



Project Details

NAME	reinhard	DATE	2018-05-18
LOCATION	Portland, ME, 04103	TOTAL MODULES	33
MODULE	LG:LG270S1C-A3 (35mm)	TOTAL WATTS	8,910
DIMENSIONS	64.57" x 39.37" x 1.38" (1,640 x 1,000 x 35mm)	ATTACHMENT PTS	96

Load Assumptions

WIND EXPOSURE	B
WIND SPEED	100 mph
GROUND SNOW LOAD	70 psf
ATTACHMENT SPACING	4.0 ft

Building Details

ROOF SLOPE	45 deg
BUILDING HEIGHT	30 ft
RISK CATEGORY	I

Engineering

XR100 SPAN DETAILS (Portrait)

Roof Zone	Max Span	Max Cantilever
1	5' 5"	2' 2"
2	5' 5"	2' 2"
3	5' 5"	2' 2"

MAXIMUM REACTION FORCES (Portrait)

Roof Zone	Down	Uplift	Lateral
1	195.00	-94.00	144.00
2	195.00	-109.00	144.00
3	195.00	-109.00	144.00

XR100 SPAN DETAILS (Landscape)

Roof Zone	Max Span	Max Cantilever
1	7'	2' 10"
2	7'	2' 10"
3	7'	2' 10"

MAXIMUM REACTION FORCES (Landscape)

Roof Zone	Down	Uplift	Lateral
1	115.00	-55.00	85.00
2	115.00	-65.00	85.00
3	115.00	-65.00	85.00

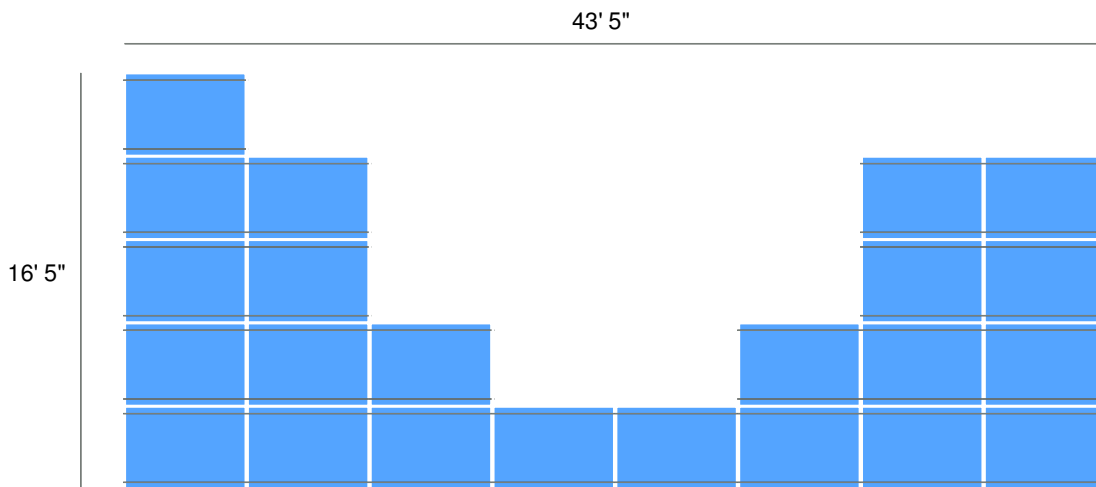
System Weight

TOTAL WEIGHT	1532 lbs
WEIGHT/ATTACHMENT	16.0 lbs
DISTRIBUTED WEIGHT	2.6 psf
RACKING WEIGHT	310.0 lbs



Array Details

Array	Cols	Rows	Orientation	Row Length	Cantilever	Violations	Provided Rails	Attachments	Clamps	Splices
A	1	1	LANDSCAPE	5' 7"	9"	None	22'[2 x 11']	4	4	0
A	2	4	LANDSCAPE	11'	1' 6"	None	88'[8 x 11']	24	24	0
A	3	2	LANDSCAPE	16' 4"	2"	None	68'[4 x 17']	20	16	0
A	8	1	LANDSCAPE	43' 5"	1' 9"	None	88'[8 x 11']	22	18	6

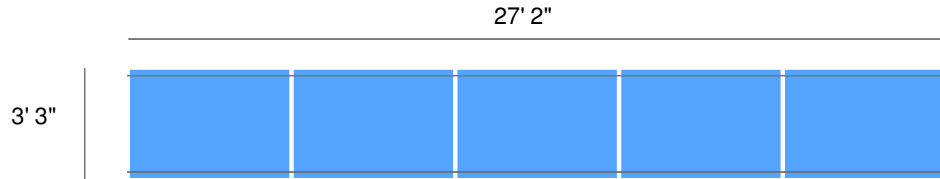




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Approved with Conditions

07/23/2018

Array	Cols	Rows	Orientation	Row Length	Cantilever	Violations	Provided Rails	Attachments	Clamps	Splices
B	5	1	LANDSCAPE	27' 2"	1' 7"	None	56'[4 x 14']	14	12	2

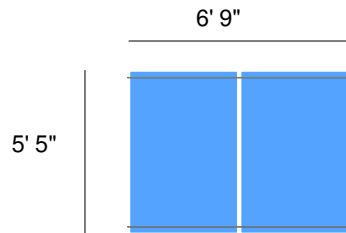




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Array	Cols	Rows	Orientation	Row Length	Cantilever	Violations	Provided Rails	Attachments	Clamps	Splices
C	2	1	PORTRAIT	6' 9"	1' 5"	None	22'[2 x 11']	4	6	0

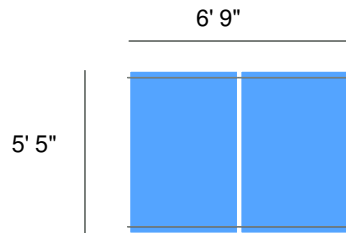




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Array	Cols	Rows	Orientation	Row Length	Cantilever	Violations	Provided Rails	Attachments	Clamps	Splices
D	2	1	PORTRAIT	6' 9"	1' 5"	None	22'[2 x 11']	4	6	0

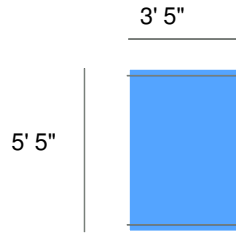




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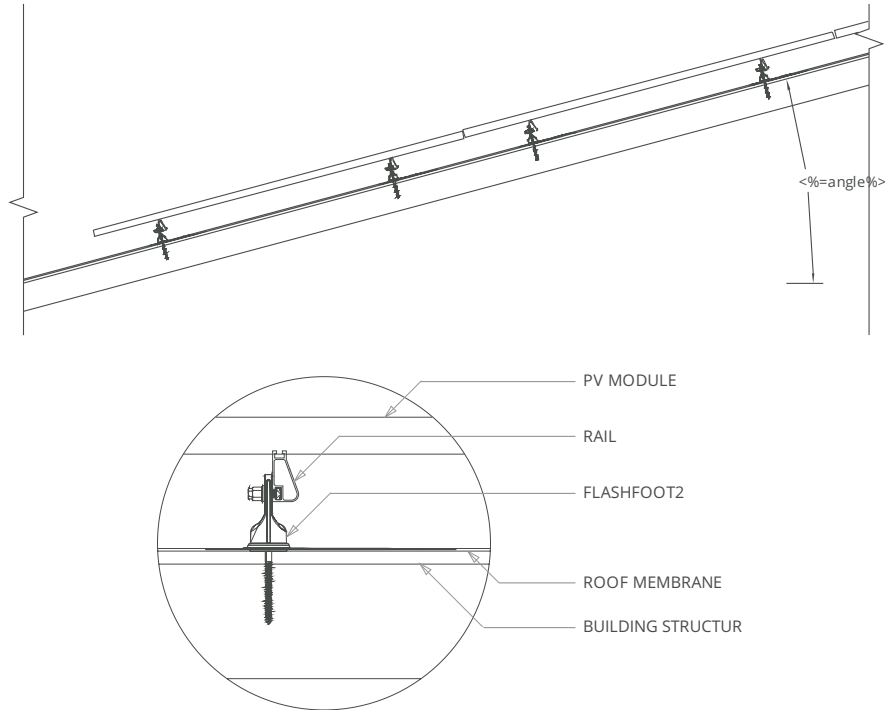
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Array	Cols	Rows	Orientation	Row Length	Cantilever	Violations	Provided Rails	Attachments	Clamps	Splices
E	1	1	PORTRAIT	3' 5"	9"	None	22'[2 x 11']	4	4	0

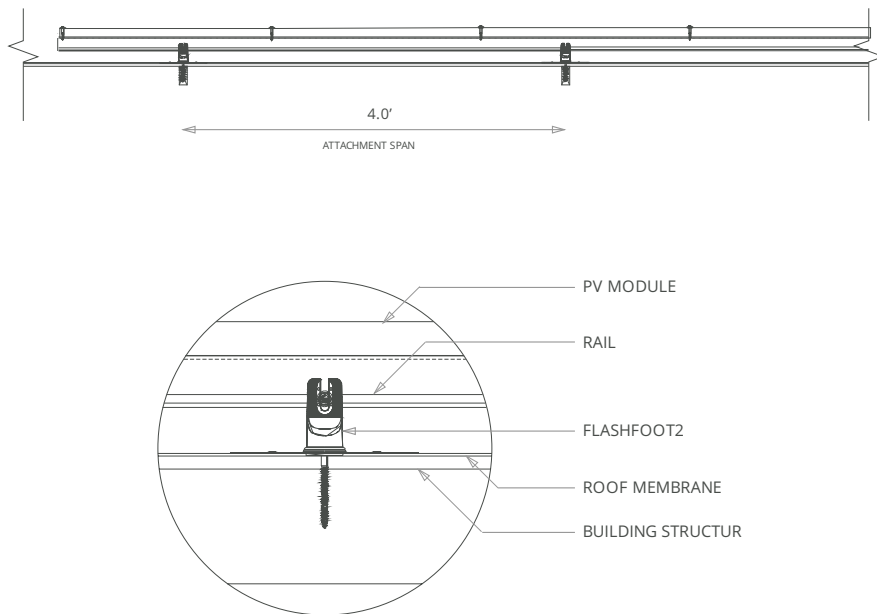




Side View (Portrait)



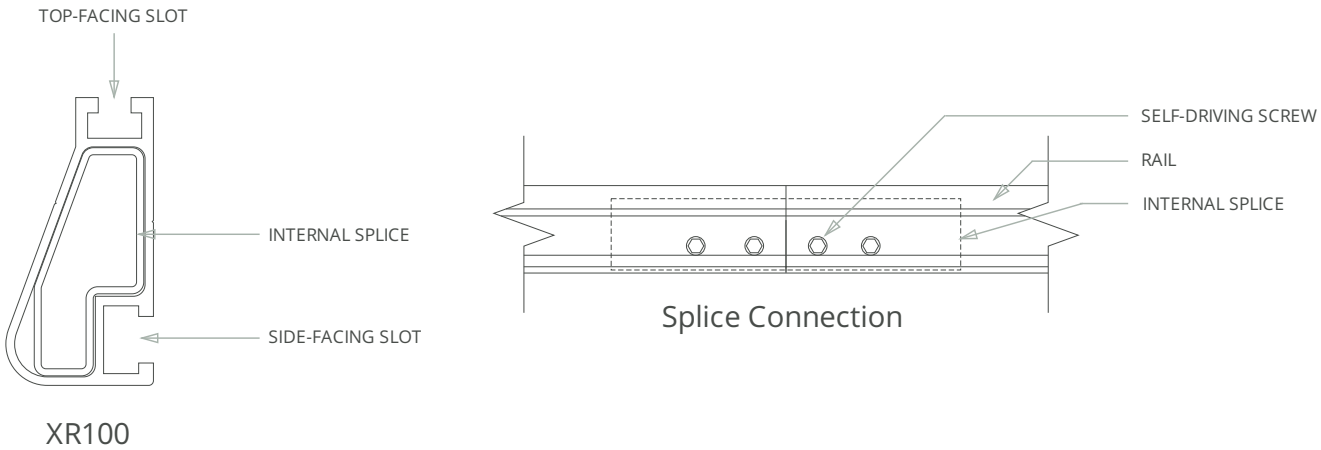
Front View (Portrait)



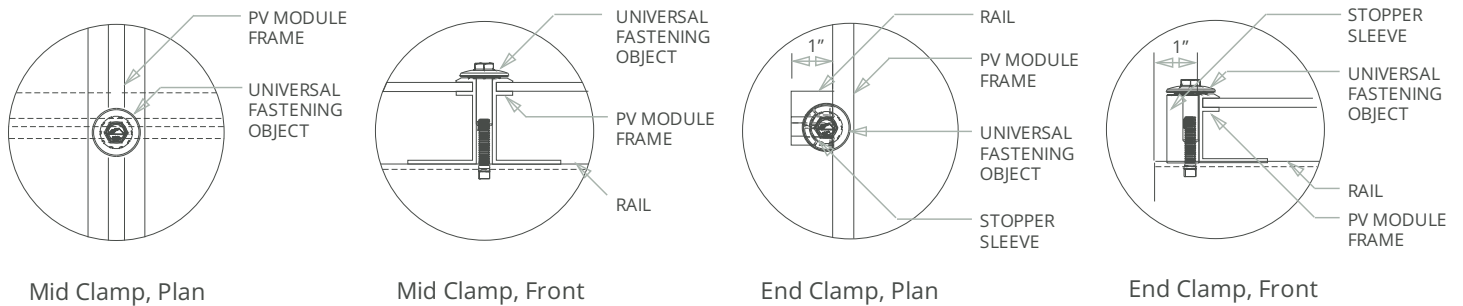
Note: The images displayed in this report are meant to represent one portion of the array. The use of a break line indicates that the array may continue on beyond that point.



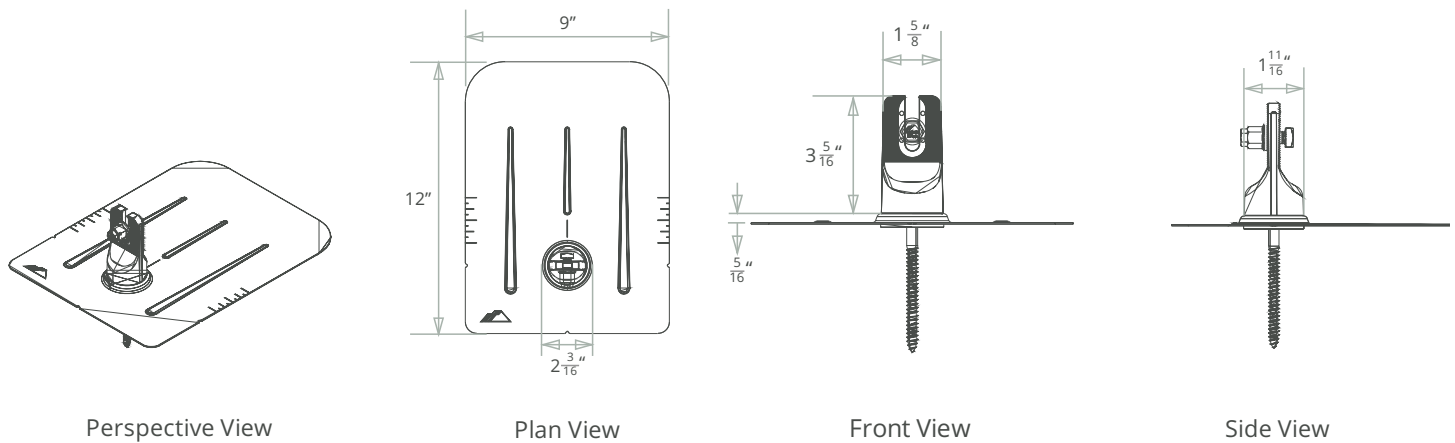
Splice Detail



Clamp Detail

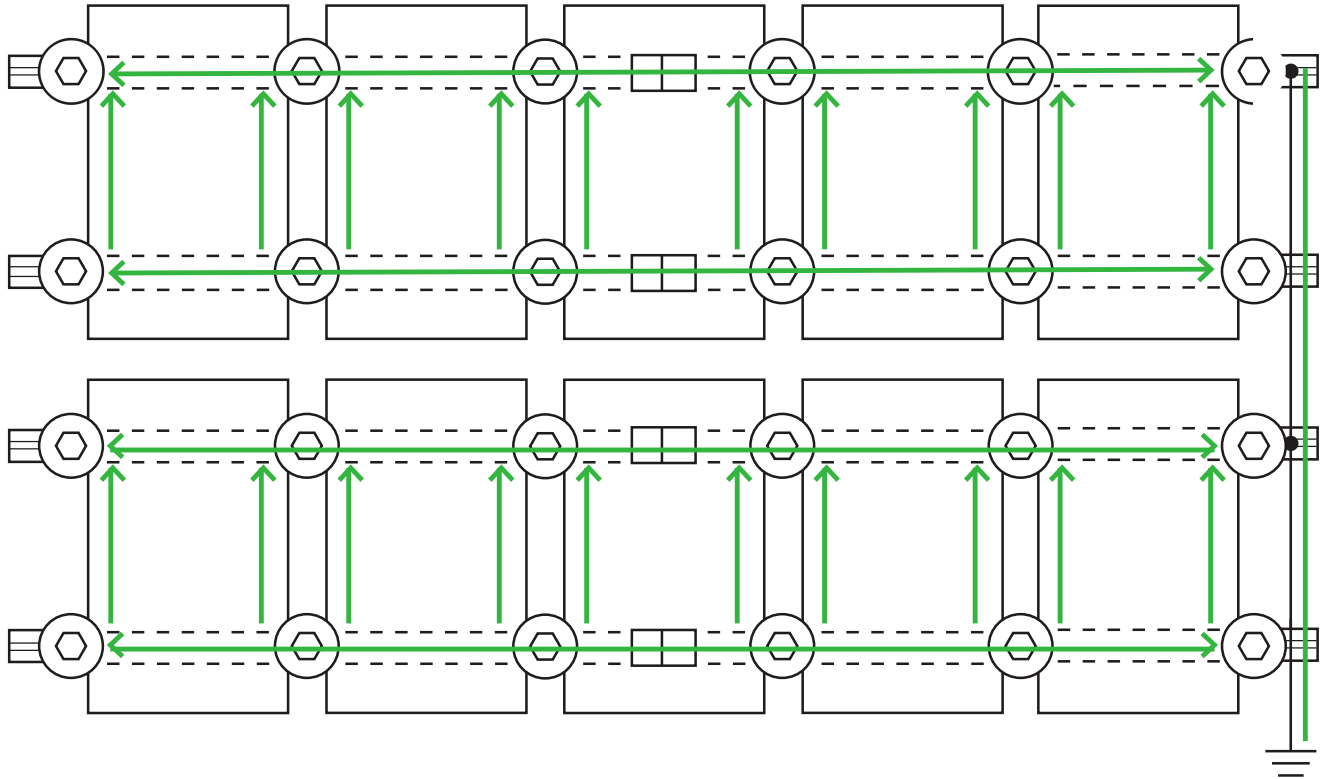


FlashFoot2 Detail





Grounding Diagram



 UFO Clamp

 Fault Current Ground Path

 Grounding Lug *

 Min 10 AWG Copper Wire *

 Bonded Splice (Rail Connection)

* Grounding Lugs and Wire are not required in systems using Enphase microinverters.

Bill of Materials



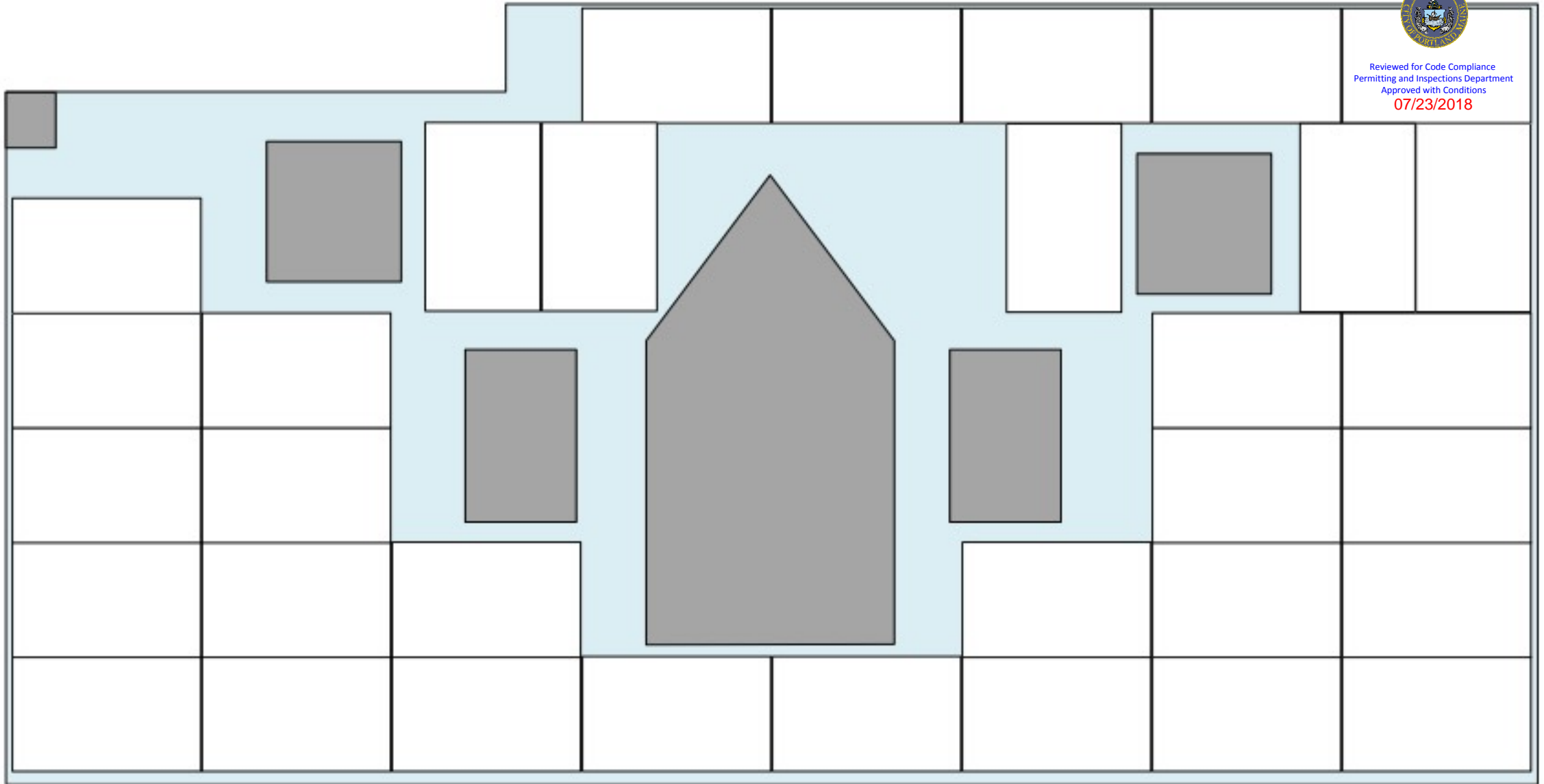
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GROUP	PART	DESCRIPTION	TOTAL QTY
RAILS & SPLICES	XR-100-132B	XR100, Rail 132" (11 Feet) Black	24
	XR-100-168B	XR100, Rail 168" (14 Feet) Black	4
	XR-100-204B	XR100, Rail 204" (17 Feet) Black	4
	XR-100-SPLC-BD	Kit, XR100 Bonded Splice	8
CLAMPS & GROUNDING	UFO-CL-001-B	Kit, 4pcs, Universal Module Clamp	23
	UFO-STP-35MM-B	Kit, 4pcs, Stopper Sleeve, 35MM, Black	12
	GD-LUG-003	Kit, 2pcs, Grounding Lug, Low Profile	6
ATTACHMENTS	FM-FF2-001-B	Kit, 4pcs, FlashFoot 2 (Black)	24
	FM-SQ-BHW-V2	Kit, 4pcs, Square-Bolt Bonding Attachment Hardware	24



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33 Panels



159 D
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159 C021
6803

Roof Plane Detail Above

159 C020
7151

159 C040

MURRAY ST
1-113
2-114

OCEAN AVE
432-454
431-433

50

164.4

130.81

46.29

39.88

59.1

55.7

106.72

56.68
106.8

55

14.75