

SPECIAL SPECIFICATION

EP-MSF

Maintenance and Storage Facility

- 1. Description.** Construct the Maintenance and Storage Facility (MSF) building for the El Paso Streetcar Project in El Paso, Texas, as shown on the plans and the attached specifications.
- 2. Materials.** All materials furnished and all construction methods utilized shall be in accordance with the plans, details, and attached specifications.
- 3. Measurement.** This Item will be measured by the lump sum for the building and lump sum for the equipment and furnishings as indicated in Sections 4 thru 6 below.
- 4. Payment.** The work performed and materials furnished in accordance with this Item and measured as provided for under "Measurement" will be paid at the unit price bid for "MSF-Building" and "MSF-Industrial Equipment and Furnishings".

The lump sum price for "MSF-Building" shall be full compensation for furnishing all materials, equipment, labor, and incidentals necessary to complete the work specified within 5-ft of the building footprint . Site clearing and excavation, bus canopies and wrought iron fences (and gates) at the MSF site located outside of the 5-ft building footprint shall also be paid for by Lump Sum "MSF-Building". The price also is full compensation for paying all fees, permits, and other costs associated with the building and electrical and other utility connections.

The lump sum price for "MSF-Industrial Equipment and Furnishings" shall be full compensation for the items listed in Section 5 "Attached Specifications -Paid for by LS "MSF-Equipment and Furnishings") and shall include all materials, equipment, labor, installation and incidentals necessary to complete the work.

Sitework and landscaping indicated in Section 6, occurring outside of the building 5-ft footprint, shall be measured and paid for separately. Overhead Contact System, Traction Power Substation, and Track and Special Trackwork located within the building footprint shall be measured and paid for separately as indicated elsewhere in the project documents.

5. Attached Specifications - Paid for by Lump Sum "MSF-Industrial Equipment and Furnishings".

11 24 01	Industrial Tools and Equipment
12 58 83	Industrial Furnishings
41 08 60	Portable Lifts
41 22 13	Monorail Crane
41 62 23	Forklift Truck

The lump sum includes the following equipment items:

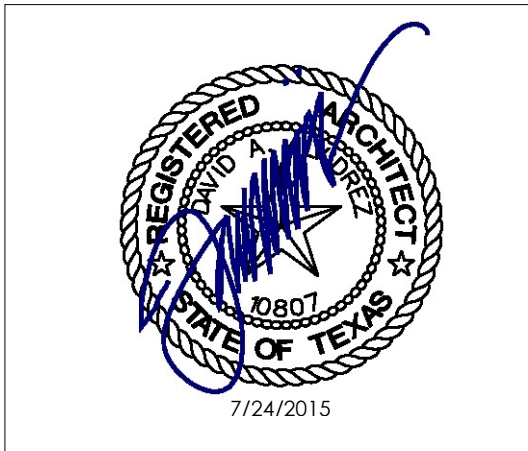
ADDENDUM 3 - JULY 24, 2015

EQ-1	Shop Equipment - Drill Press	Each	1
EQ-2	Shop Equipment - Pedestal Grinder	Each	1
EQ-3	Shop Equipment - Mig Welder	Each	1
EQ-4	Shop Equipment - Hydraulic Press	Each	1
EQ-5	Portable Welding Fume Extractor	Each	1
EQ-6	Shop Equipment - Parts Washer	Each	1
EQ-7	Vacuum Lifter	Each	1
EQ-8	Shop Equipment - HVAC Recharge System	Each	1
EQ-9	Shop Equipment - Pressure Washer	Each	1
EQ-20	Shop Monorail Crane & Runway Beam	Each	1
IF-1	Storeroom - Closed Back Shelves	Each	19
IF-2	Shop Equipment - Electrical Test Bench	Each	1
IF-3	Steel Work Bench 30"x60"	Each	1
IF-4	Steel Work Bench 36"x72"	Each	4
IF-5	Mechanic's Vise	Each	4
IF-6	Steel Work Bench 36"x144"	Each	1
IF-7	Storage Cabinets	Each	4
IF-8	Mobile Work Bench	Each	3
IF-9	Shop Equipment - Tilt Type Waste & Recycle Bins	Each	2
IF-10	Storeroom - Stock Rack	Each	1
IF-11	Storeroom - Glass Rack - Flat Glass	Each	2
IF-12	Gas Cylinder Rack	Each	1
IF-13	Shop Equipment - Flammables Cabinet	Each	2
	Vehicle - Portable Lifts (Assumes 4 lifts for PCC cars)	1 Set	1
	Mobile Equipment - Forklift - 8000 lb	Each	1

6. Attached Specifications - Sitework and Landscaping (Outside of the 5' building footprint) - Paid for separately as indicated in Bid Form. Refer to attached specifications and TxDOT Item numbers listed for technical requirements.

33 11 13	Water and Sewer Special Conditions
32 13 13	Concrete Paving
33 41 00	Storm Utility Drainage
33 05 13	Manholes and Structures
01 50 00	Temporary Facilities and Controls
32 17 13	Parking Bumpers
32 17 23	Pavement Markings

7. Attached Specifications - Paid for by Lump Sum "MSF-Building" (Elements within 5' building footprint, except items indicated above in Sections 5 and Sections 6)



The Professional(s) of Record above has signed for the following specification sections:

DIVISION 1 - GENERAL REQUIREMENTS

Section 01 10 00 Summary
Section 01 25 00 Substitution Procedures
Section 01 26 00 Contract Modification Procedures
Section 01 29 00 Payment Procedures
Section 01 31 00 Project Management and Coordination
Section 01 32 00 Construction Progress Documentation
Section 01 33 00 Submittal Procedures
Section 01 40 00 Quality Requirements
Section 01 42 00 References
Section 01 45 00 Testing Laboratory Services
Section 01 50 00 Temporary Facilities and Controls
Section 01 60 00 Product Requirements
Section 01 73 00 Execution
Section 01 74 19 Construction Waste Management and Disposal
Section 01 77 00 Closeout Procedures
Section 01 78 23 Operation and Maintenance Data
Section 01 78 39 Project Record Documents
Section 01 79 00 Demonstration and Training
Section 01 81 13 Sustainable Design Requirements
Section 01 91 13 General Commissioning Requirements

DIVISION 2 – EXISTING CONDITIONS

Section 02 41 19 Selective Demolition

DIVISION 3 - CONCRETE

Section 03 15 00 Concrete Accessories
Section 03 20 00 Concrete Reinforcement
Section 03 30 00 Cast In Place Concrete
Section 03 39 00 Concrete Curing

Section 03 47 01 Accessibility and ADA Compliance

DIVISION 4 – MASONRY

Section 04 20 00 Masonry

Section 04 70 00 Manufactured Masonry Veneer

DIVISION 5 – METALS

Section 05 05 23 Structural Welding

Section 05 12 00 Structural Steel

Section 05 21 19 Open Web Steel Joist Framing

Section 05 30 00 Steel Deck

Section 05 40 00 Cold Formed Metal Framing

Section 05 50 00 Metal Fabrications

Section 05 50 14 Structural Metal Fabrications

Section 05 51 00 Metal Stairs

Section 05 52 13 Pipe and Tube Railings

DIVISION 6 – WOODS, PLASTICS, AND COMPOSITES

Section 06 10 53 Miscellaneous Rough Carpentry

Section 06 40 23 Interior Architectural Woodwork

Section 06 64 00 Plastic Paneling

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

Section 07 21 00 Thermal Insulation

Section 07 24 19 Water Drainage EIFS

Section 07 42 43 Composite Wall Panels

Section 07 57 00 Coated Foamed Roofing

Section 07 71 00 Roof Specialties

Section 07 72 00 Roof Accessories

Section 07 72 33 Roof Hatch

Section 07 92 00 Joint Sealants

DIVISION 8 - OPENINGS

Section 08 11 13 Hollow Metal Doors and Frames

Section 08 14 16 Laminate Faced Doors

Section 08 31 13 Access Doors and Frames

Section 08 33 23 Overhead Coiling Doors

Section 08 41 13 Aluminum Framed Entrances and Storefronts

Section 08 44 13 Glazed Aluminum Curtain Walls

Section 08 45 00 Insulated Translucent Panel Wall-Light System

Section 08 62 00 Skylights

Section 08 71 00 Door Hardware

Section 08 80 00 Glazing

Section 08 87 00 Architectural Window Film

DIVISION 9 – FINISHES

Section 09 22 16 Non-Structural Metal Framing

Section 09 29 00 Gypsum Board

Section 09 30 00 Tiling

Section 09 51 13 Acoustical Panel Ceilings
Section 09 65 19 Resilient Tile Flooring
Section 09 68 13 Tile Carpeting
Section 09 91 13 Exterior Low VOC Paints and Coatings
Section 09 91 23 Interior Paints and Coatings

DIVISION 10 - SPECIALTIES

Section 10 00 00 Miscellaneous Specialties
Section 10 14 00 Signage
Section 10 21 13 Toilet Compartments
Section 10 28 00 Toilet, Bath and Laundry Accessories
Section 10 44 13 Fire Extinguisher Cabinets
Section 10 44 16 Fire Extinguisher
Section 10 51 13 Metal Lockers
Section 10 73 00 Prefabricated Metal Canopy Shelter

DIVISION 11 - EQUIPMENT

Section 11 24 01 Industrial Tools

DIVISION 12 - FURNISHINGS

Section 12 24 13 Roller Shades
Section 12 58 83 Industrial Furnishings

DIVISION 13 – SPECIAL CONSTRUCTION

Not Used

DIVISION 14 - CONVEYING SYSTEMS

Section 14 24 00 Hydraulic Elevators

DIVISION 15-20

Not Used

DIVISION 21 – FIRE SUPPRESSION

Section 21 05 00 Common Work Results for Fire Suppression
Section 21 13 13 Wet-Pipe Sprinkler Systems
Section 21 13 16 Dry Pipe Sprinkler System

DIVISION 22 – PLUMBING

Section 22 05 00 Common Work Requirements for Plumbing
Section 22 05 03 Pipes and Tubes for Plumbing Piping and Equipment
Section 22 05 13 Common Motor Requirements for Plumbing Equipment
Section 22 05 23 General-Duty Valves for Plumbing Piping
Section 22 05 29 Hangers and Supports for Plumbing Piping and Equipment
Section 22 05 53 Identification for Plumbing Piping and Equipment
Section 22 07 00 Insulation For Mechanical Systems
Section 22 08 00 Commissioning of Plumbing Systems
Section 22 11 00 Facility Water Distribution
Section 22 13 00 Facility Sanitary Sewerage
Section 22 14 00 Facility Storm Drainage
Section 22 15 00 General Service Compressed-Air Systems
Section 22 33 00 Electric Domestic Water Heaters

Section 22 34 00 Fuel-Fired Domestic Water Heaters

Section 22 40 00 Plumbing Fixtures

DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

Section 23 05 00 Common Work Requirements for HVAC

Section 23 05 02 Trenching and Backfilling

Section 23 05 13 Common Motor Requirements for HVAC Equipment

Section 23 05 29 Hangers and Supports for HVAC Piping and Equipment

Section 23 05 53 Identification for HVAC Piping and Equipment

Section 23 05 93 Testing, Adjusting and Balancing

Section 23 07 00 General Insulation

Section 23 08 00 Commissioning of HVAC Systems

Section 23 09 00 Instrumentation and Control for HVAC

Section 23 09 24 Variable Frequency Drives

Section 23 11 23 Natural Gas Piping

Section 23 23 00 Refrigerant Piping

Section 23 31 00 HVAC Ducts and Casings

Section 23 33 00 Air Duct Accessories

Section 23 34 00 HVAC Fans

Section 23 34 02 Energy Recovery Ventilator

Section 23 37 00 Air Outlets and Inlets

Section 23 40 00 HVAC Air Cleaning Devices

Section 23 51 00 Breechings, Chimneys, and Stacks

Section 23 55 00 Fuel-Fired Heaters

Section 23 74 00 Packaged Make-up Air Unit with Natural Gas Furnace and Evaporative Cooling

Section 23 81 00 Decentralized HVAC Equipment

Section 23 84 01 (Section 15859) Evaporative Cooling Unit

DIVISION 24-25

NOT USED

DIVISION 26 – ELECTRICAL

Section 26 00 00 Basic Electrical Requirements

Section 26 00 00.01 Electrical Demolition

Section 26 05 00 Basic Electrical Materials and Methods

Section 26 05 19 Cable, Wire and Connectors, 600 Volt

Section 26 05 26 Grounding

Section 26 05 29 Securing and Supporting Methods

Section 26 05 33 Raceways, Conduits and Boxes

Section 26 05 53 Electrical Identification

Section 26 08 00 Commissioning of Electrical Systems

Section 26 22 13 Dry Type Transformers

Section 26 24 13 Switchboards

Section 26 24 16 Panelboards

Section 26 27 26 Wiring Devices and Floor Boxes

Section 26 28 13 Fuses 600 Volts

Section 26 28 16 Disconnect Switches

Section 26 51 00 Interior and Exterior Lighting

DIVISION 27 – COMMUNICATIONS

Section 27 10 00 Building Telecommunications

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

Section 28 13 00 Access Control

Section 28 23 00 Video Surveillance

Section 28 31 00 Fire Alarm and Smoke Detection

DIVISION 29 – 30

NOT USED

DIVISION 31 – EARTHWORK

Section 31 05 13 Soils for Earthwork

Section 31 10 00 Site Clearing

Section 31 22 13 Rough Grading

Section 31 23 16 Excavation

Section 31 23 17 Trenching

Federal Register

Section 31 23 23 Fill

DIVISION 32 – EXTERIOR IMPROVEMENTS

Section 32 10 00 Tree Protection

Section 32 13 13 Concrete Paving

Section 32 17 13 Parking Bumpers

Section 32 17 23 Pavement Markings

Section 32 84 00 Irrigation

Section 32 93 00 Planting

Section 32 94 50 Silva Cells

Section 32 94 56 Planting Soil for Silva Cells

DIVISION 33 – UTILITIES

Section 33 05 13 Manholes and Structures

Section 33 11 13 Water and Sewer Special Conditions

Section 33 41 00 Storm Utility Drainage

Section 33 82 00 Telecommunications OSP

DIVISION 34 - TRANSPORTATION

NOT USED

DIVISION 35-39

NOT USED

DIVISION 40 - PROCESS INTEGRATION

NOT USED

DIVISION 41 – MATERIALS HANDLING EQUIPMENT

Section 41 08 60 Portable Lifts

Section 41 22 13 Monorail Crane

Section 41 62 23 Forklift Truck

DIVISIONS 42-43

ADDENDUM 3 - JULY 24, 2015

NOT USED

DIVISION 44 - POLLUTION CONTROL EQUIPMENT

NOT USED

DIVISIONS 45-47

NOT USED

DIVISION 48 – ELECTRICAL POWER GENERATION

NOT USED

DIVISION 49

NOT USED

El Paso City Standard Specifications for the Installation of Water Mains, Sanitary Sewer Mains and Related Appurtenances

SECTION 01 45 00 – TESTING LABORATORY SERVICES

PART 1 – GENERAL

1.1 REFERENCED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The testing laboratory shall make all inspections and perform all tests in accordance with the building code, local authorities, ASTM specifications and the Contract Documents.
- B. Materials and workmanship not meeting the required standards are to be removed and replaced. Replacement and subsequent testing shall be at the expense of the Contractor.
- C. Testing, inspection, and certifications specified in other sections of these Specifications shall be paid by the Contractor, unless otherwise indicated.
- D. Inspection by the laboratory shall not relieve the Contractor or Fabricator of his responsibility to furnish materials and workmanship in accordance with the Contract Documents.

1.3 SELECTION AND PAYMENT

- A. **The Contractor shall employ and pay for services of an independent Testing Laboratory subject to approval by the Owner/Architect to perform inspections and testing services specified in this section.**

1.4 REFERENCED STANDARDS

- A. The latest adopted edition of all standards referenced in this Section shall apply, unless noted otherwise. In case of conflict between these Contract Documents and a referenced standard, the Contract Documents shall govern. In case of conflict between these Contract Documents and the Building Code, the more stringent shall govern.

1.5 QUALITY ASSURANCE

- A. Testing Laboratory shall meet the requirements of ASTM E329 and ASTM E543.
- B. Testing Laboratory shall be insured against errors and omissions by a professional liability insurance policy having a limit of liability not less than \$500,000.
- C. Testing Laboratory shall be under the direction of a Registered Engineer licensed in the State of Texas, having at least five years experience in inspection and testing of construction materials.
- D. Laboratory staff monitoring concrete work shall be ACI certified inspectors.
- E. Laboratory staff performing structural steel inspection shall be currently certified AWS Certified Welding Inspectors (CWI), in accordance with the provisions of AWS QCI, "Standard and Guide for Qualification and Certification of Welding Inspectors". The inspector may be supported by assistant inspectors who may perform specific inspection functions under the supervision of the Inspector. Assistant inspectors shall be currently certified AWS Certified Associate Welding Inspectors (CAWI). The work of the assistant inspectors shall be regularly monitored by the inspector, generally on a daily basis.
- F. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to either National Bureau of Standards or accepted values of natural physical constants.

1.6 LABORATORY RESPONSIBILITIES

- A. Attend preconstruction meetings and progress meetings as required to coordinate work with the Contractor and address quality control issues.
- B. Test samples of design mixes submitted by Contractor.
- C. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.