Starfleet Rain Screens

Starfleet rain screens are ideal for parking structures where creativity can be explored. Custom design aluminum perforations create a unique aesthetic to plain garages, while allowing the required light and airflow.

PART 1 - GENERAL

1.1 SUMMARY:

A. Prefabricated perforated aluminum screen
B. Mounting components and accessories
C. Mechanical fasteners

1.2 ACTION SUBMITTALS:

A. Material description and installation instructions for manufactured products.
B. Shop Drawings
C. Samples for Initial Selection

1.3 QUALITY ASSURANCE:

A. Comply with Standards and Codes listed in Article 1.02 REFERENCES.
B. Welding Qualifications: Qualify procedures and personnel according to the following:
   1. AWS D1.2/D1.2M, for aluminum

1.4 WARRANTY:

A. See manufacturer's warranty for specific details.

1.5 DELIVERY, STORAGE, AND HANDLING:

A. Deliver materials to the job site in good. Condition. Purchaser to store in clean, dry location, properly protected against damage to finished surfaces.

Part 2 - PRODUCTS

2.1 MATERIALS:

A. Aluminum Plate
   1. ASTM B209, 5052-H32 alloy
B. Aluminum Angle Supports
   1. ASTM B221, 6061-T6 alloy
C. Aluminum Component Fasteners
   1. Type 300 series Stainless Steel

2.2 FINISHES:

A. Anodized Finish: Clear anodized to comply with AA-M12C22A41 for a class 1 coating, complying with AAMA 611, or:
B. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2605.

2.3 COMPONENTS:

SPECIFIER: Perforations, including distance between perforations (NOT less than the thickness of the aluminum plate). NOT more than 10 different sizes and shapes of perforations are allowed. MAXIMUM size of any perforation cannot exceed 2 ½ inches.

Part 3 - EXECUTION

3.1 PROJECT CONDITIONS:

A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.Indicate field measurements on final shop drawings.

3.2. INSTALLATION:

A. Install work in accordance with manufacturer's instructions.

STANDARDS AND CODES

- International Building Code, 2012 Edition
- Minnesota State Building Code, 2015 Edition
- The Society for Protective Coatings
- The Aluminum Association, Inc.
- American Architectural Manufacturers Association
- American Society for Testing & Materials
- American Welding Society
- Americans with Disabilities Act Accessibility Guidelines

PERFORMANCE CRITERIA

Wind load per (IBC 2012, ASCE-7/10 40 PSF & 60 PSF). Deflection of aluminum panels to be L/60 max. Deflection of panel framing members to be L/175 max.

Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.