S&S MANUFACTURING
Manufacturers of Railings & Architectural Metal

SECTION 057500 – ALUMINUM OMEGALITE TERRACE PRIVACY DIVIDERS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. Perform the work of this Section in accordance with the General Conditions, AIA Document A201/Current Edition, Supplementary Conditions, and all other requirements of the Contract Documents.

1.2 SUMMARY

1. This Section includes Aluminum terrace privacy dividers with an “Omega Lite” infill panel.

1.3 PERFORMANCE REQUIREMENTS

A. General: In engineering the assembly to withstand wind and lateral loads indicated, determine allowable design working stresses of terrace divider materials based on the following:

1. Aluminum: AA "Specifications for Aluminum Structures".

B. Structural Performance of Terrace Divider Assembly: Engineer, fabricate, and install terrace divider systems to withstand a lateral force complying with the requirements of Chapter 16 of the 2014 New York City Building Code without exceeding the allowable design working stress of the materials for the assembly, anchors, and connections.

C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.4 SUBMITTALS

A. Product data for manufacturer's product lines of terrace divider assembly assembled from standard components. Submit product data for paint products.

B. Shop drawings detailing fabrication and erection of each terrace divider indicated. Include plans, elevations, sections, and details of the terrace divider and their connections. Show anchorage and accessory items.

1. Where installed terrace dividers are indicated to comply with certain design loadings, include structural computations, material properties, and other information needed for structural analysis that has been signed and sealed by the qualified professional engineer, licensed in the state of New York, who was responsible for their preparation.

C. Samples for initial selection purposes in the form of S&S Manufacturing standard color

chart showing full range of colors available. Or for custom color request minimum 2" x 2" color chip from the customer for color matching purposes. Then submit at least two chips of color match for approval by architect or owner.

D. Submit at least two 6" long samples of aluminum framing member when its shape is other than standard rounds, squares or rectangles and assembled sample of terrace divider assembly, made from full-size components, including framing members, and "Omega Lite" infill panel when specifically requested by architects. Show method of finishing members at intersections. Sample need not be full height. Show method of attaching "Omega Lite" infill panel to terrace divider framing.

1.5 QUALITY ASSURANCE

A. Single-Source Responsibility: Obtain terrace divider from:

S&S Manufacturing
17 Timber Lane
Marlboro, New Jersey 07746
Phone: (732) 698-2400
Fax: (732) 662-5046
www.handrails.com
jesse@handrails.com
steven@handrails.com

1.6 STORAGE

A. Store terrace divider assemblies inside a well-ventilated clean area, away from uncured concrete and masonry and protected from weather, moisture, soiling, abrasion, extreme temperatures, and humidity.

1.7 PROJECT CONDITIONS

A. Field Measurements: Where terrace divider are indicated to fit into other construction, check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the work.

1. Where field measurements cannot be made without delaying the work, obtain guaranteed dimensions in writing and proceed with fabrication of products without field measurements if specifically requested to do so by architects, owner or contractor.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer: Products specified as a standard of quality are to be fabricated by:

S&S Manufacturing
17 Timber Lane
Marlboro, New Jersey 07746
Phone: (732) 698-2400
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2.2 METALS

A. General: Provide metal free from surface blemishes where exposed to view in the finished unit. Exposed-to-view surfaces exhibiting pitting, seam marks, roller marks, stains, discolorations, or other imperfections on finished units are not acceptable.

B. Aluminum: Provide alloy and temper recommended by aluminum producer or finisher for type of use and finish indicated, and with not less than the strength and durability properties of the alloy and temper designated below for each aluminum form required.

1. Extruded Bar and Shapes: ASTM B 221, 6063-T6.
2. Extruded Pipe and Tube: ASTM B 429, 6063-T6.
3. Plate and Sheet: ASTM B 209, 6061-T6.

C. Vertical post members to be ASTM B 209, 6061-T6 aluminum extruded I beam shape.

2.3 MISCELLANEOUS MATERIALS

A. Filler Metal and Electrodes: Provide type and alloy of filler metal and electrodes as recommended by producer of metal to be welded or brazed and as required for color match, strength, corrosion resistance, and compatibility in fabricated items.

2.4 FASTENERS

A. Fasteners for Anchoring Terrace Divider Assembly to Other Construction: Select fasteners of the type, grade, and class required to produce connections that are suitable for anchoring aluminum terrace divider to other types of construction indicated and capable of withstanding design loadings.

1. For aluminum terrace divider provide fasteners fabricated from type 304 or type 316 stainless steel.

B. Fasteners for Interconnecting Components: Use stainless steel or aluminum fasteners. Do not use metals that are corrosive or incompatible with materials joined.

C. Post installed Anchors: Anchors of type indicated below, fabricated from corrosion-resistant materials with capability to sustain, without failure, a load equal to 4 times the load imposed, as determined by testing per ASTM E 488 conducted by a qualified independent testing agency.

2.5 INFILL PANEL AND ACCESSORIES

A. Infill panel shall be stucco-embossed “Omega-Lite” as manufactured by Laminators Inc.

1. Color of panel shall be selected by the Architect from Laminator’s standard color chart.

B. Infill panel shop attached to the terrace divider framing.

C. Intermediate vertical aluminum mullions every 4’-2 ½”+ on center for Omega Lite Dividers only as required due to infill panel width.

2.6 PAINT

A. All aluminum extrusions to receive an electrostatically applied baked on powdered coat finish in a S&S Manufacturing standard color over a full pretreatment except when specified to be natural or mill finish.

B. Pretreatment Process: A multi-stage pretreatment process is required prior to powder coating.
   1. The railing shall be dipped or sprayed in a concentrated alkaline cleaner then rinsed in clear water. This process provides cleaning, degreasing and deep etching on the surface.
   2. The product shall then be dipped or sprayed in a concentrated acidic treatment to deoxidize, desmut and neutralize the surface then rinsed in clear water.
   3. The product then shall be dipped or sprayed in an acidic conversion coating to act as a bonding coating for paint adhesion.
   4. The product must be completely dried before painting.

C. Painting: Electrostatically applied thermosetting polyester powder paint over pretreatment bond coating. Baking process shall comply with coating manufacturer's written instructions. Color to be selected by the architect from S&S Manufacturing standard colors. Custom color matching available upon request.
   1. Baked on polyester powder coat meeting AAMA 2603 requirements.
   2. Super-durable powder coat meeting AAMA 2604
   3. Kynar baked enamel meeting AAMA 2605 requirements.

D. Infill Panel Finish: “Omega Lite” infill panel manufactured with baked on polyester powder coat finish available in 12 standard colors meeting AAMA 2603 requirements.

2.7 FABRICATION

A. General: Fabricate terrace divider assembly to comply with requirements indicated for design, dimensions, details, finish, and member sizes, including anchorage, but not less than that required to support structural loads.

B. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, miscellaneous fittings, and anchors for attachment of terrace dividers to other work. Furnish anchorage devices for connecting terrace divider to concrete or masonry work.

C. Welded Connections: Fabricate terrace divider assembly for connecting members by welding. For connections made during fabrication, weld corners and seams continuously to comply with the following:

   1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
   2. Obtain fusion without undercut or overlap.
   3. Remove welding flux immediately.
   4. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and welded surface matches contours of adjoining surfaces.

D. Flanges, Fittings, and Anchors: Provide manufacturer's standard flanges, miscellaneous fittings, and anchors to connect terrace divider members to other construction.

E. Provide inserts and other anchorage devices to connect terrace divider assembly to concrete or masonry work. Fabricate anchorage devices capable of withstanding imposed lateral and wind loads. Coordinate anchorage devices with supporting structure.

F. Shear and punch metals cleanly and accurately. Remove burrs from exposed cut edges.

G. Ease exposed edges to a radius of approximately 1/32 inch (1 mm), unless otherwise indicated. Form bent-metal corners to the smallest radius possible without causing grain separation or otherwise impairing work.

H. Cut, reinforce, drill, and tap components, as indicated, to receive finish hardware, screws, and similar items.

I. Close exposed ends of terrace divider members.

PART 3 - EXECUTION

3.1 PREPARATION

A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installing anchorages, such as sleeves, concrete inserts, anchor bolts, and miscellaneous items having integral anchors that are to be embedded in concrete as masonry construction. Coordinate delivery of such items to Project site.

3.2 INSTALLATION, GENERAL

A. Fit exposed connections accurately together to form tight, hairline joints.

B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing terrace dividers. Set terrace dividers accurately in location, alignment, and elevation, measured from established lines and levels and free from rack.

1. Do not weld, cut, or abrade surfaces of terrace divider member components that have been coated or finished after fabrication and are intended for field connection by mechanical or other means without further cutting or fitting.
2. Set posts plumb within a tolerance of 1/4 inch in 12 feet (2 mm in 1 m).
3. Align terrace divider assembly so that variations from level for horizontal members do not exceed 1/4 inch in 12 feet (2 mm in 1 m).

C. Corrosion Protection: Coat concealed surfaces of the following that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

D. Adjust terrace divider assembly prior to anchoring. Space posts at interval indicated but not more than that required by structural loads.

E. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing terrace divider members for properly transferring loads to in-place construction.

3.3 INSTALLING PANELS

A. Install terrace divider assembly to comply with manufacturer's instructions, beginning with erection of posts and other components, followed by setting of infill panels. Do not cut, drill, or alter panels in any way in the field. Protect edges from damage.

3.4 ADJUSTING AND CLEANING

A. Clean terrace divider assembly according to recommendations of metal finisher in a manner that leaves an undamaged and uniform finish matching approved sample.

3.5 PROTECTION

A. Protect finishes of terrace divider from damage during construction period with temporary protective coverings approved by manufacturer. Remove protective coverings at the time of Substantial Completion.

END OF SECTION 057500