



July 12, 2022

ADDENDUM NO. 1

Las Palmas Swimming Pool Renovation

CIP NO. 22-01

The plans and specifications prepared by the Engineering Department for the City of National City entitled, "LAS PALMAS SWIMMING POOL RENOVATION", are hereby amended as follows:

1. The submission deadline is changed from July 14, 2022 to **July 20, 2022 at 2:00PM PST.**
2. **PLANS HAVE BEEN REVISED.**
Replace entire plans "Project Design 4-11-22" issued with the original contract documents with the uploaded replacement "LP-Addendum #1" dated July 12, 2022.
3. **BID LINE ITEMS HAVE BEEN REVISED.**
Replace entire "Bid Line Items" issued with the original contract documents with the uploaded replacement "Bid Line Items" dated July 12, 2022.
4. Part Two – Technical Specifications – **DELETE: SECTION 02 83 20 – METAL FENCES AND GATES**
5. Part Two – Technical Specifications – **ADD: SECTION 02 83 20 – METAL FENCES AND GATES**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Manufacturer shall supply a total industrial ornamental steel fence system. The system shall include all components (i.e., pickets, rails, posts, gates and hardware) required.
- B. The Contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.02 SYSTEM DESCRIPTION

- A. The industrial ornamental 3-rail steel fence system shall be Aegis II - Invincible as manufactured by Ameristar Fence Products, Inc., or equal.

1.03 QUALITY ASSURANCE

- A. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.04 REFERENCES

- ASTM D653/ASTM653M – Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc Iron Alloy Coated (Galvannealed) by the Hot Dip Process.
- ASTM B117 – Practice for Operating Salt Spray (Fog) Apparatus.
- ASTM D714 – Test Method for Evaluating Blistering in Paint.
- ASTM D523 - Test Method for Specular Glass.
- ASTM D822 – Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
- ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
- ASTM D2244 - Test Method for Calculations of Color Differences from Instrumentally Measured Color Coordinates.
- ASTM D2794 - Test Method for Resistance of Organic Coatings to The Effects of Rapid Deformation (Impact).
- ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.
- ASTM F2408 – Ornamental Fences Employing Galvanized Steel Tubular Pickets.

1.05 SUBMITTAL

- A. Manufacturer's catalog data showing all fencing components and details of fencing, gates, tension bands and bars, sleeves, ties, connectors, bolts, and color palette.
- B. Certificates of Compliance from the manufacturer attesting that all materials meet the requirements specified herein.
- C. A layout drawing showing the final spacing of posts and locations of gates, corner and end posts, and details for post mounting plates.
- D. Provide details for gate door frames, door latches, stop posts, lock assemblies, and hinges.
- E. The manufacturer's submittal package shall be provided prior to installation.

1.06 PRODUCT HANDLING AND STORAGE

- A. Upon receipt at the job site, all materials shall be checked to ensure that no damages 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.

PART 2 – MATERIALS

2.01 MANUFACTURER

- A. The industrial ornamental 3-rail steel fence system shall be Aegis II - Invincible as manufactured by Ameristar Fence Products, Inc. in Tulsa, Oklahoma, or approved equal.

2.02 MATERIAL

- A. Steel material for fence framework (i.e. tubular pickets, rails, posts and mounting brackets), shall be galvanized prior to forming in accordance with the requirements of ASTM A653/A653M, with minimum yield strength of 50,000 psi (344 MPa). The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft² (276 g/m²), Coating Designation G-90.
- B. Material for fence pickets shall be 1" square x 14 Ga. tubing. The fence system shall have an internal retaining rod, picket-to-rail joining system. The cross-sectional shape of the rails shall have outside cross-section dimensions of 1.75" square and a minimum thickness of 14 Ga. Picket holes in the rail shall be spaced 4.72" on center., or as required by code. Picket retaining rods shall be 0.125" diameter galvanized steel. Posts shall be a minimum of 3" square x 12 Ga. High quality PVC grommets shall be supplied to seal all picket-to-rail intersections.

2.03 FABRICATION

- A. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets. Pickets shall be predrilled to accept retaining rods.
- B. Grommets shall be inserted into the pre-punched holes in the rails and pickets shall be inserted through the grommets so that predrilled picket holes align with the internal upper raceway of the rails (Note: This can best be accomplished by making an alignment jig). Retaining rods shall be inserted into each rail so that they pass through the predrilled holes in each picket.
- C. The manufactured galvanized framework shall be subjected to the PermaCoat[®] thermal stratification coating process (high-temperature, in-line, multi-stage, multi-layer) including, as a minimum, a six-stage pretreatment/wash (with zinc phosphate), an electrostatic spray application of an epoxy base, and a separate electrostatic spray application of a polyester finish. The base coat shall be a zinc-rich thermosetting epoxy powder coating (gray in color) with a minimum thickness of 2 - 4 mils (0.0508 - 0.1016 mm). The topcoat shall be a "no-mar" TGIC polyester powder coat finish with a minimum thickness of 3 mils (0.0762 mm). The color shall be Black. The stratification-coated framework shall be

capable of meeting the performance requirements for each quality characteristic shown in Table 1.

- D. Completed sections (i.e., panels) shall be capable of supporting a 600 lb. load applied at midspan without permanent deformation. Panels shall be biasable to a 25% change in grade. Greater slopes may require special assembly.
- E. Swing gates shall be fabricated using the same fence panel material and gate ends having the same outside cross-section dimensions as the rail. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined either by welding or by the same retaining rod process used for panel assembly.
- F. Gates shall have diagonal tension cables with tighteners and lock/latch assemblies as shown on the construction drawings.
- G. Post Concrete. Post concrete shall be 500-C-2500 per SPPWC 201-1.1.2. Grout shall be one part Portland cement to three parts clean, well-graded sand, with minimum amount of water added to produce a workable mix.

PART 3 – EXECUTION

3.01 PREPARATION

- A. All new gate installations shall be laid out by the contractor in accordance with the construction plans.
- B. All hardware shall be installed in accordance with the Passport installation instructions. Passport roll gates shall be installed so they comply with current ASTM F2200 & UL325 standards, or approved equal.
- C. Gate stops shall be installed on each track in a way that conforms to current ASTM F2200 standards.

3.02 INSTALLATION

- A. Fence posts shall be set in accordance with the spacing shown on the construction drawings, plus or minus 1/2", depending on the nominal span specified. Gateposts shall be spaced according to the gate openings specified in the construction drawings.
- B. The "Concrete" sections of this specification shall govern post base material requirements.
- C. Fence posts attached to concrete structures using mounting plates shall be constructed as shown on drawings and coated as stated in Section 2.2 above.
- D. Fence panels shall be attached to posts using mechanically fastened panel brackets supplied by the manufacturer. When cutting rails immediately seal the exposed steel surfaces by 1) Removing all metal shavings from cut area. 2) Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry. 3) Apply 2 coats of custom finish paint matching fence color. Failure to seal

exposed surfaces per steps 1-3 above will negate manufacturer's warranty. Contractor shall use all parts and components from the same manufacturer.

3.03 FENCE INSTALLATION MAINTENANCE

- A. When cutting/drilling rails or posts adhere to the following steps to seal the exposed steel surfaces; 1) Remove all metal shavings from cut area. 2) Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry. 3) Apply 2 coats of custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1-3 above will negate warranty. Ameristar spray cans or paint pens shall be used to prime and finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufacturer's warranty.

3.04 GATE INSTALLATION

- A. Gate posts shall be spaced according to the manufacturer's gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturer's gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacturer of the gate and shall be installed per manufacturer's recommendations.

3.05 CLEANING

- A. The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from posts.

END OF SECTION

6. Part Two – Technical Specifications – ADD: SECTION 02630 TRENCH DRAINS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Trench drain systems.

1.2 RELATED SECTIONS

- A. Section 03300 – Concrete: Installation coordination of drain body and frame.

1.3 REFERENCES

A. ASTM International (ASTM):

- ASTM A 36 – Standard Specification for Carbon Structural Steel.
- ASTM A 48 – Standard Specification for Gray Iron Castings.
- ASTM A 123 – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- ASTM A 536 – Standard Specification for Ductile Iron Castings.
- ASTM B 146 – Specification for Leaded Yellow Brass Sand Castings for General Purposes.
- ASTM A929 – Standard Specification for Galvanized Steel Coils.
- ASTM A760 – Standard Specification for Manufacturing Corrugated Metal Pipe.
- ASTM C267 – Standard for Chemical Resistance.
- ASTM C307 – Standard for Tensile Strength.
- ASTM C579 – Standard for Compressive Strength.
- ASTM C580 – Standard for Flexural Strength.
- ASTM D570 – Standard for Water Absorption.

B. AASHTO (American Association of State Highway and Transportation Officials)

- AASHTO M306-10 – Standard Specification for Drainage, Sewer, Utility, and Related Castings.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer’s data sheets on each product to be used, including:
- Preparation instructions and recommendations
 - Storage and handling requirements and recommendations
 - Installation methods
- C. Shop Drawings
- D. Verification Samples: For each finish product specified, two samples, minimum size 24 inches (600 mm) square representing actual product and finish.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 5-year experience manufacturing similar products.
- B. Installer Qualifications: Minimum 2-year experience installing similar products

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship. Finish areas designated by Architect. Do not proceed with remaining work until workmanship is approved by Architect. Rebuild mock-up area as required to produce acceptable work.

1.6 PRE-INSTALLATION MEETINGS

- A. Convene minimum two weeks prior to starting work of this section.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
- B. Store materials protected from exposure to harmful weather conditions and at temperature and humidity conditions recommended by manufacturer.
- C. Handle materials to avoid damage.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.10 WARRANTY

- A. Warranty: Provide manufacturer's standard limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Eric'sons Inc., 574 Industrial Way N, Dallas, GA 30132, USA. ASD. Tel: (770) 505-6575. Email: info@eric-sons.com. Web: <http://www.duratrench.com> or as equal.

2.2 SYSTEM DESCRIPTION

A. Design: Provide the following type of drain systems.

- Type: Trench Drains.

B. Performance:

- Provide a complete drain system made up of selected components that together shall make a functional trench drain system. The trench drain components provided and installed shall be the trench drain body, load bearing frame, trench drain grate, grate locking mechanism, channel joint sealing, and outlet connection. The trench drain body shall be sized for the anticipated flow rate, application, chemical resistance, and ease of installation. The trench body shall have specified slope without exception to meet design flow requirements. The load bearing frame shall be selected based on chemical resistance and corrosion resistance anticipated, and the aesthetic design for the Project. The grates shall be selected based on open area and load rating required. The material and finish shall be selected based on chemical resistance and corrosion resistance anticipated, and the color, and pattern for the Project. Grates that are small, light, in high-speed traffic, or have theft potential shall be locked down to the trench frame. The locking mechanism shall be selected based on the pullout resistance, dynamic loading, and chemical loading anticipated for the system. Where trench joints are required to be sealed watertight the system selected shall have 1.5" minimum width flange for applying sealant or the proper welding. The outlet pipe shall be sized for the anticipated flow. Pipe material shall mate with other piping, have proper load rating at the given cover depth, and have the proper corrosion resistance. Where the grate design is indicated as a heel proof the openings shall be less than ¼ inch (6mm) wide suitable for pedestrian traffic. Where the grate design is indicated as ADA compliant, the grate shall comply with the requirements of the Americans with Disabilities Act handbook section 4.5.4.

2.3 COMPONENTS

A. Trench Body Material:

- DTSS = Stainless steel trench body (304 standard, 316 is optional). The trench drain body shall be constructed from 14ga T304 stainless steel and have a minimum clear opening as indicated in the plans. Trench invert shall be V-shaped or flat bottom as indicated in the plans. Sections shall be 96" long (typical), but can be fabricated in longer lengths as required (up to 50' lengths possible) and have a built-in slope as indicated on the plans. The sections shall bolt together via a flange and can be sealed with a gasket or by on site welding. Each of the sections shall be labeled to indicated proper flow and placement. Trench body shall have a mill finish standard. Optional sand blast finish as required on the contract documents.

B. Slope: 0.5% minimum

- C. Grate: Model 03BF24SSD. Size as shown on plans.
- D. Frame: LDTP05ZIA – Light duty thermal plastic frame.
- E. Grate Locking: GLSS – Stainless steel grate locks, toggle.
- F. Outlet:
 - Pipe Size: 3"
 - Pipe Type: PVC
 - Location: as per ADG drains shown on plans

- G. Joint Sealant:
 - SLUR – Joints shall be fully sealed with Sikaflex gray self-leveling urethane joint sealant or as equal. The joint sealant shall be applied to a clean bell and spigot joint. The sealant shall be applied as a continuous 3/8" diameter bead from the top of the joint through the bottom and back to the top on the other side to ensure a proper seal. Additional sealant can be applied to the exterior of the joint as required to provide a positive seal.

2.4 2 INCHES (51 MM) GRATE

- A. Size: 3 inches (76 mm) wide x 24 inches (305 mm) long x 0.5 inches (13 mm) thick unless noted.
- B. Model 03BF24SSD: Slotted T304 stainless steel grate. Grating shall be 03BF24SSD slotted grate. The grate shall be fabricated using T304 stainless steel. The grate shall have a brushed finish. The grate shall have a minimum load rating of DIN Class D.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Ensure ground conditions are compacted and suitable for construction. Poor soil bearing conditions or other site conditions will require engineering advice. Ensure excavation will allow for proper thickness of concrete surround before proceeding.

- B. Ensure any reinforcement is placed and firmly held in place prior to linear drain installation. All reinforcement steel shall follow concrete reinforcing steel institute standards.
- C. Prepare linear drains by ensuring they are clean and properly oriented and sequenced.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
- B. Construct expansion and control joints as indicated in construction documents. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction. The linear drain products are not to be used as a construction or control joint in the lengthwise direction. Any construction, expansion or control joints placed traverse to the system shall be made at linear drain joints in the frame.
- C. Place concrete to completely encapsulate linear drain as shown in contract documents. The drain shall be finished 1/8" below finish grade while ensuring proper slope of adjacent areas toward the drain creating positive flow to the drain.
- D. All linear drains shall be installed with a tolerance within 1/8" in 10'.

3.4 PROTECTION

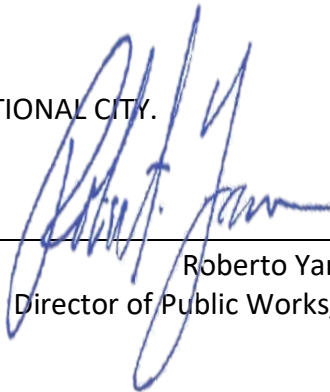
- A. Protect installed products until completion of project. Protective wood trench covers shall remain in place until such time that grating can be installed with no future damage to grating finishes.
- B. Clean and remove any debris from linear drains prior to Owner's acceptance.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

BY ORDER OF THE CITY ENGINEER OF THE CITY OF NATIONAL CITY.

July 12, 2022

Date



Roberto Yano
Director of Public Works/City Engineer