

<p>Double Acting Glass Door (Swing Type) 1600mmW x 2100mmH Double Leaf & Double Acting Glass Door with 1.2mm thk Powder-coated White Aluminum Frame & 6mm thk Tempered Clear Glass + two (2) 500mmW x 2100mmH Fixed Panel with 1.2mm thk Powder-coated White Aluminum Frame & 6mm thk Tempered Clear Glass on each side including Aluminum H-Type Door Handle Set; Amerilock AL1202 Single Cylinder Mortise Lock; and complete hardware accessories</p>	D2	3 sets	1600mmW x 2100mmH Swing Type Double Acting Glass Door with 500mmW x 2100mmH Fixed Tempered Clear Glass (6mm thk.) at both sides on 1.2 mm thk. Aluminum frame (White)
<p>Glass Door (Swing Type) 900mmW x 2100mmH + (2) 800mmW x 2100mmH - 6mm Thk. Single Leaf Tempered Glass Double Acting Door on 1.2mm thk. Powder Coated Aluminum Frame (White) with Fixed Tempered Glass Panel on one side including Aluminum H-Type Door Handle Set; Amerilock AL1202 Single Cylinder Mortise Lock; and complete hardware accessories</p>	D9	1 set	900mmW x 2100mmH Swing Type Glass Door with two fixed 6mm thk. Tempered Clear Glass Panel 800mmW x 2100mmH on 1.2mm thk. Powder-Coated Aluminum frame (White)
<p>Glass Door (Sliding Type) 1200mmW x 2100mmH - 6mm Thk. Tempered Glass (Clear) Sliding Door on 1.2mm thk. Powder-Coated Aluminum Frame (White) with Sliding Door Flush Lock and Aluminum Alloy C-Type Door Handle</p>	D3	2 sets	1200mmW x 2100mmH Sliding Type Glass Door on 1.2 mm thk. Aluminum frame (White) with complete accessories
<p>Glass Door (Swing Type) 1600mmW x 2100mmH + (5) 800mmW x 2100mmH - 6mm Thk. Double Leaf Tempered Glass Double Acting Door on 1.2mm thk. Powder- Coated Aluminum Frame (White) with Fixed Tempered Glass Panel on one side including Aluminum H-Type Door Handle Set; Amerilock AL1202 Single Cylinder Mortise Lock; and complete hardware accessories</p>	D10	1 set	1600mmW x 2100mmH Swing Type Double Acting Glass Door with 5 fixed 6mm thk. Tempered Clear Glass Panel 800mmW x 2100mmH on 1.2mm thk. Powder-coated Aluminum frame (White)

XV.D Panic Doors

GENERAL SPECIFICATIONS	DOOR TAG	NO. OF SET	DIMENSIONS/SPECIFIC DETAILS
Single Panic Door 900mmW x 2100mmH Single Leaf Panic Door Door: 44mm thk. Citytech Steel Door, Ga.# 18 ($\pm 1.0\text{mm}$) GI Door Panel Insulation: Honeycomb Jamb Type: Ga.# 16 ($\pm 1.2\text{mm}$) GI Single Rabbet Jamb (50 x 100mm) Finish: Epoxy Primer Finish Fire Rating: 90 minutes Hardware & Accessories: Amerilock 4" X 4" X 3.0mm, 2-Ball Bearing Hinge, Satin Stainless-Steel Finish Yale Touch Bar Exit Device No Keyhole Yale Eiffel Straight Type Lever Trim US32D (Trim for Exit Device) Yale K740YDC-PB-SIL Door Closer with Parallel Arm Bracket (Silver), 85 Kgs Capacity	D8	4 sets	900mmW x 2100mmH Swing Type Panic Door

XV.E Roll-Up Doors

GENERAL SPECIFICATIONS	DOOR TAG	NO. OF SET	DIMENSIONS/SPECIFIC DETAILS
Roll Up Door Manual Operated 3000mmW x 3300mmH Roll Up Door Manual Operated (Citytech Standard) Gauge #24 - Galvanize Aluminum (Galvalume Slats) Spring Assembly, Side plate, Box Cover, Guiderails, Bottom Bar, Lockset, Padlock Holder		1 set	3000mmW x 3300mmH Roll-Up Manual-Operated

XVI. Windows

This Item shall consist of furnishing all aluminum & steel casement glass window, window grills and typhoon guard support as well as window screen materials, labor, tools and equipment required in undertaking the proper installation as shown on the Plans and in accordance with this Specification.

1. This item shall consist of all fabricated Powder Coated Aluminum & Steel Casement Swing/Awning Windows fully equipped with fixing accessories and locking devices as shown on Plans and per this Specification.

2. This scope of work includes provision of window and window frames conforming to the sizes, dimensions and designs as shown and specified in the schedule of windows or as per the bill of materials.
3. The Contractor shall verify the correct window sizes and specifications to the Project Monitoring Committee before fabrication and installation.
4. Screws, nuts, washers, bolts, rivets and other miscellaneous fastening devices shall be made of non-corrosive materials such as aluminum, stainless steel, etc.
5. Hardware for fixing and locking devices shall be closely matched and adaptable to the type and method of opening.
6. For all assembly and fabrication works the cut ends shall be true and accurately jointed, free of burrs and rough edges. Cut-out recesses, mortising, grinding operation for hardware shall be accurately made and properly reinforced when necessary.
7. This scope of work also includes provision of Windows and frames conforming to the sizes, dimensions and designs as shown and specified in the details and schedule of Windows.
8. Use 6mm thick clear glass panel for all steel casement, steel awning windows, and fixed transom.
9. Use 6mm thick tempered clear glass panel for all aluminum/steel awning/swing windows
10. Steel Grills for steel casement windows, awning windows and transoms should be 10mm square solid bar and heavy duty. Provide a minimum clear distance spacing of 200mm for horizontal arrangement of grills
11. Steel Casement & steel awning windows including grills need to be coated with 2 coatings of Red Oxide Primer prior to installation.
12. Provide corresponding 3/4" Marine Plywood Typhoon guard for all exterior exposed window. All typhoon guards shall be painted finish (gray). No cuts shall be made on all typhoon guards.
13. All windows sizes shall be verified prior to fabrication and installation.
14. This scope includes provision of all windows as listed below:

XVI.A Steel Casement Windows

GENERAL SPECIFICATIONS	WINDOW TAG	NO. OF SET	TECHNICAL DIMENSIONS
Swing Type Steel Casement Windows	W1	30 sets	1800mmW x 1200mmH
	W2	7 sets	900mmW x 1200mmH
	W3	2 sets	1800mmW x 900mmH
Awning Type Steel Casement Windows	W4	5 sets	1500mmW x 500mmH
	W5	3 sets	1000mmW x 500mmH
	W6	6 sets	500mmW x 500mmH

XVI.B Powder-Coated Aluminum Framed Glass Windows (Fixed/Awning Windows)

Powder-coated Aluminum Framed Awning Type Windows	W7	2 sets	1150mmW x 1550mmH
	W8	4 sets	600mmW x 1550mmH
Powder-coated Aluminum Frames Fixed Glass Windows	FW1	4 sets	3450mmW x 2100mmH
	FW2	3 sets	2600mmW x 2100mmH
	FW3	1 set	1200mmW x 1000mmH

12mm thk. Tempered Glass (Clear) on 1.2mm thk. Powder Coated Aluminum Frame (white) With Fixing Accessories – Fixed Type Window		5 sets	5040mmL x 400mmW
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XVI.C Skylight

This Item shall consist provision of skylight, materials, labor tools, and equipment required in undertaking the proper installation as shown on the plans in accordance with this specification listed below:

- 7.2mL x 2.4mW Skylight, 6mm thk. laminated clear glass with 6mm thk. ordinary clear glass, 12mm thk. in total on 50mm x 150mm x 3mm thk. hot dipped galvanized black iron tube and framing (see details on plan)
- For all assembly and fabrication works, the cut ends shall be true and accurately jointed, free of burrs and rough edges. Cut-out recesses, mortising, grinding operation for hardware shall be accurately made and properly reinforced when necessary.
- Screws, nuts, washers, bolts, rivets and other miscellaneous fastening devices shall be made of non-corrosive materials such as aluminum, stainless steel, etc.
- The contractor must insure that there will be no accumulation of water during rainy season.
- The contractor must insure the water tightness of the skylight
- Provide typhoon guard as per plan and specification

XVII. Metal Works

This Item shall consist of furnishing all materials, labor, tools and equipment required in undertaking all metal works which includes Stainless Steel Railings, window grills, Fire exit steel railing as shown on the Plans and in accordance with this Specification.

1. All materials to be incorporated in the metal works shall be of good quality. Before incorporation in work, all materials shall have been inspected/accepted by the Project Monitoring Committee.
2. Pure stainless steel, G.I pipes/tubular, and other metallic structural materials either plain or fabricated shall be stored above the ground upon platforms, skids, or other supports. It shall be kept free from dirt, grease, or other foreign matter and shall be protected as far as practicable from corrosion.
3. The steel bars and other metallic structural materials shall be coated with red oxide primer (two coats) before installation or after welding works.
4. Workmanship and finish shall be per the best general practice. Portions of the work exposed to view shall be finished neatly. Shearing, flame-cutting, and chipping shall be done carefully and accurately.
5. No welding works shall be done on areas coated with paint.
6. Shop drawings shall be submitted by the Contractor for TPC approval before fabrication and installation.
7. Submission of shop drawings for evaluation/approval shall be submitted seven (7) days before fabrication and installation.
8. All materials for metal works to be used shall be brand new. Usage of scrap and tarnishing metals is strictly prohibited. The Contractor shall promptly remove and replace any scrap, old, and used materials installed on site.
9. Provide and install the following as specified (see details):