SECTION 009113 – ADDENDUM ONE

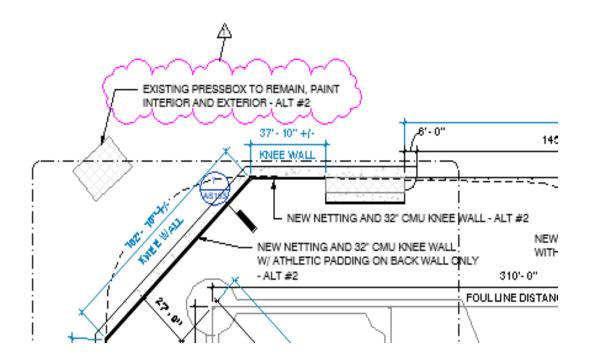
PART 1 - ADDENDA

- 1.1 PROJECT INFORMATION Project Name: 24012 Amite County School District Fencing Project
 - A. Owner: Amite County School District, 533 Maggie Street, Liberty, MS 39645.
 - B. Architect: Bailey Architecture Education, P.A., 201 Park Court, Suite B, Ridgeland, MS 39157
 - C. Architect Project Number: 24012
 - D. Date of Addendum One: 16 April 2024
- 1.2 NOTICE TO BIDDERS
 - A. This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.
 - B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.
 - C. The date for receipt of bids is UNCHANGED by this Addendum at same time and location.
- 1.3 GENERAL
 - A. Attached are the annotated Pre-Bid Meeting Minutes and Meeting Attendees dated 9 April 2024.
 - B. Attached is the 2024-2025 School Calendar and Spring 2024 Testing Schedule.
- 1.4 GENERAL RESPONSES TO REQUESTS FOR INFORMATION
 - A. <u>Question:</u> On page AS105 The details show the fence height to be 6' and in specification it calls out 8' height on the chain link and 8' height on the decorative metal fence gate. Please advise .
 - <u>Answer:</u> Fence height shall be 8'-0. See revised specifications 3233113 and 323119 attached.
 - B. <u>Question:</u> In specs, it calls out a 1-3/4" mesh on chain link fence vs a typical 2" mesh. Please advise.



Answer: 2" mesh. See revised specifications 3233113 and 323119 attached.

- 1.5 REVISIONS TO DIVISION 00 PROCUREMENT REQUIREMENTS AND CONTRACTING REQUIREMENTS
 - A. Document AIA A101 STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR DRAFT (NOT REISSUED. Revise Section 4.3 Allowances to add Allowance No. 2: Hardware Allowance of \$5,000.00.
- 1.6 REVISIONS TO TECHNICAL SPECIFICATIONS
 - A. Section 323113 CHAIN LINK FENCES AND GATES (REVISED). Delete this section in its entirety and replace it with the attached.
 - B. Section 323119 DECORATIVE METAL FENCES AND GATES (REVISED). Delete this section in its entirety and replace it with the attached.
- 1.7 REVISIONS TO DRAWINGS
 - A. Sheet AS101 SITE PLAN. (Reissued). Delete the sheet in its entirety and replace it with the attached.
 - B. Sheet AS103 BASEBALL FIELD, CALLOUT 6 AT BASEBALL FIELD ENLARGED VIEW. Change scope at press box as shown below.



1.8 ATTACHMENTS

- A. Annotated Pre-Bid Meeting Minutes and Meeting Attendees dated 9 April 2023.
- B. 2024-2025 School Calendar and Spring 2024 Testing Schedule.
- C. Section 323113 Chain Link Fences and Gates dated 16 April 2024.
- D. Section 323119 Decorative Metal Fences and Gates dated 16 April 2024.
- E. Sheet AS101 Site Plan dated 16 April 2024.

END OF ADDENDUM ONE

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MEETING AGENDA MINUTES (CHANGES IN RED)

project 24012 Amite County School District Fencing Project | Liberty, MS regarding Pre-Bid Meeting

mtg. date09 April 2024, 10:00 AMlocationSuperintendent's Conference Room | 533 Maggie Street | Liberty, MS 39645

1. General

- a. Please silence cell phones
- b. Sign-in sheet: Minutes will include list of meeting attendees
- c. Plan holders list: Minutes will include list of plan holders
- d. Description: The project scope of work at the Amite County Central Office and High School is funded by district funds. The work will include the installation of decorative and chain-link fencing and baseball field upgrades as indicated in the construction documents.
- e.
- f. Team
 - i. Owner Amite County School District / Liberty, MS / Don Cuevas, Superintendent
 - ii. Architect Bailey Architecture Education, P.A., / Jackson, MS / Gary Bailey
 - iii. Project Manager Bailey Architecture Education, P.A., / Jackson, MS / Luigia Hodge
- 2. Procurement and Contracting Requirements
 - a. Advertisement for Bids
 - i. Advertisement dates: 03/21/24 & 03/28/24
 - ii. Bid Receipt: Bids to be opened at 2:00 PM on Tuesday, April 23, 2024
 - iii. Bid Location: Amite County School District, 533 Maggie Street, Liberty, MS
 - b. Bidder Qualifications
 - i. Bidders must be properly licensed under the laws governing their respective trades
 - ii. List all applicable state & local license & registration nos. on outside of bid envelope
 - c. Bonding & Insurance
 - i. Bidders must be able to obtain insurance and bonds required for the Work
 - d. Bid Security
 - i. A Bid Security in the amount of 5% of the total maximum bid amount is required

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- ii. Cash, cashier's check, certified check, US money order, or bid bond
- e. Bid Form and Attachments
 - i. Acknowledgement of Addenda
 - ii. Subcontractor identification
- f. Bid Submittal Requirements
 - i. Envelope requirements (re: Bid Submittal Checklist)
 - ii. Proper identification
- g. Notice of Award
 - i. Offered within 60 days after receipt of bids
 - ii. Award will be made as soon as possible & successful bidder should be ready to secure bonds & insurance immediately
- 3. Communication during Bidding Period
 - a. Obtaining documents
 - i. Plan holders are required to register and order bid documents at www.baileyarchplanroom.com
 - b. Bidder's Requests for Information
 - i. Binding answers to questions must be included in an official written addendum and the Contractor or Subcontractor is encouraged to provide written communications to the Architect for proper response
 - ii. Address e-mailed written correspondence to biddinginfo@dalepartners.com
 - iii. No questions will be accepted after 5:00 PM on Tuesday, April 16, 2024, in order to allow the Architect adequate time to prepare any necessary addenda
 - c. Addenda
 - i. Addendum no 1 (tentative) 04.12.24
 - ii. Addendum no 2 (if required) ≤ 2:00 PM, 04.17.24

4. Contracting Requirements

- a. The Supplementary Conditions
 - i. Refer to this section for specific comments & directives
 - 1. Change order markups
 - 2. Weather delays
 - 3. Retainage
 - 4. Stored material
 - 5. Liquidated damages
 - 6. Insurance
- b. Other Owner requirements: verify user occupancy during construction
- 5. Construction Documents
 - a. Use of Site
 - i. Complete use of site TBD

- ii. Parking
- iii. Lay-down area
- b. Work Restrictions
 - i. Work days during State Testing, calendar to be provided via addendum
 - ii. Work times during State Testing, calendar to be provided via addendum
- c. Unit prices, alternates, & allowances
 - i. Unit prices: No unit prices currently included in bid package
 - ii. Alternates:
 - 1. Alternate No 1: Remove existing chain link fencing around perimeter of baseball outfield, fill holes, and replace with new chain link fencing and top rail padding as indicated in the construction documents.
 - 2. Alternate No. 2: Paint dugouts, remove existing backstop and dugout fencing, and replace with knee wall, netting, and dugout fencing as indicated in the construction documents.
 - iii. Allowances:
 - 1. Allowance No. 01: Lump Sum Contingency Allowance. Include the Sum of Twenty Five Thousand Dollars (\$25,000.00) total for Construction Contingency Allowance.
 - 2. Allowance No. 02: Door Hardware Allowance. Include the Sum of Five Thousand Dollars (\$5,000.00) for the purchase, delivery and handling of the door hardware. Contractor is to include installation of the door hardware as part of the base bid.
- d. Substitutions following award
 - i. Substitutions will be considered within 30 days of the contract award
 - ii. Burden of proof of "equal" will be on the Contractor or Vendor
- 6. Schedule
 - a. Project Schedule
 - i. Section 013200 in Project Manual
 - ii. GC to provide CPM type schedule, regularly updated
 - b. Contract Time
 - i. Contract time current defined as Fully Completed on August 1, 2024
 - c. Liquidated Damages
 - i. \$250 each calendar day of the delay after Contract Time
 - d. Other Bidder Questions
- 7. Post-Meeting Addendum
 - a. May be issued, as necessary to document the meeting questions & provide proper responses
- 8. Other Bidder Questions
 - a. Architect will record and distribute meeting minutes to attendees and others known by the Architect's office to have received a complete set of Procurement and Contracting Documents
 - b. Minutes of meeting are issued as Available Information and do not constitute a modification to the Procurement and Contracting Documents

- c. Modifications to the Procurement and Contracting Documents are issued by written Addendum only
- 9. Site/facility visit or walkthrough
 - a. Burning on site is acceptable

End



MEETING ATTENDEES

project 24012 Amite County School District Fencing Project | Liberty, MS regarding Pre-Bid Meeting

mtg. date 10 May 2023, 10:00 AM

location Superintendent's Conference Room | 533 Maggie Street | Liberty, MS 39645

Initial Email Mr. Don Cuevas ACSD (601) 657-4361 doncuevas@amite.k12.ms.us Lyndsey Latham ACSD (601) 657-4361 ltlatham@amite.k12.ms.us Stacy Bass ACSD (601) 657-4361 sbass@amite.k12.ms.us Gary Bailey BAE (601) 951-1820 gbailey@baileyarch.com Luigia Hodge BAE (601) 613-9413 luigiahodge@dalepartners.com Valley evene bins Construction 601669-1100 LEUL 0 JEREMY QUALLEY Car Straction. SOUTHERN JEFF NECRISE EXTERIORS FENCE 558285855110 JANECR SEFENCE ch evsm ez 5500 construct 504 Consmilty oper 856 DannelCons Sulliva ises. Inc 601-849-2441 ivan oth Gulf States Fe 601-276-3458 eric bass @ gulf states ferry . Com Co. 11 OOF STATES VP UC ua

AMITE COUNTY SCHOOL DISTRICT

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August 6, 2024 First Day of School January 8, 2025 Students Return May 16, 2025 Graduation May 22, 2025 Last Day for Students

Professional Development	
60% Day	
Holiday	
Progress Reports	
Progress Reports Report Cards	

MAAP Training - Wednesday, April 3, 2024 Spring 2024 Testing Schedule

Amite County High School

Test	Boot Camp Date	<u>Testing Date</u>	
ACT	April 3	Thursday, April 4	
ACT WorkKeys	April 16	Wednesday, April 17	
U.S. History	April 30-May 1	Friday, May 3	
Algebra I	May 7-8	Thursday, May 9	
Biology I	May 8-9	Friday, May 10	
English II	May 10, May 13	Tue./Wed. May 14-15	

Amite County Middle School

<u>Test</u>	Testing Date
7 th ELA MAAP Part 1	April 30, 2024 AM
8 th ELA MAAP Part 1	May 1, 2024 AM
7 th ELA MAAP Part 2	May 1, 2024 <mark>PM</mark>
8 th ELA MAAP Part 2	May 2, 2024 AM
8 th Math MAAP	May 7, 2024 AM
7 th Math MAAP	May 8, 2024 AM
8 th Science MAAP	May 9, 2024 AM

Make-ups will be done as needed.

SECTION 323113 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. Section Includes:
 - 1. Chain-link fences.
 - 2. Swing gates.
 - B. Related Requirements:
 - 1. Section 033000 "Cast-in-Place Concrete" for cast-in-place concrete equipment bases/pads for gate operators and controls and post footings.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site .
 - 1. Inspect and discuss electrical roughing-in, equipment bases, and other preparatory work specified elsewhere.
 - 2. Review sequence of operation for each type of gate operator.
 - 3. Review coordination of interlocked equipment specified in this Section and elsewhere.
 - 4. Review required testing, inspecting, and certifying procedures.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for the following:
 - a. Fence and gate posts, rails, and fittings.
 - b. Chain-link fabric, reinforcements, and attachments.
 - c. Gates and hardware.
- B. Shop Drawings: For each type of fence and gate assembly.
 - 1. Include plans, elevations, sections, details, and attachments to other work.
 - 2. Include accessories and hardware\

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For gate operators to include in emergency, operation, and maintenance manuals.

1.6 FIELD CONDITIONS

A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

- A. General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist according to "CLFMI Product Manual" and requirements indicated below:
 - 1. Fabric Height: As indicated on Drawings.
 - 2. Steel Wire for Fabric: Wire diameter of 0.148 inch .
 - a. Mesh Size: 2 inches.
 - b. Polymer-Coated Fabric: ASTM F 668, Class 2a over zinc -coated steel wire.
 - 1) Color: Black , according to ASTM F 934.
 - 3. Selvage: Knuckled at both selvages .

2.2 FENCE FRAMEWORK

- A. Posts and Rails : ASTM F 1043 for framework, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 or ASTM F 1083 based on the following:
 - 1. Fence Height: 96 inches .
 - 2. Light-Industrial-Strength Material: Group IC-L, round steel pipe, electric-resistancewelded pipe.
 - a. Line Post: 2.375 inches in diameter .
 - b. End, Corner, and Pull Posts: 2.375 inches .
 - 3. Horizontal Framework Members: Intermediate top and bottom rails according to ASTM F 1043.
 - a. Top Rail: 1.66 inches in diameter .
 - 4. Brace Rails: ASTM F 1043.
 - 5. Polymer coating over metallic coating.
 - a. Color: Match chain-link fabric , according to ASTM F 934.

2.3 SWING GATES

A. General: ASTM F 900 for gate posts and single swing gate types.

100% Construction Documents

- 1. Gate Leaf Width: Indicated on drawings.
- 2. Framework Member Sizes and Strength: Based on gate fabric height of more than 72 inches .
- B. Pipe and Tubing:
 - 1. Zinc-Coated Steel: ASTM F 1043 and ASTM F 1083; protective coating and finish to match fence framework .
 - 2. Gate Posts: Round tubular steel .
 - 3. Gate Frames and Bracing: Round tubular steel .
- C. Frame Corner Construction: assembled with corner fittings.
- D. Hardware:
 - 1. Hinges: 180-degree inward swing.
 - 2. Latch: Permitting operation from both sides of gate.
 - 3. Lock: Manufacturer's standard internal device.

2.4 FITTINGS

- A. Provide fittings according to ASTM F 626.
- B. Tie Wires, Clips, and Fasteners: According to ASTM F 626.
 - 1. Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, according to the following:
 - a. Hot-Dip Galvanized Steel: 0.106-inch- diameter wire ; galvanized coating thickness matching coating thickness of chain-link fence fabric.
- C. Finish:
 - Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz./sq. ft. of zinc.
 a. Polymer coating over metallic coating.

2.5 GROUT AND ANCHORING CEMENT

- A. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating, and that is recommended in writing by manufacturer for exterior applications.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
 - 1. Do not begin installation before final grading is completed unless otherwise permitted by Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.
- 3.3 CHAIN-LINK FENCE INSTALLATION
 - A. Install chain-link fencing according to ASTM F 567 and more stringent requirements specified.
 - 1. Install fencing on established boundary lines inside property line.
 - B. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
 - C. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
 - 1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
 - 2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
 - a. Concealed Concrete: Place top of concrete 2 inches below grade as indicated on Drawings to allow covering with surface material.
 - D. Terminal Posts: Install terminal end, corner, and gate posts according to ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of as indicated on Drawings . For runs exceeding 500 feet, space pull posts an equal distance between corner or end posts.
 - E. Line Posts: Space line posts uniformly at 96 inches o.c.
 - F. Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fence posts. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.

- 1. Locate horizontal braces at midheight of fabric 72 inches or higher, on fences with top rail, and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.
- G. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fence posts. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.
- H. Intermediate and Bottom Rails: Secure to posts with fittings.
- I. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 2-inch bottom clearance between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.
- J. Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts, with tension bands spaced not more than 15 inches o.c.
- K. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric according to ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.
 - 1. Maximum Spacing: Tie fabric to line posts at 12 inches o.c. and to braces at 24 inches o.c.
- L. Fasteners: Install nuts for tension bands and carriage bolts on the side of fence opposite the fabric side.

3.4 GATE INSTALLATION

A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation.

3.5 ADJUSTING

- A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.
- B. Lubricate hardware and other moving parts.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain chain-link fences and gates.

END OF SECTION 323113

SECTION 323119 - DECORATIVE METAL FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 WORK INCLUDED

A. The contractor shall provide all labor, materials and appurtenances necessary for installation of the welded ornamental steel fence system.

1.3 SUMMARY

- A. Section Includes:
 - 1. Decorative aluminum fences.
 - 2. Swing gates.
- B. Related Requirements:
 - 1. Section 033000 Cast-in-place: Concrete footings for support of fence posts.
 - 2. Section 312000 Earthwork

1.4 REFERENCES

- A. A. American Society for Testing and Materials (ASTM) Publications:
 - 1. ASTM B209 Aluminum and Aluminum-Alloy Sheet and Plate.
 - 2. ASTM B221 Aluminum Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
 - 3. ASTM B117 Standard Practice for Operating Salt Spray (Fog) Apparatus.
 - 4. ASTM D822 Tests on Paint and Related Coatings Using Filtered Open-Flame Carbon-Arc Exposure Apparatus.
 - 5. ASTM D2794 Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
 - 6. ASTM D3363 Test Method for Film Hardness by Pencil Test.

1.5 ACTION SUBMITTALS

- A. Provide in accordance with Section 017700 Closeout Procedures.
 - 1. 20 years' warranty for factory finish against cracking, peeling, and blistering under normal use.

- B. Product Data: For each type of product.
- C. Shop Drawings: For fencing and gates.
 - 1. Include plans, elevations, sections, gate locations, post spacing, and mounting attachment details.
- D. Samples: For each fence material and for each color specified.
 - 1. Provide Samples 12 inches in length for linear materials.
 - 2. Provide Samples 12 inches square for sheet or plate materials.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For gate operators to include in maintenance manuals.

1.7 PRODUCT HANDLING AND STORAGE

A. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of products.
- B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.
 - 1. Include 10-ft. length of fence complying with requirements.
 - 2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 PRODUCT WARRANTY

- A. All structural fence components (i.e. rails, pickets, and posts) shall be warranted within specified limitations, by the manufacturer for a period of 20 years from date of original purchase. Warranty shall cover any defects in material finish, including cracking, peeling, chipping, blistering or corroding.
- B. Reimbursement for labor necessary to restore or replace components that have been found to be defective under the terms of manufactures warranty shall be guaranteed for five (5) years from date of original purchase

PART 2 - PRODUCTS

2.1 GATE MANUFACTURERS

- A. Ameristar Fence Products, Inc.
- B. B. Requests to use equivalent products of other manufacturers shall be submitted in accordance with Section 016300 Product Substitution Procedures.

2.2 OPERATOR MANUFACTURERS

- A. DoorKing Inc.
- B. Request to use equivalent products of other manufacturers shall be submitted in accordance with Section 016300 Product Substitution Procedures.

2.3 FENCE SYSTEM AND SWING GATES

- A. The fence system shall conform to Montage II® Welded and Rackable (ATF All Terrain Flexibility) Ornamental Steel, Majestic[™] design, extended picket bottom rail treatment, 3-Rail style manufactured by Ameristar Fence Products, Inc., in Tulsa, Oklahoma.
- B. Materials:

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- 1. Steel material for fence panels and posts shall conform to the requirements of ASTM A653/A653M, with a minimum yield strength of 45,000 psi (310 MPa) and a minimum zinc (hot-dip galvanized) coating weight of 0.90 oz/ft2 (276 g/m2), Coating Designation G-90.
- 2. Material for pickets shall be 1" square x 14 Ga. tubing. The rails shall be steel channel, 1.75" x 1.75" x 1.05". Picket holes in the rail shall be spaced 4.715" o.c.
- C. Type: System of modular fence panels fabricated from aluminum swaged tubular blades and top and bottom aluminum rails field attached to aluminum posts; Falcon Picket Aluminum Fencing as manufactured by Ametco Manufacturing Corporation.
 - Tubes: Ridged, swaged round aluminum sections spaced horizontally 4 inch on centers.
 a. Size: 1 inch.
 - b. Material thickness: 0.083 inch.
 - Top and bottom Rails: 1-1/2 by ³/₄- inch aluminum channels.
 - 3. Panel height: As indicated on Drawings.
- D. Posts: 3 inch with .125-inch wall aluminum tube shapes.
 - 1. Length: As indicated on Drawings.
- E. Fasteners: Manufacturer's standard concealed fastening system.
- F. Fasteners: Manufacturer's standard tamperproof, corrosion-resistant, color-coated fasteners matching fence components with resilient polymer washers.

2.4 GATE ACCESSORIES

- A. Fasteners: Stainless steel bolts of type, size, and spacing as recommended by fence manufacturer for specific condition.
- B. End caps: Provide aluminum caps for exposed open extruded aluminum sections and for attachment of components to posts.
- C. For exposed locations, provide anti-intruder bolts consisting of cup head bolt and nut with clamping hexagon such that tightening shears hexagon and render bolt impossible to release.

2.5 GATE FACTORY FINISH

- A. Aluminum fence panels and posts shall receive polyester powder coating. Large gate panels shall be coated with 2-part polyurethane coating.
- B. Polyester powder coating: Electrostatically applied colored polyester powder coating heat cured to chemically bond finish to metal substrate.
 - 1. Minimum hardness measured in accordance with ASTM D3363: 2H.
 - 2. Direct impact resistance tested in accordance with ASTM D2794. Withstand 160 inchpounds.
 - 3. Salt spray resistance tested in accordance with ASTM B117: No undercutting, rusting, or blistering after 500 hours in 5 percent salt spray at 95 degrees F and 95 percent relative humidity and after 1000 hours less than 3/16 inch undercutting.
 - 4. Weatherability tested in accordance with ASTM D822: No film failure and 88 percent gloss retention after 1 year exposure in South Florida with test panels tilted at 45 degrees.
- C. Polyurethane coating: 1.0 mil dry film thickness of coating cured 30 minutes at 180-degree F and aged 14 days shall resist the following test conditions without failure.
 - 1. 5 percent salt spray for 500 hours.
 - 2. 100 percent relative humidity for 1000 hours.
 - 3. Water immersion for 100 hours.
 - 4. 20 double rubs with cloth saturated with either lacquer thinner, acetone, MEK, gasoline, xylene
 - 5. Exposure to lubricating oils, hydraulic fluids, and cutting oils.
 - 6. 16 cycles of 24 hours at 100 percent humidity, 24 hours at 10 degrees F, and 24 hours at 77 degrees F.
 - 7. Hardness: H to 2H.
 - 8. Flexibility: 1/8 inch conical mandrel.
- D. Color: Black Velvet as manufactured by Ametco Manufacturing Company. Selected by Architect from manufacturer's standard range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, construction layout, and other conditions affecting performance of the Work.
- B. Do not begin installation before final grading is completed unless otherwise permitted by Architect.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 ft. or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.
 - 1. Construction layout and field engineering are specified in Section 017300 "Execution."
- B. Prior to fabrication, field verify required dimensions
- C. Cast concrete footings iin accordance with Section 033000 cast-in-place concrete as detailed on Drawings and approved shop drawings.
 - 1. Steel Tendons: Locate tensioned steel tendons and include recommendations for detensioning
 - a. Terminal and gate posts: 12 inches
 - b. Intermediate line posts: 10 inches
 - 2. Allow 8 inches minimum embedment of posts.
 - 3. Allow 6 inches minimum concrete beneath post bottom.
- D. Provide setting holes for embedment of fence posts. Hole shall be 3 inches minimum greater than post width.

3.3 FENCING INSTALLATION

- A. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets
- B. Pickets shall be inserted into the pre-punched holes in the rails and shall be aligned to standard spacing using a specially calibrated alignment fixture. The aligned pickets and rails shall be joined at each picket-to-rail intersection by Ameristar's proprietary fusion welding process, thus completing the rigid panel assembly.
- C. The manufactured panels and posts shall be subjected to an inline electrodeposition coating (E-Coat) process consisting of a multi-stage pretreatment/wash, followed by a duplex application of an epoxy primer and an acrylic topcoat. The minimum cumulative coating thickness of epoxy

and acrylic shall be 2 mils (0.058 mm). The color shall be Black. The coated panels and posts shall be capable of meeting the performance specifiec by the manufacturer.

- D. The manufactured fence system shall be capable of meeting the vertical load, horizontal load, and infill performance requirements for Industrial weight fences under ASTM F2408.
- E. Fence post shall be spaced according to Table 3, plus or minus ½". For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. Fence panels shall be attached to posts with brackets supplied by the manufacturer. Posts shall be set in concrete footers having a minimum depth of 36"
- F. Install fences in accordance with manufacturer's written instructions and reviewed shop drawings.
- G. Fence installation Maintenance:
 - 1. When cutting/drilling rails or posts adhere to the following steps to seal the exposed steel surfaces:
 - a. Remove all metal shavings from cut area.
 - b. Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry.
 - c. Apply 2 coats of custom finish paint matching fence color.
- H. Install fence posts plumb and level by setting post in hole cast in concrete and grouting solid. Temporarily brace fence posts with wood supports until concrete is set.
- I. Do not installed bent, bowed, or otherwise damaged components. Remove damaged components from site and replace.

3.4 SWING GATE INSTALLATION

- A. Swing gates shall be fabricated using 1.75" x 14ga Forerunner double channel rail, 2" sq. x 12ga. gate ends, and 1" sq. x 14ga. pickets. Gates that exceed 6' in width will have a 1.75" sq. x 14ga. intermediate upright. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined by welding. Gusset plates will be welded at each upright to rail intersection. Cable kits will be provided for additional trussing for all gates leaves over 6'.
- B. Pedestrian swing gates shall be self-closing, panic hardware, having a gate leaf no larger than 48" width. Integrated hinge-closer set (2 qty) shall be ADA compliant that shall include a variable speed and final snap adjustment with compact design (no greater than 5" x 6" footprint). Hinge-closer set (2 qty) shall be tested to a minimum of 500,000 cycles and capable of self-closing gates up to a maximum gate weight of 260 lbs. and maximum weight load capacity of 1,500 lbs. Hinge-closer device shall be externally mounted with tamper-resistant security fasteners, with full range of adjustability, horizontal (.5" 1.375") and vertical (0 .5"). Maintenance free hinge-closer set shall be tested to operate in temperatures of negative 20 F to 200 F degrees, and swings to negative 2 degrees to ensure reliable final lock engagement. hardware (Allowance provided only for panic hardware purchase and installation only)

3.5 GATE INSTALLATION

- A. Install gates and adjust hardware for smooth operation.
- B. Provide concrete center foundation depth and drop rod retainers at center of double swinging gate openings.
- C. After installation, test gate. Open and close a minimum of five times. Correct deficiencies and adjust.
- D. Install gates in accordance with manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.
- E. Touch-up damaged finish with paint supplied by manufacturer and matching original coating.

END OF SECTION 323119

