SECTION 08 41 13

ALUMINUMSTOREFRONTS

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\*\* NOTE TO SPECIFIER \*\* PRL Glass Systems, Inc.; aluminum storefronts.
This section is based on the products of PRL Glass Systems, Inc., which is located at:13644 Nelson Ave.City of Industry, CA 91746Toll Free Tel: 800-433-7044Fax: 626-968-9256Email: [request info (info@prlglass.com)](https://arcat.com/rfi?action=email&company=PRL%252BGlass%252BSystems%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(08415prl)%253A%2520&coid=48090&spec=08415prl&rep=&fax=626-968-9256)
Web: <https://prlglass.com>
 [ [Click Here](https://arcat.com/company/prl-glass-systems-inc-48090) ] for additional information.
PRL Glass Company was founded in 1989 and is now family owned by the Landeros family. The company originally started its operations under a 3,000 square foot building with 3 employees in the city of Santa Ana, Ca. At the start of the business we began offering glass and mirror stock sheets to the Glazing Industry. We slowly started offering fabricated Glass, Shower Doors, All Glass Entrance Doors and Beveled Mirrors. With the idea in mind to have the fastest lead times in the industry. For a period of 10 yrs all of our fabricated tempered glass was tempered by others. In 1999 we took the initiative to purchase our first tempering oven ("all in" like in a poker game) and now we have 3 tempering ovens. To this day PRL continues with the same vision and basic fundamentals as day one and that is to have the fastest lead times in the industry.
You our loyal customer have given us the opportunity to grow from 3 employees to 300+ employees and from 3,000 sq. ft. to over 250,000 sq.ft . It has been a dream for PRL and a great challenge to reach this monumental achievement, although let's not forget all the hard work and sleepless nights and sacrifices that it's taken us to get where we are today. PRL now offers over 20 complete products lines that we provide to the commercial and residential construction industry, as well as to the furniture manufactures. We look forward to continue to grow in the years to come and continue to offer the best service and highest quality in the industry.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Aluminum storefronts.
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 52 17 - Roof Fall Protection.
		2. Section 08 43 26 - All-Glass Storefronts.
		3. Section 08 43 33 - Folding Glass Wall System.
		4. Section - .
		5. Section 08 81 00 - Glass Glazing.
		6. Section 08 44 13 - Glazed Aluminum Curtain Walls.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
			1. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
			2. ASTM E 283 - Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences across the Specimen.
			3. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
			4. ASTM E 331 - Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Shop Drawings: Configuration and details for installation, maintenance and operation.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color, and patterns.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.
		2. Installer Qualifications: Minimum 2 year experience installing similar products.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until workmanship is approved by Architect.
			3. Refinish mock-up area as required to produce acceptable work.
	1. PRE-INSTALLATION MEETINGS
		1. Convene minimum two weeks prior to starting work of this section.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
		2. Handling: Handle materials to avoid damage.
	3. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	4. SEQUENCING
		1. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: PRL Glass Systems, Inc., which is located at:13644 Nelson Ave.City of Industry, CA 91746Toll Free Tel: 800-433-7044Fax: 626-968-9256Email: [request info (info@prlglass.com)](https://arcat.com/rfi?action=email&company=PRL%252BGlass%252BSystems%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(08415prl)%253A%2520&coid=48090&spec=08415prl&rep=&fax=626-968-9256);Web: <https://prlglass.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
	1. ALUMINUM STOREFRONT
		1. Product: Aluminum Storefront Series as manufactured by PRL Glass Systems, Inc.
		2. Design:
			1. Framing sections shall be extruded from 6063-T5 aluminum alloy.
			2. Glazing beads shall be NS (non-stretch, high-shore) vinyl used on both sides of the glass. Vinyl shall incorporate a fiberglass cord bonded with the vinyl.
			3. Sections shall conform to details and shall present clean, straight, sharply defined lines, and shall be free from defects impairing strength or durability.
			4. Screws, nuts, bolts and fastening devices and internal components shall be of aluminum, stainless steel or other non-corrosive material.
			5. Factory preparation from detail drawings shall be so fabricated that field assembly will be able to produce accurate, tightly fitted joints.

\*\* NOTE TO SPECIFIER \*\* The 201 series is a versatile interior/exterior offset glazed system designed specifically to be glazed with 1/4 inch (6 mm) glass furnished in a complete line of extrusion and accessories to accommodate most job conditions. 201 glazing system is available in 2 inches x 4-1/2 inches (51 mm x 114 mm) sections with 1/2 inch (6 mm) glass pocket. Delete if not required.

* + 1. 201-Series (2 X 4-1/2 Offset Glaze For 1/4 Glazing):
			1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
				1. Air infiltration: Limit air leakage through fixed glazing and frames to 0.045 cfm/ft2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
				2. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
				3. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.

Passed at Design Pressure of 20 psf (0.96 kPa).

\*\* NOTE TO SPECIFIER \*\* The 250 is versatile and economical center glazed system designed specifically to be glazed with 1-inch (25 mm) insulating glass furnished in a complete line of extrusion and accessories to accommodate most job conditions.
This 250 glazing systems available in 2 inches x 4-1/2 inches (51 mm x 114 mm) sections with 1-1/4 inches (32 mm) glass pocket width. Entrance doors may be adapted by use of filler insert especially for this glazing system. Delete if not required.

* + 1. 250-Series (2 X 4-1/2 Center Glaze For 1 Glazing):
			1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
				1. Air infiltration: Limit air leakage through fixed glazing and frames to 0.039 cfm/ft2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
				2. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
				3. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.

Passed at Design Pressure of 20 psf (0.96 kPa).

\*\* NOTE TO SPECIFIER \*\* The 251 series is an offset glazed system with frame/glass faces slightly on plan for a minimal frame protrude and increase aesthetics/performance values, designed specifically to be glazed with 1-inch insulated glass furnished in a complete line of extrusion and accessories to accommodate most job conditions. This glazing system is available in 2 x 4-1/2 sections and glass inserts may be positioned inward/outward for custom application. The systems will accommodate most PRL Entrance Doors. Delete if not required.

* + 1. 251-Series (2 X 4-1/2 Offset Glaze for 1 Glazing) :
			1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
				1. Air infiltration: Limit air leakage through fixed glazing and frames to 0.039 cfm/ft2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
				2. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
				3. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.

Passed at Design Pressure of 20 psf (0.96 kPa).

\*\* NOTE TO SPECIFIER \*\* The 400 Series (1-3/4 inches x 4 inches (44 mm by 102 mm) system) is an economical systems designed to efficiently meet industry standard performance requirements, all the systems components are designed to allow interchangeability making them ideal for either exterior and interior applications. This series are industry standard center glazed systems that receive all standard entrance door hardware and doors types with single or double action door hardware. This system will receive 1/4 inch (6 mm) glass in a 1/2 inch (13 mm) glass pocket width and can be shop of filed fabricated. The extrusions can be reinforced to meet more rigorous performance requirement. Delete if not required.

* + 1. 400-Series (1-3/4 X 4 Center Glaze For 1/4 Glazing):
			1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
				1. Air infiltration: Limit air leakage through fixed glazing and frames to 0.041 cfm/ft2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa)
				2. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
				3. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.

Passed at Design Pressure of 20 psf (0.96 kPa).

\*\* NOTE TO SPECIFIER \*\* The 401 Series is an offset glazed system designed specifically to be glazed with 1/4-inch (6 mm) glass furnished in a complete line of extrusion and accessories to accommodate most job conditions. This glazing systems is available in 1-3/4 inches x 4 inches (44 mm by 102 mm) sections. Delete if not required.

* + 1. 401-Series (1-3/4 X 4 Offset Glaze for 1/4 Glazing):
			1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
				1. Air infiltration: Limit air leakage through fixed glazing and frames to 0.037 cfm/ft2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
				2. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
				3. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.

Passed at Design Pressure of 20 psf (0.96 kPa).

\*\* NOTE TO SPECIFIER \*\* The 450 (1-3/4 inches x 4-1/2 inches (44 mm x 114 mm)) series is most versatile for exterior applications, since its design to meet higher performance standards. All the systems components are designed to allow interchangeability making them ideal for either exterior or interior application. The series are industry standard center glazed systems that receive all standard entrance door hardware and the door type single or double action door hardware. This system will receive 1/4 inch (6 mm) glass in a 1/2 inch (13 mm) glass pocket width and can be shop or filed fabricated. The extrusion can be reinforced to meet more rigorous performance requirement. Delete if not required.

* + 1. 450-Series (1-3/4 X 4-1/2 Center Glaze for 1/4 Glazing):
			1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
				1. Air infiltration: Limit air leakage through fixed glazing and frames to 0.042 cfm/ft2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
				2. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
				3. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.

Passed at Design Pressure of 20 psf (0.96 kPa).

\*\* NOTE TO SPECIFIER \*\* All Entrance Doors are available in single acting offset pivot, butt hinge or center pivot operation. High bottom rails may be adapted to all sizes and to meet local codes. All doors are produced to specific size requirements in widths and heights within limits of each specific door. Delete if not required.

* 1. DOORS

\*\* NOTE TO SPECIFIER \*\* Delete door style not required..

* + 1. Narrow Stile:
			1. 2 inches (51 mm) stile and rail.
			2. Strong reinforced corner construction permits use in heavy traffic areas of commercial applications.
			3. Narrow stile Center pivot single acting.
			4. Offset pivot single acting.
			5. Butt hinge single acting.
		2. Medium Stile:
			1. 3-1/2 inches stile with 3-1/4 inches rail.
			2. Medium stile Center pivot double acting
			3. Offset pivot single acting
			4. Butt hinge single acting.
			5. A top performance door with a medium stile that accommodates standard and custom hardware and panic devices for commercial and institutional applications.
			6. Strong reinforced corner construction increases size limitation to a 4'-0" door width 9'0" maximum door height.
		3. Wide Stile:
			1. 5 inches (127 mm) stile with 5-1/8 inches (130 mm) rail.
			2. Wide stile Center pivot double acting
			3. Offset pivot single acting
			4. Butt hinge single acting.
			5. A monumental type door with strength and stability for heavy use. The wide stiles will accommodate most all standard and unusual hardware designs and operation requirements. Size limitations are 4'-0" door width and 9'0" maximum door height.
		4. Custom Door:
			1. Offer style and performance with unlimited adaptability to specific design requirements with combinations of stiles, top/bottom rails and intermediate vertical/horizontal muntins, will receive most standard pivot/hinges, lock and security hardware. Strong reinforced corner construction permits its use on a wide variety of applications. Some limitations apply please consult PRL Aluminum for details.
		5. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete accessories not required..

* + - 1. ADA Bottom Rail: 10-1/2 inches (267 mm) high.
			2. Threshold: 4 inches (102 mm) extruded aluminum

\*\* NOTE TO SPECIFIER \*\* Delete finish not required..

* + - * 1. Finish: Mill.
				2. Finish: Clear anodized.
				3. Finish: Bronze.
			1. Threshold: 5 inches (127 mm) extruded aluminum

\*\* NOTE TO SPECIFIER \*\* Delete finish not required..

* + - * 1. Finish: Mill.
				2. Finish: Clear anodized.
				3. Finish: Bronze.
			1. Threshold: 5 inches (127 mm) extruded aluminum with bulb seal.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required..

* + - * 1. Finish: Mill.
				2. Finish: Clear anodized.
				3. Finish: Bronze.
			1. Threshold: 7 inches (178 mm) extruded aluminum.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required..

* + - * 1. Finish: Mill.
				2. Finish: Clear anodized.
				3. Finish: Bronze.
		1. Hardware:
			1. Refer to Section 08 71 53 - Security Door Hardware.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
	4. FIELD QUALITY CONTROL
		1. All joints between metal and masonry shall be fully caulked and field tested to resist water leakage with provisions taken to drain infiltrated water.
	5. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION