

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that 142 PRESUMPCOT LLC

Located At 142 PRESUMPCOT ST

Job ID: 2012-03-3584-ALTCOMM

CBL: 425- I-004-001

has permission to Add solar (PV) panels to building on 29' and 80' of walls in an awning type array provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

[Signature] 4/26/12

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-03-3584-ALTCOMM	Date Applied: 3/23/2012	CBL: 425- I-004-001	
Location of Construction: 142 PRESUMPCOT ST	Owner Name: 142 PRESUMPCOT LLC	Owner Address: 142 PRESUMPCOT ST PORTLAND, ME 04103	Phone:
Business Name: Revision Energy	Contractor Name: Revision Energy – Jen Hatch	Contractor Address: 142 Presumpscot St., Portland, ME 04103	Phone: (207) 221-6342
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG - Building	Zone: I-L
Past Use: Revision Energy – warehouse, production & installation of solar panels	Proposed Use: Same – install two sets of awning mounted solar electrical panels – 29' wide on front and 80' wide on right side	Cost of Work: 35000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: S/F Type: N/A TBC-2009 Signature: JMB
Proposed Project Description: Adding Solar Electrical Panels to Building		Pedestrian Activities District (P.A.D.)	4/26/12
Permit Taken By:	Zoning Approval		

	Special Zone or Reviews	Zoning Appeal	Historic Preservation
1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building Permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.	<input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan Admin. Author. 2012 - 477 <input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM Date: OK w/cond. hon 4/12/12 ABN	<input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	<input checked="" type="checkbox"/> Not in Dist or Landmark <input type="checkbox"/> Does not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: ABN

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Electrical close in inspection prior to covering

Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Acting Director of Planning and Urban Development
Gregory Mitchell

Job ID: 2012-03-3584-ALTCOMM

Located At: 142 PRESUMPCOT
ST

CBL: 425- 1-004-001

Conditions of Approval:

Zoning

1. This permit is being approved on the basis of plans submitted including the site plan received 4/11/12. Any deviations shall require a separate approval before starting that work.
2. This permit is being approved with the condition that the panels located on the front of the building do not extend more than two feet off the building.

Fire

1. Installation shall comply with City Code Chapter 10.
2. All construction shall comply with City Code Chapter 10.

Building

1. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
2. The installation shall comply with the wind load requirements of the IBC 2009 and ASCE 7-05
3. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.



PORTLAND MAINE

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Receipts Details:

Tender Information: Check , Check Number: 25098

Tender Amount: 55.00

Receipt Header:

Cashier Id: bsaucier

Receipt Date: 3/23/2012

Receipt Number: 42157

Receipt Details:

Referance ID:	5792	Fee Type:	BP Elec Comm
Receipt Number:	0	Payment Date:	
Transaction Amount:	55.00	Charge Amount:	55.00
Job ID: Job ID: 2012-03-3584-ALTCOMM - Adding Solar Panels to Building			
Additional Comments: 142 Presumpscot; 1 of 3			

Thank You for your Payment!

FL

Admin-author - 2012 - 477

Entered 3/23/12

(B)



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

ID: 2012-03-3584-AITUMM

Location/Address of Construction: <u>142 Presumpscot Street</u>		
Total Square Footage of Proposed Structure/Area	Square Footage of Lot	Number of Stories
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Applicant * must be owner, Lessee or Buyer* Name <u>Revision Energy</u> Address <u>142 Presumpscot St</u> City, State & Zip <u>Portland, ME 04103</u>	Telephone: <u>221-6342</u>
<u>425 1004</u>		
Lessee/DBA (If Applicable) <u>142 Presumpscot LLC</u> <u>142 Presumpscot St, 04103</u> <u>Const Equipment</u>	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of <u>35,000</u> Work: \$ <u>34,854</u> C of O Fee: \$ _____ Total Fee: \$ <u>370.00</u>
	<u>34000</u> <u>30</u> <u>370</u>	
Current legal use (i.e. single family) <u>commercial</u> Number of Residential Units _____		
If vacant, what was the previous use? _____		
Proposed Specific use: <u>office/recharge</u>		
Is property part of a subdivision? _____ If yes, please name <u>RECEIVED</u>		
Project description: <u>Adding SOLAR ELECTRIC PANELS TO building</u> <u>MAR 23 2012</u>		
Contractor's name: <u>Revision Energy</u>		
Address: <u>142 Presumpscot St</u>		
City, State & Zip: <u>Portland, ME 04103</u> Telephone: _____		
Who should we contact when the permit is ready: <u>Jen Hatch</u> Telephone: <u>221-6342</u>		
Mailing address: <u>above</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: J Hatch Date: 3/23/2012

This is not a permit; you may not commence ANY work until the permit is issued



Professional design, installation and service of renewable energy systems

March 23, 2012

City of Portland
389 Congress Street
Portland, ME 04101

RE: ReVision Energy Solar Installation at Coastal Equipment
Address: 142 Presumpscot Street

Dear Code Enforcement,

ReVision Energy has been contracted to design and install a solar electric (PV) system at ReVision Energy, tenants of Coastal Equipment, at the above address in Portland. This letter is to confirm that all work will be performed by licensed and qualified installers, expert in the field and in compliance with both manufacturer's recommendations and all applicable local and state codes and standards. This also confirms that the roof structure can handle the weight of the panel load, in addition to snow load. The weight of the panels does not change the structural integrity of the building.


ReVision Energy employs licensed engineers, plumbers, and electricians and carries the solar industries highest certifications (NABCEP) in both solar thermal and photovoltaic installation. We're committed to high quality, code compliant work and look forward to working together with the city and the CEO to ensure that all your requirements and needs are met and that our customer ends up with a system that is beautiful, functional and safe.

Electrical and grounding:

All electrical work to be performed by a licensed ME electrician and will conform to NEC 2011 revision as well as NABCEP standards. Specifically, wiring and grounding of the photovoltaic system will be governed by manufacturer's recommendations and article 690. All installed metal components are grounded via the grounding electrode conductor.

If you have any questions or concerns, we'd like to address them as quickly and completely as possible. Please don't hesitate to call or e mail anytime.

Respectfully,


Fortunat Mueller, P.E.
Co-owner
ReVision Energy
(207) 752-6358
fortunat@revisionenergy.com

I-L zone.
- side 25 or 40 (abuts existing)
front - 25'

Bangor
207-570-4222

Liberty
207-589-4171

Portland
207-221-6342

Portsmouth
603-486-7170

142 Presumpscot St

RECEIVED

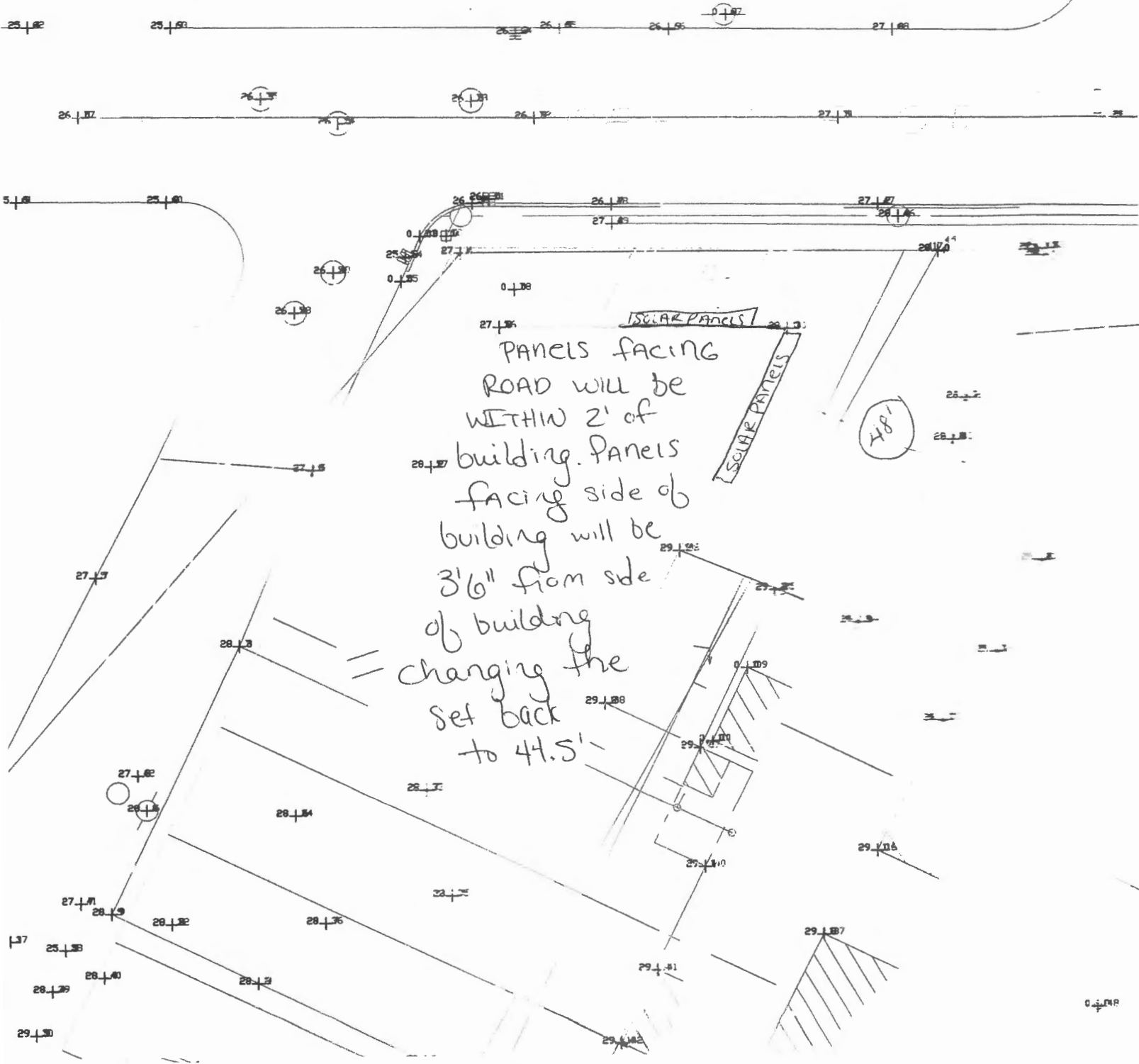
APR 11 2012

Dept. of Building Inspections
City of Portland Maine

I-L zone

front setback 25' - non conformity
- front panels not extend more
than two lot.

side setback 40' - abuts residential lot
setback 44.5' (OK)



Ann Machado - Re: 142 Presumpscot St

From: Jennifer Hatch <jen@revisionenergy.com>
To: Ann Machado <AMACHADO@portlandmaine.gov>
Date: 4/3/2012 10:29 AM
Subject: Re: 142 Presumpscot St

The panels on the front will be steeper pitched to be within 24 inches of the building. The panels on the side will stick to their original plan - which is 3.6' off the building.

Jennifer Hatch
ReVision Energy
142 Presumpscot St
Portland, ME 04103
(207) 221-6342
www.revisionenergy.com

The future depends on what we do in the present ~ Gandhi

On 4/3/2012 8:06 AM, Ann Machado wrote:

Jen -

Are you just making the pitch of the panels steeper on the front? We will need information that shows how far the panels extend off the front and the side.

Thanks.

Ann

>>> Jennifer Hatch <jen@revisionenergy.com> 4/2/2012 3:01 PM >>>
Ann,

We're going to make the pitch of the panels steeper to keep the distance within two feet of the building. I'll make copies of the site plans and come in to pay the administrative authorization application. Let me know if there is anything else you will need at this time.

Thank you,

Jennifer Hatch
ReVision Energy
142 Presumpscot St
Portland, ME 04103
(207) 221-6342
www.revisionenergy.com

The future depends on what we do in the present ~ Gandhi

On 4/2/2012 1:51 PM, Ann Machado wrote:



Professional design, installation and service of renewable energy systems

Photovoltaic Proposal

Client: ReVision Energy
Address: 142 Presumpscot St. Portland, ME 04103
Date: 7 February 2012

This proposal is for two separate photovoltaic systems that are to be installed at the ReVision Energy Portland location. System #1 will use Canadian Solar 240 watt mono-silicon modules and will be awning mounted on the East facing wall of the building (street side). System #2 will utilize Canadian Solar 240 watt modules and will be awning mounted on the Southeast facing wall of the warehouse.

System	Performance	Cost
33 CSI 240 watt photovoltaic modules coupled to two grid tied inverters.	<ul style="list-style-type: none">Produce 9,330 kilowatt hours of electricity annually	\$34,854 installed

System #1



System #1 Description

The solar array will consist of nine Canadian Solar 240 watt photovoltaic modules that will be awning mounted on the East facing warehouse wall as shown above. The modules will be in portrait orientation and the array will measure twenty nine feet wide covering approximately

Liberty
207-589-4171

Portland
207-221-6342

Exeter, NH
603-501-1822

www.revisionenergy.com



Professional design, installation and service of renewable energy systems

70% of the width of the white portion of the building. The array will be mounted at an angle of roughly 55 degrees in an effort to balance system production with visualization from the street.

System #2

Array Location

Orientation:
214 degrees
(Southwest)

Array Angle:
45 degree
(increased
production)



System Description

The solar array will consist of 24 Canadian Solar 240 watt mono-silicon photovoltaic modules that will be awning mounted on the Southwest facing warehouse wall as shown above. The modules will be in portrait orientation and the array will measure eighty feet wide covering approximately 80% of the width of the white portion of the building. The array will be mounted at an angle of roughly 45 degrees in an effort to balance system production with visualization from the street.

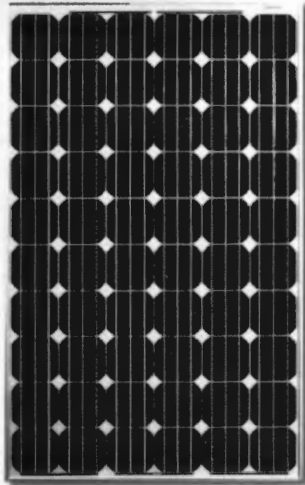
Solar Inverters

The two system inverters will be mounted to a black plywood board in the ReVision Energy showroom. Each of the inverters will feed AC power into a dedicated Photovoltaic sub-panel. The output of the sub-panel will pass through an analog AC meter before connecting to the building's main load center.

Each inverter will be equipped to provide data monitoring through the SMA Sunny Portal. The system will also utilize the SMA Sunny Sensor Box.

CS6P

230/235/240/245/250M

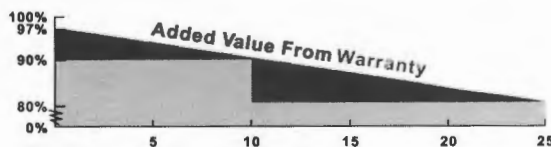


On-grid Module

CS6P is a robust solar module with 60 solar cells. These modules can be used for on-grid solar applications. Our meticulous design and production techniques ensure a high-yield, long-term performance for every module produced. Our rigorous quality control and in-house testing facilities guarantee Canadian Solar's modules meet the highest quality standards possible.

Key Features

- Industry first comprehensive warranty insurance by AM Best rated leading insurance companies in the world
- Industry leading plus only power tolerance: 0 ~ +5W
- Strong framed module, passing mechanical load test of 5400Pa to withstand heavier snow load
- The 1st manufacturer in the PV industry certified for ISO:TS16949 (The automotive quality management system) in module production since 2003
- ISO17025 qualified manufacturer owned testing lab, fully complying to IEC, TUV, UL testing standards
- **Backed By Our New 10/25 Linear Power Warranty Plus our added 25 year Insurance coverage**



- 10 year product warranty on materials and workmanship
- 25 year linear power output warranty

Applications

- On-grid residential roof-tops
- On-grid commercial/industrial roof-tops
- Solar power stations
- Other on-grid applications

Quality Certificates

- IEC 61215, IEC 61730, UL 1703, CEC Listed, MCS, CE
- ISO9001: 2008: Standards for quality management systems
- ISO/TS 16949:2009: The automotive quality management system

Environmental Certificates

- ISO14001:2004: Standards for Environmental management systems
- QC080000 HSPM: The Certification for Hazardous Substances Regulations
- Reach Compliance





SB 8000US AVAILABLE IN 2010

- Highest CEC efficiency in its class
- Integrated load-break rated lockable DC disconnect switch
- Integrated fused series string combiner
- Sealed electronics enclosure & Opticool™
- Comprehensive SMA communications and data collection options
- Ideal for residential or commercial applications
- Sunny Tower compatible
- 10 year standard warranty
- UL 1741/IEEE-1547 compliant



SUNNY BOY 5000US / 6000US / 7000US / 8000US

The best in their class

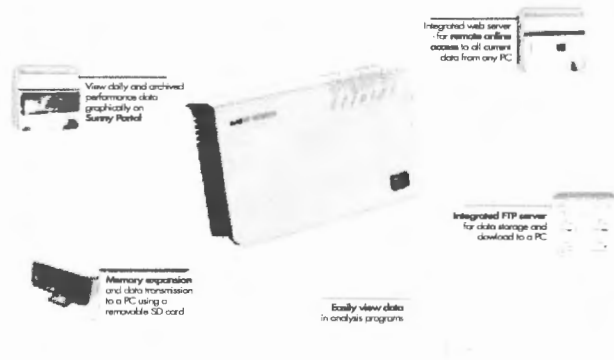
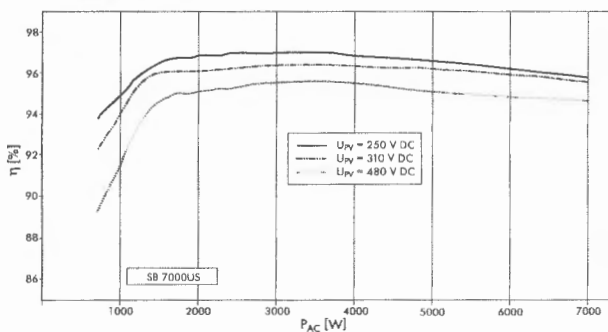
Our US series inverters utilize our proven technology and are designed specifically to meet IEEE-1547 requirements. Sunny Boy 6000US, Sunny Boy 7000US and Sunny Boy 8000US are also compatible with the Sunny Tower. Increased efficiency means better performance and shorter payback periods. All four models are field-configurable for positive ground systems making them more versatile than ever. Throughout the world, Sunny Boy is the benchmark for PV inverter performance and reliability.

Technical Data

	SB 5000US	SB 6000US	SB 7000US	SB 8000US
Recommended Maximum PV Power (Module STC)	6250 W	7500 W	8750 W	10000 W
DC Maximum Voltage	600 V	600 V	600 V	600 V
Peak Power Tracking Voltage	250-480 V	250-480 V	250-480 V	300-480 V
DC Maximum Input Current	21 A	25 A	30 A	30 A
Number of Fused String Inputs	3 (inverter), 4 x 20 A (DC disconnect)	3 (inverter), 4 x 20 A (DC disconnect)	3 (inverter), 4 x 20 A (DC disconnect)	3 (inverter), 4 x 20 A (DC disconnect)
PV Start Voltage	300 V	300 V	300 V	365 V
AC Nominal Power	5000 W	6000 W	7000 W	8000 W
AC Maximum Output Power	5000 W	6000 W	7000 W	8000 W
AC Maximum Output Current (@ 208, 240, 277 V)	24 A, 21 A, 18 A	29 A, 25 A, 22 A	34 A, 29 A, 25 A	N/A, 32 A, 29 A
AC Nominal Voltage Range	183 - 229 V @ 208 V 211 - 264 V @ 240 V 244 - 305 V @ 277 V	183 - 229 V @ 208 V 211 - 264 V @ 240 V 244 - 305 V @ 277 V	183 - 229 V @ 208 V 211 - 264 V @ 240 V 244 - 305 V @ 277 V	N/A @ 208 V 211 - 264 V @ 240 V 244 - 305 V @ 277 V
AC Frequency: nominal / range	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz
Power Factor (Nominal)	0.99	0.99	0.99	0.99
Peak Inverter Efficiency	96.8%	97.0%	97.1%	96.5%
CEC Weighted Efficiency	95.5% @ 208 V 95.5% @ 240 V 95.5% @ 277 V	95.5% @ 208 V 95.5% @ 240 V 96.0% @ 277 V	95.5% @ 208 V 96.0% @ 240 V 96.0% @ 277 V	N/A @ 208 V 96.0% @ 240 V 96.0% @ 277 V
Dimensions: W x H x D in inches	18.4 x 24.1 x 9.5	18.4 x 24.1 x 9.5	18.4 x 24.1 x 9.5	18.4 x 24.1 x 9.5
Weight / Shipping Weight	141 lbs / 148 lbs	141 lbs / 148 lbs	141 lbs / 148 lbs	148 lbs / 152 lbs
Ambient Temperature Range	-13 to 113 °F	-13 to 113 °F	-13 to 113 °F	-13 to 113 °F
Power consumption at night	0.1 W	0.1 W	0.1 W	0.1 W
Topology	Low frequency transformer, true sinewave	Low frequency transformer, true sinewave	Low frequency transformer, true sinewave	Low frequency transformer, true sinewave
Cooling Concept	OptiCool™, forced active cooling	OptiCool™, forced active cooling	OptiCool™, forced active cooling	OptiCool™, forced active cooling
Mounting Location: indoor / outdoor (NEMA 3R)	●/●	●/●	●/●	●/●
LCD Display	●	●	●	●
Communication: RS485 / wireless	○/○	○/○	○/○	○/○
Warranty: 10 years / 15 years / 20 years	●/○/○	●/○/○	●/○/○	●/○/○
Compliance: IEEE-929, IEEE-1547, UL 1741, UL 1998, FCC Part 15 A & B	●	●	●	●
Specifications for nominal conditions		● Included ○ Optional		

NOTE: US inverters ship with gray lids.

Efficiency Curves



Tel. +1 916 625 0870
 Toll Free +1 888 4 SMA USA
 www.SMA-America.com

SMA America, LLC

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 **SMA BLUETOOTH**
Intelligent Networking



High Yields

- Maximum efficiency 97.3%
- The best tracking efficiency with OptiTrac™ MPP tracking
- OptiCool™ active temperature management

Safe

- Galvanic isolation
- Integrated DC switch-disconnect

User-friendly

- Slim enclosure mounts in between wall studs
- Plug-in grounding with GFDI
- Reduced weight
- Quick and easy configuration thanks to Quick Module

Informative

- Modern graphic display
- Bluetooth® technology

SUNNY BOY 2000HF-US / 2500HF-US / 3000HF-US

Easy installation, simple communication and maximum performance

The new Sunny Boy high frequency inverters are designed for projects requiring UL certification and represent the next step in innovative SMA technology. Featuring world-class efficiency, a slim-line enclosure and reduced weight, the Sunny Boy HF series of inverters can be mounted in between wall studs, making it perfect for new construction or space-constrained retrofits. Installation is made simple by automatic grid detection*, field configuration for positive ground modules and a wide input voltage range of 175 to 600 V, which provides exceptional system design flexibility. The modern graphic display and wireless Bluetooth communication system provides a wealth of data in a user-friendly format.

Technical data

Input (DC)

Max. recommended PV power (@ module STC)
 Max. DC power (@ $\cos \phi = 1$)
 Max. DC voltage
 DC nominal voltage
 MPP voltage range
 Min. DC voltage / start voltage
 Max. input current / per string
 Number of MPP trackers / fused strings per MPP tracker

Output (AC)

AC nominal power
 Max. AC apparent power
 Nominal AC voltage / adjustable
 AC voltage range
 AC grid frequency; range
 Max. output current
 Power factor ($\cos \phi$)
 Phase conductors / connection phases
 Harmonics

Efficiency

Max. efficiency
 CEC efficiency

Protection devices

DC reverse-polarity protection
 AC short circuit protection
 Galvanically isolated / all-pole sensitive monitoring unit
 Protection class / overvoltage category

General data

Dimensions (W / H / D) in mm (in)
 DC disconnect dimensions (W / H / D) in mm (in)
 Packing dimensions (W / H / D) in mm (in)
 DC disconnect packing dimensions (W / H / D) in mm (in)
 Weight / DC disconnect weight
 Packing weight / DC disconnect packing weight
 Operating temperature range (full power)
 Noise emission (typical)
 Internal consumption at night
 Topology
 Cooling concept
 Electronics protection rating / connection area

Features

Display: text line / graphic
 Interfaces: RS485 / Bluetooth
 Warranty: 10 / 15 / 20 years
 Certificates and permits (more available on request)

	Sunny Boy 2000HF-US		Sunny Boy 2500HF-US		Sunny Boy 3000HF-US	
	208 V AC	240 V AC	208 V AC	240 V AC	208 V AC	240 V AC
Max. recommended PV power (@ module STC)	2500 W		3125 W		3750 W	
Max. DC power (@ $\cos \phi = 1$)	2200 W		2750 W		3300 W	
Max. DC voltage	600 V		600 V		600 V	
DC nominal voltage	480 V		480 V		480 V	
MPP voltage range	175 - 480 V		220 - 480 V		220 - 480 V	
Min. DC voltage / start voltage	175 V / 220 V		220 V / 220 V		220 V / 220 V	
Max. input current / per string	15 A / 15 A		15 A / 15 A		15 A / 15 A	
Number of MPP trackers / fused strings per MPP tracker	1/2 standard, extendable to 3					
AC nominal power	2000 W		2500 W		3000 W	
Max. AC apparent power	2000 VA		2500 VA		3000 VA	
Nominal AC voltage / adjustable	208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●
AC voltage range	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V
AC grid frequency; range	60 Hz; 59.3 - 60.5 Hz		60 Hz; 59.3 - 60.5 Hz		60 Hz; 59.3 - 60.5 Hz	
Max. output current	9.6 A	8.3 A	12.0 A	10.4 A	14.4 A	12.5 A
Power factor ($\cos \phi$)	1		1		1	
Phase conductors / connection phases	1 / 2		1 / 2		1 / 2	
Harmonics	< 4%		< 4%		< 4%	
DC reverse-polarity protection	●		●		●	
AC short circuit protection	●		●		●	
Galvanically isolated / all-pole sensitive monitoring unit	●/-		●/-		●/-	
Protection class / overvoltage category	I / III		I / III		I / III	
Dimensions (W / H / D) in mm (in)	348 / 727 / 183 (14 / 29 / 7) incl. DC Disconnect					
DC disconnect dimensions (W / H / D) in mm (in)	-					
Packing dimensions (W / H / D) in mm (in)	450 / 600 / 400 (18 / 24 / 16) incl. DC Disconnect					
DC disconnect packing dimensions (W / H / D) in mm (in)	-					
Weight / DC disconnect weight	approx. 23 kg (51 lb) incl. DC Disconnect					
Packing weight / DC disconnect packing weight	25 kg / 55 lb					
Operating temperature range (full power)	-25 °C ... +60 °C (-13 °F ... +140 °F)					
Noise emission (typical)	www.SMA-Solar.com		www.SMA-Solar.com		www.SMA-Solar.com	
Internal consumption at night	<1 W		<1 W		<1 W	
Topology	HF transformer		HF transformer		HF transformer	
Cooling concept	OptiCool		OptiCool		OptiCool	
Electronics protection rating / connection area	NEMA 3R / NEMA 3R		NEMA 3R / NEMA 3R		NEMA 3R / NEMA 3R	
Display: text line / graphic	- / ●		- / ●		- / ●	
Interfaces: RS485 / Bluetooth	○ / ●		○ / ●		○ / ●	
Warranty: 10 / 15 / 20 years	● / ○ / ○		● / ○ / ○		● / ○ / ○	
Certificates and permits (more available on request)	UL1741, UL1998, IEEE 1547, FCC Part 15 (Class A & B), CSA C22.2 No. 107.1-01					

Data at nominal conditions

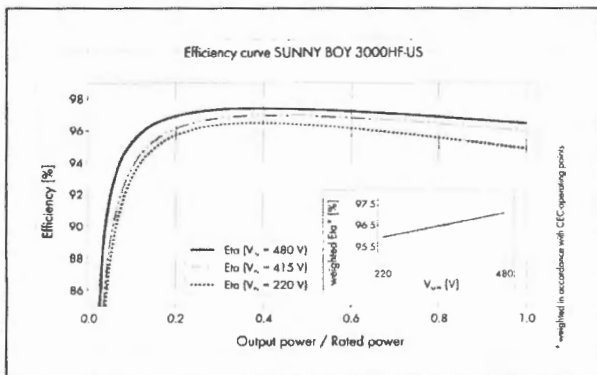
● Standard features ○ Optional features - Not available

Type designation

SB 2000HFUS-30

SB 2500HFUS-30

SB 3000HFUS-30



Accessories





PORTLAND MAINE

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Receipts Details:

Tender Information: Check , Check Number: 25098

Tender Amount: 370.00

Receipt Header:

Cashier Id: bsaucier

Receipt Date: 3/23/2012

Receipt Number: 42154

Receipt Details:

Referance ID:	5791	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	370.00	Charge Amount:	370.00
Job ID: Job ID: 2012-03-3584-ALTCOMM - Adding Solar Panels to Building			
Additional Comments: 142 Presumpscot; 1 of 3			

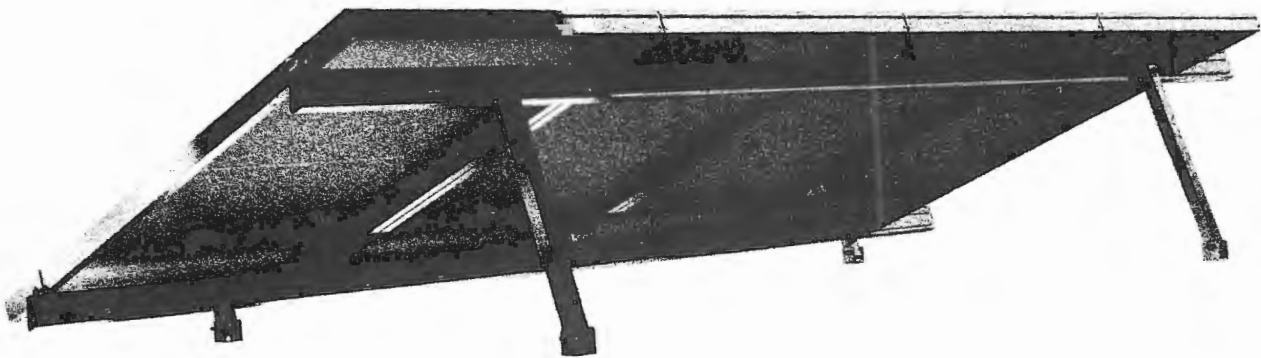
Thank You for your Payment!

IRONRIDGE

Installation Manual

~~Tilt Leg~~

Example of array configuration.



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IRONRIDGE

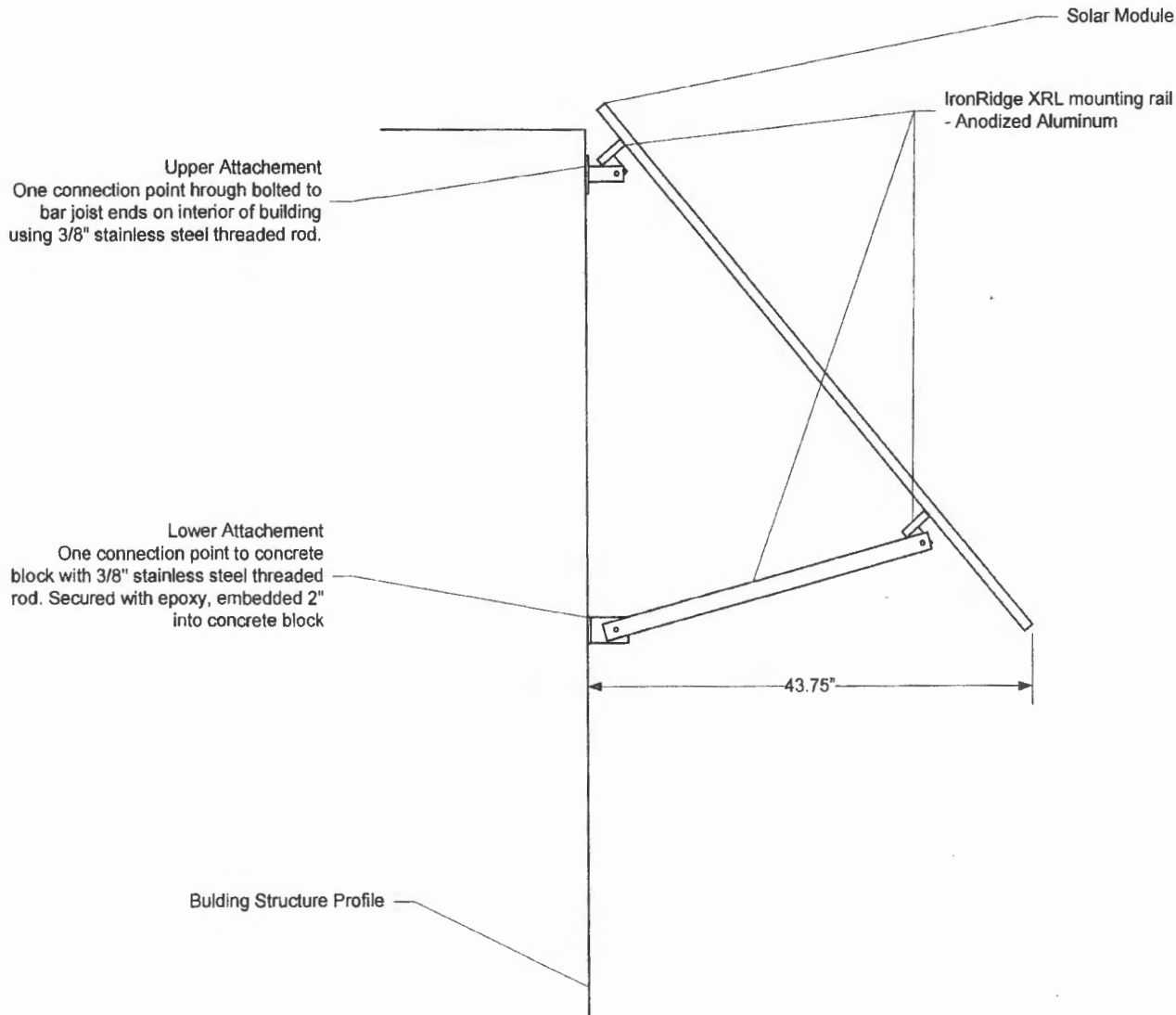
Solar Mounting Solutions

March

www.IronRidge.com


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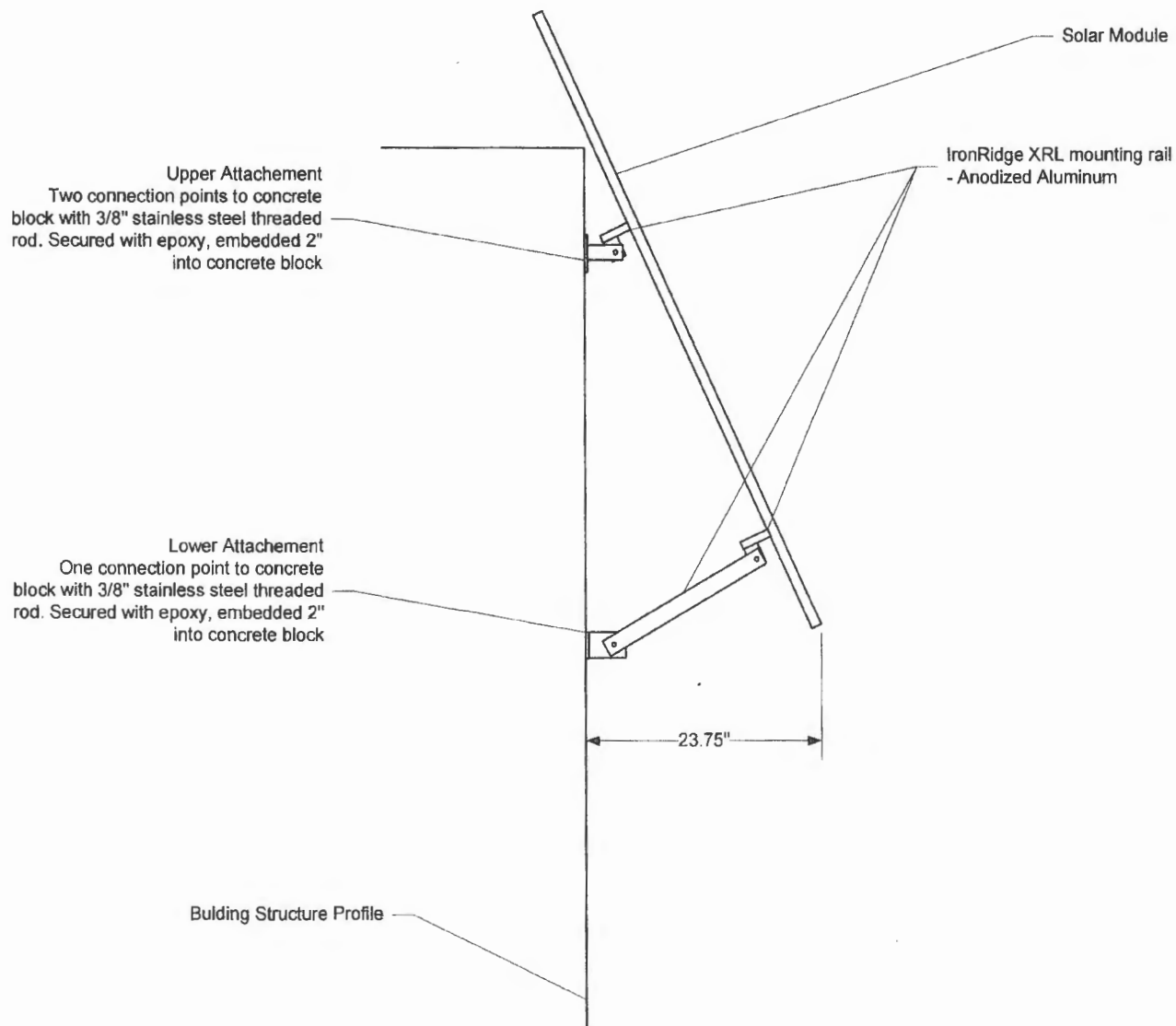
Version 2.0



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 City of Portland

Note: Array mounting brackets shall be installed every 4' to 6' along the array, and shall terminate within 2' of the end of the array.

 142 Presumpscot Street Portland, Maine, 04097 207-221-6342	ReVision Energy			
	Solar Panel Awning Mount Detail System Perpendicular to Presumpscot St.			
DATE	DRAWN BY	PAGE	DWG#	Rev.
4/26/2012	Geoff Sparrow	1 of 1	1	1




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City of Portland

Note: Array mounting brackets shall be installed every 4' to 6' along the array, and shall terminate within 2' of the end of the array.

 142 Presumpscot Street Portland, Maine, 04097 207-221-6342	ReVision Energy			
	Solar Panel Awning Mount Detail System Parallel With Presumpscot St.			
DATE 4/26/2012	DRAWN BY Geoff Sparrow	PAGE 1 of 1	DWG# 1	Rev. 1

L-feet	
Part Numbers	Diagram
29-7000-017	<p>L-Foot</p> <p>Base</p>
Notes: IronRidge L-feet are adjustable in height using the vertical slot in the diagram above.	

Rails	
Part Numbers	Diagram
XRS 51-7000-XXX XRL 51-6000-XXX	<p>XRS</p> <p>XRL</p>

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 City of Port...



May 2010
 sales@ironridge.com
 www.ironridge.com



Administrative Authorization Application

Portland, Maine

Planning and Urban Development Department, Planning Division

PROJECT NAME: 142 Presumpscot St - Revision Energy

PROJECT ADDRESS: 142 Presumpscot St CHART/BLOCK/LOT: 425-I-4-

APPLICATION FEE: _____ (\$50.00)

PROJECT DESCRIPTION: (Please Attach Sketch/Plan of the Proposal/Development)

X solar panels on side of building as an awning mount

CONTACT INFORMATION:

OWNER/APPLICANT

Name: Coastal Equipment
Address: 142 Presumpscot St
Portland, ME 04103
Work #: _____
Cell #: _____
Fax #: _____
Home #: _____
E-mail: _____

CONSULTANT/AGENT

Name: Revision Energy - Jennifer Hatch
Address: 142 Presumpscot St
Portland, ME 04103
Work #: 221-6342
Cell #: _____
Fax #: _____
Home #: _____
E-mail: jenerrevisionenergy.com

Criteria for an Administrative Authorizations:

(see section 14-523(4) on pg .2 of this appl.)

- a) Is the proposal within existing structures?
- b) Are there any new buildings, additions, or demolitions?
- c) Is the footprint increase less than 500 sq. ft.?
- d) Are there any new curb cuts, driveways or parking areas?
- e) Are the curbs and sidewalks in sound condition?
- f) Do the curbs and sidewalks comply with ADA?
- g) Is there any additional parking?
- h) Is there an increase in traffic?
- i) Are there any known stormwater problems?
- j) Does sufficient property screening exist?
- k) Are there adequate utilities?
- l) Are there any zoning violations?
- m) Is an emergency generator located to minimize noise?
- n) Are there any noise, vibration, glare, fumes or other impacts?

Applicant's Assessment Planning Division

Y(yes), N(no), N/A

Y(yes), N(no), N/A

<u>yes</u>	<u>Solar panels</u>
<u>no</u>	<u>no</u>
<u>yes</u>	<u>yes</u>
<u>no</u>	<u>no</u>
<u>yes n/a</u>	<u>N/A</u>
<u>n/a</u>	<u>N/A</u>
<u>no</u>	<u>no</u>
<u>no</u>	<u>no</u>
<u>no</u>	<u>no</u>
<u>no</u>	<u>yes</u>
<u>n/a</u>	<u>yes</u>
<u>no</u>	<u>no</u>
<u>no</u>	<u>N/A</u>
<u>no</u>	<u>no</u>

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Planning Division

Signature of Applicant:

J Hatch

Date:

3/28/2012

Planning Division Use Only

Authorization Granted

Partial Exemption

Exemption Denied

Barbara Barbydt 4/12/12

Standard Condition of Approval: The applicant shall obtain all required City Permits, including building permits from the Inspection Division (Room 315, City Hall (874-8703)) prior to the start of any construction.

IMPORTANT NOTICE TO APPLICANT: The granting of an Administrative Authorization to exempt a development from site plan review does not exempt this proposal from other approvals or permits, nor is it an authorization for construction. You should first check with the Building Inspections Office, Room 315, City Hall (207)874-8703, to determine what other City permits, such as a building permit, will be required.

**PROVISION OF PORTLAND CITY CODE
14-523 (SITE PLAN ORDINANCE)
RE: Administrative Authorization**

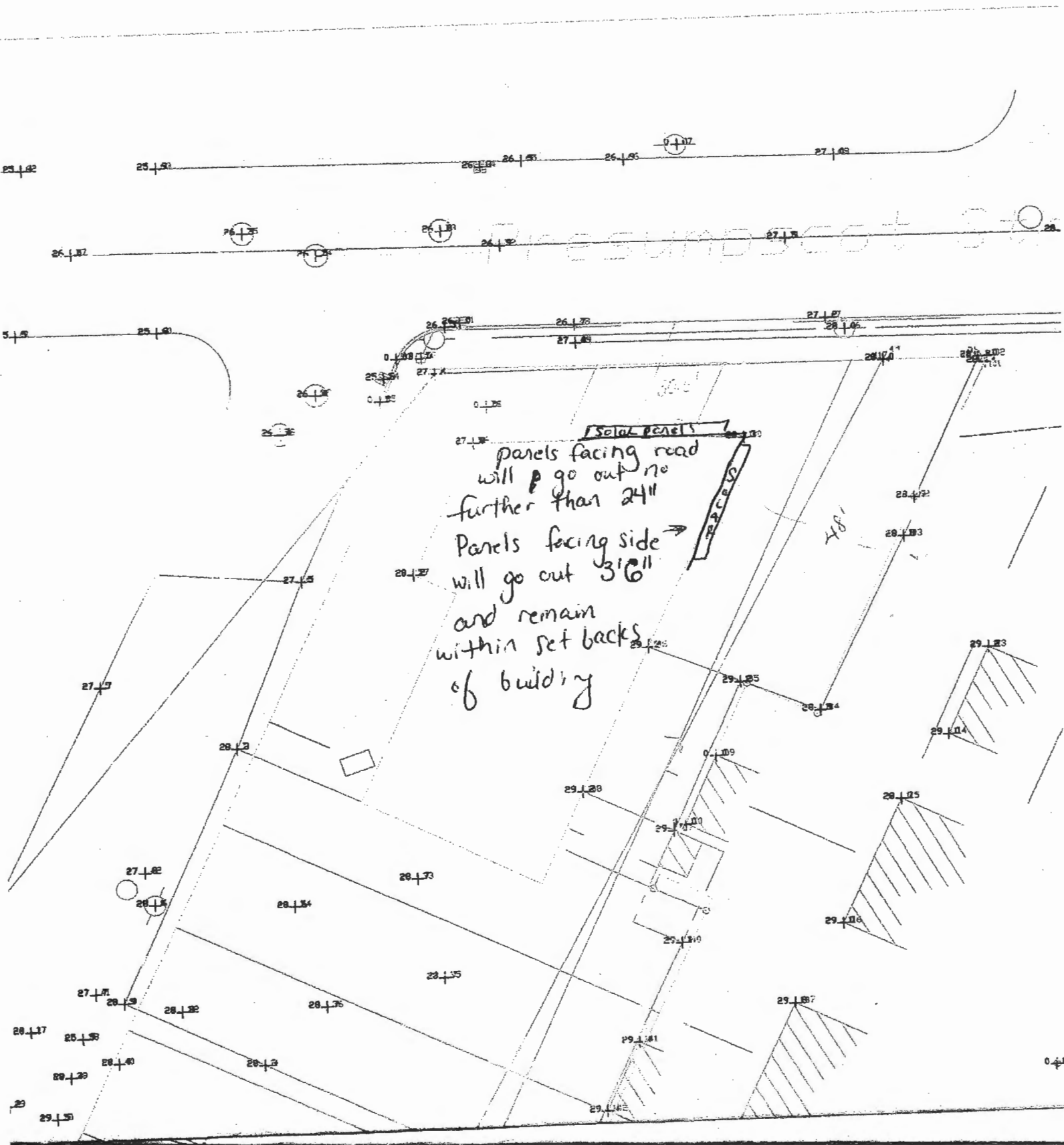
Sec. 14-523 (b). Applicability

No person shall undertake any development identified in Section 14-523 without obtaining a site plan improvement permit under this article. (c) Administrative Authorization. Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meets the standards below, as demonstrated by the applicant.

1. The proposed development will be located within existing structures, and there will be no new buildings, demolitions, or building additions other than those permitted by subsection b of this section;
2. Any building addition shall have a new building footprint expansion of less than five hundred (500) square feet;
3. The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;
4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the public works authority, with granite curb with at least four (4) inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;
5. The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;
6. There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;
7. There are no evident deficiencies in existing screening from adjoining properties; and
8. Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the public right-of-way.
9. There are no current zoning violations;
10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and
11. There is no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.

- a. **Filing the Application.** An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards 1-11 of Section 14-423 (b)1. **The application must be accompanied by an application fee of \$50.**
- b. **Review.** Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.
- c. **Decision.** If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards a and b of Section 14-523 (b) (1) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a full review by the Planning Board or Planning Authority according to the standards of Section 14-526.

142 Presumpscot St



SOLAR PANELS
panels facing road
will go out no
further than 24"
Panels facing side
will go out 3'6"
and remain
within set backs
of building

ACCESS

Presumpscot St

142 Presumpscot St

