WINLOK® MH ACCESSIBLE SECURITY CEILING SYSTEM

SECTION 09 54 00

PART 1 – GENERAL

1.01 SECTION INCLUDES:

A. This section includes WinLok® MH Accessible Security Ceiling System as shown on the Architectural Drawings.
B. Related sections include the following: (list applicable sections).

1.02 RELATED DOCUMENTS/SECTIONS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions.
B. Division 1 Specification sections apply to work of this Section.
C. Finish Schedule or Finish Legend applies to work of this Section.

1.03 REFERENCES:

A. GENERAL
    1. Comply with applicable requirements of the following, except where more stringent requirements are indicated by building codes.
B. ASTM (American Society for Testing and Materials)
    1. ASTM B209, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
    2. ASTM C635, Standard Specifications for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
    3. ASTM C636, Recommended Practice for Installation of Metal Suspension System for Acoustical Tile and Lay-In Panels.
C. New York State Office of Mental Health (NYS-OMH) Patient Safety Standards, Materials and Systems Guidelines.
D. Aluminum Standards and Data provided by The Aluminum Association, Inc.
E. CISCA Ceiling Systems Installation Handbook.
F. United States Patent and Trademark Office (USPTO)
    1. WinLok® has been awarded three U.S. patents: 10113317, 11168477, 12049758

1.04 DESIGN/PERFORMANCE REQUIREMENTS:

A. All components of the WinLok® MH Accessible Security Ceiling System shall be provided by one (1) Manufacturer to ensure single source responsibility and quality control.
B. The WinLok® MH Accessible Security Ceiling System is fully accessible. The System consists of a Suspension System made of extruded aluminum members, WinLok® Spring Clips/Brackets, and aluminum Panels to form a continuous ceiling surface.
C. Specified Panel engages the WinLok® Spring Clips/Brackets Torsion Spring suspension assembly. All fasteners are concealed.

D. WinLok® MH Accessible Security Ceiling System shall have panel alignment feature.
E. Only NYS-OMH Tested and Accepted Products shall be used.

1.05 SUBMITTALS:

A. Submission must be made within agreed upon time frame of the General Contract Award to avoid project delay.
B. Product Data: Submit Manufacturer's WinLok® MH Accessible Security Ceiling System product specifications, detail drawings, and Installation Instructions for each component required.
C. Shop Drawings shall show location of WinLok® MH Accessible Security Ceiling System as well as specified finish, tolerance, Panel thickness, perforation pattern, and Panel size.
D. Samples: Submit three (3) samples consisting of curved members with Panels and Torsion Springs attached.
E. Sustainability:
    1. Materials and Resources
        a. Building Life-Cycle Impact Reduction
            i. LCAs for aluminum and steel are available.
                a) Aluminum - http://www.gordon-inc.com/literature/pdf/cisca_background_report_aluminum_2020-04-24.pdf
                b) Steel - http://www.gordon-inc.com/literature/pdf/cisca_background_report_steel_2020-04-24.pdf
        b. Building Product Disclosure and Optimization - Environmental Product Declarations
            i. Industry-average EPDs for aluminum and steel are available.
                a) Aluminum - http://www.gordon-inc.com/literature/pdf/101.1_cisca_industry_wide_epd_aluminum_specialty_products.pdf
                b) Steel - http://www.gordon-inc.com/literature/pdf/102.1_cisca_industry_wide_epd_steel_specialty_products.pdf
        c. Building Product Disclosure and Optimization - Sourcing of Raw Materials
            i. Regional Materials – Raw materials can be purchased from Vendors within 100 miles of the project location and fabrication of all materials in Bossier City, LA, U.S.A.
            ii. Gordon's mission is to locate recycled materials that are not only of high recycled content, but extracted, produced, or extruded in the U.S.A.
        d. Building Product Disclosure and Optimization - Material Ingredients
            i. Full disclosure of material recycled content is available.
        e. Construction and Demolition Waste Management

i. Most products shipped from our plant are engineered to fit and reduce field cutting during installation.
    a) Fewer indoor air quality problems
    b) Less scrap and debris – cleaner work environment
    c) Less noise pollution caused by field cutting of materials
    d) Maintain comfort and well-being of workers and occupants

2. Indoor Environmental Quality
    a. Low-Emitting Materials
        i. Gordon's State-of-the-art Powder Coating line produces the highest quality powder coated surfaces while also contributing to our sustainability drive.
            a) No heavy Metals used in pre-treatment
            b) Processed water is fully compliant for introducing into waste stream
            c) Extremely efficient use of powder coating through reclamation system reducing powder wastage
            d) Factory finished products shipped from our plant eliminates field painting
                1. Prevents odorous and irritating air contaminants
                2. Introduces no hazardous waste
                3. Contributes no VOCs
                4. Maintains comfort and well-being of workers and occupants

    b. Thermal Comfort
        i. Gordon acoustical ceilings and walls aid in providing Thermal Comfort Control with encapsulated acoustical media containing insulation or nonwoven acoustical fabric for insulative purposes to meet the requirements of ASHRAE Standard 55–2010, Thermal Comfort Conditions for Human Occupancy.
    c. Interior Lighting
        i. Gordon's AAMA 2604 powder coat finishes can provide the proper light reflectance to improve illumination in the space and reduce lumen output requirements.
    d. Acoustic Performance
        i. Gordon manufactures a vast array of ceiling systems that provide acoustical performance to meet Noise Reduction Coefficient (NRC) requirements.

3. Innovation

    a. Innovation
        i. Gordon is a strategic partner with the design community and continuously finds ways to design products that can aid in improving environmental performance.
    b. LEED Accredited Professional

i. Gordon has LEED Accredited Professionals on staff to assist with your sustainability requirements

4. Detailed explanation of LEED Credits and Gordon, Inc.'s Contribution can be located at http://www.gordon-inc.com/company/sustainability/.

F. Certification: Submit certification from Manufacturer of ceiling panels attesting that product complies with specified requirements including finish as specified.

G. Qualification Data:
   1. Firms specified in "Quality Assurance" Article must demonstrate their capabilities and experience by including lists of completed projects with project names and addresses, names and addresses of Architects and owners, and other information specified.

H. Warranty:
   1. Provide product warranty for one (1) year from date of material shipment.

1.06 QUALITY ASSURANCE:

A. Manufacturer: Furnish components from one (1) manufacturer with a minimum of ten (10) years of experience in the fabrication of extruded aluminum ceiling specialties, utilizing systems, materials, and techniques as herein specified.

B. Installer: Firm with not less than three (3) years of successful experience in the installation of systems similar to those required by this project and acceptable to Manufacturer of the system.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING:

A. All materials shall be protected during fabrication, shipment, site storage, and erection to prevent damage from other trades. Store WinLok® MH Accessible Security Ceiling System and components inside a well-ventilated area, away from uncured concrete and masonry, and protected from the weather, moisture, soiling, abrasion, extreme temperatures, and humidity.

1.08 WARRANTY:

A. Furnish Manufacturer's:
   1. Warranty that materials furnished will perform as specified for a period of not less than one (1) year from date of material shipment when installed in accordance with Manufacturer's recommendations.

1.09 SUBSTITUTIONS:

A. No substitutions are permitted for the WinLok® MH Accessible Security Ceiling System. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00. Companies desiring to submit a proposal shall submit all descriptive information of the system proposed including photographs and Shop Drawings of at least ten (10) projects within the past five (5) years, utilizing systems, materials and techniques as herein specified.

PART 2 - PRODUCTS

2.01 MANUFACTURERS:

A. Acceptable System: WinLok® MH Accessible Security Ceiling System shall be manufactured by Gordon, Inc. For all inquiries contact:

Gordon, Inc.
5023 Hazel Jones Road,
Bossier City, LA 71111
(800) 747-8954
sales@gordon-inc.com

B. The products specified herein are standard manufactured products of the listed Manufacturer. The aluminum system has been carefully selected to produce functional and aesthetic considerations.
C. System must be manufactured in the U.S.A.

2.02 PRODUCT CONSTRUCTION:

A. Ceiling System shall be WinLok® MH Accessible Security Ceiling System manufactured of metal components.
B. Gordon's WinLok® MH Accessible Security Ceiling System is NYS-OMH Tested/Accepted.
C. Materials:
    1. Suspension Components shall be extruded aluminum of standard 6063 T-5 or T-6 aluminum alloy. WinLok® MH Spring Clips/Brackets and Torsion Spring Brackets are field installed to the Suspension System assembly at the appropriate module size.
    2. Panels shall be aluminum:
        a. Aluminum 3003-H14, 5005-H14, or 5052-H32
            - NYS-OMH Tested / Accepted
            - Minimum thickness of .050" inches
    3. Panels are perforated or non-perforated based on the Architectural Drawings. Panels snap-up / attach to the Suspension System with concealed WinLok® Spring Clips/Brackets. Panels have up-turned edges with engagement slots for WinLok® Torsion Spring engagement.
    4. WinLok® Removal Tools shall be provided for installation of system. Installer to provide WinLok® Removal Tools to Facility Maintenance / Owner upon completion of project.
    5. Perimeter Trims
        a. Fixed Perimeter - Extruded Aluminum Perimeter Trim attaches to wall with field fasteners. Field cut Panels rest on Extruded Aluminum Perimeter Trim. Panel Hold Zee (brake formed) friction fits between Extruded Aluminum Perimeter Trim and Panel. Torx Plus®[1] tamper resistant security fasteners attach to the Extruded Aluminum Perimeter Trim (1" from ends of panel max and 6" O.C.).

b. Floating Perimeter - Extruded Aluminum Perimeter Trim field attaches to wall with field fasteners. Brake formed Z-trim attach to Suspension System threaded screw boss with ¼-20 screws and Extruded Aluminum Perimeter Trim with Torx Plus®[1] tamper resistant security fasteners (1" from ends of Zee-trim max and 6" O.C.).

D. Optional Accessories:
   1. PVC wrapped acoustical pad (1'' thick x 1.5 lb density) is available as specified. Contact factory for suitability with specified Panel
   2. Compression Struts or Angle Struts
   3. Perforated WinLok® speaker panels
   4. Perforated WinLok® panel for diffuser & return vents
   5. Contura™ Acoustical & Drywall Trims for ceiling transitions
   6. Backer Panels
   7. Column Collars / Rings
   8. Lighting
      i. Recessed LockLite™ security lights
      ii. Light transition trims
      iii. Backlighting systems
   9. Security Air Distribution-Directional Diffuser and Return Vents

2.03 FINISHES:

A. Finishes
   1. Exposed surfaces of Extrusions and Panels shall receive 5-stage pretreatment with dried-in-place conversion coating prior to receiving an electrostatically applied AAMA 2604 compliant, antimicrobial powder coating.
   2. All cut edges, including perforated holes, must be coated. Finish shall oven baked to ensure complete curing, paint adhesion, and uniform surface hardness.
   3. Paint color to be selected from Gordon Inc.'s list of Standard Colors (Custom Colors also available).
B. Pre-Coated Coil finishes (PVDF) available for Panels.
C. Wood-look finishes available for Panels:
   1. Wood-Look Paints (Pre-Coated)
   2. Laminated Wood-Look Films – Series 1
   3. Laminated Wood-Look Films – Series 2
   4. Wood-Look Powder Coating

2.04 FABRICATION:

A. Provide factory WinLok® MH Suspension for the specified module.
B. Panels engage via the WinLok® MH Spring Clips/Brackets.
C. Acoustical panel shall be perforated with ½" nominal non-perforated borders.
   1. Standard Perforation Patterns which are NYS-OMH Tested/Accepted
      i. R564-732DG10 (5/64" round holes on 7/32" diagonal centers, 10% open area)
      ii. R18-2164SG13 (1/8" round holes on 21/64" staggered centers, 13% open area)
      iii. R18-14ST20 (1/8" round holes on 1/4" straight centers, 20% open area)

iv. R18-14SG23 (1/8” round holes on 1/4” staggered centers, 23% open area)

2. Other Perforation Patterns are available but may not perform for anti-ligature requirements. Consult factory for other options.

PART 3 - EXECUTION

3.01 EXAMINATION:

A. Examination of Surfaces: Installer must examine conditions under which work is to be performed and must notify Contractor in writing of unsatisfactory conditions.
B. Verify that field measurements and block-out dimensions are as shown on Shop Drawings.

3.02 PREPARATION:

A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the Manufacturer to achieving the best result for the project conditions.

3.03 INSTALLATION:

A. General: Comply with Manufacturer’s printed instructions and any special instructions provided.
B. Space Enclosure: Do not install any work until space is enclosed and weatherproofed, wet-work in space is completed and nominally dry, work above ceilings is complete, and temperature and humidity shall be continuously maintained at values near those of final occupancy.

3.04 CLEANING:

A. Follow Manufacturer’s cleaning instructions for specified finish.

3.05 PROTECTION:

A. Procedures: Protection of WinLok® MH Accessible Security Ceiling System from damage by other trades after installation to be provided by General Contractor.
B. Damage to Finished Work: Finished units shall be without damage. Damage shall be repaired by the Contractor at the expense of the party damaging the material, as in accordance with the contract requirements.

[1]Torx Plus® is a registered trademark of Acumens Intellectual Properties, LLC.

END OF SECTION