***Note: After downloading this spec, the Specifier must choose the correct Finish, Insert and Frame options and delete all other options to produce an accurate specification.***

## *G6 - GRIDLINE*

**SUGGESTED SPECIFICATION**
**SECTION 124813**
**ENTRANCE FLOOR MATS AND FRAMES**

### Part 1 General

### 1.01 Summary

**A.** This section includes the following types of entrance flooring systems:

**1.** Floor Grids & Frame Assemblies

**B.** Related Sections: The following sections contain requirements related to this section:

**1.** Grouting frames into recess; refer to sections 03300 "Cast-In-Place Concrete" and section 03600 "Grout"
**2.** Special requirements of various flooring types; refer to section 09400 "Terrazzo"

### 1.02 References

**A.** American Society for Testing and Materials (ASTM)

**B.** The Aluminum Association

**C.** International Organization for Standardization (ISO)

**D.** Cradle to Cradle Products Innovation Institute (C2C)

### 1.03 Submittals

**A.** General: Submit the following in accordance with conditions of contract and Division 1 specification section 01300.

**B.** Product data for each type of floor grid and frame specified, including manufacturer's specifications and installation instructions.

**C.** Shop drawings in sufficient detail showing layout of grid and frame specified including details indicating construction relative to materials, direction of traffic, spline locations, profiles, anchors and accessories.

**D.** Samples for verification purposes: Submit an assembled section of floor grid and frame members with selected tread insert showing each type of color for exposed floor grid, frame and accessories required.

**E.** Maintenance data in the form of manufacturer's printed instructions for cleaning and maintaining floor grids.

**F.** Flammability in accordance with ASTM E648, Class I, Critical Radiant Flux, minimum 0.45 watts/$m^2$.

**G.** Slip resistance in accordance with ASTM D-2047-96, Coefficient of Friction, minimum 0.60 for accessible routes. *[Specifier note: Slip and fall accidents are a major concern in commercial entranceways. We recommend that approved systems be certified by the manufacturer as meeting a minimum coefficient of friction, when tested in wet conditions, of 0.60.]*

**H.** Standard rolling load performance is 500 lb./wheel (load applied to a solid 5" x 2" wide polyurethane wheel, 1000 passes without damage). *[Specifier note: For entranceways in businesses such as retail outlets, airports, banks, and casinos, rolling load performance is a critical factor. We recommend that units with the highest practical loading capability be specified for such entrances.]*

**I.** Single source responsibility: Obtain floor grids and frames from one source of a single manufacturer.

**J.** Utilize superior structural stainless steel Type 304 components.

**1.04 Quality Assurance** *[Specifier note: To maximize the life cycle of the entrance flooring and its appearance, the following items are critical: i) Most C/S mats are designed for traffic crossing perpendicular to the rail. ii) When designing an entranceway it is preferable to minimize the need for turning on the mat. iii) The maximum grid section width is 8'. A large entryway can utilize several sections of grids, but to avoid unsightly split locations, design your entrance flooring with this in mind. Design assistance is available at 1-800-233-8493.*

**A.** Slip resistance in accordance with ASTM D-2047-96, Coefficient of Friction, minimum 0.60 for accessible routes. *[Specifier note: Slip and fall accidents are a major concern in commercial entranceways. We recommend that approved systems be certified by the manufacturer as meeting a minimum coefficient of friction of 0.60, when tested in wet conditions.]*

**B.** Standard rolling load performance is 500 lb./wheel with larger loading requirements as specified (load applied to a solid 5" x 2" wide polyurethane wheel, 1000 passes without damage). *[Specifier note: For entranceways in businesses such as retail outlets, airports, banks, and casinos, rolling load performance is a critical factor. We recommend that units with*

*the highest practical loading capability be specified for such entrances.]*

**C.** Single Source Responsibility: Obtain floor grids and frames from one source of a single manufacturer.

**D.** Utilize superior stainless steel components- type 304

**E.** Utilize a manufacturer that is ISO 9001 & 14001 certified.

**1.05 Delivery, Storage and Handling**

**A.** Deliver materials to the project site ready for use and fabricated in as large sections and assemblies as practical, in unopened original factory packaging clearly labeled to identify manufacturer.

**1.06 Project Conditions**

**A.** Field measurements: Check actual openings for grids by accurate field measurements before fabrication. Record actual measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work. *Specifier note: Stainless steel grids are not field adjustable therefore it is highly recommended that all stainless steel grids be ordered with optional factory template service.*

**B.** Recessed Conditions: IMPORTANT: Coordination with Division 03 00 00 Concrete specifications is required. For proper installation, the concrete recess must be flat and smooth throughout. If the recess is formed by a concrete contractor, the pour dimensions may require leveling grout to achieve the proper depth and a smooth finish. The final recess depth will match the specified product and must be field verified. For proper frame installation, the side walls of the concrete recess must also be straight and smooth. Inconsistencies with the recess and side walls must be remediated prior to product installation.

**Part 2 Products**

**2.01 Manufacturers**

**A.** Drawings and specifications are based on manufacturer's literature from Construction Specialties, Inc. unless otherwise indicated. Other manufacturers must comply with the minimum levels of material and detailing indicated on the drawings and specified herein.

**2.02 Materials**

**A.** Stainless steel - Type 304 stainless steel for surface wires and support bars

**2.03 Floor Grids**

A. **Model and Description - G6 GridLine-** Cradle 2 Cradle Silver certified, shall be manufactured from type 304 stainless steel in 1 1/8" (28.57mm), 5/8" (15.97), or 3/8" (9.52mm) depth (Select one, delete others). Wires to be .090" (2.28mm) x.150" (3.81mm) electronically welded and spaced .145 (3.68mm) apart. Unit must withstand 500 lb./ wheel loads (load applied to a solid 5" x 2" wide polyurethane wheel, 1000 passes without damage).

**2.04 Grid Frames** (Specifier to select one below and delete others) *[Specifier note: Although most entrance flooring systems can accommodate some variation in the flatness of grid well bases, it is recommended that the surface beneath the grid be finished with a leveling screed to ensure optimum performance of the system.]*

A. **SSA - Stainless Steel Angle Frame** shall be Type 304 stainless steel with 1/8" (3.2mm) exposed surface.

B. **SSA-DP - Stainless Steel Angle Frame with drain pan** shall be Type 304 stainless steel with 1/8" (3.2mm) exposed surface. Drain pan to be .050" (1.3mm) Aluminum or Stainless Steel (please choose type) with general purpose PVC drain with stainless steel strainer.

C. **SSNP- Stainless Steel Deep Pit Frame w/o drain pan (available with 1 1/8" grid depth only)** shall be Type 304 stainless steel with 1/8" (3.2mm) exposed surface at grid perimeter. Support structure to be comprised of adjustable height - aluminum support feet and legs spaced no more than 24" (609.6mm) on center. Maximum overall depth of grid and framing system to be no more than 7" (177.8mm) deep. Note: Rolling load capacity for this application is 300 lb. /wheel.

D. **SSDP- Stainless Steel Deep Pit Frame w/ drain pan (available with 1 1/8" grid depth only)** shall be Type 304 stainless steel with 1/8" (3.2mm) exposed surface at grid perimeter. Support structure to be comprised of adjustable height - aluminum support feet and legs spaced no more than 24" (609.6mm) on center. Maximum overall depth of grid and framing system to be no more than 7" (177.8mm) deep. Drain pan to be .050" (1.3mm) Aluminum or Stainless Steel (please choose type) with general purpose PVC drain with stainless steel strainer. Note: Rolling load capacity for this application is 300 lb. /wheel.

**2.05 Lock Down Mechanism** (Specifier to select one below and delete others.)

A. **HL - Hidden Lock Down** shall be a hidden device to secure the GridLine to the concrete surface. Made from Type 304 stainless steel.

B. **SL - Surface Lock Down** shall be a solid, surface mounted device to secure the GridLine to the concrete surface. Made from Type 304 stainless steel

**Part 3 Execution**

**3.01 Examination**

**A.** Verification of conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.

**1.** Do not proceed until unsatisfactory conditions have been corrected.

**3.02 Preparation**

**A.** Manufacturer shall offer assistance and guidance to provide a template of irregular shaped grid assemblies to ensure a proper installation. *Specifier note: Stainless steel grids are not field adjustable therefore it is highly recommended that all stainless steel grids be ordered with optional factory template service.*

**3.03 Installation**

**A.** Install the work of this section in strict accordance with the manufacturer's recommendations.

**B.** Set grid type at height recommended by manufacturer for most effective cleaning action.

**C.** Coordinate top of grid surfaces with bottom of doors that swing across to provide ample clearance between door and grid.

**3.04 Cleaning**

**A.** Clean the tread surface and recessed well as frequently as possible to reduce the effects of accumulated soiling that may hinder performance and lifetime.

**3.05 Protection**

**A.** After completing required frame installation and concrete work, provide temporary filler of plywood or fiberboard in recesses, and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and project is near time of substantial completion.

**B.** Defer installation of floor grids until time of substantial completion of project.