Aluminex™

6200

SERIES FLUSH GLAZE INSULATED FRAMING SYSTEM 51mm (2")

I. GENERAL

Scope of Work
Furnish materials, labour, plant, equipment, related items and services necessary for the supply, complete fabrication and installation of glazed skylight aluminum framing as shown on the drawings, required by job conditions and specified herein.
(Note: UV radiation v/s glass unit sealant - double seal design, sealants and other related requirements should be included wherever possible).

Work Not Included
Structural support for the system, steel and other embeds in concrete or masonary, interior moulding, closure or trim as well as roof membrane and flashing unless specifically detailed and called out as such.
(Specifier List of Other Exclusions)

Related Work Specified Elsewhere (Specifier List)

Submittals

Shop Drawings
Prior to fabrication submit shop drawings showing frame elevations, full size details as far as practical, all dimensions, coordination with related work, provision for thermal expansion and main structure deformations and tolerances, sealing and caulking joints and their sizes, material and installation notes as well as all necessary references to local Building Code requirements.

Samples
Before any work is fabricated, all requested representative and properly labeled samples, including specified products with their finishes, shall be submitted to the Architect for his approval.

II. PRODUCTS

Glazing System
° The system must allow for full integration with the building envelope by means of the shingle concept, where rain water is kept on the outside glass surface, in the internal weep-out gutter system, and by all applicable flashings.
° Aluminum framing shall be **6200 Series**, (thermally insulated -if selected/specified), as manufactured by **Aluminex**
° Thermal break - if required- shall be made of high strength casting resin and metal separation achieved through mechanical debriding.
° The system shall be able to accommodate 25.4mm/ 1" sealed glass units (or 6.4mm/ ¼" single glass - Specifier selection), providing 2-side support, as specified and shown on the architectural drawings.
(Note: Intermediate horizontal butt joints between glass panes or units are not recommended).
° Extrusions standard dimensions shall be: 50.8mm/ 2" wide and as deep as required by load and span conditions.
° For any different than a single span beam type applications, where the system is not self supporting, an interior steel structure (by others) will add to the overall depth.
° Rolled aluminum bead on exterior (or an extruded aluminum screw applied glazing stop- Specifier selection), painted to match framing, shall provide glass retention.
° Whenever substitute systems and/or products are considered, supporting data must be submitted ten (10) days prior to bid date to allow for valid comparison.

Performance
° The minimum requirements shall be based on the following ASTM test standards: E-331 Water Penetration, and E-330 Structural Performance with L/175 or 19mm / 0.75" (whichever is less) deflection limitations.
° Seismic movement minimum allowances shall be included in the design.

Materials
° Extruded aluminum shall be AA 6063 T6, Fy = 170 MPa / 25 KSI, alloy and temper minimum, or other as required by the Standards, able to meet or exceed structural and finishing criteria as specified.
° Any defects impairing strength, durability or appearance are not acceptable.
° Sufficient strength and size fasteners shall be made of corrosion-resistant and compatible material such as cadmium or zinc plated carbon steel (interior only), stainless steel type 302 or 304, or aluminum.
° An extruded anchoring bracket, with properly sized/ designed thickness and length (not less than 51 mm/ 2"), must be structurally adequate for all applicable load conditions.
° Anchoring fastener locations and minimum penetration to the main structure materials shall follow manufacturer's specifications.
° Dissimilar materials shall be separated with approved bituminous paint or spacers, to prevent any galvanic action (corrosion).
° Glazing gaskets/ spacers shall be dense extruded elastomeric rubber such as Neoprene, EPDM or other compatible materials.
(Note: Glass-metal contact is not acceptable).
° Glazing profiles shall be designed and sized to work with the system and properly serve glazing rabbet assembly providing uniform pressure.
Pressure points are not acceptable.
° Setting blocks must be properly sized (L mm = 25 mm/ 1" per each 1 m2/ 10 sqft of glass, but not less than 100 mm/ 4"), placed at 1/4 points, and compatible with the insulating glass sealant.
° Materials in contact must be compatible.
Use of any organic materials (i.e. wood) in the assembly is not acceptable.

Finish
All exposed surfaces shall be free from defects, scratches and serious blemishes.
Aluminum shall receive one of the following available finishes specified by the Architect:
i) Standard commercial clear anodic coating integral colour (02).
ii) Standard baked enamel paint, White or Rideau brown colour
iii Other paint qualities and colours in baked enamel
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III. EXECUTION

Fabrication
° Fabricate and assemble in strict accordance with the approved shop drawings and manufacturer's published recommendations.

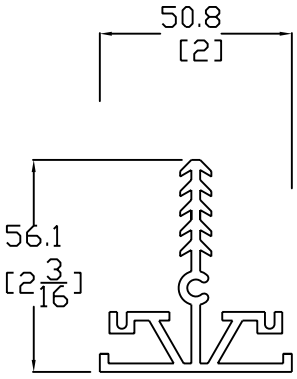
Installation
° All work shall be done by an experienced crew.
° Flashings - where included - must be installed and secured to allow for thermal expansion and assuring full ability for directing any water intrusions to the outside.
° Framing shall be installed, secured and glazed with the consideration for all applicable glazing and other related standards.
° Set framing level, plumb, square and aligned with other work, in accordance with approved shop drawings and manufacturer's installation instructions and published glazing standards.
° All perimeter joints shall be sealed and caulked with approved sealant materials to ensure a weather-tight installation.

Protection and Cleaning
° All work shall be protected against damage during and after installation.
° After installation all exposed surfaces shall be cleaned of all contaminants.
° The General Contractor is responsible for protection and final cleaning.

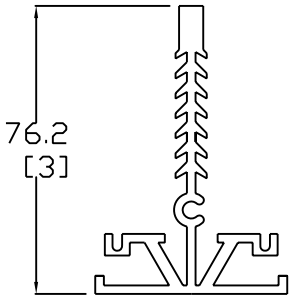
Aluminex™

6200 SERIES
T-BAR CANOPY - SKYLIGHT FRAMING SYSTEM

NON-INSULATED & INSULATED 51 mm (2") WIDTH



6220



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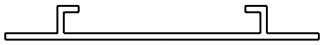
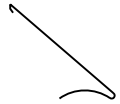


6250

GLAZING BEAD

6260



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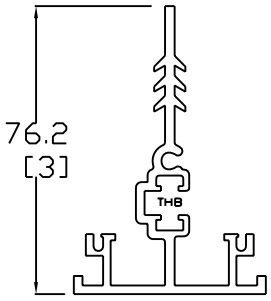

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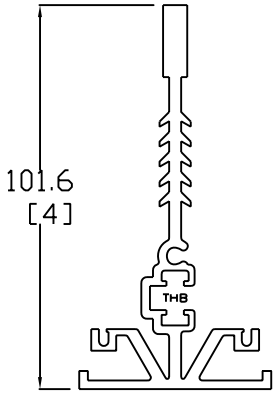
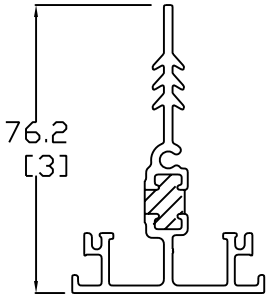


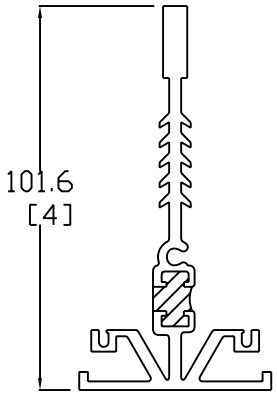
6240

3202

8510
GASKET



6232 TB



6241 TB

6210
SILL SHOE

SCALE 1:2

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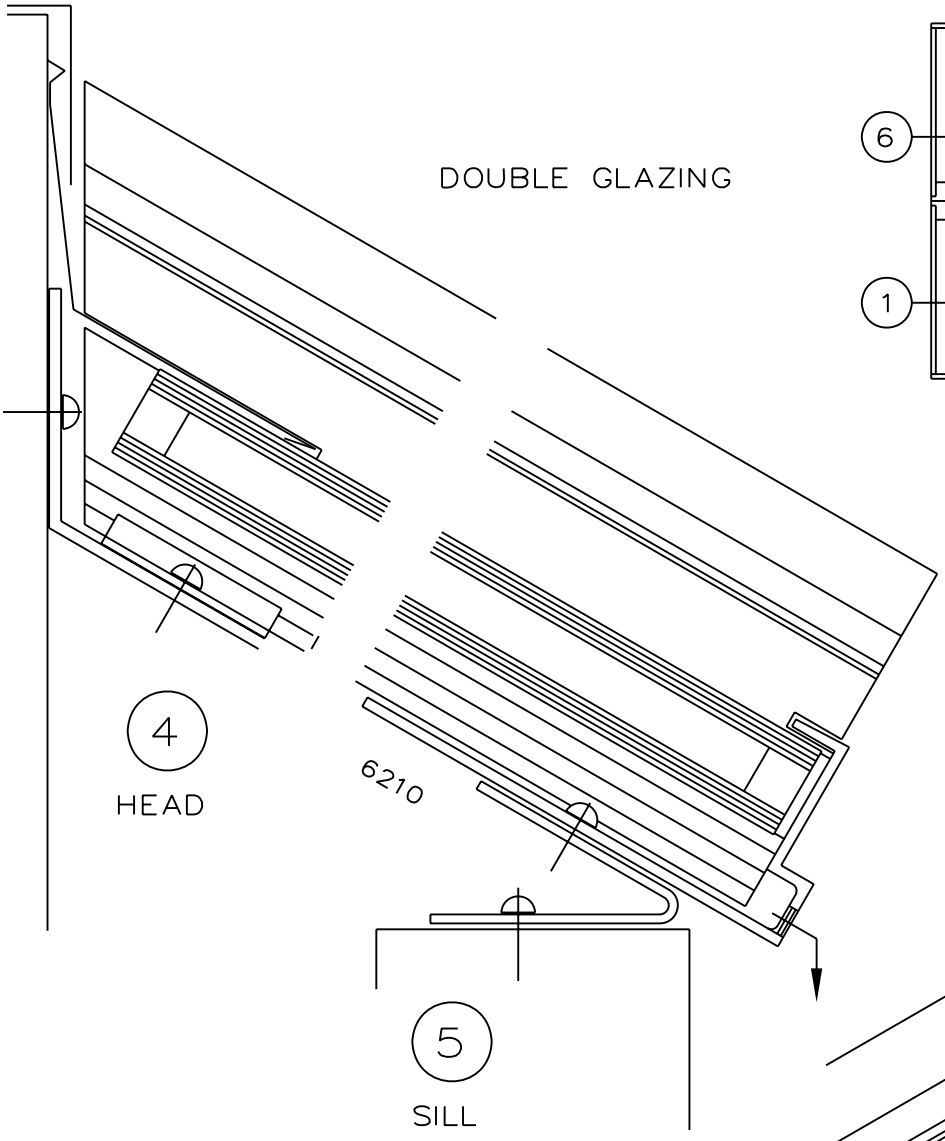
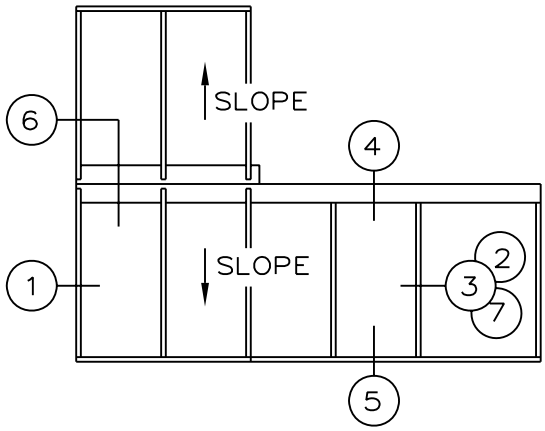
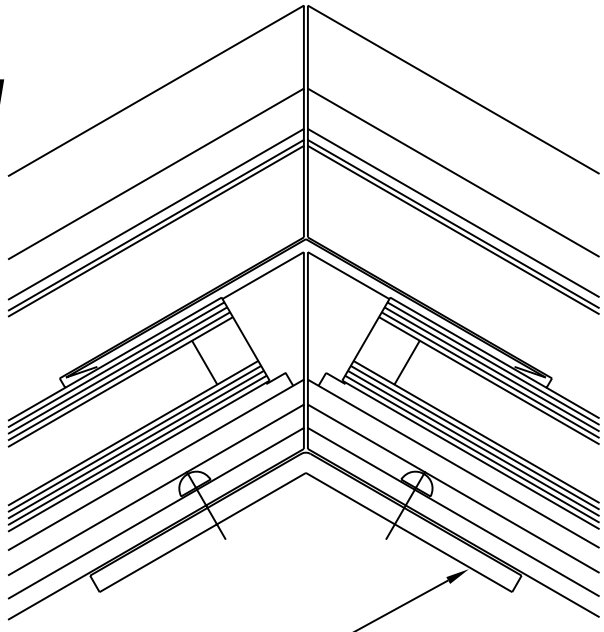
T-BAR CANOPY - SKYLIGHT FRAMING SYSTEM

NON-INSULATED & INSULATED 51 mm (2") WIDTH





PLAN/ELEVATION



SCALE 1:2

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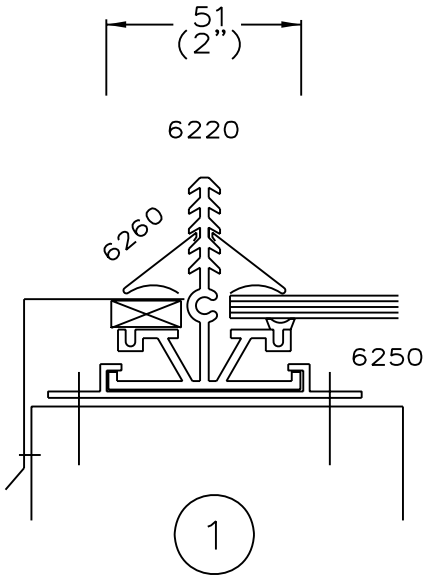
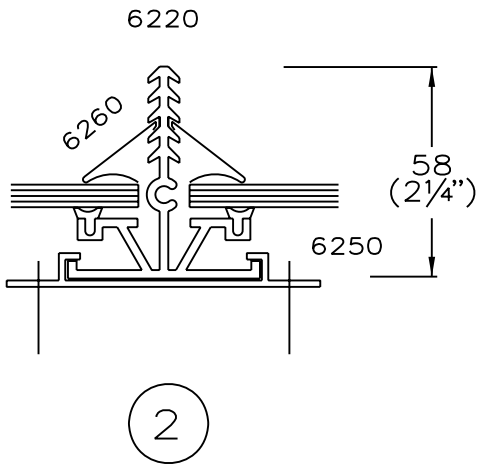


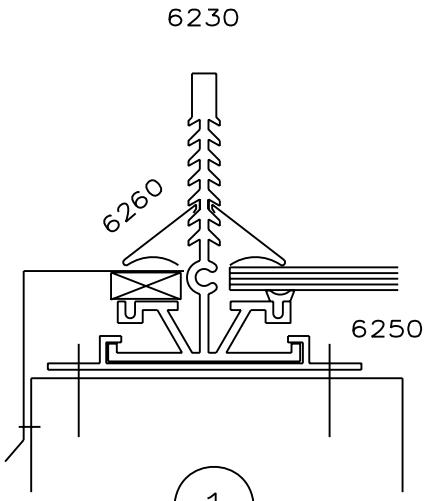
1

RAFTER
@ JAMB



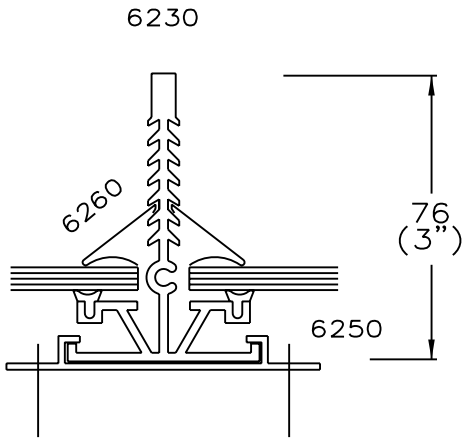
2

RAFTER
TYPICAL



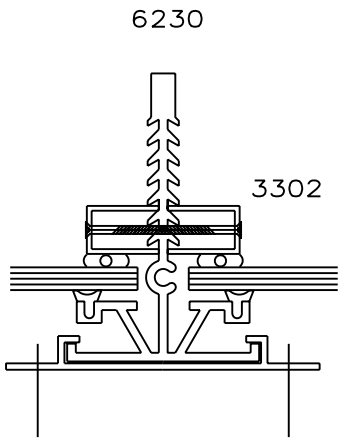
1

RAFTER
@ JAMB



2

RAFTER
TYPICAL



7

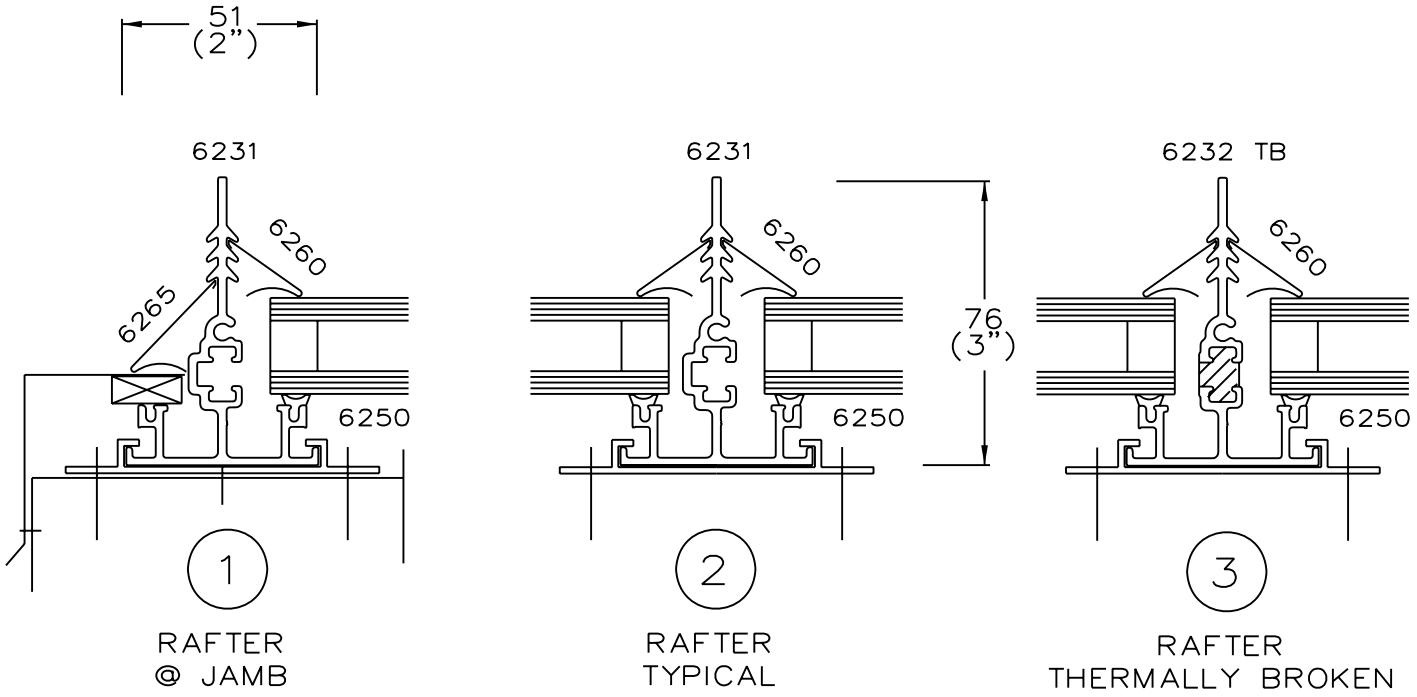
RAFTER
WITH FASTNER APPLIED STOP

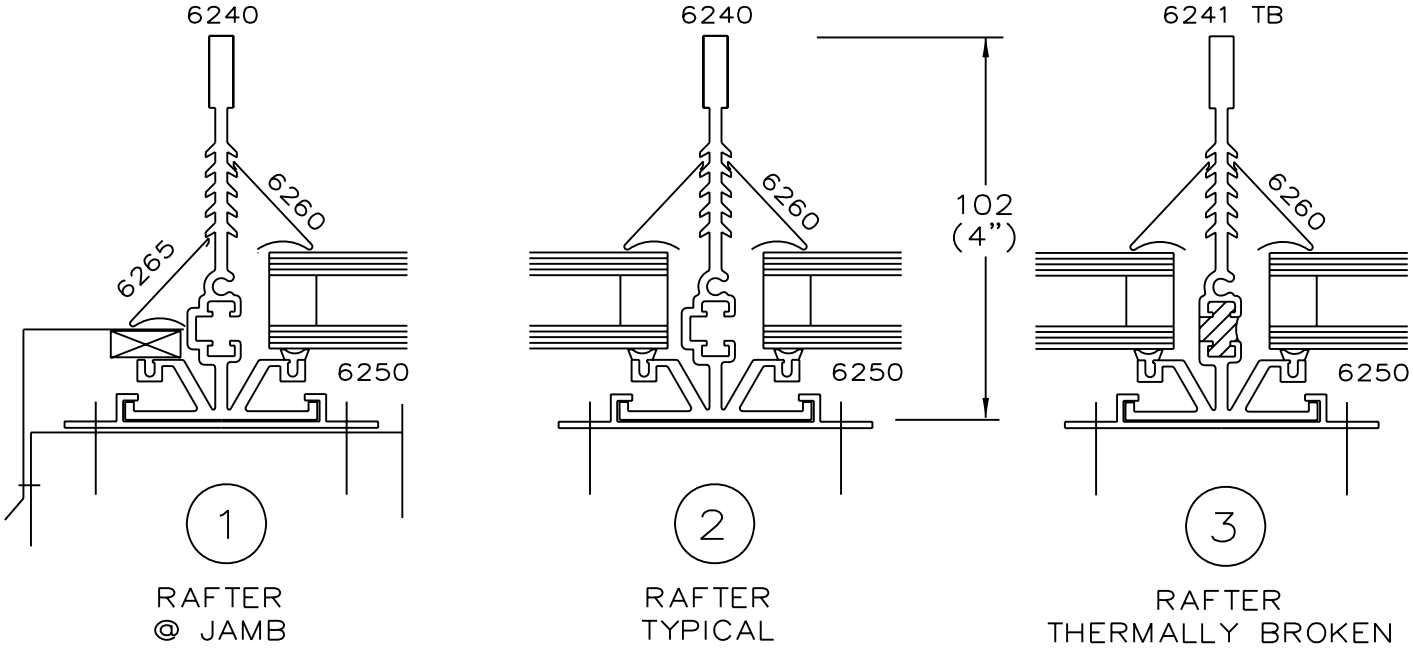
SCALE 1:2

Aluminex™

6200 SERIES
T-BAR CANOPY - SKYLIGHT FRAMING SYSTEM

NON-INSULATED & INSULATED 51 mm (2") WIDTH





SCALE 1:2

Aluminex™

6200 SERIES
T-BAR CANOPY - SKYLIGHT FRAMING SYSTEM

LOAD CHARTS

A.T.MARCK & ASSOCIATES
BUILDING SYSTEMS ENGINEERING LTD.
TEL/FAX (604) 469-6566

PROFILE 6220			AA 6063 T5
A= 476 mm^2	I= 129030 mm^4	S= 3360 mm^3	

MAX. ALLOWABLE RAFTER LENGTH (m/ft) FOR COMBINED SPECIFIED LOAD

RAFTER SPACING	0.96 kPa 20 PSF	1.44 kPa 30 PSF	1.91 kPa 40 PSF	2.39 kPa 50 PSF	2.87 kPa 60 PSF	3.35 kPa 70 PSF	
.45 m	2.00	1.65	1.45	1.30	1.15	1.10	m
1.5′	6.6	5.4	4.8	4.3	3.8	3.6	ft
.60 m	1.75	1.45	1.25	1.10	1.00	0.95	
2.0′	5.7	4.8	4.1	3.6	3.3	3.1	
.75 m	1.55	1.30	1.10	1.00	0.90	0.85	
2.5′	5.1	4.3	3.6	3.3	3.0	2.8	
.90 m	1.45	1.15	1.00	0.90	0.85	0.75	
3.0′	4.8	3.8	3.3	3.0	2.8	2.5	
1.05 m	1.30	1.10	0.95	0.85	0.75	0.70	
3.5′	4.3	3.6	3.1	2.8	2.5	2.3	
1.20 m	1.25	1.00	0.90	0.80	0.70	0.65	
4.0′	4.1	3.3	3.0	2.6	2.3	2.1	
1.35 m	1.15	0.95	0.85	0.75	0.70	0.65	
4.5′	3.8	3.1	2.8	2.5	2.3	2.1	
1.50 m	1.10	0.90	0.80	0.70	0.65	0.60	
5.0′	3.6	3.0	2.6	2.3	2.1	2.0	
1.65 m	1.05	0.85	0.75	0.65	0.60	0.55	
5.5′	3.4	2.8	2.5	2.1	2.0	1.8	
1.80 m	1.00	0.85	0.70	0.65	0.60	0.55	
6.0′	3.3	2.8	2.3	2.1	2.0	1.8	

PROFILE 6230			AA 6063 T5
A= 855 mm^2	I= 378770 mm^4	S= 7620 mm^3	

MAX. ALLOWABLE RAFTER LENGTH (m/ft) FOR COMBINED SPECIFIED LOAD

RAFTER SPACING	0.96 kPa 20 PSF	1.44 kPa 30 PSF	1.91 kPa 40 PSF	2.39 kPa 50 PSF	2.87 kPa 60 PSF	3.35 kPa 70 PSF	
.45 m	3.00	2.50	2.15	1.95	1.75	1.65	m
1.5′	9.8	8.2	7.1	6.4	5.7	5.4	ft
.60 m	2.65	2.15	1.85	1.65	1.50	1.40	
2.0′	8.7	7.1	6.1	5.4	4.9	4.6	
.75 m	2.35	1.95	1.65	1.50	1.35	1.25	
2.5′	7.7	6.4	5.4	4.9	4.4	4.1	
.90 m	2.15	1.75	1.50	1.35	1.25	1.15	
3.0′	7.1	5.7	4.9	4.4	4.1	3.8	
1.05 m	2.00	1.65	1.40	1.25	1.15	1.05	
3.5′	6.6	5.4	4.6	4.1	3.8	3.4	
1.20 m	1.85	1.50	1.30	1.20	1.10	1.00	
4.0′	6.1	4.9	4.3	3.9	3.6	3.3	
1.35 m	1.75	1.45	1.25	1.10	1.00	0.95	
4.5′	5.7	4.8	4.1	3.6	3.3	3.1	
1.50 m	1.65	1.35	1.20	1.05	0.95	0.90	
5.0′	5.4	4.4	3.9	3.4	3.1	3.0	
1.65 m	1.60	1.30	1.10	1.00	0.90	0.85	
5.5′	5.2	4.3	3.6	3.3	3.0	2.8	
1.80 m	1.50	1.25	1.10	.95	0.90	0.80	
6.0′	4.9	4.1	3.6	3.1	3.0	2.6	

1/ BASED ON L/175 MAX ALLOWABLE DEFLECTION OR Fy = 110 MPa FOR AA 6063 T5 – WHICHEVER IS LESS – CONFORMING TO CAN3-S157-M83

2/ FOR ESTIMATING PURPOSES ONLY

6200 SERIES
T-BAR CANOPY - SKYLIGHT FRAMING SYSTEM

LOAD CHARTS

A.T.MARCK & ASSOCIATES
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TEL/FAX (604) 469-6566

	PROFILE 6231			AA 6063 T5		
	A= 488 mm^2		I= 237316 mm^4	S= 4552 mm^3		
	MAX. ALLOWABLE RAFTER LENGTH (m/ft) FOR COMBINED SPECIFIED LOAD					
RAFTER SPACING	0.96 kPa 20 PSF	1.44 kPa 30 PSF	1.91 kPa 40 PSF	2.39 kPa 50 PSF	2.87 kPa 60 PSF	3.35 kPa 70 PSF
.45 m	2.35	1.90	1.65	1.50	1.35	1.25
1.5′	7.7	6.2	5.4	4.9	4.4	4.1
.60 m	2.05	1.65	1.45	1.30	1.20	1.10
2.0′	6.7	5.4	4.8	4.3	3.9	3.6
.75 m	1.80	1.50	1.30	1.15	1.05	1.00
2.5′	5.9	4.9	4.3	3.8	3.4	3.3
.90 m	1.65	1.35	1.20	1.05	0.95	0.90
3.0′	5.4	4.4	3.9	3.4	3.1	3.0
1.05 m	1.55	1.25	1.10	1.00	0.90	0.85
3.5′	5.1	4.1	3.6	3.3	3.0	2.8
1.20 m	1.45	1.15	1.00	0.90	0.85	0.75
4.0′	4.8	3.8	3.3	3.0	2.8	2.5
1.35 m	1.35	1.10	0.95	0.85	0.80	0.75
4.5′	4.4	3.6	3.1	2.8	2.6	2.5
1.50 m	1.30	1.05	0.90	0.80	0.75	0.70
5.0′	4.3	3.4	3.0	2.6	2.5	2.3
1.65 m	1.25	1.00	0.85	0.80	0.70	0.65
5.5′	4.1	3.3	2.8	2.6	2.3	2.1
1.80 m	1.15	0.95	0.85	0.75	0.70	0.65
6.0′	3.8	3.1	2.8	2.5	2.3	2.1

m
ft

	PROFILE 6240			AA 6063 T5		
	A= 789 mm^2		I= 857436 mm^4	S=12455 mm^3		
	MAX. ALLOWABLE RAFTER LENGTH (m/ft) FOR COMBINED SPECIFIED LOAD					
RAFTER SPACING	0.96 kPa 20 PSF	1.44 kPa 30 PSF	1.91 kPa 40 PSF	2.39 kPa 50 PSF	2.87 kPa 60 PSF	3.35 kPa 70 PSF
.45 m	3.90	3.20	2.75	2.45	2.25	2.10
1.5′	12.8	10.5	9.0	8.0	7.4	6.9
.60 m	3.35	2.75	2.40	2.15	1.95	1.80
2.0′	11.0	9.0	7.9	7.1	6.4	5.9
.75 m	3.00	2.45	2.15	1.90	1.75	1..60
2.5′	9.8	8.0	7.1	6.2	5.7	5.2
.90 m	2.75	2.25	1.95	1.75	1.60	1.45
3.0′	9.0	7.4	6.4	5.7	5.2	4.8
1.05 m	2.55	2.10	1.80	1.60	1.45	1.35
3.5′	8.4	6.9	5.9	5.2	4.8	4.4
1.20 m	2.40	1.95	1.70	1.50	1.40	1.25
4.0′	7.9	6.4	5.6	4.9	4.6	4.1
1.35 m	2.55	1.85	1.60	1.40	1.30	1.20
4.5′	7.4	6.1	5.2	4.6	4.3	3.9
1.50 m	2.15	1.75	1.50	1.35	1.25	1.15
5.0′	7.1	5.7	4.9	4.4	4.1	3.8
1.65 m	2.05	1.65	1.45	1.30	1.15	1.10
5.5′	6.7	5.4	4.8	4.3	3.8	3.6
1.80 m	1.95	1.60	1.40	1.25	1.10	1.05
6.0′	6.4	5.2	4.6	4.1	3.6	3.4

m
ft

1/ BASED ON L/175 MAX ALLOWABLE DEFLECTION
OR Fy = 110 MPa FOR AA 6063 T5
– WHICHEVER IS LESS – CONFORMING TO CAN3-S157-M83

2/ FOR ESTIMATING PURPOSES ONLY