SECTION 102600 - WALL AND DOOR PROTECTION

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

1. GENERAL
	* + 1. RELATED DOCUMENTS
				1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
			2. SUMMARY
				1. Section Includes:

Wall guards.

Impact-resistant handrails.

Bed locators.

Corner guards.

End-wall guards.

Abuse-resistant wall coverings.

Door-edge protection.

Door-frame protection.

Door-hardware protection.

* + - * 1. Related Requirements:

Retain Subparagraphs below to cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections.

Section 055000 "Metal Fabrications" for [**steel angle corner guards**] [**pipe guards**] [**and**] [**wheel guards**].

Section 064023 "Interior Architectural Woodwork for solid-wood handrails, bumper rails, chair rails, or corner moldings without plastic bumpers.

[**Section 087100 "Door Hardware"**] for metal[**and plastic**] protective trim units, according to BHMA A156.6, used for armor, kick, mop, and push plates.

* + - 1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Product Data: For each type of product.

Include construction details, material descriptions, impact strength, dimensions of individual components and profiles, and finishes.

Revise Subparagraph below to suit Project.

Include fire ratings of units recessed in fire-rated walls and listings for door-protection items attached to fire-rated doors.

* + - * 1. Sustainable Design Submittals:
				2. Shop Drawings: For each type of wall and door protection showing locations and extent.

Retain option in Subparagraph below if handrails are required.

Include plans, elevations, sections, and attachment details.[**Show handrail design and support spacing required to withstand structural loads.**]

Retain "Samples for Initial Selection" and "Samples for Verification" Paragraphs below for two-stage Samples.

* + - * 1. Samples for Initial Selection: For each type of impact-resistant wall-protection unit indicated, in each color and texture specified.

Include Samples of accent strips and accessories to verify color selection.

* + - * 1. Samples for Verification: For each type of exposed finish on the following products, prepared on Samples of size indicated below:

Wall Guards: 12 inches long. Include examples of joinery, corners, end caps, top caps, and field splices.

Handrails: 12 inches long. Include examples of joinery, corners, and field splices.

Bed Locators: 12 inches long. Include example of end caps.

Corner and End-Wall Guards: 12 inches long. Include example top caps.

Abuse-Resistant Wall Covering: 6 by 6 inches square.

Door-Surface Protection: 6 by 6 inches square.

Door-Edge and -Frame Protectors: 12 inches long.

Door-Knob and -Lever Protectors: Full-size unit of each type.

Retain "Product Certificates" Paragraph below to require submittal of product certificates from manufacturers.

* + - * 1. Product Certificates: For each type of handrail.

Retain "Material Certificates" Paragraph below to require submittal of material certificates from manufacturers.

* + - * 1. Material Certificates: For each type of exposed plastic material.
				2. Sample Warranty: For special warranty.
			1. CLOSEOUT SUBMITTALS
				1. Maintenance Data: For each type of wall and door protection product to include in maintenance manuals.

Include recommended methods and frequency of maintenance for maintaining best condition of plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to finishes and performance.

* + - 1. MAINTENANCE MATERIAL SUBMITTALS
				1. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

Wall-Guard and Handrail Covers: Full-size plastic covers of maximum length equal to 2 percent of each type, color, and texture of cover installed, but no fewer than two, 96-inch- long units.

Bed-Locator Covers: Full-size plastic covers equal to 2 percent of each type, color, and texture of cover installed, but no fewer than two units.

Corner-Guard Covers: Full-size plastic covers of maximum length equal to 2 percent of each type, color, and texture of cover installed, but no fewer than two, 48-inch- long units.

Mounting and Accessory Components: Amounts proportional to the quantities of extra materials. Package mounting and accessory components with each extra material.

* + - 1. QUALITY ASSURANCE
			2. DELIVERY, STORAGE, AND HANDLING
				1. Store wall and door protection in original undamaged packages and containers inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.

Maintain room temperature within storage area at not less than 70 deg F during the period plastic materials are stored.

Keep plastic materials out of direct sunlight.

Store plastic wall- and door-protection components for a minimum of 72 hours, or until plastic material attains a minimum room temperature of 70 deg F.

Store corner-guard covers in a vertical position.

Store wall-guard bed-locator and handrail covers in a horizontal position.

* + - 1. WARRANTY
				1. Special Warranty: Manufacturer agrees to repair or replace components of wall- and door-protection units that fail in materials or workmanship within specified warranty period.

Failures include, but are not limited to, the following:

Structural failures including detachment of components from each other or from the substrates, delamination, and permanent deformation beyond normal use.

Deterioration of metals, metal finishes, plastics, and other materials beyond normal use.

Verify available warranties and warranty periods for units and components.

Warranty Period: Five years from date of Substantial Completion.

1. PRODUCTS

Manufacturers and products listed in SpecAgent and MasterWorks Paragraph Builder are neither recommended nor endorsed by the AIA or Deltek. Before inserting names, verify that manufacturers and products listed there comply with requirements retained or revised in descriptions and are both available and suitable for the intended applications.

* + - 1. MANUFACTURERS

Revise "Source Limitations" Paragraph below to suit Project.

* + - * 1. Source Limitations: Obtain wall- and door-protection products of each type from single source from single manufacturer.
			1. PERFORMANCE REQUIREMENTS
				1. Surface Burning Characteristics: Comply with ASTM E84 or UL 723; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

Flame-Spread Index: 25 or less.

Smoke-Developed Index: 450 or less.

Verify accessibility requirements of authorities having jurisdiction. Some projects may require compliance with multiple accessibility regulations.

* + - * 1. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and ICC A117.1.
			1. WALL GUARDS

Copy Paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

See the Evaluations for discussion on types of wall guards.

Retain "Crash Rail" Paragraph below for severe impact conditions.

* + - * 1. Crash Rail <**Insert drawing designation**>: Heavy-duty assembly consisting of continuous snap-on plastic cover installed over concealed retainer; designed to withstand impacts.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; Arawak Model #WG-2106.

Korogard Wall Protection Systems; a division of RJF International Corporation; Model #C600 Vinyl Crash Rail.

Pawling Corporation; WG-6.

Approved equivalent.

Revise description in "Cover" Subparagraph below to suit product and Project.

Cover: Extruded rigid plastic, minimum 0.100-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Convex.

Dimensions: Nominal 6 inches high by 1 inch deep.

Surface: [**Uniform**] [**Grooved**].

Retain "Accent Inlay Strip" Subparagraph below if required. Revise "Surface" Subparagraph above and "Accent Inlay Strip" Subparagraph below if more than one accent inlay strip is required to suit product.

Accent Inlay Strip: Nominal 2 inches high by length of rail.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Retain "Continuous Retainer" or "Retainer Clips" Subparagraph below to suit product and required performance level; revise to suit Project. Aluminum material in first Subparagraph is typical; revise if continuous retainer is galvanized steel or plastic rather than aluminum or if another retainer type is required.

Continuous Retainer: Minimum 0.080-inch- thick, one-piece, extruded aluminum.

Retainer Clips: Manufacturer's standard impact-absorbing clips designed for heavy-duty performance.

Retain "Bumper" Subparagraph below to suit product or if required for increased impact absorption.

Bumper: Continuous, resilient bumper cushion(s).

Second option in "End Caps and Corners" Subparagraph below is sometimes used because of the difficulty of exactly matching the color of extruded covers and injection-molded end caps and corners.

End Caps and Corners: Prefabricated, injection-molded plastic; matching color cover; field adjustable for close alignment with snap-on cover.

Accessories: Concealed splices and mounting hardware.

Mounting: Surface mounted directly to wall on continuous aluminum retainer..

Retain "Bumper Rail" Paragraph below for less-severe impact conditions.

* + - * 1. Bumper Rail <**Insert drawing designation**>: Standard-duty assembly consisting of continuous snap-on plastic cover installed over concealed retainer; designed to withstand impacts.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; Navajo Model #WC-2169.

Korogard Wall Protection Systems; a division of RJF International Corporation; Model #C400 Vinyl Crash Rail.

Pawling Corporation; Model #WG-3.

Approved equivalent.

Revise description in "Cover" Subparagraph below to suit product and Project.

Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Rounded bullnose profile, nominal 3 inches high by 1 inch deep.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Continuous Retainer: Minimum 0.080-inch- thick, one-piece, extruded aluminum.

Second option in "End Caps and Corners" Subparagraph below is sometimes used because of the difficulty of exactly matching the color of extruded covers and injection-molded end caps and corners.

End Caps and Corners: Prefabricated, injection-molded plastic; matching color cover; field adjustable for close alignment with snap-on cover.

Accessories: Concealed splices and mounting hardware.

Mounting: [**Surface mounted directly to wall**] [**Reveal mounted on bumper cushions**] [**Extended mounting on injection-molded plastic mounting brackets**].

Retain "Rub Rail" Paragraph below for wheel protection between crash or bumper rails and the floor. They are also called "accent rails."

* + - * 1. Rub Rail <**Insert drawing designation**>: Standard-duty assembly consisting of continuous snap-on cover installed over concealed, continuous retainer.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; SHAWNEE Wall Guard Model #WG-2179.

Korogard Wall Protection Systems; a division of RJF International Corporation; Model #B200 Series.

Pawling Corporation; Model EB-25 Accent Rail.

Approved equivalent.

Second option in "Cover" Subparagraph below provides less impact resistance. Revise description to suit product and Project.

Cover: Extruded plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Half-round profile, nominal 1-1/8 inches high by 1-1/8 inches deep.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Retainer: Minimum 0.0625-inch- thick, one-piece, extruded aluminum.

End Caps and Corners: Prefabricated, injection-molded plastic; color matching cover; field adjustable for close alignment with snap-on cover.

Accessories: Concealed splices and mounting hardware.

Mounting: Surface mounted directly to wall.

Retain one or more of Paragraphs below for protection against scarring by movable furniture.

Revise "Wood Chair Rail with Bumper" Paragraph below for products with continuous aluminum retainers for wood rails as well as bumpers, products with more than one bumper strip, or products with bumpers applied directly to wood rails.

* + - * 1. Wood Chair Rail with Bumper <**Insert drawing designation**>: Standard-duty assembly consisting of continuous sculpted, solid-wood rail, with continuous bumper insert installed in continuous recessed retainer.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; SENECA Wall Guard model #WG-2135.

Korogard Wall Protection Systems; a division of RJF International Corporation; Model # BW40.

Pawling Corporation; Model #CRW-20 Chair Rail.

Approved equivalent.

Wood Rail: 5-1/2 inches high by 1-1/2 inches deep.

Options in "Wood Species" Subparagraph below are examples and may not be available from all manufacturers.

Wood Species: [**Red oak**] [**Maple**] [**Ash**] [**Beech**].

Finish: [**Clear**] [**Stained**].

Color: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Revise description in "Bumper" Subparagraph below to suit product and Project.

Bumper: Extruded plastic, minimum 0.078-inch wall thickness; as follows:

Profile: Half-round profile, nominal 1-1/2 inches high by 3/8 inch deep.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

End Caps and Corners: Prefabricated, injection-molded plastic; color matching bumper; field adjustable for close alignment with snap-on bumper.

Retainer: Minimum 0.0625-inch- thick, one-piece, extruded aluminum.

Accessories: Concealed splices and mounting hardware.

Mounting: Surface mounted directly to wall.

* + - * 1. Transparent-Plastic Chair Rail <**Insert drawing designation**>: Consisting of clear polycarbonate plastic sheet.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; HOPI model #WG-2182.

Pawling Corporation; Model #CR-3.

Approved equivalent.

Height: 3 inches nominal.

Mounting: Surface mounted using flat-head countersunk screws through factory-drilled mounting holes.

* + - * 1. Rub Strip <**Insert drawing designation**>: Continuous strip, consisting of minimum 0.040-inch- thick, semirigid, plastic sheet wall-covering material.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; Universal Guard Systems.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation; Model #[**CR-44**][**CR-64**].

Approved equivalent.

Available heights range from nominal 4 to 24 inches.

Height: 8 inches nominal.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: Surface mounted with adhesive.

If needed, insert requirements for metal for backroom areas with critical sanitary needs and heavy-duty EPDM or natural rubber wall guards for backroom areas subject to industrial-type wheeled traffic.

* + - 1. IMPACT-RESISTANT HANDRAILS

Handrails in this article are included because they match other wall- and door-protection components and are fabricated by same manufacturers.

Copy Paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

* + - * 1. Structural Performance: Handrails, including attachment to building construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

Subparagraphs below are examples only and are based on the 2012 International Building Code (IBC); revise to suit Project and to comply with requirements of authorities having jurisdiction. For some occupancy categories under certain circumstances, less-stringent provisions may apply. Verify, with manufacturers, that their impact-resistant handrails comply.

Uniform load of 50 lbf/ft. applied in any direction.

Concentrated load of 200 lbf applied in any direction.

Uniform and concentrated loads need not be assumed to act concurrently.

* + - * 1. Plastic, Impact-Resistant Handrails <**Insert drawing designation**>: Manufacturer's standard assembly consisting of snap-on plastic cover installed over continuous retainer.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Cover: Minimum [**0.078-inch-**] [**0.100-inch-**] <**Insert dimension**> thick, extruded rigid plastic; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Retain "Single Handrail," "Bumper Rail," or "Double Handrail with Bumper-Rail Profile" Subparagraph below. Revise profile and insert dimensions to match manufacturers' products.

Single Handrail: Cylindrical tube profile cover with continuous retainer; with mounting brackets supporting bottom of rail.

Tube Diameter: 1-1/2 inches.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products, Inc.; HORIZON Cylindrical Profile model #WG-2172

Korogard Wall Protection Systems; a division of RJF International Corporation; Model #H500.

Pawling Corporation; Model #BR-1200 Handrail.

Approved equivalent.

Bumper Rail: Cover with sculpted with contoured thumb recess on front side; with 1-1/2-inch- diameter gripping surface and finger recess on back side; supported by concealed, continuous retainer and extended mounting brackets.

Bumper-Rail Dimensions: Nominal 6-1/4 inches high by 1-1/2 inches deep.

Bumper Surface: [**Smooth**] [**Smooth with coextruded accent inlay strip in contrasting color**] [**Smooth with coextruded accent inlay strips in contrasting color**] [**Grooved**].

Retain "Accent Inlay Strip(s)" Subparagraph below if required. Revise Subparagraph to suit product.

Accent Inlay Strip(s): One strip, nominal 2 inches high by length of rail.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products, Inc.; THUNDERBIRD Sculpted Profile model #WG-2112

Korogard Wall Protection Systems; a division of RJF International Corporation; Model #H200.

Pawling Corporation; Model #BR-400V Handrail.

Approved equivalent.

Verify availability of double-handrail configuration with manufacturers before retaining "Double Handrail with Bumper-Rail Profile" Subparagraph below if required. Revise Subparagraph to suit product.

Handrail with Bumper-Rail Profile: One tube mounted above nominal, flat-faced bumper rail; tube with 1-1/2-inch- diameter gripping surface and finger recess on back side; supported by concealed, continuous retainer and extended mounting brackets.

Bumper-Rail Dimensions: Nominal 4 inches high by 1-1/2 inches deep.

Bumper Surface: [**Smooth**] [**Smooth with coextruded accent inlay strip in contrasting color**] [**Smooth with coextruded accent inlay strips in contrasting color**] [**Grooved**].

Retain "Accent Inlay Strip(s)" Subparagraph below if required. Revise Subparagraph to suit product.

Accent Inlay Strip(s): One strip, nominal 2 inches high by length of rail.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

Korogard Wall Protection Systems; a division of RJF International Corporation; Versarail Handrail.

Pawling Corporation; Model #BR-4RVV Handrail.

Approved equivalent.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting Bracket: Extended mounting on anodized-aluminum mounting brackets.

Second option in "End Caps and Corners" Subparagraph below is sometimes used because of the difficulty of exactly matching the color of extruded covers and injection-molded end caps and corners.

End Caps and Corners: Prefabricated, injection-molded plastic; matching color cover; field adjustable for close alignment with snap-on cover.

Accessories: Concealed splices, cushions, and mounting hardware.

* + - * 1. Combination Wood-Plastic Bumper Handrail <**Insert drawing designation**>: Manufacturer's standard assembly consisting of solid-wood handrail mounted above plastic bumper rail, both mounted on continuous retainer; with reveal between handrail and bumper serving as thumb recess on front side; with 1-1/2-inch- diameter gripping surface and finger recess on back side.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; MOJAVE Handrail model #WG-2111.

Korogard Wall Protection Systems; a division of RJF International Corporation; Model #H60W.

Pawling Corporation; Model #BR-400C Handrail.

Approved equivalent.

Wood Handrail: 1-1/2 inches in diameter; with matching end caps and corners.

Options in "Wood Species" Subparagraph below are examples and may not be available from all manufacturers.

Wood Species: [**Red oak**] [**Maple**] [**Ash**] [**Beech**].

Finish: [**Clear**] [**Stained**].

Color: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Revise description in "Bumper" Subparagraph below to suit product and Project.

Bumper: Extruded rigid plastic, minimum 0.078-inch- wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Flat profile, nominal 4 inches high by 1 inch deep.

Accent Inlay Strip: Nominal 2 inches high by length of rail.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

End Caps and Corners: Prefabricated, injection-molded plastic; color matching bumper; field adjustable for close alignment with snap-on bumper.

Retainer: Minimum 0.0625-inch- thick, one-piece, extruded aluminum.

Reveal: Extruded rigid plastic over aluminum retainer.

Color: [**Brass**] [**Chrome**] [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Accessories: Concealed splices, cushion(s), and mounting hardware.

* + - * 1. Wood Handrail with Bumper <**Insert drawing designation**>: Manufacturer's standard assembly consisting of continuous sculpted, solid-wood handrail, with bumper insert installed in continuous retainer recessed into the face of the wood.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; SEQUOIA Wood Handrail model # WG-2110.

Korogard Wall Protection Systems; a division of RJF International Corporation; Model #HW40 Handrail.

Pawling Corporation; Model #CR-5500 Handrail.

Approved equivalent.

Wood Handrail: with 1-1/2-inch- diameter gripping surface.

End Caps, Returns, Corners, and Mounting Brackets: Solid wood that matches rail.

Options in "Wood Species" Subparagraph below are examples and may not be available from all manufacturers.

Wood Species: [**Red oak**] [**Maple**] [**Ash**] [**Beech**] [**Bamboo**].

Finish: [**Clear**] [**Stained**].

Color: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Revise description in "Bumper" Subparagraph below to suit product and Project.

Bumper: Extruded plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings**].

Profile: Half-round profile, nominal 2 inches high by 1 inch deep.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

End Caps and Corners: Prefabricated, injection-molded plastic; color matching bumper; field adjustable for close alignment with snap-on bumper.

Retainer: Minimum 0.0625-inch- thick, one-piece, extruded aluminum.

Finish: [**Mill**] [**Brass colored**].

Mounting Bracket: Wood mounting bracket matching handrail species and finish.

Accessories: Concealed splices and mounting hardware.

* + - 1. BED LOCATORS

Copy "Bed Locators" Paragraph below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

Bed locators are used in hospitals and nursing homes to provide uniform placement of beds and to protect walls when beds are moved.

* + - * 1. Bed Locators <**Insert drawing designation**>: Manufacturer's standard assembly consisting of continuous snap-on plastic cover installed over continuous retainer; with two bed-locator end caps and mounting hardware; cover designed to spring back when hit.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; SHOSHONE Bed Locator model #WG-2108.

Korogard Wall Protection Systems; a division of RJF International Corporation; Nodel #B100-Series.

Pawling Corporation; Model BL-4 Bed Locator.

Approved equivalent.

Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness.

Profile: Large, rounded angled profile, nominal 4 inches high by 2 inches deep.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Retainer: Minimum 0.080-inch- thick, one-piece, extruded aluminum.

Bed-Locator End Caps: Prefabricated, injection-molded plastic; color matching cover; field adjustable for close alignment with snap-on cover.

Mounting Type: Extended mounting on injection-molded plastic mounting brackets.

* + - 1. CORNER GUARDS

Copy Paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

* + - * 1. Surface-Mounted, Plastic-Cover Corner Guards <**Insert drawing designation**>: Manufacturer's standard assembly consisting of snap-on, resilient plastic cover installed over retainer; including mounting hardware; fabricated with 90- or 135-degree turn to match wall condition.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; COMET series.

Korogard Wall Protection Systems; a division of RJF International Corporation; [**G-200 series**][**G400 series**].

Pawling Corporation; Model #[**CG-10**][**CG-20**][**CG-30**][**CG-135**].

Approved equivalent.

Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Nominal [**2-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1-1/4-inch corner radius**].

Height: [**4 feet**] [**8 feet**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Retain "Continuous Retainer" or "Retainer Clips" Subparagraph below.

Continuous Retainer: Minimum 0.060-inch- thick, one-piece, extruded aluminum.

Retainer Clips: Manufacturer's standard impact-absorbing clips.

Top and Bottom Caps: Prefabricated, injection-molded plastic; color matching cover; field adjustable for close alignment with snap-on cover.

* + - * 1. Flush-Mounted, Plastic-Cover Corner Guards <**Insert drawing designation**>: Manufacturer's standard assembly consisting of snap-on, resilient plastic cover that is flush with adjacent wall surface, installed over retainer; including mounting hardware; fabricated with 90- or 135-degree turn to match wall condition; full wall height.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; VENUS Series.

Korogard Wall Protection Systems; a division of RJF International Corporation; [**R-200 series**][**R400 series**].

Pawling Corporation; Model #[**CGT-7**][**CGT-72**][**CGT-75**][**CGT-32**].

Approved equivalent.

Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Nominal [**2-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1-1/4-inch corner radius**].

Height: [**4 feet**] [**8 feet**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Retain "Continuous Retainer" or "Retainer Clips" Subparagraph below.

Continuous Retainer: Minimum 0.060-inch- thick, one-piece, extruded aluminum.

Retainer Clips: Manufacturer's standard impact-absorbing clips.

Corner guards need to be fire rated only if they are recessed in fire-rated walls.

* + - * 1. Fire-Rated, Flush-Mounted, Plastic-Cover Corner Guards <**Insert drawing designation**>: Manufacturer's standard assembly consisting of snap-on, resilient plastic cover that is flush with adjacent wall surface, installed over continuous retainer and intumescent fire barrier; including mounting hardware; fabricated with 90- or 135-degree turn to match wall condition; full wall height.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; VENUS Series.

Korogard Wall Protection Systems; a division of RJF International Corporation; [**R-200 series**][**R400 series**].

Pawling Corporation; Model #[**CGTF-7**][**CGTF-72**][**CGTF-75**][**CGTF-32**].

Approved equivalent.

Fire Rating: [**1 hour**] [**2 hours**] [**Same rating as wall in which corner guard is installed**]; UL listed and labeled according to ASTM E1966 or UL 2079.

Retain "L-Rating at Smoke Barriers" Subparagraph below if one or more flush-mounted corner guards are installed in a fire-rated smoke barrier.

L-Rating at Smoke Barriers: Not exceeding 5.0 cfm/ft. of joint at 0.30 inch wg at both ambient and elevated temperatures according to UL 2079.

Cover: Extruded rigid plastic, minimum 0.100-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Leg: Nominal [**2 inches**] [**3 inches**].

Corner Radius: [**1/4 inch**] [**1-1/4 inches**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Retainer: Minimum 0.070-inch- thick, one-piece, extruded aluminum.

* + - * 1. Surface-Mounted, Opaque-Plastic Corner Guards <**Insert drawing designation**>: Fabricated as one piece from PVC plastic, PVC-free plastic, acrylic-modified vinyl sheet, or opaque polycarbonate sheet; with formed edges; fabricated with 90- or 135-degree turn to match wall condition.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Wing Size: Nominal [**3/4 by 3/4 inch**] [**1-1/8 by 1-1/8 inches**] [**2-1/2 by 2-1/2 inches**].

Mounting: [**Countersunk screws through factory-drilled mounting holes**] [**Adhesive**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

* + - * 1. Surface-Mounted, Transparent-Plastic Corner Guards <**Insert drawing designation**>: Fabricated as one piece from clear polycarbonate plastic sheet; with formed edges; fabricated with 90- or 135-degree turn to match wall condition.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Wing Size: Nominal [**3/4 by 3/4 inch**] [**1-1/8 by 1-1/8 inches**] [**2-1/2 by 2-1/2 inches**].

Thickness: Minimum [**0.050 inch**] [**0.075 inch**] [**0.100 inch**].

Mounting: Countersunk screws through factory-drilled mounting holes.

* + - * 1. Surface-Mounted, Metal Corner Guards <**Insert drawing designation**>: Fabricated as one piece from formed or extruded metal with formed edges; with 90- or 135-degree turn to match wall condition.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Retain one of three "Material" Subparagraphs below; stainless-steel sheet is most common. See Section 055000 "Metal Fabrications" for steel angle corner guards.

Material: Stainless-steel sheet, [**Type 304**] [**Type 430**].

Thickness: Minimum [**0.0500 inch (18 ga)**] [**0.0625 inch (16 ga)**] [**0.0781 inch(14 ga)**].

Finish: [**Directional satin, No. 4**] [**Bright annealed**].

Material: Extruded aluminum, minimum 0.0625 inch (14 ga) thick, with clear anodic finish.

Material: Brass sheet, minimum 0.0500 inch (16 ga) thick, with [**buffed, smooth specular**] [**fine satin**] finish.

Wing Size: Nominal [**1-1/2 by 1-1/2 inches**] [**2-1/2 by 2-1/2 inches**] [**3-1/2 by 3-1/2 inches**].

Corner Radius: 1/8 inch.

Mounting: [**Flat-head, countersunk screws through factory-drilled mounting holes**] [**Oval head, countersunk screws through factory-drilled mounting holes**] [**Adhesive**].

* + - 1. END-WALL GUARDS

Copy Paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

End-wall guards are sized to fit standard wall thicknesses; and are not customizable. Consult manufacturers for the wall-thicknesses that these protectors accommodate.

Second option in "Surface-Mounted, Plastic-Cover, End-Wall Guard" Paragraph below is the most common configuration.

* + - * 1. Surface-Mounted, Plastic-Cover, End-Wall Guard <**Insert drawing designation**>: Manufacturer's standard assembly consisting of snap-on, resilient plastic cover installed over continuous retainer; including mounting hardware.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; COMET Surface Partition End Guard model #CG-2159.

Pawling Corporation; Model #CG-11 Corner Guard.

Approved equivalent.

Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Nominal [**2-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1-1/4-inch corner radius**].

Height: [**4 feet**] [**8 feet**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**] [**Match corner guards**].

Retainer: Minimum 0.060-inch- thick, one-piece, extruded aluminum.

Top and Bottom Caps: Prefabricated, injection-molded plastic; color matching cover; field adjustable for close alignment with snap-on cover.

First option in "Flush-Mounted, Plastic-Cover, End-Wall Guard" Paragraph below is the most common configuration.

* + - * 1. Flush-Mounted, Plastic-Cover, End-Wall Guard <**Insert drawing designation**>: Manufacturer's standard assembly consisting of snap-on, resilient plastic cover that is flush with adjacent wall surface and that covers entire end of wall, installed over continuous retainer; including mounting hardware.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; VENUS model #CG-2130.

Pawling Corporation; Model #CGT-888.

Approved equivalent.

Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Profile: Nominal [**2-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1/4-inch corner radius**] [**3-inch- long leg and 1-1/4-inch corner radius**].

Height: [**4 feet**] [**8 feet**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**] [**Match corner guards**].

Retainer: Minimum 0.060-inch- thick, one-piece, extruded aluminum.

End-wall guards need to be fire rated only if they are recessed in fire-rated walls.

* + - * 1. Fire-Rated, Flush-Mounted, Plastic-Cover, End-Wall Guard <**Insert drawing designation**>: Manufacturer's standard, PVC-free assembly consisting of snap-on, resilient plastic cover that is flush with adjacent wall surface and that covers entire end of wall, installed over continuous retainer and intumescent fire barrier; including mounting hardware; full wall height.

Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc; VENUS model #CG-2130.

Pawling Corporation; Model #CGFT-888.

Approved equivalent.

Fire Rating: [**1 hour**] [**2 hours**] [**Same rating as wall in which end guard is installed**]; UL listed and labeled according to UL 2079.

Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness; [**as follows:**] [**in dimensions and profiles indicated on Drawings.**]

Leg: Nominal 2 inches.

Corner Radius: 1/4 inch <**Insert dimension**>.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**] [**Match corner guards**].

Retainer: Minimum 0.070-inch- thick, one-piece, extruded aluminum.

* + - * 1. Surface-Mounted, Metal, End-Wall Guards <**Insert drawing designation**>: Fabricated from one-piece, formed or extruded metal that covers entire end of wall; with formed edges.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

WallGuard.com.

Inpro Corporation.

Koffler Sales Company

Approved equivalent

Retain one of three "Material" Subparagraphs below; stainless-steel sheet is most common. See Section 055000 "Metal Fabrications" for steel angle corner guards.

Material: Stainless-steel sheet, [**Type 304**] [**Type 430**].

Thickness: Minimum [**0.0500 inch (18 ga)**] [**0.0625 inch (16 ga)**] [**0.0781 inch (14 ga)**].

Finish: [**Directional satin, No. 4**] [**Bright annealed**].

Material: Extruded aluminum, minimum 0.0625 inch (14 ga) thick, with clear anodic finish.

Material: Brass sheet, minimum 0.0500 inch (16 ga) thick, with [**buffed, smooth specular**] [**fine satin**] finish.

Wing Size: Nominal [**1-1/2 by 1-1/2 inches**] [**2-1/2 by 2-1/2 inches**] [**3-1/2 by 3-1/2 inches**].

Corner Radius: [**1/8 inch**] [**3/4 inch**] <**Insert dimension**>.

Mounting: [**Flat-head, countersunk screws through factory-drilled mounting holes**] [**Oval head, countersunk screws through factory-drilled mounting holes**] [**Adhesive**].

* + - 1. ABUSE-RESISTANT WALL COVERINGS

Copy Paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

See the Evaluations for discussion on differences between abuse-resistant wall coverings and conventional vinyl wall coverings.

* + - * 1. Abuse-Resistant Sheet Wall Covering <**Insert drawing designation**>: Fabricated from semirigid, plastic sheet wall-covering material.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Second option (roll size) in "Size" Subparagraph below is typically available only for 0.040-inch thickness and less.

Size: [**48 by 96 inches for sheet**] [**48 by 120 inches for roll**] [**As indicated**].

See the Evaluations for manufacturer's recommendations of sheet thickness for different levels of abuse. 0.080-inch thickness and more might require minimum orders.

Sheet Thickness: [**0.022 inch**] [**0.028 inch**] [**0.040 inch**] [**0.060 inch**] [**0.080 inch**] [**0.093 inch**] [**0.125 inch**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Height: [**Full wall**] [**Wainscot**] [**As indicated**].

Trim and Joint Moldings: Extruded rigid plastic that matches wall-covering color.

Mounting: Adhesive.

* + - * 1. Laminated, Impact-Resistant Wall Panels <**Insert drawing designation**>: Rigid wall panels consisting of semirigid, plastic sheet wall covering material factory laminated to high-impact-resistant core, with moisture-resistant vapor barrier factory laminated to reverse side of panel for stability.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Construction Specialties, Inc.

Inpro Corporation.

Approved equivalent.

Revise "Composition" Subparagraph below to suit product and Project.

Composition: [**0.028-inch- thick plastic sheet laminated to 3/8-inch- thick particleboard or medium-density fiberboard core**] [**0.04-inch- thick plastic sheet laminated to 3/8-inch- thick particleboard or medium-density fiberboard core**].

Sheet Size: [**48 by 96 inches**] [**48 by 108 inches**] [**48 by 120 inches**] [**As indicated**].

Height: [**Full wall**] [**Wainscot**] [**As indicated**].

Sheet Edge: [**Square**] [**Beveled**].

Trim and Joint Moldings: Extruded rigid plastic that matches wall-covering color.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: Adhesive.

* + - 1. PLASTIC DOOR-PROTECTION PLATES

Retain this article if plastic door-protection plates are required to match impact-resistant wall protection. Metal and plastic protective trim, according to BHMA A156.6, used for armor, kick, mop, and push plates are specified in Section 087100 "Door Hardware."

Copy Paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

Retain "General" Paragraph below if retaining this article; revise to suit Project.

* + - * 1. General: Manufacturer's standard plastic products of thicknesses and sizes indicated.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Retain "Fire-Rated Doors" Subparagraph below if products are required for fire-rated doors; consult manufacturers for availability of listed and labeled products. At the time this Section was updated, no plastic door-protection product types specified in this Section were UL listed according to UL's "Online Certifications Directory." See the Evaluations.

Fire-Rated Doors: Where the tops of door-protection plates indicated for field installation on fire-rated doors are more than 16 inches above the door bottoms, provide door-protection plates complying with NFPA 80 that are listed and labeled by a qualified testing and inspection agency acceptable to authorities having jurisdiction.

Retain "Full-Height Door-Surface Protection" Paragraph below if full-surface door protection, including vertical edges, is required; revise to suit Project. Door edges may need to be undercut to obtain space for edge return and proper edge clearances.

* + - * 1. Full-Height Door-Surface Protection <**Insert drawing designation**>: Minimum [**0.040-inch**] [**0.060-inch**] [**0.080-inch**] wall thickness; with 90-degree bend for edge return to protect door edge.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

Retain "Armor Plates" Paragraph below if required to protect lower half of doors subject to cart traffic or rough usage. Armor plates are usually applied to push side of single-acting doors and both sides of double-acting doors.

* + - * 1. Armor Plates <**Insert drawing designation**>: Minimum [**0.040-inch**] [**0.060-inch**] [**0.080-inch**] wall thickness; beveled four sides.

Size: [**32 inches**] [**36 inches**] [**40 inches**] [**42 inches**] high by door width, with allowance for frame stops.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

Retain "Kick Plates" Paragraph below if required to protect bottom of push side of doors subject to foot traffic.

* + - * 1. Kick Plates <**Insert drawing designation**>: Minimum [**0.040-inch**] [**0.060-inch**] [**0.080-inch**] wall thickness; beveled four sides.

Size: [**8 inches**] [**10 inches**] [**12 inches**] <**Insert dimension**> high by door width, with allowance for frame stops.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

Retain "Mop Plates" Paragraph below if required to protect bottom of pull side of doors subject to cleaning.

* + - * 1. Mop Plates <**Insert drawing designation**>: Minimum [**0.040-inch**] [**0.060-inch**] [**0.080-inch**] wall thickness; beveled four sides.

Size: [**4 inches**] [**6 inches**] high by 1 inch less than door width.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

Retain "Stretcher Plates" Paragraph below if required to protect doors in specific areas where consistent contact is made by stretchers, service carts, or other equipment.

* + - * 1. Stretcher Plates <**Insert drawing designation**>: Minimum [**0.040-inch**] [**0.060-inch**] [**0.080-inch**] wall thickness; beveled four sides.

Size: [**6 inches**] [**8 inches**] high by door width, with allowance for frame stops.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

* + - * 1. Push Plates <**Insert drawing designation**>: Minimum [**0.040-inch**] [**0.060-inch**] [**0.080-inch**] wall thickness; beveled four sides.

Size: [**12 inches high by 4 inches wide**] [**16 inches high by 4 inches wide**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

* + - 1. DOOR-EDGE PROTECTION

Retain this article if plastic door-edge protection is required. Door edging may be used alone or with armor or kick plates for greater protection. Door edges may need to be undercut to obtain space for edging and proper edge clearance.

Copy Paragraph below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

* + - * 1. Door Edging <**Insert drawing designation**>: Fabricated from extruded rigid plastic, minimum [**0.040-inch**] [**0.060-inch**] wall thickness; formed to fit over door edge without mortising.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Shape: [**L**] [**U**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

* + - 1. DOOR-FRAME PROTECTION

Copy Paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

Retain "Door-Frame Protector" or "Door-Frame Protector Assembly" Paragraph below if plastic protection for standard-size door frames is required. Consult manufacturers for the frames that these protectors accommodate. Door-frame protectors may be used alone or with door-surface protection.

* + - * 1. Door-Frame Protector <**Insert drawing designation**>: One piece fabricated from extruded rigid plastic, minimum [**0.040-inch**] [**0.050-inch**] [**0.060-inch**] wall thickness; formed to fit entire door-frame profile.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Height: [**36 inches**] [**48 inches**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: [**Adhesive**] [**Countersunk screws through factory-drilled mounting holes**].

Revise "Door-Frame Protector Assembly" Paragraph and list of manufacturers below if other configurations of door-frame protectors are required. American Floor Products offers a protector without a snap-on cover; Construction Specialties also offers one with additional protection on the door-swing side.

* + - * 1. Door-Frame Protector Assembly <**Insert drawing designation**>: Assembly consisting of snap-on plastic cover installed over continuous retainer; formed to fit half of door frame on opposite side of door swing.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Revise "Cover" Subparagraph below to suit product and Project.

Cover: Extruded rigid plastic, minimum 0.080-inch wall thickness; in dimensions and profiles indicated.

Height: [**36 inches**] [**48 inches**].

Corner Radius: [**1/4 inch**] [**1-1/4 inches**].

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Retainer: Minimum 0.080-inch- thick, one-piece, extruded aluminum.

* + - 1. DOOR-HARDWARE PROTECTION

Copy Paragraph below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

Revise "Door(-Knob) (and) (-Lever) Protector" Paragraph below to suit product and Project. Design varies with each manufacturer.

* + - * 1. Door[**-Knob**] [**and**] [**-Lever**] Protector <**Insert drawing designation**>: Fabricated from injection-molded plastic, minimum 0.060-inch wall thickness.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

American Floor Products Company, Inc.

Korogard Wall Protection Systems; a division of RJF International Corporation.

Pawling Corporation.

Approved equivalent.

Color and Texture: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from manufacturer's full range**].

Mounting: Countersunk screws through factory-drilled mounting holes.

* + - 1. MATERIALS

Retain materials in this article that correspond with products retained in other Part 2 articles. Insert other materials to suit Project.

Insert impact resistance in "Plastic Materials" Paragraph below if required. Values vary with each component formulation. See the Evaluations for discussion on impact-resistance testing.

* + - * 1. Plastic Materials: Chemical- and stain-resistant, high-impact-resistant plastic with integral color throughout; extruded and sheet material as required, thickness as indicated.
				2. Polycarbonate Plastic Sheet: ASTM D6098, S-PC01, Class 1 or Class 2, abrasion resistant; with a minimum impact-resistance rating of 15 ft.-lbf/in. of notch when tested according to ASTM D256, Test Method A.
				3. Solid Wood: Clear hardwood lumber of species indicated, free of appearance defects, and selected for compatible grain and color.
				4. 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.
				5. Adhesive: As recommended by protection product manufacturer.
			1. FABRICATION
				1. Fabricate wall and door protection according to requirements indicated for design, performance, dimensions, and member sizes, including thicknesses of components.

Retain "Curved Panels" Paragraph below if required; revise to suit Project. Construction Specialties and perhaps other manufacturers offer factory-fabricated, curved sheet wall covering according to requirements in "Curved Panels" Paragraph. Verify availability with other manufacturers.

* + - * 1. Curved Panels: Preform curved semirigid, abuse-resistant sheet wall covering in factory for radius and sheet thickness as follows:

Sheet Thickness of 0.040 Inch: 24-inch radius.

Sheet Thickness of 0.060 Inch: 36-inch radius.

<**Insert thickness and radius**>.

* + - * 1. Factory Assembly: Assemble components in factory to greatest extent possible to minimize field assembly. Disassemble only as necessary for shipping and handling.
				2. Quality: Fabricate components with uniformly tight seams and joints and 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.
				3. Wood Handrails: Miter corners and ends of wood handrails for returns.
			1. FINISHES
				1. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
				2. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
1. EXECUTION
	* + 1. EXAMINATION
				1. Examine substrates and wall areas, with Installer present, for compliance with requirements for installation tolerances[**, fire rating,**] and other conditions affecting performance of the Work.
				2. Examine walls to which wall and door 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.

For wall and door protection attached with adhesive, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

* + - * 1. Proceed with installation only after unsatisfactory conditions have been corrected.
			1. PREPARATION
				1. Complete finishing operations, including painting, before installing wall and door protection.
				2. Before installation, clean substrate to remove dust, debris, and loose particles.
			2. INSTALLATION
				1. Installation Quality: Install wall and door protection according to manufacturer's written instructions, 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.

Retain option in "Mounting Heights" Paragraph below if heights are not indicated on Drawings.

* + - * 1. Mounting Heights: Install wall and door protection in locations and at mounting heights indicated on Drawings.[**If not indicated on Drawings, install at heights indicated below:**]

Retain one or more of six Subparagraphs below and insert others to suit project.

Crash Rails: <**Insert dimension**> above finished floor.

Bumper Rails: <**Insert dimension**> above finished floor.

Rub Rails: <**Insert dimension**> above finished floor.

Chair Rails: <**Insert dimension**> above finished floor.

Handrails: <**Insert dimension**> above finished floor.

Bed Locators: <**Insert dimension**> above finished floor.

* + - * 1. Accessories: Provide splices, mounting hardware, anchors, trim, joint moldings, and other accessories required for a complete installation.

Provide anchoring devices and suitable locations to withstand imposed loads.

Where splices occur in horizontal runs of more than 20 feet, splice aluminum retainers and plastic covers at different locations along the run, but no closer than 12 inches apart.

Adjust [**end**] [**and**] [**top**] caps as required to ensure tight seams.

* + - * 1. Abuse-Resistant Wall Covering: Install top and edge moldings, corners, and divider bars as required for a complete installation.
				2. Door-Frame Protectors: Install on both door jams.

Retain "Fire Doors" Paragraph below if products are required for fire-rated doors.

* + - * 1. Fire Doors: Install protection according to the listing of each item.
			1. CLEANING
				1. Immediately after completion of installation, clean plastic covers and accessories using a standard ammonia-based household cleaning agent.

Retain Paragraph below if using adhesive.

* + - * 1. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION 102600