**SECTION 10 81 16.20 – CONCEALABLE RETRACTABLE SCREEN FOR LARGE OPENING**

1. GENERAL
	1. SECTION INCLUDES

Delete items below not required for project.

* + 1. Horizon Integrated System (pull-across) (interior mount)
	1. RELATED SECTIONS

Delete items below not required for project.

* + 1. Section 06 10 00 Rough Carpentry
		2. Section 08 10 00 Doors and Frames
		3. Section 10 71 13 Exterior Sun Control Devices
	1. REFERENCES
		1. American Architectural Manufacturers Association (AAMA):
			1. AAMA 611-12 – Voluntary Specification for Anodized Architectural Aluminum (2012)
			2. AAMA 2604-05 – Voluntary Specification, Performance Requirements, and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (2005)
		2. American Iron and Steel Institute (AISI):
			1. AISI Grade 410 – stainless steel screws
	2. ADMINISTRATIVE REQUIREMENTS
		1. Pre-Installation Conference:
			1. Attendance: [Architect,] [Owner,] [Construction Manager,] [General Contractor,] Specialty Contractor (Wizard Screens installer), and related trades [Carpenter,] [Door Installer,] [etc.]
			2. Review: Project conditions, manufacturer requirements, delivery and storage, staging and sequencing, and protection of completed work.
	3. SUBMITTALS

Delete items below not required for project.

* + 1. Submit under provisions of Section 01 30 00 - Administrative Requirements
		2. Action Submittals:
			1. Shop Drawings: Product illustrations, installation, and relationship to adjacent construction.
			2. Product Data: Manufacturer’s descriptive data and product attributes for each product.
			3. Samples: [Selection samples.][Verification samples.]
		3. Closeout Submittals:
			1. Operation & Maintenance manuals.
			2. Warranties issued by manufacturer, effective from date of purchase.

Warranties available at <https://www.wizardscreens.com/products>

* 1. QUALITY ASSURANCE
		1. Installer Qualifications:
			1. Completion of training for via either:
				1. Wizard Screens Training Portal with certificate of proof; or
				2. Documented experience.
			2. Employee of an authorized dealer of Wizard Screens Solutions.
	2. WARRANTY
		1. Manufacturer’s latest warranties for aluminum components, plastics, and coatings available at <https://www.wizardscreens.com/products>.
1. REQUIRED PRODUCT(S)
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Wizard Industries Inc., 4263 Phillips Avenue, Burnaby BC, Canada V5A 2X4; Toll Free Tel: 1-888-949-3667; Tel: 604-299-4426; E-mail: sales@wizardscreens.com; Web: <https://www.wizardscreens.com/>
		2. Contract Documents are based on products by Wizard Screen Solutions.
	2. MANUFACTURED PRODUCT COMMON CHARACTERISTICS

Self-coating screen systems voids paint finish warranty.

* + 1. Finishes
			1. Wet/Powder Coat:
				1. Extruded aluminum and metal cast components (except handle): Baked enamel to AAMA 2604-05, [\_\_\_\_] [custom] colour [to be selected from manufacturer’s full range of colours].
				2. Gloss Level: 35%-40% +/- factor
				3. Paint Colour: factor of delta 2
			2. Anodized:
				1. Extruded aluminum: Clear anodized, Class I to AAMA 611-12 (Exception: Extruded tracks are painted silver with baked enamel to AAMA 2604-05. This allows for fluid operation of the pull-bar.)
		2. Aluminum Extrusions
			1. Aluminum extrusion alloy: 6063 T5
		3. Screens
			1. Materials:
				1. Mesh type: Pfifer [\_\_\_\_] [To be selected from manufacturer’s full range of mesh offerings; and based on maximum size parameters.]
				2. Zipper:

 2-SLF, Coil (used with Pfifer 14x18 and tuff mesh). Colour: [BLACK]

 45-SLF, Coil (used with all other Pfifer meshes). Colour: [BLACK]

* + - 1. Colour: [\_\_\_\_] [To be selected from manufacturer’s full range of colours.]
	1. MANUFACTURED PRODUCTS
		1. Horizon Integrated System
			1. Type: Manually operated, Pull-across coiling.
			2. Maximum Dimensions (External Integrated Frame):
				1. Single: 21’6” [6550mm] W x 11’ [3350mm] H
				2. Double: 43’ [13105mm] W x 11’ [3350mm] H
			3. Integrated Frame Materials
				1. Jambs, Jamb fillers, Header, Header insert, Sill: Extruded aluminum.
				2. Screws: Stainless steel AISI 410.
				3. Fasteners: Installer sourced.
			4. Screen Unit Materials:
				1. Screen (see **2.2,C**)
				2. Housing, Roll-tube, Pull-bar, Receiver: Extruded aluminum.
				3. Tracks: Extruded aluminum, Extruded PVC UV stabilized.
				4. Track limiters: Galvanized steel.
				5. Internal retracting coil spring: Constant tension steel straight coil spring system, Anti-rust lubricant.
				6. Handles and mechanisms: Metal cast, Galvanized steel internal parts
				7. Housing end caps: Plastic, PVC UV stabilized. Colour: [BLACK,] [WHITE.]
				8. Assembled pull-bar end cap: Assembled components made up of PVC UV stabilized plastic (Colour: [BLACK,] [WHITE]), Polyurethane brake pad, Stainless steel spring, Tensioned galvanized steel brake rod.
				9. Seal options:

 Single Screen seal: Mohair. Colour: [BLACK.]

 Double Screens seals: Mohair, Extruded plastic PVC UV stabilized. Colour: [BLACK.]

* + - * 1. Latches

 Single Screen latch: Metal cast.

 Double Screens latch: Plastic, PVC UV stabilized. Colour: [BLACK.]

* + - * 1. Screws: Stainless steel AISI 410.
1. EXECUTION
	1. INSTALLATION
		1. Install in accordance with manufacturer’s instructions and approved Shop Drawings.
			1. Install the integrated frame and temporary jamb & sill fillers at allotted time.
			2. During Substantial Completion phase, install the screen unit(s).
	2. PROTECTION
		1. Protect installed products upon completion of project, including:
			1. Housing.
			2. Tracks. Dust and debris must not be permitted to enter track.
			3. Integrated frame components.
		2. Touch-up, repair, or replace damaged products before Substantial Completion.
	3. HANDOVER
		1. Clean tracks, then spray with dry silicone.
		2. Provide owner with closeout documents.
	4. SCHEDULES
		1. :
		2. :