**3-Part CSI MasterFormat Specification**

**SECTION 07 7200**

**Roof Accessories: roof hatch and smoke vent**

1. **GENERAL**
   * + 1. Summary
          1. Section includes:

Hurricane Hatch™ 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.

Accessory Products for Roof Hatches

Safety Railings for all roof hatches

Safety posts for vertical ladder access roof hatches

* + - * 1. Related Sections: [Insert applicable specifications sections]

Division 5 - Metal Fabrications.

Division 7 - Roofing and Sealants

Division 9 – Paints and Coatings.

* + - 1. COORDINATION
         1. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a watertight installation.
         2. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.
      2. references
         1. Steel Sheet: ASTM A653 / A653M steel sheet, zinc-coated (galvanized) or zinc-iron alloy-coated (galvannealed) by the hot-dip process
         2. Aluminum Sheet: ASTM B209
         3. Insulation: Manufacturer’s standard rigid polyisocyanurate board
         4. Aluminum Extrusion: 6061-T6 aluminum.
         5. Steel Angle: ASTM A36-94 steel frame, structural.
         6. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products"
      3. Submittals
         1. Shop Drawings: Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected Work.

Hatch Units: Show types, elevations, thickness of metals, and full-size profiles.

Hardware: Show materials, finishes, locations of fasteners, types of fasteners, locations and types of operating hardware, and details of installation.

General: Show connections of units and hardware to other Work. Include schedules showing location of each type and size of unit.

* + - * 1. 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.

* + - * 1. Manufacturer's Installation Instructions: Indicate installation requirements and rough-in dimensions.
        2. Quality Control Submittals:

Statement of qualifications.

* + - * 1. Contract Closeout Submittals:

Installation, Operating & Maintenance manuals.

* + - 1. Quality Assurance
         1. Qualifications:

Manufacturer/Installer: Company specializing in manufacturing and installation of components specified in this Section with minimum of 5 years documented experience.

* + - * 1. Regulatory Requirements:

Miami-Dade County, FL Approved

TAS 201 Impact test

TAS 202 Uniform Static Air Pressure

TAS 203 Cyclic Wind Pressure Loading

OSHA 29 CFR 1910.23 Guarding floor and wall openings and holes

OSHA 29 CFR 1926.502 Fall protection systems criteria

International Building Code (IBC) Section 1013.6 Roof Access

International Building Code (IBC) Section 1009.11 Means of Egress, Stairways, Stairway to Roof

* + - 1. Delivery, Storage, and Handling
         1. Deliver materials to Project site ready use.
         2. Exercise proper care in handling of Work so as not to injure finished surfaces. Protect Work from damage after it is in place.
         3. 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.
      2. WARRANTY
         1. Provide manufacturer’s standard 5 year warranty. All roof hatches shall be free from manufacturing defects in materials and workmanship for a period of five (5) years from the date of shipment. Should a product fail to function in normal use within this period, manufacturer shall furnish a new part at no charge. Special finishes, and other special equipment (if applicable) shall be warranted by the manufacturer of those products.

1. **PRODUCTS**
   * + 1. MANUFACTURER
2. Nystrom

9300 73rd Ave N.

Minneapolis, MN 55428

PH: 800.547.2635

www.Nystrom.com

* + - 1. Roof hatch

Type and Size: Hurricane Hatch™ metal lid RHH **[36 by 30 inches (900 by 750 mm)] [30 by 30 inches (750 by 750 mm)] [30 by 54 inches (750 by 1370 mm)] [36 by 36 inches (900 by 900 mm)] [48 by 48 inches (1220 by 1220 mm)] [As selected by Architect from manufacturer's full range][as indicated on drawings]**

Units shall be Miami-Dade County, FL Product Control Approved meeting large and small impact requirements NOA #: 17-0207.11, Expiration Date May 22, 2022

Performance requirements:

Roof hatch shall be reinforced to support live load of 40-lbf/sq. ft. (1.9-kPa) with a maximum deflection of 1/150th of the span with a wind load of plus or minus 140-lbf/sq. ft. (6.7-kPa).

Hatch Material:

Cover: [0.07895 inch (1.9 mm) galvanneal steel] [0.0907 inch (2.3 mm) aluminum]

Cover insulation: 1 inch (25 mm) polystyrene insulation covered by 0.040 inch (1.0 mm) aluminum liner

Curb height in "Curb: paragraph below may be determined by adding thickness of roof insulation to the minimum base flashing height recommended by roofing membrane manufacturer or established by office practice.

Curb: **[0.07895 inch (1.9 mm) galvanneal steel] [0.0907 inch (2.3 mm) aluminum]** with a single wall curb with integral counterflashing. Mounting flange continuous around base of frame.

Fabricate curbs to minimum height of 12 inches (305 mm) above roofing surface unless otherwise indicated.

Sloping Roofs: Where slope or roof deck exceeds 3:12, fabricate curb with perimeter curb height that is tapered to accommodate roof slope so that top surfaces of perimeter curb are level.

Curb Insulation: 1 inch (25 mm) polyisocyanurate.

First option in "Finish" subparagraph below applies only to aluminum.

Finish: [Mill finish] [TGIC Polyester powder coat paint].

Retain "Color" subparagraph below if retaining second option in "Finish" subparagraph above.

Color: **[High Reflectance White] [ANSI 70 Gray]**

Hardware: Zinc plated steel.

Hinge/Spring Assembly: Zinc plated steel Tamper-proof pin type hinge/spring assembly with steel compression springs contained within telescope tubes.

Hold Open Device: Automatic zinc plated steel hold open arm and striker plate with red vinyl grip handle.

Latch: Zinc plated steel two-point rotary latch with inside and outside operating turn handles and padlock hasp provisions.

Gasket: Extruded EPDM adhesive back seal, continuous around cover.

Retain one or both "Safety Railing System" and "Ladder-Assist Post" paragraphs below; revise to suit Project. If retaining both paragraphs, indicate location of each on Drawings or by inserts. Consult authorities having jurisdiction for their requirements.

1. Safety Railing System: Model SRC Roof-hatch manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation; attached to roof hatch and complying with 29 CFR 1910.23 requirements and authorities having jurisdiction.

Retain "Height" Subparagraph below if railing system is not fully detailed on Drawings. Option is based on OSHA fall protection requirements; revise to suit Project.

1. Height: 42 inches (1060 mm) above finished roof deck.

Dimensions in "Rails" subparagraph below is typical; other diameters and thicknesses may be specified; revise to suit Project.

1. Rails:
2. Aluminum pipe, 1-1/4 inch (31 mm), 1.66 inch (42 mm) outside diameter, schedule 40 pipe.
3. Finish: **[TGIC Polyester powder coat paint]** <Insert finish>.
4. Color: **[Safety Yellow] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range]** <Insert color>.
5. Fittings: Cast aluminum alloy with set screw hold.
6. Mounting Brackets: 3/16 inch (4.75 mm) steel, zinc plated with nut backing plate.
7. Exit: **[Self-closing gate with coil spring, 1-1/4 inch (32 mm) aluminum] [Chain, 3/16 inch (4.76 mm) zinc plated steel link chain with spring clip ends].**
8. Ladder-Assist Post: Model SP Roof-hatch manufacturer's standard device for attachment to roof-access ladder.
9. Operation: Post locks in place on full extension; release mechanism returns post to closed position.

Option in "Height" Subparagraph below is typical height.

1. Height: 42 inches (1060 mm) <Insert dimension> above finished roof deck.
2. Material**: [Steel tube] [Stainless steel] [Aluminum].**

Option in "Post" Subparagraph below is an example only; revise to suit Project.

1. Post: 1-1/2 inch (38.1mm) by 1-1/2 inch (38.1mm) by 1/8 inch (3.2mm) <Insert dimension> diameter high strength square.
2. Finish**: [Manufacturer's standard baked enamel or powder coat] <Insert finish>.**
3. Color**: [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range]** <Insert color>.
4. Safety Grab Bar: Model SGB provide safe access through roof hatches while providing added functionality and weight bearing support
5. Operation: mounts through a corner section through the curb counterflashing.
6. Material: Aluminum pipe 1-1/4 inch (32 mm) inside diameter Schedule 40 ATSM A53 Seamed Steel
7. Fittings: Cast aluminum alloy with set screw hold
8. Hardware: Hex head bolts 3/8 inch (9.5 mm) by 3/4 inch (19 mm)
9. Finish: **[Manufacturer's standard baked enamel or powder coat]** <Insert finish>.
10. Color: **[Safety Yellow] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range]** <Insert color>.
11. EXECUTION
    * + 1. EXAMINATION
           1. Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions detrimental to proper or timely completion.
           2. Verify that deck, curbs, roof membrane, base flashing, and other items affecting Work of this Section are in place and positioned correctly.
           3. Verify tolerances and correct improper conditions.
           4. Do not proceed until unsatisfactory conditions have been corrected.
        2. Installation
           1. Install roof hatch and accessory items per manufacturer's instructions.

For Miami-Dade Hurricane Hatch, install using the manufacturer’s anchoring options as detailed on shop drawings and installation instructions for wood curbs, steel curbs or concrete curbs.

* + - * 1. Coordinate installation of components of this Section with installation of roof deck, roof structure, roofing membrane, and base flashing.
        2. Coordinate installation of sealant and roofing cement with Work of this Section to ensure water tightness.
      1. ADJUSTING
         1. Adjust movable parts for smooth operation.
         2. Operational Units: Test-operate units with operable components. Clean and lubricate joints and hardware. Adjust for proper operation.
      2. cleaning
         1. Clean exposed surfaces per manufacturer's written instructions. Touch up damaged metal coatings.

END OF SECTION

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