

## Douglass, Catherine

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**From:** Markunas, David  
**Sent:** Tuesday, April 30, 2013 3:08 PM  
**To:** Douglass, Catherine  
**Subject:** Fw: Hurricane Repair Budget Pricing  
**Attachments:** NJPHEAL Lightning Repair.pdf; NJPHEAL Solar Repair.pdf; Kennedy Proposal.pdf; KennedyCostBreakdown.pdf

FYI

David Markunas

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**From:** Markunas, David  
**Sent:** Thursday, April 18, 2013 03:04 PM  
**To:** Flodmand, Richard; Douglass, Catherine  
**Cc:** Bocage, Guy; Karr, Gary; [kevin.jennings@doh.state.nj.us](mailto:kevin.jennings@doh.state.nj.us) <[kevin.jennings@doh.state.nj.us](mailto:kevin.jennings@doh.state.nj.us)>  
**Subject:** FW: Hurricane Repair Budget Pricing

Rick and Cathy,

Attached is the budget pricing received from Bovis Lend Lease for the hurricane repairs. Funding for these repairs has yet to be identified. There is a meeting tomorrow to discuss this matter. Hopefully we will have the funding identified then. Please contact me if you have any questions.

David Markunas

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**From:** Sanderson, Richard [[Richard.Sanderson@lendlease.com](mailto:Richard.Sanderson@lendlease.com)]  
**Sent:** Thursday, April 18, 2013 2:05 PM  
**To:** Markunas, David  
**Cc:** Sencindiver, Andrew  
**Subject:** FW: Hurricane Repair Budget Pricing

David,

The Budget pricing for the Hurricane Sandy Repair work is as follows:

Skylight	\$74,160
Solar Panels	\$110,000
Lightning Protection	\$4,415
LL	\$46,000
<b>TOTAL</b>	<b>\$234,575</b>

It is important to note a couple of items in the attached vendor quotes

1. The work would be complete by Mid-August based upon a 12 week lead time of the skylight materials, and a 3 week lead time for the solar panels.
2. I have confirmed that the RA Kennedy quote has not increased from when first received, but it does include the SuperSky payment terms. Will these be accepted by the State?

3. H&B have revised their quotes, and most significantly the original solar modules currently installed are no longer available and their quote is therefore based upon a substitute 265 Watt module. The State need to review and confirm if this alternate is acceptable.
4. The Budget pricing for LL's GC's is based upon a contract/ materials release date of 5/1/13, and also upon LL being simultaneously released on the Necropsy Lighting upgrade work by NJBA as we have also offset GC costs against this activity.

Please advise if there are questions

Thanks,

Richard Sanderson, LEED® AP | Senior Project Manager | Project Management & Construction | Lend Lease (US) Construction Inc.  
T 609 951 0500 | F 609 919 4252 | M 267 718 8942  
200 South Princeton Corporate Center, Ste. 270, Ewing, NJ 08628  
[richard.sanderson@lendlease.com](mailto:richard.sanderson@lendlease.com) | [www.lendlease.com](http://www.lendlease.com)

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## HATZEL & BUEHLER, Inc.

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Fax: 609-890-4896

Wilmington, DE  
New York, NY  
Claymont, DE  
Circleville, OH  
Kenova, WV  
Philadelphia, PA  
Livonia, MI

April 15, 2013

Richard Sanderson  
Lend Lease  
200 Princeton South Corporate Center  
Suite 270  
Ewing, NJ 08628

Re: NJPHEAL  
Lightning Protection Repair  
HB-13093

Gentlemen:

Hatzel & Buehler, Inc. is hereby pleased to submit our proposal for the repair of the lightning protection system at the NJ Public Health Environmental & Agricultural Laboratory for the lump sum amount of FOUR THOUSAND FOUR HUNDRED FIFTEEN DOLLARS (\$4,415.00). The scope of work to be performed is as detailed on the attached vendor quotation dated 11/8/2012.

Clarifications:

- Dumpster costs are excluded
- Permit costs are not included in our proposal
- All work shall be performed during normal business hours, Monday through Friday, 7:00 a.m. to 3:30 p.m.

Please issue your purchase order in the above amount if you would like us to proceed with this work. Should there be any questions or a need for additional information, please do not hesitate to contact me at your convenience.

Very truly yours,

HATZEL & BUEHLER, INC.

Scott Eyester

cc: Jim Howell

HATZEL & BUEHLER, INC.

Lend Lease  
April 15, 2013  
Page 2

6. Grounding of the new array to the building steel.
7. Provide Electrical & Structural Engineering calculation and installation drawings of the new portion of the array and signed and sealed drawings for permit.
8. Testing and as-built drawings.

Clarifications:

- Dumpster costs are excluded
- Permit costs are not included in our proposal
- Lightning protection repair shall be done by another subcontractor
- Our proposal excludes evaluation of the roof framing under the existing solar panel arrays that are to remain.
- All work shall be performed during normal business hours, Monday through Friday, 7:00 a.m. to 3:30 p.m.

Please issue your purchase order in the above amount if you would like us to proceed with this work. Should there be any questions or a need for additional information, please do not hesitate to contact me at your convenience.

Very truly yours,

HATZEL & BUEHLER, INC.



Scott Eyester

cc: Jim Howell



# Proposal

245 Bridgewater Road  
Aston, PA 19014  
Phone 610-471-1500  
Fax 610-471-9966

To:	David Markunas	Company:	NJ Public Health Lab Skylight
From:	Jim Trainer	Pages:	One
Job:	Skylight Repair	Date:	November 28, 2012

**We propose to remove and replace the damaged skylight glass per the following:**

- 1) The replacement glass will be lifted on to the lower roof using a crane which will be positioned on top of the fire truck pad in front of the building. The glass will be stored on top of the roof and braced for any weather conditions. We will also need to store some material & job boxes on the roof for the scope of work. We will then remove the rubber membrane and plywood as required to begin the process of replacing the damaged glass. We will remove and replace the amount of glass that can be switched out in a day. The damaged glass that is removed will also be stored on the roof until the completion of the project. Each night we will re-cover the affected area. At the completion of the job all of the damaged glass, job boxes, etc. will be lifted down to the ground by the crane and disposed of into a dumpster provided by others. *Note: The crane will make two separate trips.*
- 2) We will also identify any damage to the skylight system structure. We are including replacing any exterior covers that were drilled through for installing the plywood and rubber membrane in its current state. We anticipate that the framing structure of the skylight was not compromised but it cannot be determined at this time due to the covering of the affected area of the skylight. We do include though one horizontal purlin if needed. Any further damage that couldn't be identified according to the aforementioned will be priced separately and accordingly. We will do everything in our power to limit any additional costs during this remedial process.
- 3) We will adjust and replace, if required, the one sunshade blade that appeared to be altered during the storm. If any products are required they will be used from the customer's attic stock that is onsite per your verbal indication of such. Any sealants to the transition flashing at the top of the skylight will be investigated and re-sealed if necessary.
- 4) We will furnish and replace only new glass shown on the attached sketch and also add one piece that was not shown but was marked as damaged during R.A. Kennedy's site visit. We have added one extra piece of glass for the three different glass sizes for any additional glass units needed. Any extra glass will be included for your attic stock.

**For the sum of \$ 74,160.00**

**SEE QUALIFICATIONS, EXCLUSIONS & TERMS ON PAGE 2**

November 28, 2012

**QUALIFICATIONS:** Work will be performed during normal daytime work hours Monday through Friday between 7:00am – 4:00pm. A dumpster for the damaged glass and other material is to be provided by others. All work is to be done from the exterior. We do not include any protection for the interior of the building below the work area. Any additional glass required after the production release will be at the expense of the customer. We imply and assume no liability after this release. Any concealed remedial work that is required but cannot be viewed at this time will be accessed and priced accordingly. We will require the roof to support the moving and storing of glass, job boxes & materials. Glue has been applied to the skylight glass and framing to hold down the rubber membrane. We will try to remove it as best as we can but cannot guarantee to be able to remove it all.

**EXCLUSIONS:** Additional glass after the production release, structural components not listed above, protection of interior, dumpster, protection of roof, ground support of crane (fire truck pad is assumed), work performed after April 30<sup>th</sup>, 2013, PE stamp, mock-ups, retainage, extended warranties (*any existing warranties are to be used until their expiration*)

**TERMS:**

**1/3 of proposal sum** (\$24,720.00) for the production release

**1/3 of proposal sum** (\$24,720.00) when material arrives onsite

**1/3 of proposal sum** (\$24,720.00) 30 days after completion of work

This proposal is subject to the terms and conditions listed in page 3 of this proposal and will not become a contract until finally accepted by our office. All questions are subject to change without notice. Clerical errors are subject to corrections.

Accepted By: \_\_\_\_\_ Date: \_\_\_\_\_

**RE: Skylight at NJPHEAL**

Jim Trainer [JTrainer@raksons.com]

Sent: Monday, February 11, 2013 2:41 PM

To: Markunas, David

Cc: Al Batten [abatten@raksons.com]; jfrly304@gmail.com

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David,

We have some numbers per the skylight manufacturer and have put together costs associated with the replacement skylight glass. Please see below.

Demo/Clean-up:	\$15,370.00
Material:	\$20,550.00
Labor:	\$20,740.00
Incidental: *	<u>\$17,500.00</u>
<b>TOTAL:</b>	<b>\$74,160.00</b>

\*Incidental costs include but are not limited to freight, transportation, insurance, overhead, etc.

Please advise.

Thanks in advance,  
Jim Trainer

*James R. Trainer*

*R.A. Kennedy & Sons, Inc.*

245 Bridgewater Road

Aston, PA 19014

610-471-1500 Ext. 124

Fax 471-9966

Cell 610-636-4696

[jtrainer@raksons.com](mailto:jtrainer@raksons.com)

-----Original Message-----

From: Al Batten

Sent: Friday, January 25, 2013 10:46 AM

To: Markunas, David; jfrly304@gmail.com; Jim Trainer

Subject: RE: Skylight at NJPHEAL

David, we'll see what we can do, but our supplier will not provide that information to us.

-----Original Message-----

From: Markunas, David [mailto:David.Markunas@treas.state.nj.us]

Sent: Friday, January 25, 2013 10:41 AM

To: Al Batten; jfrly304@gmail.com; Jim Trainer

Subject: Skylight at NJPHEAL

Gentlemen,

I am reaching out to keep all of you updated on the status of the skylight repairs at the laboratory. The State of NJ is working with FEMA to secure funds for the skylight repairs. FEMA representatives have been out to the site to inspect the damage and I have provided them with copies of your proposal for the repairs. We are nearing the final stages of the review process, but FEMA has indicated that they need a detailed breakdown of the proposed repair work. They want a breakdown that itemizes: demolition/clean up costs, material costs, labor costs, and other incidental costs. I would appreciate it if you could provide me with this breakdown of your proposal as soon as possible. Thank you for your anticipated cooperation regarding this matter. Please let me know if you have any questions.

David Markunas  
Facility Operations Manager - NJPHEAL





# HATZEL & BUEHLER, Inc.

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Wilmington, DE  
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Circleville, OH  
Kenova, WV  
Philadelphia, PA  
Livonia, MI

April 15, 2013

Richard Sanderson  
Lend Lease  
200 Princeton South Corporate Center  
Suite 270  
Ewing, NJ 08628

Re: NJPHEAL  
Rooftop Solar Array Repair  
HB-13018

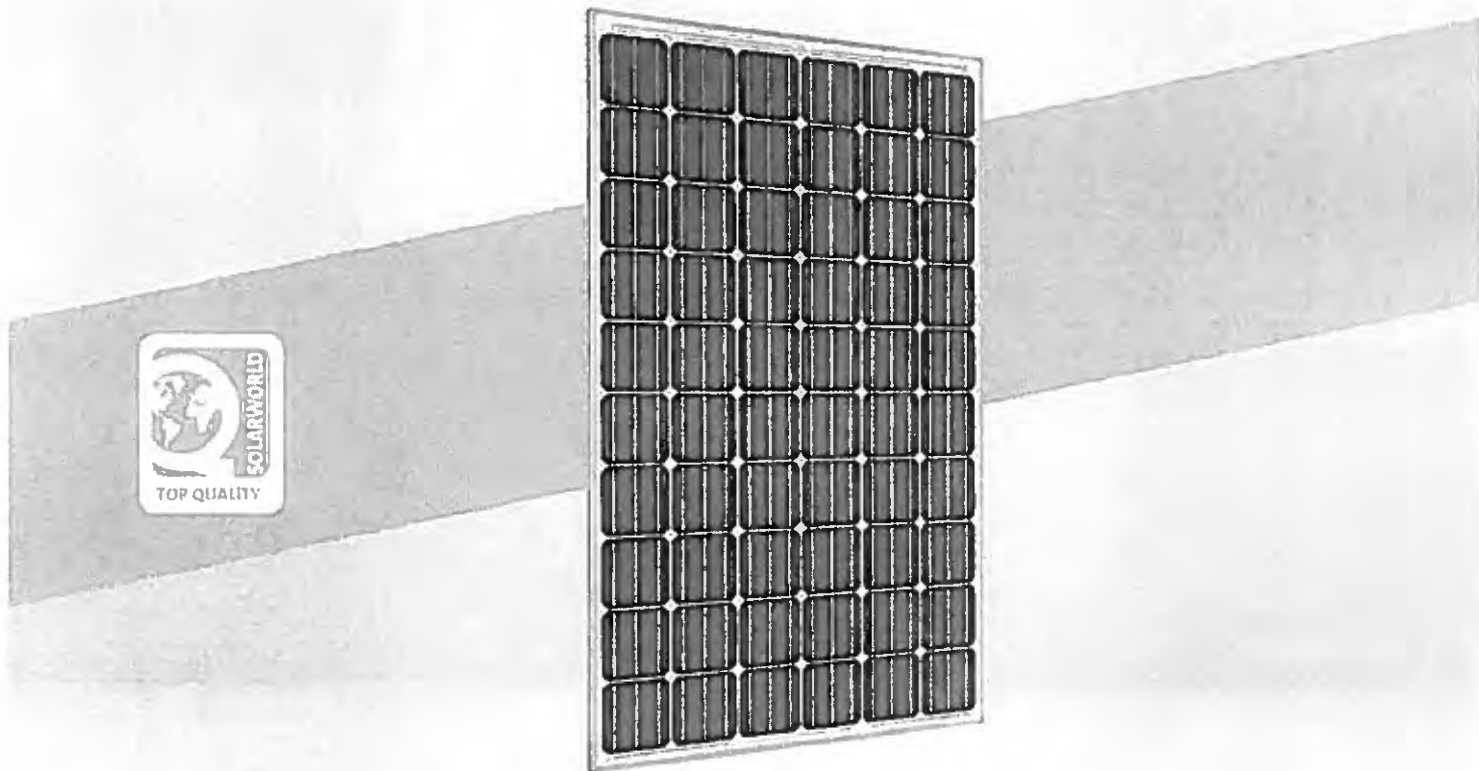
Gentlemen:

Hatzel & Buehler, Inc. is hereby pleased to submit our proposal to repair the rooftop solar array at the NJ Public Health Environmental & Agricultural Laboratory for the lump sum amount of ONE HUNDRED TEN THOUSAND DOLLARS (\$110,000.00). The breakdown of our quote is as follows:

Survey / Safe-Off / Safety	\$ 5,000.00
Demolition & Removals	10,000.00
Solar Materials / Integration	40,000.00
Solar Labor	37,000.00
Engineering	<u>18,000.00</u>
	\$ 110,000.00

Our quotation includes furnishing and installing all labor and material required for the system as well as the dismantling and removal of the existing system located on the roof. The new panels will be Solar World 265 watt modules which are larger than the existing 175 watt modules. A new panel claw mounting system will be installed with the new modules. The new array portion will have its own sub-combiner box and DC wiring back to existing fusing. The ballast system of the panel claw system will be evaluated for 120 mile per hour wind loading. Project scope is as follows:

1. Demolition will include the dismantling and removal of (25) modules and mounting hardware to a dumpster provided by others. This should include the disposal of (30) triple ballast blocks.
2. There are (13) solar modules that are to be salvaged and stored inside the penthouse for use as attic stock in the future.
3. Installation of a (28) module solar array using Panel Claw Polar Bear Mounting Hardware and Solar World 265 watt modules, including the installation of ballast pavers on this system.
4. Installation of (1) Cooper Crouse Hinds Combiner Box that the (2) new string array will be connected to.
5. Wiring of the (2) strings to the Combiner Box and wiring from the box to the existing inverter using one of the spare fuses.



# Sunmodule<sup>+</sup>™

## SW 265 mono / Version 2.0 and 2.5 Frame

### World-class quality

Fully-automated production lines and seamless monitoring of the process and material ensure the quality that the company sets as its benchmark for its sites worldwide.

### SolarWorld Plus-Sorting

Plus-Sorting guarantees highest system efficiency. SolarWorld only delivers modules that have greater than or equal to the nameplate rated power.

### 25 years linear performance guarantee and extension of product warranty to 10 years

SolarWorld guarantees a maximum performance *degression* of 0.7% p.a. in the course of 25 years, a significant added value compared to the two-phase warranties common in the industry. In addition, SolarWorld is offering a product warranty, which has been extended to 10 years.\*

\*In accordance with the applicable SolarWorld Limited Warranty at purchase.  
[www.solarworld.com/warranty](http://www.solarworld.com/warranty)



Qualified IEC 61215  
 Safety tested,  
 IEC 61730  
 - Periodic Inspection



ISO 9001  
 ISO 14001  
 Certified



[www.solarworld.com](http://www.solarworld.com)

We turn sunlight into power.

## SW 265 mono / Version 2.0 and 2.5 Frame

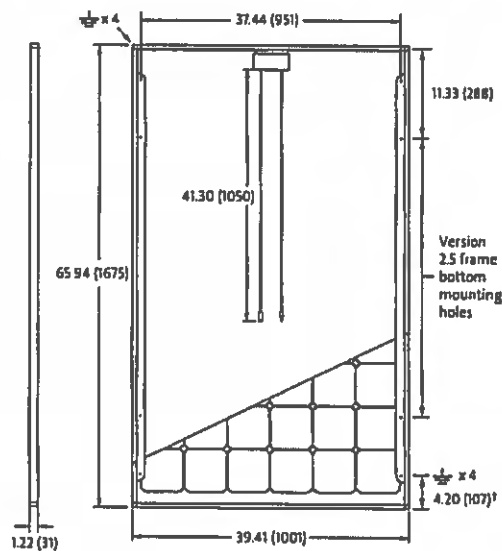
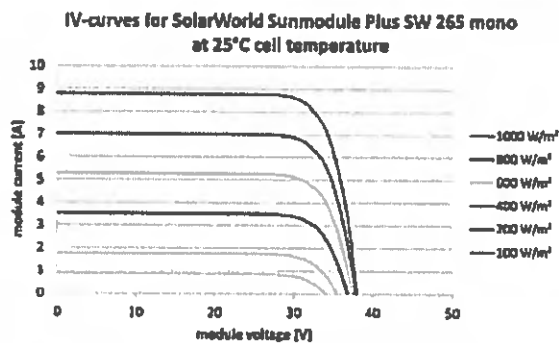
### PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)\*

SW 265		
Maximum power	$P_{max}$	265 Wp
Open circuit voltage	$V_{oc}$	38.1 V
Maximum power point voltage	$V_{mpp}$	31.9 V
Short circuit current	$I_{sc}$	8.82 A
Maximum power point current	$I_{mpp}$	8.33 A

\*STC: 1000 W/m<sup>2</sup>, 25°C, AM 1.5

### THERMAL CHARACTERISTICS

NOCT	46 °C
TC <sub>I<sub>sc</sub></sub>	0.004 %/K
TC <sub>V<sub>oc</sub></sub>	-0.30 %/K
TC <sub>P<sub>mpp</sub></sub>	-0.45 %/K
Operating temperature	-40°C to 85°C



### PERFORMANCE AT 800 W/m<sup>2</sup>, NOCT, AM 1.5

SW 265		
Maximum power	$P_{max}$	187.6 Wp
Open circuit voltage	$V_{oc}$	34.3 V
Maximum power point voltage	$V_{mpp}$	28.7 V
Short circuit current	$I_{sc}$	7.12 A
Maximum power point current	$I_{mpp}$	6.66 A

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m<sup>2</sup>, 95% (+/-3%) of the STC efficiency (1000 W/m<sup>2</sup>) is achieved.

### COMPONENT MATERIALS

Cells per module	60
Cell type	Mono crystalline
Cell dimensions	6.14 in x 6.14 in (156 mm x 156 mm)
Front	tempered glass (EN 12150)
Frame	Clear anodized aluminum
Weight	46.7 lbs (21.2 kg)

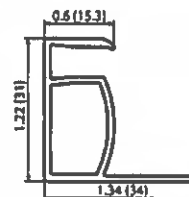
### SYSTEM INTEGRATION PARAMETERS

Maximum system voltage SC II	1000 V	
Max. system voltage USA NEC	600 V	
Maximum reverse current	16 A	
Number of bypass diodes	3	
UL Design Loads*	Two rail system	113 psf downward 64 psf upward
UL Design Loads*	Three rail system	170 psf downward 64 psf upward
IEC Design Loads*	Two rail system	113 psf downward 50 psf upward

\*Please refer to the Sunmodule installation instructions for the details associated with these load cases.

### ADDITIONAL DATA

Power tolerance <sup>1)</sup>	-0 Wp / +5 Wp
J-Box	IP65
Connector	MC4
Module efficiency	15.81 %
Fire rating (UL 790)	Class C



#### VERSION 2.5 FRAME

- Compatible with both "Top-Down" and "Bottom" mounting methods
- Grounding Locations:
  - 4 corners of the frame
  - 4 locations along the length of the module in the extended flange<sup>†</sup>

1) Sunmodules dedicated for the United States and Canada are tested to UL 7103 Standard and listed by a third party laboratory. The laboratory may vary by product and region. Check with your SolarWorld representative to confirm which laboratory has a listing for the product.

2) Measuring tolerance traceable to TUV Rheinland: +/- 2% (TUV Power Controlled).

3) All units provided are imperial. SI units provided in parentheses.