

SECTION 32 94 50 – WELDED WIRE PANEL PLANT SUPPORT SYSTEM

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. Welded wire grid panels, including gate panels.
  - 2. Panel channel and angle trim.
  - 3. Panel posts.
  - 4. Necessary clips, straps and spacers.
  - 5. Powdercoat finish.

1.3 RELATED WORK

- A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:
  - 1. Section 03 30 00, CAST-IN-PLACE CONCRETE; Concrete footings.

1.4 SUBMITTALS

- A. Product Data: Provide manufacturer's standard catalog details for specified products demonstrating compliance with referenced standards. Provide list of fittings being provided with descriptions and either photographs or drawings for each type.
- B. Shop Drawings: Submit Shop Drawings for fabrication and installation. Include the following:
  - 1. Plans, elevations, and detail sections showing sizes, critical dimensions, panel layout constraints using a 2 x 2 inch modular grid, and details and locations of accessories.
  - 2. Indicate materials, methods, finishes, fittings, fasteners, anchorages, and accessory items.
- C. Verification Samples: Two samples representing actual products and finishes as follows:
  - 1. Welded wire grid panel, 6 in. x 6 in., with one edge of channel trim and one edge of angle trim, all as one unit.
  - 2. Color Submittals: Submit metal chips, 2 in. x 3-1/2 in. minimum, showing color and texture to be provided.

1.5 QUALITY ASSURANCE

- A. Manufacturer: Minimum 5 years experience in manufacturing and supplying welded wire panel systems of the type required for this Project.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Protect materials from damage. Store panels flat. Provide edge protection when strapping is used. Do not apply loads to panel edges.
- B. Inspect products upon delivery in order to submit timely freight claim for any damaged materials.
- C. Store products in manufacturer's packaging until ready for installation.
- D. Handle and store products according to manufacturer's recommendations. Leave products wrapped or otherwise protected and under clean and dry storage conditions until required for installation.
- E. Exercise care not to scratch, mark, dent, or bend metal components during delivery, storage, and installation.

1.7 PROJECT CONDITIONS

- A. Verify actual openings by field measurements before fabrication; show recorded measurements on shop drawings.
- B. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

PART 2 - PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS

- A. The welded wire panel plant support system and accessories shall have completed an ISO Compliant 14040/44, third party verified Life Cycle Assessment (LCA).

2.2 ACCEPTABLE MANUFACTURER

- A. **greenscreen®**, 1743 La Cienega Blvd., Los Angeles, CA 90035; Tel: 1-800-450-3494; Fax: 310-837-0523, [www.greenscreen.com](http://www.greenscreen.com).

2.3 PANELS

- A. Panels shall be rigid, three dimensional welded wire grid fabricated of 14 gage galvanized steel wire.
  - 1. Metallic-Coated Steel Wire: Welded-wire, galvanized in accordance with ASTM A641.
- B. Face Grid: Wires shall be welded at each intersection to form a 2 x 2 inch face grid on the front and back of panels,

- C. Trusses: Face grids shall be separated by bent wire trusses spaced at 2-inch centers and welded to front and back face grids at each truss apex.
- D. Thickness: 3 inches.
- E. Length and Width: As indicated on the Drawings.
- F. Tolerance: 1/8 inch in width and 1/8 inch in length.

## 2.4 ACCESSORIES

- A. Trim:
  - 1. Fabricate from 20-gage ASTM A879 galvanized steel.
  - 2. Types:
    - a. Channel Trim: Thickness of panel x ½ inch legs.
    - b. Angle Trim: ½ inch x ½ inch legs.
  - 3. Locations:
    - a. As indicated on the Drawings.
- B. Clips and Straps: Provide manufacturer's standard types of clips and straps suitable for mounting conditions. Fabricate from ASTM A879 galvanized steel. Adjustable clips shall have ¼ inch diameter 18-8 stainless steel bolt, washer, and nut.
- C. Plastic Spacers: Provide ½ inch thick black Ultra High Molecular Weight polyethylene (UHMW) washers to hold clips away from mounting surface.
- D. Fence Posts: 3-inch square ASTM A500, Grade B steel tube. The steel strip used in the manufacture of the post shall conform to ASTM A1011. Minimum yield strength shall be 45,000 psi. Provide steel post caps. Overall post length shall be as indicated on the Drawings.
- E. Fasteners for Mounting Clips to Fence Posts: Self drilling, self tapping hex washer head screws, with strength of Type 410 stainless steel, and corrosion resistance of Type 304 stainless steel.
- F. Fasteners for Attachment to Structure Pull Out Value:
  - 1. To Concrete or Masonry: [480 lbs.].

## 2.5 FABRICATION

- A. Cut to size.
- B. Weld trim to panels and grind smooth exterior surfaces of welds.

## 2.6 FINISH

- A. Metal components (except fasteners) shall receive commercial grade finish system after fabrication.
- B. Finish System:
  - 1. Pretreat with general purpose, alkaline, water based cleaner / degreaser applied at 240 degrees F.
  - 2. Prime with fusion bond epoxy powder coat.

## ALDI Retail Facility

3. Topcoat with TGIC polyester or polyester-urethane powder coat with a minimum total dry film thickness of not less than 6 mils (0.15 mm).
- C. Salt Spray Resistance: Finish shall remain rust free when tested 1,680 hours in accordance with ASTM B117.
- D. Finish and Color: Textured Green.
- E. Touch-Up Paint: Provide high quality, exterior-grade spray paint suitable for conditions of use.

### 2.7 MISCELLANEOUS MATERIALS

- A. Concrete: Refer to Section 03 30 00, CAST-IN-PLACE CONCRETE.

## 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 and posts. Do not exceed intervals of 500 feet (152.5 m) 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 Division 01 Section "Execution".
- B. Verify alignment, support dimensions, and tolerances are correct.
- C. Inventory components to ensure all required items are available for installation. Inspect components for damage. Remove damaged components from site and replace.

### 3.3 INSTALLATION - GENERAL

- A. Spans: For freestanding fences and screens, span between structural supports should not exceed 8' for 3" thick panels without thorough review of specific site conditions and mounting details.
- B. Install panels plumb and square, centered within area designated for panels, and aligned to maintain modular grid.
- C. Avoid cutting panels in field. Where field cutting is essential, clean and dry area and apply touch-up paint to cut edges.
- D. Install securely with fasteners located as shown on Drawings.

- E. Repair bent or damaged panels. If panels cannot be repaired to satisfaction of Owner, remove from jobsite and replace with new panels.

### 3.4 INSTALLATION

- A. Install welded wire panel plant support system by setting posts as indicated on the Drawings and fastening panels to posts according to manufacturer's written instructions.

### 3.5 ADJUSTING AND CLEANING

- A. Remove temporary coverings and protection of adjacent work areas. Clean installed products in accordance with manufacturer's instructions before Owner's acceptance.
- B. Do not use abrasive cleaners.
- C. Remove from project site and legally dispose of construction debris associated with this work.

### 3.6 PROTECTION

- A. Protect installed products until completion of Project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. Protect installed products and finished surfaces from damage during construction.
- D. Replace defective or damaged components as directed by Architect.

### 3.7 PLANT INSTALLATION

- A. Refer to Civil Drawings and Specifications.

END OF SECTION 32 94 50