00)
A5	1	LS	109-010	Mobilization	LUMP SUM	
A6	1	LS	110-010	Project Temporary Traffic Control	LUMP SUM	
A7	40	HR	110-040	Flaggers		
A8	336	HR	110-070	Portable Changeable Message Sign		
A9	1	LS	201-010	Clearing and Grubbing	LUMP SUM	
A10	1	LS	202-510	Removal of Structures and Obstructions	LUMP SUM	
A11	400	LF	202-550	Sawcutting		
A12	20000	CY	203-010	Roadway Excavation Incl. Haul		
A13	1000	CY	203-130	Embankment Compaction		
A14	18000	TN	203-190	Gravel Borrow Incl. Haul		
A15	1	LS	205-510	Trench Safety System	LUMP SUM	
A16	17500	SY	206-500	Subgrade Preparation		
A17	4650	TN	404-010	Crushed Surfacing Base Course		
A18	2800	TN	404-020	Crushed Surfacing Top Course		
A19	1600	TN	504-011	HMA Cl. 1/2" PG 58H-22		
A20	500	TN	504-110	Commercial HMA		
A21	350	LF	701-710	Dispersion Trench		

A22	2600	LF	704-512	12 Inch Diameter Storm Sewer Pipe		
A23	24	EA	705-210	Catch Basin Type 1		
A24	11	EA	705-248	Catch Basin Type 2 - 48 In. Diam.		
A25	3300	TN	708-610	Bank Run Gravel for Trench Backfill		
A26	1900	TN	708-620	Imported Pipe Bedding		
A27	865	LF	709-508	8 Inch Water Main		
A28	8	EA	709-810	Blow-off Assembly for Extendable Main		
A29	1	EA	712-506	6 Inch Gate Valve		
A30	14	EA	712-508	8 Inch Gate Valve		
A31	1	EA	714-750	Partial Hydrant Assembly		
A32	1	EA	715-010	Service Connection 1 1/2 In. Diam.		
A33	770	LF	717-702	2 Inch Diameter Force Main Sewer Pipe		
A34	6	EA	717-862	2 Inch Ball Valve		
A35	1	LS	801-010	ESC Lead	LUMP SUM	
A36	200	SY	801-025	Stabilized Construction Entrance		
A37	2400	LF	801-100	Silt Fence		
A38	6.5	AC	801-560	Seeding and Fertilizing		
A39	1	LS	801-680	Erosion/Water Pollution Control	LUMP SUM	
A40	6.7	AC	802-200	Soil Preparation		
A41	830	CY	802-220	Bark or Wood Chip Mulch		
A42	1	LS	802-600	Native Vegetation Mix	LUMP SUM	
A43	1	LS	802-610	Restoration Planting	LUMP SUM	
A44	1500	LF	802-800	Root Barrier		
A45	1	LS	803-505	Irrigation System	LUMP SUM	
A46	950	LF	804-010	Cement Conc. Traffic Curb and Gutter		
A47	2010	LF	804-020	Cement Conc. Traffic Curb		
A48	70	LF	804-060	Cement Conc. Pedestrian Curb		
A49	2	HUND	809-010	Raised Pavement Marker Type 1		
A50	1	HUND	809-020	Raised Pavement Marker Type 2		
A51	1750	LF	812-510	Chain Link Fence, Vinyl Coated		
A52	6	EA	814-545	Cement Concrete Ramp		
A53	150	SY	814-605	Concrete Paving		
A54	20	TN	815-060	Quarry Spalls		
A55	1	LS	820-800	Electrical	LUMP SUM	
A56	4	EA	821-560	Permanent Barricade		
A57	1600	LF	822-010	Paint Line		
A58	4	EA	822-190	Plastic Traffic Arrow		
A59	28	EA	822-210	Plastic Traffic Letter		
A60	3	EA	822-215	Painted Access Parking Space Symbol		
A61	340	LF	822-670	Plastic Crosswalk Line		
A62	800	LF	834-510	Temporary Chain Link Fence		

A63	1	LS	835-510	Tree Protection	LUMP SUM	
A64	2	EA	850-530	Bollard Type I		
A65	8	EA	850-535	Bollard Type 2		
A66	1	LS	850-792	Project Closeout	\$5,000.00	\$5,000.00
A67	3	EA	853-510	Wheel Stop		
A68	1	LS	860-500	Site Furnishings	LUMP SUM	
A69	1	LS	861-500	Playground Surfacing	LUMP SUM	
A70	1	LS	861-550	Playground Installation	LUMP SUM	
A71	1	LS	862-500	Shelter Installation	LUMP SUM	
A72	1	LS	862-510	Shelter Concrete Pad & Footing Installation	LUMP SUM	
A73	1	LS	864-500	Custom Signage	LUMP SUM	
A74	1	LS	865-500	Blue Light Tower	LUMP SUM	
A75	1	LS	866-500	Entry Gate	LUMP SUM	
A76	3	EA	890-910	Monitoring Well Decommissioning		
A77	11	EA	8TR-010	Acer Macrophyllum (Bigleaf Maple)		

Schedule A Subtotal: \_\_\_\_\_

Tax Rate (%) : 9.70 Tax: \_\_\_\_\_

Schedule A Total: \_\_\_\_\_

**Contract Total:** \_\_\_\_\_  
(All Schedules)



SECTION 01 56 00  
TEMPORARY BARRIERS AND ENCLOSURES

PART 1 GENERAL

1.01 SUMMARY

- A. Install temporary barriers and enclosures using the materials as shown in the Contract Drawings and/or as specified in the Specifications.
- B. Remove temporary barriers and enclosures upon completion of work.

1.02 SCOPE OF WORK

- A. Furnish all materials, equipment, labor and related items necessary to complete the work shown in the Contract Drawings and/or as specified in the Specifications. The work included in this section (whether mentioned or not) consists of all labor, tools, materials, tests, permits and other related items necessary for the provision and installation of all temporary barriers and enclosures.
- B. Coordinate the layout and installation of tree and plant protection with project forester.
- C. Removal of all temporary barriers and enclosures upon completion of construction activities at the site.

1.03 REFERENCES

- A. This specification section incorporates by reference the latest revisions or editions of the following documents.
  - 1. 2024 Standard Specifications for Road, Bridge, and Municipal Construction and the 2024 Standard Plans, as published by the Washington State Department of Transportation (WSDOT).
- B. In case of conflict between the requirements of this specification section and the Contract Drawings, the requirements of the contract specification section shall prevail.

1.04 DEFINITIONS

- A. The term "temporary barriers and enclosures" collectively refers to:
  - 1. Construction fencing and gates.
  - 2. Site barriers and barricades.
  - 3. Tree and plant protection.

1.05 PERMITS, CODES, & REGULATIONS

- A. Obtain and pay for all necessary permits and fees as required by the Local Authority and prevailing ordinances and/or codes.

- B. Keep fully informed and comply with all existing laws, codes, ordinances and regulations that in any way affect the conduct of the work as drawn and specified. If the Contractor observes that a conflict exists between permit requirements and the work outlined in the contract documents, the Contractor must promptly notify the Owner's Representative in writing including a description of any necessary changes and changes to the contract price resulting from changes in the work.
- C. Wherever references are made to standards or codes in accordance with which work is to be performed or tested, the edition or revision of the standards and codes current on the effective date of this contract must apply, unless otherwise expressly set forth.
- D. In case of conflict among any referenced standards or codes or among any referenced standards and codes and the specifications, the more restrictive standard must apply or Owner's Representative will determine which must govern.

## PART 2 PRODUCTS

### 2.01 MATERIALS & EQUIPMENT

- A. Provide all materials and equipment as required to complete the work as shown on the Contract Drawings and/or as described in the Specifications.
- B. Materials: New or used, suitable for intended purposes, reasonably clean, and uniform in appearance.
- C. Construction fence in conformance with the Plans and details.

## ~~PART 4~~PART 3 EXECUTION

### ~~4.013.01~~ GENERAL

- A. Install, relocate, and maintain facilities for duration of Project in structurally adequate condition as necessary for intended purpose.
- B. Avoid unauthorized interference with Owner's use of site and on public thoroughfares.

### ~~4.023.02~~ CONSTRUCTION FENCING AND GATES

- A. Prior to beginning Work, install construction fencing at approximate limits shown on the plans to exclude public and to control access of vehicles and personnel.
- B. Fence Type and gate at park entrances: galvanized chain link fabric and galvanized steel posts set in concrete blocks, 1-1/2 inch line posts, and 2 inch corner posts, minimum height 6 foot high, or approved equal at park entrances. Fencing and gate material submittals shall be approved by the Engineer prior to procurement and installation.

- C. Locate temporary vehicular entrance gates at designated access roads in suitable relation to construction facilities, and to avoid interference traffic on public thoroughfares. Fence and gates shall be located in compliance with the plan callouts.
- D. Include padlocks for entrance gates and supply Owner with key for each padlock.
- E. Where emergency access may be required such as for fire prevention or utilities, provide labeled knockout panels at point of most direct access.

#### 4.033.03BARRIERS AND BARRICADES

- A. Use appropriate products and materials, suitable to prohibit public access on to project site.
- B. Provide warning and directional signage where appropriate at barricades.

#### 4.043.04TREE AND PLANT PROTECTION

- A. Preserve and protect existing trees and plants. Existing trees or plants that are not marked for removal but are destroyed or damaged, Contractor shall reimburse Owner.
- B. Protect trees and planting in construction area by maintaining fencing and rigid barriers erected outside of drip line of planting to protect branches and root zones. Do not store materials, permit traffic, dump waste materials and liquids, or permit filling or eroding of soil within plant protection fencing and barriers.
- C. Consult with Owner and Architect/Engineer to obtain approval before removing roots and branches which interfere with construction. Employ qualified tree specialist to remove and to treat cuts. Note that root zones may extend well outside of drip line. Make adjustments as necessary.

#### 4.053.05REMOVAL OF FENCING, BARRIERS, AND ENCLOSURES

- A. Construction Fencing, Gates, Barriers, and Enclosures: Remove as work proceeds and no longer necessary. Completely remove remaining as part of site demobilization at completion of Work
- B. Clean and restore areas to eliminate evidence of temporary fencing, barriers, and enclosures.

END OF SECTION

SECTION 05 50 00  
METAL FABRICATIONS

## PART 1 - GENERAL

## 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.02 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing metal fabrications made from steel shapes, plates, bars, strips, tubes, pipes and castings not a part of structural steel or specified in other Sections, including but not limited to the following items:
1. Exterior galvanized steel plate and angle wayfinding site signage
  2. Exterior galvanized steel plate monument signage.
- B. Related Sections:
1. Hot-dip galvanizing is specified in Section 05 04 00.
  2. Steel coatings are specified in Section 09 97 13.

## 1.03 SYSTEM PERFORMANCE REQUIREMENTS – Not Used

## 1.04 SUBMITTALS

- A. General: Comply with the requirements in Section 01 33 00.
- B. Product Data: Include information on paint / coating products.
- C. Shop Drawings, General: Include plans, elevations and details of metal fabrications and their connections. Show anchorage and accessory items. Furnish templates for anchors and bolts installed under other Sections Include erection drawings, elevations, and details, including cuts, copes, connections, holes, threaded fasteners, rivets, and welds where applicable. Include all locations, markings, quantities, materials, sizes, and shapes; and all methods of connecting, anchoring, fastening, bracing, and attaching to Work of other Sections.
- D. Exterior Monument and Wayfinding Signage, Shop Drawings:
1. Submit full signage shop drawings per 1.04 C above. Signage shop drawings shall capture all dimensional and structural information including size and spacing of all lettering and features.
  2. In addition to fabrication shop drawings submit full color signage shop drawings with colors represented showing accurate depiction of signage colors and a sign template to scale for review.

- E. Exterior Monument and Wayfinding Signage, Samples:
1. Provide (2) two each 4" x 4" samples of all colors to be utilized on galvanized steel substrate matching that used in the signage for review and approval by the design team.
  3. Provide (2) two samples of each type of lettering used in the font indicated for review and approval by the design team.
- ~~F. Submit installer qualifications for Exterior Monument and Wayfinding Signage Fabricator and installer demonstrating signage contractor has signage expertise and has completed construction of at least 5 signage projects of similar design and complexity.~~

#### 1.05 QUALITY ASSURANCE

- A. Fabricator Qualifications: Firm experienced in successfully producing metal fabrications similar to that indicated for this Project, with sufficient production capacity to produce required units without causing delay in the work.
- B. Welding Qualifications: Qualify welding processes and welding operators in accordance with AWS D1.1, D1.2, and D1.3 as applicable. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved.
- C. Exterior Signage Fabricator:
1. Installer and fabricator shall be knowledgeable in the manufacture of exterior park entrance monument signage, with a minimum of (5) five similar signage projects.
  2. Signage fabricator shall be knowledgeable in all aspects of signage fabrication, and responsible for complete signage fabrication and base installation.

#### 1.06 PROJECT CONDITIONS

- A. Field Measurements: Check actual locations of walls and other construction to which metal fabrications must fit, by accurate field measurements before fabrication. Show recorded measurements on shop drawings. Coordinate fabrication schedule to avoid delay of work.
- B. Exterior Monument and Wayfinding Signage:
1. Do not install during inclement weather when signage may be damaged.

2. Ensure that site conditions are appropriate for signage installation and for installation of all materials listed in part 8-26.2 above.
3. Protect and secure signage from theft, vandalism and all other damage if stored on site prior to installation. All installation fasteners shall be vandal resistant.

## 1.07 SEQUENCING AND SCHEDULING

### A. Painting:

1. Exterior items specified in this Section as being hot-dip galvanized will be finished as specified in Section 09 97 13 and 05 04 00, shop fabricated and finished where indicated.

## PART 2 - PRODUCTS

### 2.01 FERROUS METALS

- A. General: For fabrication of metal work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness.
- B. Steel Plates, Shapes and Bars: ASTM A36.
- C. Steel Tubing: Cold-formed, ASTM A500 or hot-rolled, ASTM A501; 0.125-inch thick wall thickness unless otherwise indicated.
- D. Structural Steel Sheet: Hot-rolled, ASTM A570; or cold-rolled ASTM A611, Class 1.
- E. Galvanized Structural Steel Sheet: ASTM A653, galvanized in accordance with ASTM A525, G90 coating designation.
- F. Steel Pipe: ASTM A53; type and grade selected by fabricator; black finish unless galvanizing is indicated or specified; standard weight, schedule 40, unless otherwise indicated.
- G. Gray Iron Castings: ASTM A48, Class 30.
- H. Malleable Iron Castings: ASTM A47, grade selected by fabricator.

### 2.02 FASTENERS

- A. Bolts and Nuts for carbon steel: Regular hexagon-head bolts, ASTM A307, Grade A, with hex nuts, ASTM A563, and flat washers.
- B. Machine Screws: ANSI B18.6.3.
- C. Lag Bolts: ANSI B18.2.1.
- D. Wood Screws: Flat head, carbon steel, ANSI B18.6.1.
- E. Plain Washers: Round, carbon steel, ANSI B18.22.1.

- F. Lock Washers: Helical, spring type, carbon steel, ANSI B18.21.1.
- G. Expansion Anchors: Anchor bolt and sleeve assembly with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry and equal to 4 times the load imposed when installed in concrete, determined in accordance with ASTM E448.
- H. Provide hot-dip galvanized fasteners at hot-dipped galvanized items. Provide Type 304 stainless steel fasteners at interior stainless steel or aluminum items and Type 316 stainless steel fasteners at exterior stainless steel or aluminum items.
- I. Fasteners for Stainless Steel
  - 1. Bolts: ASTM F593 – Alloy Group 2, Condition CW2.
  - 2. Nuts: ASTM 594 Alloy Group 2, Condition CW2
- J. ASTM F594 – Standard Specification for Stainless Steel Nuts.

#### 2.03 GROUT

- A. Non-Shrink Non-Metallic Grout: Euclid Chemical Co. "Euco N-S Grout", L&M Construction Chemicals, Inc. "Crystex", Master Builders Technologies, Inc. "Masterflow 928 and 713" or approved equal.

#### 2.04 PAINT

- A. Metal Primer:
  - 1. Exterior items shall be hot-dip galvanized as specified in Section 05 04 00 with no shop-applied primer.
- B. Galvanizing Repair Paint: As specified in Section 05 04 00.
- C. Other coatings for steel per Section 09 97 13.

#### 2.05 MANUFACTURED ITEMS

- A. Premanufactured weld on steel lettering: TBD

#### 2.06 FABRICATION, GENERAL

- A. Workmanship:
  - 1. Fabricate guardrails, railings and handrails to NAAMM Class 1 requirements.
  - 2. Use materials of size and thickness indicated or required to produce strength and durability in finished product for use intended.
  - 3. Work to dimensions indicated,
  - 4. Form exposed work true to line and level with accurate angles and surfaces and straight, sharp edges.
  - 5. Ease exposed edges to a radius of approximately 1/32-inch, unless otherwise indicated.

6. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
7. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use Phillips flat-head countersunk screws or bolts for exposed fasteners, unless tamperproof security screws are indicated.
8. Cut, reinforce, drill and tap miscellaneous metal work as indicated to receive finish hardware and similar items.
9. All attachments and other elements shall be vandal resistant.

B. Welding Requirements:

1. Use welding procedures to minimize distortion.
2. Provide welds of uniform size and profile.
3. Where intermittent welds are indicated, provide continuous welds in exposed-to-view items.
4. Grind welds smooth and flush to match and blend with adjoining surfaces. Exposed welds shall be imperceptible in the finished work.
5. When fillet welds are required to be ground-contoured, or blended, oversize welds as required and grind to provide a smooth transition and to match profile of approved sample.
6. Grind groove welds flush to the surface each side and within + 1/16-inch, minus 0-inches of plate thickness.
7. Exposed to view butt welds shall be as flush as connected members will allow. Minor defects and transitions in metal surfaces shall be filled and sanded out with metal filler prior to painting.
8. Minimize weld show-through. Grind distortions and marking of the steel to a smooth profile with adjacent material.
9. For tube railings and handrails, fabricate joints to meet NAAMM AMP 521-12 TYPE 1 (Ornamental) quality, except use TYPE 2 (Service) quality at Service Class Stairs in enclosed stairwells.
10. Exterior welds shall be watertight.

C. Galvanizing Requirements: Hot-dip galvanize all exterior steel and iron items unless otherwise noted, and interior items where indicated, in accordance with Section 05 04 00. Refer to additional fabrication requirements specified in Section 05 04 00 for items to receive hot-dip galvanizing.

C. Fabricate joints exposed to the weather to exclude water or provide weep holes.

## E. Shop Painting:

1. Shop paint miscellaneous metal work, except members or portions of members to be embedded in concrete or masonry, surfaces and edges to be field welded, and galvanized surfaces.
2. Remove scale, rust and other deleterious materials before applying shop coat. Clean off heavy rust and loose mill scale in accordance with SSPC SP-2, SP-3, or SP-7.
3. Remove oil, grease and similar contaminants in accordance with SP-1.
4. ~~Brush~~ or ~~Ss~~pray on primer in accordance with manufacturer's instructions, at a rate of 2.0-mils thickness for each coat.
5. Apply one shop coat to fabricated metal items, except apply 2-coats to inaccessible surfaces after assembly or erection. Change color of second coat to distinguish from the first.
6. Primer on exterior exposed to view items to be field finished shall be same primer specified in Section 09 97 13.
7. Apply a heavy coat of bituminous paint, compounded for application in 30-mil coat, to metal surfaces in contact with concrete, masonry and dissimilar metals. Do not apply on exposed surfaces.

## 2.07 MISCELLANEOUS METAL FABRICATIONS

## A. Exterior steel plate and angle wayfinding site signage: Fabricate to design, dimensions and details indicated.

1. Shape: Steel plate, angles and H.S.S. as indicated in the drawings
2. Steel Type: A36
3. Finish: Galvanized and Coated finish per section 05 04 00 and 09 97 13.
4. Dimensions and Fastening as noted on the Drawings.
5. Mitered corners, continuous weld all joints. Grind smooth all welds. Ease all exposed edges.
6. Locations: as indicated in the drawings.

## B. Exterior steel plate monument signage.

1. Shape: Steel plate, angles and H.S.S. as indicated in the drawings
2. Steel Type: A36
3. Finish: Galvanized and Coated finish, 05 04 00 and 09 97 13.
4. Dimensions and Fastening as noted on the Drawings.
5. Mitered corners, continuous weld all joints. Grind smooth all welds. Ease all exposed edges.
6. Locations: as indicated in the drawings.

## C. Entrance Swing Gates: Fabricate to design, dimensions, and details included in the plans

1. Shape: indicated in the drawings
2. Steel Type: A53 as indicated on the drawings.
3. Finish: Hot Dipped Galvanized and as indicated on the drawings.
4. Dimensions and Fastening as noted on the Drawings.

5. Mitered corners, continuous weld all joints. Grind smooth all welds. Ease all exposed edges.
6. Locations: as indicated in the drawings.

### PART 3 - EXECUTION

#### 3.01 PREPARATION

- A. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions, and directions for installation of anchorages, such as concrete inserts, sleeves, anchor bolts and miscellaneous items having integral anchors.

#### 3.02 INSTALLATION

##### A. General:

1. Fastening to In-Place Construction: Provide threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts, wood screws and other connectors as required.
2. Cutting, Fitting and Placement:
  - a. Perform cutting, drilling and fitting required for installation of miscellaneous metal fabrications.
  - b. Set work accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and levels.
  - c. Provide temporary bracing or anchors in formwork for items to be built into concrete, masonry or similar construction.
3. Fit exposed connections together forming tight hairline joints.
  - a. Weld connections not shop welded.
  - b. Grind exposed joints smooth and imperceptible, and touch-up shop paint coat.
  - c. Do not weld, cut or abrade the surfaces of exterior units which have been hot-dip galvanized after fabrication, and intended for bolted or screwed field connections.
4. Field Welding: Comply with AWS for procedures of manual shielded metal-arc welding, appearance and quality of welds, and methods used in correcting welding work.
5. Install prefabricated items in accordance with manufacturer's instructions.

##### B. Setting Loose Plates:

1. Clean concrete and masonry bearing surfaces of bond-reducing materials, and roughen to improve surface bond. Clean bottom surface of bearing plates.

2. Set loose leveling and bearing plates on wedges, or other adjustable devices.
3. Tighten anchor bolts after the bearing members have been positioned and plumbed.
4. Cut-off protruding ends of wedges flush with the edge of the bearing plate before packing with grout.
5. Use metallic non-shrink grout in concealed locations where not exposed to moisture; use non-metallic non-shrink grout in exposed locations.
6. Pack grout solidly between bearing surfaces and plates to ensure no voids remain.

### 3.03 ADJUST AND CLEAN

- A. Touch-Up Painting: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with same material used for shop painting. Apply by brush or spray to provide a minimum dry film thickness of 2.0-mils.
- B. Galvanized Surfaces: Clean field welds, bolted connections and abraded areas and spot prime with specified primer applied to a minimum dry film thickness of 2.5-mils.

END OF SECTION

## SECTION 09 97 13

## STEEL COATINGS

## PART 1 - GENERAL

## 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.02 DESCRIPTION

- A. This Section describes the requirements for furnishing and applying special coatings on the following:

- 1. Galvanized and zinc plated wayfinding and monument signage unless otherwise indicated.

- B. This section includes the requirements for painting and finishing of items and surfaces unless otherwise indicated or specified.

- 1. Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatments specified in other Sections.
  - 2. Work includes sanding shop-primed surfaces and applying specified primer and finish coats.
  - 3. "Paint" means coating systems materials, including primers, emulsions, coatings and other applied materials whether used as prime, intermediate or finish coats.

- C. Related Sections:

- 1. Metal fabrications are specified in Section 05 50 00.

## 1.03 SUBMITTALS

- A. General: Comply with the requirements in Section 01 33 00.
- B. Product Data: Manufacturer's descriptive data fully describing each product to include solids by volume and complete test data comparable to specified products. Include manufacturer's recommendations for mixing, thinning and curing.
- C. Certificates: Manufacturer's certified test reports confirming compliance with specified performance requirements.
- D. Samples: Two 5-inch x 7-inch samples of each selected color. Resubmit until approved by the Architect.

## 1.04 QUALITY ASSURANCE

- A. Applicator: Applicator shall have a minimum of 3-years' experience in the application of special coatings of the types required for this Project.
- B. Coatings shall comply with current VOC requirements regulating the amount of volatile organic compounds.

#### 1.05 PRODUCT DELIVERY, STORAGE, HANDLING:

- A. General: Comply with the requirements in Division 01.
- B. Deliver materials in factory-sealed containers with manufacturer's labels intact and legible.
- C. Store materials in a protected area at a temperature between 35-deg. F. and 110-deg. F.

#### 1.06 JOB CONDITIONS

- A. Apply coating only under the following prevailing conditions:
  - 1. The air and surface temperatures are not below 50-deg. F. or above 135-deg. F.
  - 2. Relative humidity is not above 85-percent and the surface temperature is at least 5-deg. F. above the dew point.
- B. Protect surfaces not to be coated.

### PART 2 - PRODUCTS

#### 2.01 APPROVED MANUFACTURERS

- A. Tnemec Company or equal products by Ameron. Substitutions will be considered only where substitution's test data provide sufficient information to demonstrate equal or better performance for all listed tests and color availability.

#### 2.02 MATERIALS

- A. Organic zinc-rich primer, 94-H<sub>2</sub>O Hydro-Zinc or approved equal product.
  - 1. Adhesion: Not less than 1500-psi pull, average of three trials, ASTM D4541, Type II
  - 2. Salt Spray (Fog): No blistering, cracking, spot rusting or delamination of film. No rusting in plane and more than 1/16-inch rust creepage at scribe after 10,000 hours exposure ASTM B117.
  - 3. Solids by Volume: Not less than 62 percent + or - 2%.
  - 4. Zinc Dust Content: 83.0-percent + or - 2 by weight in dry applied film.
  - 5. Zinc dust must meet requirements of ASTM D 520 Type III

6. Not more than 100 g/l VOC
- B. Organic zinc-rich primer, 90-97-H<sub>2</sub>O Tneme-Zinc or approved equal product.
1. Adhesion: Not less than 1500-psi pull, average of three trials, ASTM D4541, Type II
  2. Salt Spray (Fog): No blistering, cracking, spot rusting or delamination of film after 10,000 hours. No more than 1/64-inch rust creep at scribe and no rusting at edges after 3,000 hours exposure, ASTM B117.
  3. Solids by Volume: Not less than 62 percent + or – 2%.
  4. Zinc Dust Content: 83.0-percent + or - 2 %y weight in dry applied film.
  5. Zinc dust must meet requirements of ASTM D 520 Type III
  6. Not more than 321 g/l VOC
- C. Polyamidoamine Epoxy, Series L69 Hi-Build Epoxoline II or approved equal product.
1. Abrasion: No more than 140-mg. loss after 1,000-cycles, ASTM D4060, CS-17 Wheel, 1,000 grams load.
  2. Adhesion: ASTM D4541, Type II, not less than 1,500 psi pull avg. of 3 trials.
  3. Humidity: No blistering, cracking, softening or delamination of film after 10,000-hours, ASTM D4585.
  4. Salt Spray (Fog): No blistering, cracking, or delamination of film after 5,000 hours, ASTM B117.
  5. Solids by Volume: Not less than 67 65 percent + or – 2%.
  6. Not more than 100 g/l VOC
- D. Low VOC aliphatic acrylic polyurethane, 1094 (gloss), 1095 (semi-gloss) or 1096 (egg shell) Endura-Shield or approved equal product.
1. Abrasion: No more than 188-mg. loss average of three trials after 1,000-cycles, ASTM D4060, CS-17 Wheel, 1,000 grams load.
  2. Adhesion: No less than 1,576 psi average of three trials, ASTM D4541, Type II.
  3. Humidity: No blistering, cracking, softening or delamination of film after 5,000-hours, ASTM D4585.

4. Salt Spray (Fog): No blistering, cracking, rusting or delamination of film. Not more than 1/32" rust creepage at scribe after 5,000 hours exposure, ASTM B117.
5. Solids by Volume: Not less than <sup>B3074</sup> 60.0 percent + or – 2%.
6. QUV: No blistering, cracking or chalking. No less than 80% gloss retention and 1.89 DED FMCII color change after 4,000 hours exposure, ASTM D 4587.
7. Not more than 75 g/l VOC (tBAC Exempt).
8. Colors: To be selected by the Architect from listed manufacturer's complete range. Alternate manufacturers' colors may be required to be custom. At least two custom colors will be selected for this scope.

#### 2.04 MATERIAL PREPARATION

- A. Mix and thin materials according to manufacturer's latest printed instructions.
- B. Do not use materials beyond manufacturer's recommended shelf life.
- C. Do not use mixed materials beyond manufacturer's recommended pot life.
- D. Tint intermediate coats slightly differently from finish coat.

### PART 3 - EXECUTION

#### 3.01 INSPECTION

- A. Examine surfaces to be coated and report conditions that would adversely affect appearance or performance of coating systems and which cannot be put into an acceptable condition by preparatory work as specified.
- B. Do not proceed with surface preparation and application until surface is acceptable or authorization to proceed is given by Architect.

#### 3.02 SURFACE PREPARATION

- A. General:
  1. Dislodge dirt, rust, mortar spatter and other dry material by scraping or brushing. Remove dust and loose material by brushing, sweeping, vacuuming or blowing with high-pressure air.
  2. Remove oil, wax and grease by scraping off heavy deposits and cleaning with mineral spirits or a hot trisodium phosphate solution followed by a water rinse.
  3. Verify that surfaces to be coated are dry, clean and free of dust, dirt, oil, wax, grease or other contaminants.
- B. Galvanized and Zinc Electroplated Steel:
  1. For normal interior dry and for normal exterior exposure:

- a. When no passivator is present on the galvanized surface, clean per SSPC-SP1 (Solvent Cleaning) then either chemical etch using Clean 'n Etch or Galvaprep 5 or brush blast per ASTM D 6386.
  - b. Where passivators are present or their presence is unknown, brush blast per ASTM D6386.
2. For interior other than dry and benign (frequently wet, chemical exposure, over a pool etc.), exterior corrosive environment (<5 miles from salt water) and all immersion service, brush-off blast per ASTM D 6386 to a profile/anchor pattern between 1.0 and 1.5 mils where not done by galvanizer.
  3. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods, then chemical etch using Clean 'n Etch or Galvaprep-5.

### 3.03 APPLICATION

- A. Apply materials at manufacturer's recommended film thickness using either air or airless spray equipment recommended by manufacturer. At perforated metal, apply material at thinner film thickness and increase the number of coats if required to eliminate filling perforations with coating and as required for acceptable coverage and appearance.
- B. Allow each coat to dry thoroughly before re-coating. Follow manufacturer's recommended re-coat time.
- C. Cut edges clean and sharp where work joins other materials or colors.
- D. Make finish coats smooth, uniform in color, and free of brush marks, laps, runs, dry spray, over-spray and skipped or missed areas.
- ~~E. Paint visible surfaces of ducts where visible through registers or grilles with a flat, non-specular black finish.~~
- E. Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.
- FG. Omit primer on metal surfaces that have been shop primed and touch-up painted, unless otherwise indicated.

### 3.04 INSPECTION

- A. Use mil thickness tester to confirm applied thickness meets specifications. <sup>B30</sup>
- B. Request acceptance of each coat before applying succeeding coats.
- C. Repair and touch-up work that is not acceptable to the Architect and request final acceptance.

### 3.05 CLEANING

- A. Remove paint spatters from glass, plumbing fixtures and adjoining surfaces.
- B. Repair damage to coatings or surfaces caused by cleaning operations.

- C. Remove debris from jobsite and leave storage areas clean.

### 3.06 COATING SCHEDULE

- A. Exterior Wayfinding and Monument Signage (Galvanized, Zinc Plated Steel):
1. Touch-up of damaged galvanized surfaces: 94 Hydro-Zinc at 2.5 to 3.5 mils dry film thickness.
  2. First Coat: Series L69 Hi-Build Epoxoline at 2.0 to 3.0 mils dry film thickness.
  3. Second Coat: Series 1095 Endura-Shield at 2.0 to 3.0 mils dry film thickness.
  4. Third Coat: Series 1095 Endura-Shield at 2.0 to 3.0 mils dry film thickness.
  5. Note second and third coats may be spray applied as a single 4.0-5.0 mil dry film thickness coat provided surface finish requirements are maintained.
  6. See project drawings for color requirements.
  7. Shop apply First and Second coat, field apply Third coat and touch up.

END OF SECTION