

SECTION 07 72 33
ROOF HATCHES
Construction Specification

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes: Personnel Series roof hatches installed on or in roofing system indicated on Drawings and specified herein. Includes related hardware and attachments. Does not include mechanical or structural items.
- B. Related Sections: Division 07 – Safety Railings for Roof Hatches.

1.2 REFERENCE STANDARDS

- A. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2010.
- B. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- C. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- D. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; American Architectural Manufacturers Association.
- E. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
- F. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
- G. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- H. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free
- I. FM P7825 – Approval Guide; Factory Mutual Research Corporation; current edition.
- J. NRCA ML104 - The NRCA Roofing and Waterproofing Manual; National Roofing Contractors Association; Fifth Edition, with interim updates.
- K. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association.
- L. SPRI ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems; Single Ply Roofing Industry (ANSI/SPRI/FM 4435/ES-1)

1.3 SUBMITTALS

- A. Shop Drawings: Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected Work.

1. Hatch Units: Show types, elevations, thickness of metals, and full size profiles.
 2. Hardware: Show materials, finishes, locations of fasteners, types of fasteners, locations and types of operating hardware, and details of installation.
 3. General: Show connections of units and hardware to other Work. Include schedules showing location of each type and size of unit.
- B. Product Data: Manufacturer's technical data for each type of hatch assembly, including setting drawings, templates, finish requirements, and details of anchorage devices. Include complete schedule, types, locations, construction details, finishes, latching or locking provisions, and other pertinent data.
 - C. Manufacturer's Installation Instructions: Indicate installation requirements and rough-in dimensions.
 - D. Quality Control Submittals: Statement of qualifications.
 - E. Contract Closeout Submittals: Operating and maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Qualifications Manufacturer/Installer: Company specializing in manufacturing and installation of components specified in this Section with minimum of 5 years documented experience
- B. Regulatory Requirements Cal-OSHA Compliance: Provide hatch safety railing system as required by Cal-OSHA Standard 1910.23 and 1910.27 and as specified in Section.
- C. Sustainability Requirements: San Mateo County Community College District is strongly committed to promoting sustainability throughout their campus projects. Section 01 81 13 Sustainability of the Design Standard provides guidelines and recommendations for implementing sustainability strategies. Where relevant, specific sustainability criteria is noted in this section; however, each project team should review and cross reference that front section while developing the specific project and its documentation. Each discipline shall confirm that specific performance and manufacturer information provided in the specification section is in alignment with code requirements, LEED criteria, and any other goals for sustainability.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site ready use.
- B. Exercise proper care in handling of Work so as not to injure finished surfaces. Protect Work from damage after it is in place.
- C. Store materials under cover in a dry and clean location off the ground. Remove materials that are damaged or otherwise not suitable for installation from Project site and replace with acceptable materials at no additional cost to Owner.

1.6 WARRANTY

- A. Provide manufacturer's written 5-year warranty

- B. Warrant materials and workmanship against defects after completion and final acceptance of Work.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Bilco Company (The).
 2. JL Industries Inc.; a division of the Activar Construction Products Group.
 3. Nystrom Inc.

2.2 MANUFACTURED UNITS

Personnel Series Galvanized Steel Roof Hatches:

- A. Cover and Liner: 14 gauge (0.075 inch) galvanized steel cover with 1 inch rigid fiberboard insulation and 22 gauge (0.0299 inch) galvanized steel cover liner.
- B. Curb: 14-gauge galvanized steel with 3/4 inch rigid fiberboard insulation at curb perimeter.
- C. Hinges: Type 316 stainless steel tamperproof hinge contained within hatch as part of spring assembly.
- D. Lock: Type 304 stainless steel with Schlage mortise lockset with Primus core, keyed interior.
- E. Springs: Greased heavy-duty compression springs in telescoping tubes. Spring tension shall be adjusted to prevent accidental closing.
- F. Hardware: Type 316 stainless steel hold open arm(s) with red vinyl grip handle that automatically locks the door when opened. Furnish hatches with interior EPDM draft seal.
 1. Schlage L9464 mortise lockset Deadlock with pull –keyed per SMCCCD project requirement (interior). Confirm with SMCCCD project manager for lock function.
 2. 14ga lockset mounting box –prepared to accept lockset readily.
 3. 14ga framing for strike plate -prepared to accept lockset manufacturer's standard strike plate.
 4. No unlocking pull cord or chain allowed.
 5. Hasp for padlock is not acceptable for SMCCCD unless authorized by the Vice Chancellor of Facilities and Planning
- G. Mounting Flanges: Double Wall Curb with 3.5" horizontal mounting flange
- H. Basis of Design : Nystrom Inc.; Model RHPG.

2.3 FINISHES

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Steel: Manufacturer's standard factory-applied powder coat.

2.4 SAFETY RAILINGS

- A. As specified in Division 07 Section "Safety Railings for Roof Hatches".

2.5 SAFETY POSTS FOR VERTICAL LADDER APPLICATION

- A. Post: Manufactured of high strength square tubing, 1-1/2 by 1-1/2 by 1/8 inch. A pull up loop shall be provided at the upper end of the post to facilitate raising the post
- B. Ladder Mounting: Attaches directly to the top two rungs (square or round) of fixed ladder
- C. Balancing spring: A stainless steel constant force balancing spring mechanism shall provide smooth, easy, controlled operation when raising and lowering the safety post
- D. Hardware: Mounting hardware shall be Stainless, providing superior rust resistance.
- E. Tubular post shall lock automatically when fully extended. Release lever shall disengage the post to allow it to be returned to its lowered position
- F. Basis of Design:
- G. Nystrom Inc.; Model SPM4.
- H. Finish: Stainless Steel, Mill Finish.

2.6 SAFETY RAILING FOR SHIPS LADDER AND SERVICE STAIR APPLICATION

- A. Curb mounted fall protection railing per section 07 72 00.
- B. Provide rail extensions integral to safety railing to serve exiting from and entering through roof hatch.
- C. Project design team shall provide coordinated drawings showing curb mounted railing per 07 72 00 with roof hatch application.

END OF SECTION