

SECTION 10 26 00 - WALL AND DOOR PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Wall guards.
 - 2. Handrails.
 - 3. Corner guards.
 - 4. Impact-resistant wall coverings (FRL).
- B. Related Requirements:
 - 1. Section 08 71 00 "Door Hardware" for metal armor, kick, mop, push plates, etc.

1.2 ACTION SUBMITTALS

- A. Product Data: Include construction details, material descriptions, impact strength, fire-test-response characteristics, dimensions of individual components and profiles, and finishes for each impact-resistant wall protection unit.
- B. Shop Drawings: For each impact-resistant wall protection unit showing locations and extent. Include sections, details, and attachments to other work.
 - 1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Samples for Initial Selection: For each type of impact-resistant wall protection unit indicated.
 - 1. Include similar Samples of accent strips and accessories involving color selection.
- D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below. Include Samples of accent strips to verify color selected.
 - 1. Wall and Corner Guards: 12 inches (300 mm) long. Include examples of joinery, corners, end caps, top caps, and field splices.
 - 2. Handrails: 12 inches (300 mm) long. Include examples of joinery, corners, and field splices.
 - 3. Impact-Resistant Wall Covering: 6 by 6 inches (150 by 150 mm) square.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.

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- B. Material Certificates: For each impact-resistant plastic material, from manufacturer.
- C. Material Test Reports: For each impact-resistant plastic material.
- D. Warranty: Sample of special warranty.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each impact-resistant wall protection unit to include in maintenance manuals.
 - 1. Include recommended methods and frequency of maintenance for maintaining optimum condition of plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to plastic finishes and performance.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Wall-Guard and Handrail Covers: Full-size plastic covers of maximum length equal to 2 percent of each type, color, and texture of units installed, but no fewer than two, 8-foot- (2.4-m-) long units.
 - 2. Bed-Locator Covers: Full-size plastic covers equal to 2 percent of each type, color, and texture of units installed, but no fewer than two units.
- B. Include mounting and accessory components. Replacement materials shall be from same production run as installed units.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Source Limitations: Obtain impact-resistant wall protection units from single source from single manufacturer.
- C. Product Options: Drawings indicate size, profiles, and dimensional requirements of impact-resistant wall protection units and are based on the specific system indicated. Refer to Section 01 40 00 "Quality Requirements."
 - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- D. Surface-Burning Characteristics: Provide impact-resistant, plastic wall protection units with surface-burning characteristics as determined by testing identical products per ASTM E 84, NFPA 255, or UL 723 by UL or another qualified testing agency.

- E. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store impact-resistant wall protection units in original undamaged packages and containers inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
 - 1. Maintain room temperature within storage area at not less than 70 deg F (21 deg C) during the period plastic materials are stored.
 - 2. Keep plastic sheet material out of direct sunlight.
 - 3. Store plastic wall protection components for a minimum of 72 hours, or until plastic material attains a minimum room temperature of 70 deg F (21 deg C).
 - a. Store corner-guard covers in a vertical position.
 - b. Store wall-guard, bed-locator and handrail covers in a horizontal position.

1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install impact-resistant wall protection units until building is enclosed and weatherproof, wet work is complete and dry, and HVAC system is operating and maintaining temperature at 70 deg F (21 deg C) for not less than 72 hours before beginning installation and for the remainder of the construction period.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of impact-resistant wall protection units that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures.
 - b. Deterioration of plastic and other materials beyond normal use.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide handrails capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Uniform load of 50 lbf/ft. (0.73 kN/m) applied in any direction.
 - 2. Concentrated load of 200 lbf (0.89 kN) applied in any direction.
 - 3. Uniform and concentrated loads need not be assumed to act concurrently.

2.2 MATERIALS

- A. Polycarbonate Plastic Sheet: ASTM D 6098, S-PC01, Class 1 or 2, abrasion resistant; with a minimum impact-resistance rating of 15 ft-lbf/in. (800 J/m) of notch when tested according to ASTM D 256, Test Method A.
- B. Stainless-Steel Sheet: ASTM A 240/A 240M.
- C. Fasteners: Aluminum, nonmagnetic stainless-steel, or other noncorrosive metal screws, bolts, and other fasteners compatible with items being fastened. Use security-type fasteners where exposed to view.
- D. Adhesive: As recommended by impact-resistant plastic wall protection manufacturer and with a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- E. Adhesive: As recommended by impact-resistant plastic wall protection manufacturer.

2.3 WALL GUARDS

- A. CR-1, Crash Rail: Heavy-duty assembly consisting of continuous snap-on plastic cover installed over concealed retainer system; designed to withstand impacts.
- B. Basis-of-Design Product: Subject to compliance with requirements, provide Construction Specialties, Inc. , Acrovyn 4000 Series, or comparable product by one of the following:
 - a. American Floor Products Co., Inc.
 - b. Arden Architectural Specialties, Inc.
 - c. Balco, Inc.
 - d. IPC Door and Wall Protection Systems; Division of InPro Corporation.
 - e. Korogard Wall Protection Systems; a division of RJF International Corporation.
 - f. Musson Rubber Company.
 - g. Pawling Corporation.
 - h. Tepromark International, Inc.
 - i. WallGuard.com.
- 2. Cover: Extruded rigid plastic, minimum 0.100-inch (2.5-mm) wall thickness; as follows:
 - a. Profile: Flat.
 - 1) Dimensions: Nominal 4 inches high by 3/4 inch deep.
 - 2) Surface: Uniform.
 - b. Color and Texture: As selected by Architect from manufacturer's full range.
- 3. Continuous Retainer: Minimum 0.080-inch- (2.0-mm-) thick, one-piece, extruded aluminum.
- 4. Retainer Clips: Manufacturer's standard impact-absorbing clips designed for heavy-duty performance.
- 5. End Caps and Corners: Prefabricated, injection-molded plastic; matching color cover; field adjustable for close alignment with snap-on cover.

6. Accessories: Concealed splices and mounting hardware.
7. Mounting: Surface mounted directly to wall.
8. Model Number;
 - a. SCR-40N, Length and color as indicated

2.4 HANDRAILS

- A. HR-1, Brushed Stainless Lighted Handrails: Assembly consisting of stainless steel cover installed over continuous housing.
- B. Basis-of-Design Product: Subject to compliance with requirements, provide C.R. Laurence :
 1. Cap; CRL GR16BS14 Brushed stainless steel cap rail for wall mounted applications.
 - a. Single Handrail: Cylindrical tube profile cover with continuous retainer; with mounting brackets supporting bottom of rail.
 - 1) Tube Diameter: 1.66 inches and as shown on the drawings.
 - b. Lighting: CRL Cap rail housing insert with frosted lens for LED strip lights.
 - c. Bracket: CRL HR2D Wall mounted hand rail bracket.
 2. End Caps and Corners: stainless steel cover; field adjustable for close alignment with snap-on cover.
 3. Accessories: Concealed splices, cushions, and mounting hardware.

2.5 CORNER GUARDS

- A. CG-1, CG-2, CG-3, and CG-4, Flush Mounted Corner and End Wall Guards: Heavy-duty assembly consisting of continuous snap-on plastic cover installed over concealed retainer system; designed to withstand impacts.
 1. Basis-of-Design Product: Subject to compliance with requirements, provide Construction Specialties, Inc., Acrovyn 4000 Series or comparable product by one of the following:
 - a. American Floor Products Co., Inc.
 - b. Arden Architectural Specialties, Inc.
 - c. Boston Retail Products.
 - d. IPC Door and Wall Protection Systems; Division of InPro Corporation.
 - e. Korogard Wall Protection Systems; a division of RJF International Corporation.
 - f. Pawling Corporation.
 - g. Tepromark International, Inc.
 - h. WallGuard.com.
 2. Cover: Extruded rigid plastic, minimum 0.100-inch (2.5-mm) wall thickness; as follows:
 - a. Profile: Flat.
 - 1) Dimensions: See Drawings for Height
 - 2) Surface: Uniform.
 - b. Color and Texture: As selected by Architect from manufacturer's full range.
 3. Corner Radius: Eased

4. Mounting: Concealed bracket.
5. Model numbers;
 - a. Corner Guard, FS-20N, Height and color as indicated
 - b. End Wall Guard, FSC-25N, Height and color as indicated

2.6 IMPACT-RESISTANT WALL COVERINGS

- A. WP-1, WP-2, WP-3 and WC-4, Impact-Resistant Sheet Wall Covering: Fabricated from fiber reinforced laminate material.
 1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings Panolam FRL
 2. Size: 48 by height as indicated.
 3. Sheet Thickness: As manufactured
 4. Color and Texture: As selected by Architect from manufacturer's full range.
 5. Custom color and texture: Custom print as designed by Architect where indicated on Drawings.
 6. Height: Varies and as indicated on the Drawings.
 7. Trim and Joint Moldings: Clear anodized extruded aluminum.
 8. Mounting: Adhesive.

2.7 FABRICATION

- A. Fabricate impact-resistant wall protection units to comply with requirements indicated for design, dimensions, and member sizes, including thicknesses of components.

2.8 Assemble components in factory to greatest extent possible to minimize field assembly. Disassemble only as necessary for shipping and handling.

- A. Fabricate components with tight seams and joints with exposed edges rolled. Provide surfaces free of wrinkles, chips, dents, uneven coloration, and other imperfections. Fabricate members and fittings to produce flush, smooth, and rigid hairline joints.
- B. Miter corners and ends of wood handrails for returns.

2.9 METAL FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 1. Remove tool and die marks and stretch lines, or blend into finish.
 2. Grind and polish surfaces to produce uniform finish, free of cross scratches.
 3. Run grain of directional finishes with long dimension of each piece.
 4. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

- B. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and wall areas, with Installer present, for compliance with requirements for installation tolerances, fire rating, and other conditions affecting performance of work.
- B. Examine walls to which impact-resistant wall protection will be attached for blocking, grounds, and other solid backing that have been installed in the locations required for secure attachment of support fasteners.
 - 1. For impact-resistant wall protection units attached with adhesive or foam tape, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Complete finishing operations, including painting, before installing impact-resistant wall protection system components.
- B. Before installation, clean substrate to remove dust, debris, and loose particles.

3.3 INSTALLATION

- A. General: Install impact-resistant wall protection units level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.
 - 1. Install impact-resistant wall protection units in locations and at mounting heights indicated on Drawings or, if not indicated, at heights indicated below:
 - a. Crash Rails: As indicated on the drawings.
 - b. Corner Guards: As indicated on the drawings.
 - c. Rub Rails: As indicated on the drawings.
 - d. Handrails: As indicated on the drawings.
 - e.
 - 2. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.
 - a. Provide anchoring devices to withstand imposed loads.
 - b. Where splices occur in horizontal runs of more than 20 feet (6.1 m), splice aluminum retainers and plastic covers at different locations along the run, but no closer than 12 inches (305 mm).
 - c. Adjust end and top caps as required to ensure tight seams.

Maine Medical Center
Bean 2 Roof Addition
For Construction
Addendum No. 2
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- B. Impact-Resistant Wall Covering: Install top and edge moldings, corners, and divider bars as required for a complete installation.

3.4 CLEANING

- A. Immediately after completion of installation, clean plastic covers and accessories using a standard, ammonia-based, household cleaning agent.
- B. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION