

1301 Twelfth Street, Suite 400
Altoona, Pennsylvania 16601

Voice - 814/944-4698
Fax - 814/949-0372
TDD - 711
redevelop@altonapa.gov
www.altonapa.gov

Donald Devorris, Chairman

Allan Bassler
John Forney
Larry Robbins
Steve Seltzer

ALTOONA REDEVELOPMENT AUTHORITY

To: Potential Bidders

From: Lawrence D. Carter, Director

Date: June 22, 2010

Topic: Fence Bid Solicitation Clarification

The Bid documents have a conflict. The Advertisement states that there is a need for 254 linear feet, but the specifications, Part 2 **Products**, Item 2.2 **Ornamental Fencing**, number A. 6. c. note approximate specific panel lengths **that do not total** to 254 linear feet.

For purposes of submitting a bid utilize the 254 linear feet. The specific panel lengths are incorrect.

The lump sum bid will be for 254 linear feet, including providing the precut fence panel segments with posts on not more than 6' centers. The purpose of the drawings is to indicate the **number** of fence panel segments.

As previously state the indicated specific individual fence panel lengths in the specifications are incorrect.

The successful bidder will be expected to conduct field measurements before prefabricating the fence panel segments for installation by the owner.

SECTION 02820

FENCING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Heavy industrial steel ornamental fence system - internally secured, Black in Color.

1.2 RELATED SECTIONS

- A. Section 02300 - Earthwork.
- B. Section 03300 - Cast-In-Place Concrete.

1.3 REFERENCES

- A. ASTM - American Society for Testing and Materials:
 1. ASTM A 653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 2. ASTM B 117 - Practice for Operating Salt-Spray (Fog) Apparatus.
 3. ASTM D 523 - Test Method for Specular Gloss.
 4. ASTM D 714 - Test Method for Evaluating Degree of Blistering in Paint.
 5. ASTM D 822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
 6. ASTM D 1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
 7. ASTM D 2244 - Test Method for Calculations of Color Differences from Instrumentally Measured Color Coordinates.
 8. ASTM D 2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact). ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.
 9. ASTM D 3359 - Test Method for Measuring Adhesion by Tape Test.
 10. ASTM F 2408 - Ornamental Fences Employing Galvanized Steel Tubular Pickets.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Manufacturer's data sheets on each product to be used, including:
 1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- C. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, gates, and schedule of components.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing Products specified in this section with minimum five years documented experience.
- B. Installer Qualifications: Installers experienced with type of construction involved and materials and techniques specified.
- C. Single Source: Entire fence system, and all associated accessories, fittings, and fasteners shall be obtained from a single source.

1.6 DELIVERY, STORAGE, AND HANDLING

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

1.7 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 absolute limits.

1.8 WARRANTY

- A. The powder coated surface on all components (pickets, rails, and posts) is warranted for 10 years. Refer to manufacturer for complete details regarding warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Ameristar Fence Products, which is located at: 1555 N. Mingo ; Tulsa, OK 74116; Toll Free Tel: 800-321-8724; Tel: 918-835-0898; Email: [request info \(mktg@ameristarfence.com\)](mailto:request info (mktg@ameristarfence.com)); Web: www.ameristarfence.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 ORNAMENTAL FENCING

- A. Heavy Industrial Steel Ornamental Fence System - Internally Secured: System includes fence posts, framework, and mounting accessories.
 - 1. Acceptable Product: Aegis II.
 - 2. Grade: Industrial.
 - 3. Style:
 - a. Classic: Pressed pointed pickets extend above top rail.
 - 1) Three Rail: Style Classic.
 - 4. Height:
 - a. Height: 4 feet (1219 mm).
 - 5. Steel (ASTM A924/A924M): Steel for tubular pickets, rails and posts shall have minimum yield strength of 45,000 psi (310 MPa).

- a. Galvanizing (ASTM A653/A653M): Prior to forming hot dip galvanized with minimum zinc coating weight of 0.90 oz/sq ft (276 g/sq meter), Coating Designation G-90.
- 6. Rails:
 - a. Acceptable Product: Ameristar ForeRunner Rails.
 - b. Double-walled U channel; outside cross-section dimensions of 1-3/4 inch (44.5 mm) square; minimum thickness of 14 gauge; inside galvanized; open ends for air circulation and moisture evaporation.
 - c. Panel Length: 6 foot (1829 mm) typical.
 - d. Rail Strength:
 - 1) Effective Wall Thickness: 0.160 inch.
 - 2) Rail Weight: 2.55 lbs/ft.
 - e. Enclosed Retaining Rod: Retaining rods shall be 0.125 inch (3.2 mm) diameter galvanized steel. Variable pitch connection system for, high angle racking and elimination of external fasteners
 - f. PVC Grommets: Provide grommets to seal all picket-to-rail intersections.
 - g. Picket holes in the ForeRunner rail for Classic, Majestic and Genesis shall be spaced at 4.715 inches (120 mm) o.c.
- 7. Pickets: 1 inch (25.4 mm) square x 14 gauge steel tubing.
- 8. Panels: Completed panels shall be capable of supporting a 600 pound load applied at midspan without permanent deformation.
- 9. Racking/Biasability (Ability of Panels to Follow Grades): Minimum of 25 percent slope.
- 10. Posts:
 - a. Size: 3 inches by 3 inches by 12 gauge w/ standard post cap.
- 11. Accessories: Aluminum castings.
 - a. Post Cap: Ball Cap.

2.3 FINISH

- A. PermaCoat: Thermal stratification coating process (high-temperature, in-line, multi-stage, multi-layer) including six-stage pretreatment/wash with zinc phosphate, an electrostatic spray application of epoxy base, and a separate electrostatic spray application of a polyester top coat finish.
 - 1. Base Coat Coating Thickness: Thermosetting epoxy powder coating with minimum thickness of 2 to 4 mils (0.0508 to 0.1016 mm).
 - 2. Top Coat Coating Thickness: No-mar TGIC polyester powder finish with minimum thickness of 2 to 4 mils (0.0508 to 0.1016 mm).
 - 3. Coating Performance Requirements: Coating meets or exceeds the following.
 - a. Adhesion (ASTM D 3359, Method B): Adhesion over 90 percent of test area (tape and knife test).
 - b. Corrosion Resistance (ASTM B 117, ASTM D 1654): Coated galvanized steel shall be capable of salt spray resistance for 3,500 hours without loss of adhesion on parts scribed per ASTM D1654 and tested in accordance with ASTM Test Method B117. Failure is considered to have occurred when there is either 1/8 inch (3.18 mm) coating loss from the scribed mark or an accumulation of medium #8 blisters.
 - c. Impact Resistance (ASTM D 2794): 60 inch pounds, minimum (impact using 0.625 inch ball).
 - d. Weathering Resistance (ASTM D 822, D 2244, D 523 - 60 Degree Method): 1,000 hours, minimum (failure mode is 60 percent loss of gloss or color variance of more than 3 delta-E color units.)

2.4 FABRICATION

- A. ForeRunner Railing System:
 - 1. Pickets, rails and posts shall be precut to specified lengths.
 - 2. ForeRunner rails shall be prepunched to accept pickets.
 - 3. Pickets shall be predrilled to accept retaining rods.
 - 4. Provide PVC grommets to seal all picket-to-rail intersections. Grommets shall be inserted into the prepunched 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 ForeRunner.
 - 5. Retaining rods shall be inserted into each ForeRunner rail so that they pass through the predrilled holes in each picket.

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. Clean surfaces thoroughly prior to installation.
- B. Prepare the grade and remove surface irregularities, if any, which may cause interference with the installation of fencing.
- C. If preparation and condition is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Use of non-Ameristar parts/components will negate manufacturer's warranty.
- C. Fence posts shall be set in accordance with the manufacturer recommended spacing.
- D. Division 2 and Division 3 Sections shall govern post base material requirements.
- E. Panels shall be attached to posts using mechanically fastened panel brackets supplied by the manufacturer.
- F. When cutting rails immediately seal the exposed surfaces by:
 - 1. Removing all metal shavings from cut area.
 - 2. Apply zinc-rich primer to thoroughly cover cut edge and drilled hole; allow to dry.
 - 3. Apply 2 coats of custom finish spray paint matching fence color.
 - 4. Failure to seal exposed surfaces in accordance with manufacturer's instructions will negate manufacturer's warranty.
- G. Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected.
 - 1. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles.
 - 2. The manufacturer's gate drawings shall identify the necessary gate hardware required for the application.

3. Gate hardware shall be provided by the manufacture of the gate and shall be installed per manufacturer's recommendations

3.4 ERECTION TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch.
- B. Maximum Offset From Indicated Position: 1 inch.
- C. Minimum distance from property line: 6 inches.

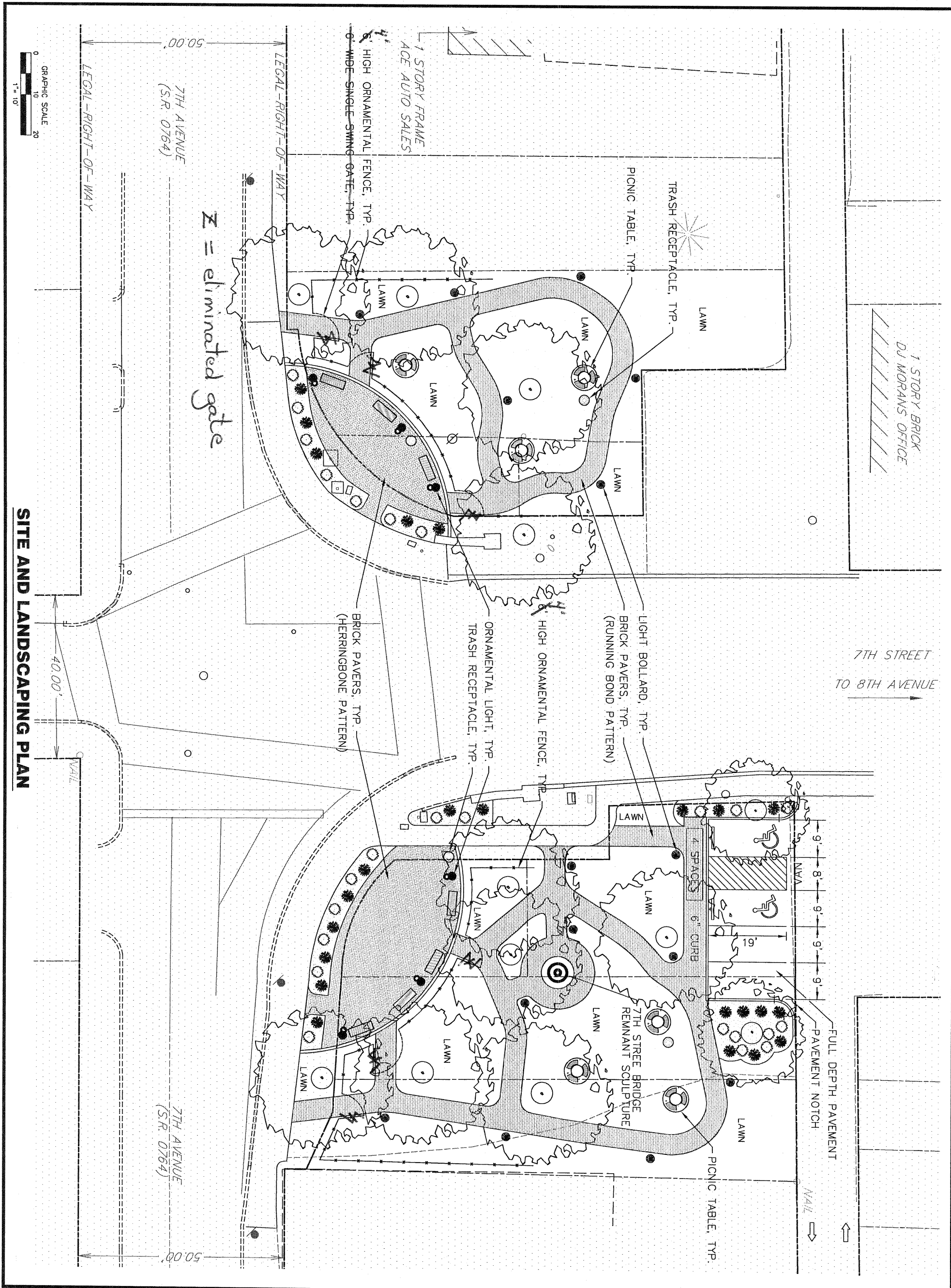
3.5 CLEANING

- A. Leave immediate work area neat at end of each work day.
- B. Clean jobsite of excess materials; scatter excess material from post hole excavations uniformly away from posts. Remove excess material if required.
- C. Clean fence with mild household detergent and clean water rinse well. Mortar should be removed from exposed posts and other fencing material using a 10% solution of muriatic acid followed immediately by several rinses with clean water.
- D. Touch up scratched surfaces using materials recommended by manufacturer. Match touchup paint color to fence finish.

3.6 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION



Drawing No. 2	ALTOONA'S 7th STREET BRIDGE GATEWAY PROJECT FOR ALTOONA REDEVELOPMENT AUTHORITY ALTOONA, BLAIR COUNTY, PA	engineers • architects • design • services THE EADS GROUP 1126 8th Avenue Altoona, PA 16602 www.eadsgroup.com Altoona • Clarion • Pittsburgh • Somerset "QUALITY SERVICE WITH INTEGRITY"	Seal	<table border="1"> <thead> <tr> <th>#</th> <th>Date:</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	#	Date:	REVISIONS																															<table border="1"> <tr><td>Scale:</td><td>AS NOTED</td></tr> <tr><td>Date:</td><td>04/15/10</td></tr> <tr><td>Drawn By:</td><td>NDS</td></tr> <tr><td>Checked By:</td><td>BEC</td></tr> <tr><td>Project No.:</td><td> </td></tr> </table>	Scale:	AS NOTED	Date:	04/15/10	Drawn By:	NDS	Checked By:	BEC	Project No.:	
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