

16-2042



CL-162085

U.C.C. F100-1 (rev. 8/08)

2001/5 10/10

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.b:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ Check if contractor.

Agent Name Altec Building Systems Corp.

Address 904 Atlantic Avenue
Rt. Pleasant, NJ 08742

Telephone (732) 903-6264

Signature _____

- III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

[illegible]

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
☒ Zoning Officer	SK	6/20/16	X	X	X	X	X	X	214-16-00744
☐ Planning Board			X	X	X	X	X	X	
☐ Zoning Board			X	X	X	X	X	X	
☐ Sewer Authority			X	X	X	X	X	X	
☐ Water Authority			X	X	X	X	X	X	
☐ Police Department			X	X	X	X	X	X	
☐ Health Department			X	X	X	X	X	X	
☐ Soil Conservation			X	X	X	X	X	X	
☐ N.J. Department of Community Affairs			X	X	X	X	X	X	
☐ N.J. Department of Transportation			X	X	X	X	X	X	
☐ N.J. Department of Environmental Protection			X	X	X	X	X	X	
☐ Utility Dig No.			X	X	X	X	X	X	
☐			X	X	X	X	X	X	
☐			X	X	X	X	X	X	

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition _____ Name of Code & Edition _____

Building _____ Energy _____ Other _____

Electrical _____ Barrier Free _____

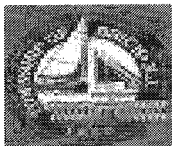
Plumbing _____ Flood Hazard _____

Fire Protection _____ As Built Elevation Cert. _____

Mechanical _____ Other _____

X. CERTIFICATES ISSUED (office use only)

	DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
☐ Temporary Certificate of Occupancy	No. _____	_____	_____	_____
☐ Temporary Certificate of Compliance	No. _____	_____	_____	_____
☐ Continued Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Compliance	No. _____	_____	_____	_____
☐ Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Approval	No. _____	_____	_____	_____
☐ Lead Abatement Clearance Certificate	No. _____	_____	_____	_____



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 4/13/2017
Control Number C-16-002085
Permit Number 16-2042
Permit Issue Date 6/21/2016
Certificate Number 16-2042

Certificate

Construction Code Division

(Certificate of Approval)

Identification

Work Site Location: 103 HENDRICKSON AVE Brick Township, NJ Block: 1068 Lot: 15.01 Qual: _____
Owner in Fee: BRICK TOWNSHIP BOARD OF EDUCATION
Owner Address: 101 HENDRICKSON AVE. BRICK NJ 08724
Telephone: _____
Contractor ALTEC BUILDING SYSTEMS CORP
Address 904 Atlantic Ave. Point Pleasant NJ 08742
Telephone: (732) 903-6264 Fax: _____
License Number or Builders Registration Number: 11073 Federal Emp. Number: 22-3292289

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: E Construction Classification: _____

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: SOLAR PANELS ...INSTALL 332.2 kw ROOF MOUNT PHOTOVOLTAIC SOLAR SYSTEM

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

- ☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:

Conditions to be met:

Construction Official

Fee: \$0.00

Check Number: _____

Collected By: _____



BUILDING SUBCODE TECHNICAL SECTION



Veterans Mem

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1068 Lot 1301 Qualification Code _____

Work Site Location 103 Henderson Avenue

Owner in Fee: Price Township Board of Education

Tel. (732) 785-3000 e-mail _____

Address 101 Henderson Ave, Brick, NJ 08724

Contractor: Steel Building Systems Corp. Tel. (732) 903-1024

Address 904 Atlantic Avenue, e-mail info@absc

ff. Pleasant, NJ 08742 Building Systems, Inc.

Contractor License No. or Builder Registration No. 13VH04948000 Exp. Date 3/31/17

Home Improvement Contractor Registration No. or Exemption Reason (if applicable):

Federal Emp. ID No. 223292289 FAX: (732) 903-1029

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Type	Failure	Dates (Month/Day)	Initial
☐ No Plans Required			☒ All	Footings			
☐ Footings/Foundations				Footings Bonding			
☐ Structural/Framework				Foundation			
☐ Exterior				Slab			
☐ Interior				Frame			
☐ Truss Sys./Bracing				Barrier-Free			
☐ Joint Plan Review Required:				Barrier-Free			
☐ Elec. ☐ Plumb. ☐ Fire ☐ Elevator				Insulation			
☐ SUBCODE APPROVAL for PERMIT				Finishes -Base Layer			
Date: <u>06/19/16</u>				Finishes -Final			
Approved by: <u>Per</u>				Energy			
☐ SUBCODE APPROVAL for CERTIFICATE				Mechanical			
☐ CO ☐ CCO				TCO			
Date: <u>09/12/17</u>				Other			
Approved by: <u>Per</u>				Barrier-Free			

B. BUILDING CHARACTERISTICS

Use Group	Present	Proposed	Constr. Class	Present	Proposed
No. of Stories			If Industrialized Building:		
Height of Structure			State Approved		HUD
Area — Largest Floor			Est. Cost of Bldg. Work:		
New Bldg. Area/All Floors			1. New Bldg.		
Volume of New Structure			2. Rehabilitation		
Max. Live Load			3. Total (1+2)		
Max. Occupancy Load					

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here:

Print name here: Jones E. Lourosky

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Roof Top Solar Installation

332.2 kW

FEE (Office Use Only)

ADMINISTRATIVE

TYPE OF WORK:	Sq. Ft.	Height (exceeds 6')
☐ New Building		
☐ Addition		
☒ Rehabilitation		
☐ Roofing		
☐ Siding		
☐ Fence		
☐ Sign		
☐ Pool		
☐ Retaining Wall		
☐ Asbestos Abatement Subchapter 8		
☐ Lead Haz. Abatement NJAC 5:17		
☐ Radon Remediation		
☐ Other		
☐ Demolition		

Date Received
Control #

Date Issued
Permit #

16-2042

6/21/16

Administrative Surcharge \$

Minimum Fee \$

State Permit Surcharge Fee \$

TOTAL FEE \$

1 White = Inspector Copy
3 Pink = Office Copy

2 Canary = Office Copy
4 Gold = Applicant Copy



**ELECTRICAL SUBCODE
TECHNICAL SECTION**



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 10008 Lot 1501 Qualification Code _____
Work Site Location 103 Hendrickson Ave, Brick, NJ 08723
Owner in Fee: Brick Township Board of Education
Tel. (732) 1785-2000 e-mail _____
Address 101 Hendrickson Ave, Brick, NJ 08724 zip code _____

Contractor: Altec Electrical Corp. municipality 732 (903-6264)
Address 904 Atlantic Avenue e-mail jlawroski@alltecbuildingsystems.com
Pt. Pleasant, NJ 08742
Contractor License No. 11073 Exp. Date 3/31/18
Home Improvement Contractor Registration No. or Exemption Reason (if applicable): 13VH04948600
Federal Emp. ID No. 22-3292289 FAX: (732) 903-6298

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____
[] Pole/Pad # _____ [] Temporary [] Other _____
Building Occupied as School Utility Co. JCP
Est. Cost of Elec. Work \$ 282,370

JOB SUMMARY (Office Use Only)

PLAN REVIEW		INSPECTIONS		Dates (Month/Day)	
[] No Plans Required	Type:	Failure	Approval	Initial	
[] Partial - Underslab Utilities Approved	Rough				
Date: _____	Barrier-Free				
[] Electric Plans Approved	Trench				
Date: <u>4/4/16</u>	Temp. Serv.				
Approved by: <u>PX</u>	Constr. Serv.				
Joint Plan Review Required:	TCO				
[] Bldg. [] Plumb. [] Fire. [] Elev.	Other				
SUBCODE APPROVAL for PERMIT	Service Final				
Date: <u>4/4/16</u>	Barrier-Free				
Approved by: <u>PX</u>	Temp. Cut-in-Card Date Issued				
SUBCODE APPROVAL for CERTIFICATE	Final Cut-in-Card Date Issued				
[] CO [] CCO [] CA	Annual Pool Inspection				
Date: <u>4/12/17</u>	Date of Grounding and Bonding				
Approved by: <u>PX</u>	Certification				

Veterans Memorial BSc
DR# 337 005470

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.
Applicant sign/Contractor sign and seal here: _____

Print name here: James E. Lawroski Jr.
Licensed Elec. Contractor [] Certified Landscape Irrigation Contr' [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK: Install Solar System 332.2 KW

QTY.	SIZE	ITEMS	FEE (Office Use Only)
		Lighting Fixtures	
		Receptacles	
		Switches	
		Detectors	
		Light Poles	
		Motors—Fract. HP	
		Emergency & Exit Lights	
		Communications Points	
		Alarm Devices/F.A.C. Panel	
		TOTAL NUMBERS	
		Pool Permit/with UW Lights	
		Storable Pool/Spa/Hot Tub	
		KW Elec. Range/Receptacle	
		KW Oven/Surface Unit	
		KW Elec. Water Heater	
		KW Elec. Dryer/Receptacle	
		KW Dishwasher	
		HP Garbage Disposal	
		KW Central A/C Unit	
		HP/KW Space Heater/Air Handler	
		KW Baseboard Heat	
		HP Motors 1/4-HP	
		KW Transformer/Generator Inverters	
		AMP Subpanels	
		AMP Motor Control Center	
		KW Elec. Sign/Outline Light	
		Modules	
		1 meter	
		12 24KW	
		1 800	
		2 400	
		1440 260	

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____

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(609)-390-1400



February 22, 2016

Mr. Michael Ford
 Project Manager
 GeoPeak Energy
 285 Davidson Ave
 Somerset, NJ 08873

RE: Brick BOE – Roof Framing Assessment for Solar
 Brick, NJ
MPP Project No: 14-0729

Dear Mr. Ford:

Pursuant to your request, MPP Engineers has performed a limited structural evaluation of the roof framing at several additional areas of the Brick Township High School to verify that the roof framing is adequate to support a proposed ballasted photovoltaic (PV) system. This work supplements our previous evaluation of other portions of the High School and other BOE buildings within the district. The new roof areas under evaluation encompass the six areas shown in the attached Figure 1. The new evaluation areas at the High School consist of several different framing systems constructed at different times.

Structural Data and Code Information

Our analysis was performed in accordance with the requirements of the 2015 International Building Code, NJ Edition. It is our understanding that the proposed solar system for flat roofs is anticipated to consist of standard solar modules mounted on an interlocking ballasted racking system to avoid roof penetrations. It is our understanding that the proposed PV arrays will be mounting using the Grid-Lite racking system that imposes a total loading of only about 3.5 to 4 pounds per square foot (PSF) on the existing roof structure.

The pertinent design data is listed below:

Ground Snow Load, Pg:	20 PSF (Brick, NJ)
Importance Factor, I:	1.1 (Occupancy Category III)
Exposure Factor, Ce:	1.0 (Fully Exposed)
Thermal Factor, Ct:	1.0 (Existing) & 1.1 (With Solar Panels)
Basic Wind Speed:	132 MPH Ultimate (Risk Category III)
Exposure:	B (Urban and Suburban Areas)

Minimum Flat Roof Snow Load: 22 PSF (20 PSF * 1.1 Importance Factor)

* Since the solar panels are mounted slightly above the roof line, it is appropriate to consider a thermal factor, Ct of 1.1, treating the panel surface as a cold, ventilated roof, rather than a warm roof.

Brick Township BOE Solar Evaluation Report

Estimated Roof Dead Loads - Dead load based on field observations of existing framing systems and our experience which include hung mechanical loads, roofing, insulation, ceiling, and self-weight of framing. The framing does not include the additional dead load of the proposed photovoltaic system, including the panels, rails, ballast and mounting hardware. The additional weight of the proposed ballasted solar panel system, including the panels, rails, mounting hardware, and the ballast, is estimated to be in the range of 3.5 to 4 pounds per square foot (PSF) and NOT included in the below estimated dead loads. All of the roof sections have built-up roofing with gravel.

Area 1: (Field Surveyed)

□ Wide Flange Beams spaced at approximately 8 feet on center supporting 1-1/2" metal roof deck. At the corridor areas, there appears to be a concrete topping over the metal deck. For these areas, we used a total dead loading of 65 PSF. At the classroom areas on either side of the corridor, it was evident that there was no concrete present. At these areas, we used a total dead load of 24 PSF for our calculations. It should be noted that this roof has several rooftop HVAC units. We suspect that this roof area may have been designed for a future second floor.

Area 2: (Field Surveyed)

□ This area also consists of wide flange beams spaced at approximately 8'-4" on center. The beams are supported by masonry bearing walls and have a cantilever with hung span framing arrangement. The total estimated existing dead loads at this area are 24 PSF.

Area 3: (Field Surveyed)

□ This roof area has the same framing system as Area 1 but the beam sizes were noticeably smaller despite having the same spacing and spans as those members in Area 1. The total estimated dead loads for this roof area are 24 PSF.

Area 4: (Field Surveyed)

□ This is the roof over the gymnasium. The framing consists of custom structural steel trusses spaced at 23' on center that clear span approximately 80 across the width of the gymnasium. The trusses support wide flange beams spaced at 8' on center spanning between the trusses and supported by masonry bearing walls at the end walls. The beams support metal roof deck. The estimated total dead loads at this section of the roof are 16 PSF plus the self weight of the framing.

Area 5: (Field Surveyed)

□ The roof framing over the auxiliary gym consists of 32" open web steel bar joists spaced at 6'-6" on center with a clear span of approximately 50 feet. The joists support a tectum roof deck system with bulb tees. We estimate that the total weight of the existing roof framing to be approximately 20 PSF at this roof area. It should be noted that the roof joists also support two

Area 6: (Field Surveyed)

□ The roof framing over the weight room consists of 22" deep K-Series open web steel joists supporting metal roof deck. We estimate that the total weight of the existing roof framing to be approximately 16 PSF at this roof area.

Brick Township BOE Solar Evaluation Report

Existing Framing and Analysis (Ref Figure 1)

Area 1:

Existing Framing – The framing in this area appears to have been designed for a future second floor loading. Based on the member sizes, this roof appears to have more than enough capacity to support solar panels, even in those areas where existing rooftop mechanical equipment exists.

Analysis Results – Our analysis indicates that the existing roof framing in this area has a minimum reserve capacity of well above 10 PSF and would be more than adequate to support PV arrays. However, as previously mentioned, the ability to utilize much of this space will be hindered by the large number of rooftop HVAC units.

Area 2:

Existing Framing - The framing in this area consists of W14x30 wide flange beams spanning approximately 41 feet between bearing walls and cantilevering 7 feet beyond the wall to support W14x30 hung beams. The beams support conventional 1-1/2" metal roof deck.

Analysis Results – Our analysis indicates that the framing in this area is capable of supporting an additional 8 PSF.

Area 3:

Existing Framing - The framing in this area consists of W12x22 steel beams spaced at 8' on center with a span of 30'-8" supporting conventional 1-1/2" metal roof deck.

Analysis Results – Our calculations indicate that this section of the roof has a reserve capacity of approximately 6 PSF.

Area 4:

Existing Framing – The framing for the gym roof has custom structural steel trusses with an out-to-out depth of 7'-4". The truss chord members consist of 8" T-Sections with double angle chord and web members that vary in size depending on the location. The web members are welded to the chord members. The W12 beams that frame into the trusses are bolted to the vertical angles at the panel point locations which occur every 8 feet on center. The typical beam size appears to be W12x14 members except at the cross bridging between trusses where the beams are larger. In addition, there are two HVAC units hung from the framing at each end of the gym. The beam sizes at these locations suggest that slightly larger W12x19 beams were used to accommodate the additional loading. The steel trusses span 80' clear and are supported by steel columns at each end. The trusses are spaced at 23' on center and support conventional 1-1/2", 16 Gauge metal roof deck.

Analysis Results – Our analysis indicates that the framing has a reserve capacity of 7 PSF based primarily on the capacity of the bottom chord members of the trusses.

Area 5:

Existing Framing – The auxiliary gym framing consists of 32" LH joists spaced at 6'-6" on center. Based on the size of the chord and web members, the joists appear to be 32LH08 members. We conservatively assumed that the joist members are 32LH06 members or perhaps even 32LJ08 members in performing our analyses. It should be noted that there are two mechanical units supported in between the 2nd and 3rd roof

Brick Township BOE Solar Evaluation Report

joists from each end of the gym. The joists at these locations appear to be the same size as the typical joists and have not been reinforced or strengthened to accommodate the additional loading.

Analysis Results – Based on our assumptions the standard joists have a reserve capacity of approximately 8 PSF. Given the unknowns regarding the weight of the existing HVAC units that are supported by the joists, we do not recommend that any solar panels be installed along the length of the joists within an 8 foot strip centered on the mechanical units.

Area 6:

Existing Framing - The framing at the weight room consists of 22K11 joists spaced at 4' on center with a span of 39'-0". The joists are supported by W21x44 and W21x62 beams having 27' +/- and 33' +/- spans, respectively.

Analysis Results – Our analysis indicates that the framing within this roof area conservatively has a reserve capacity of 10 PSF.

Conclusions

The attached Figure 1 shows the available reserve capacity for various areas of the roof along with some limitations with regard to the panels at the auxiliary gym and where low roof sections meet higher roof sections. Provided that the Grid-Lite racking system is used to support the PV arrays, all 6 of the new areas at the High School are generally adequate to support the proposed PV arrays.

Solar panels may not be supported within 5 feet of all existing rooftop mechanical equipment areas and within 14 feet at changes in roof elevations (e.g., between high and low roof areas). These areas typically result in shadow zones and may not be suitable for solar panels anyway.

We have also reviewed the proposed PV array layouts for the other Brick BOE facilities as follows:

1. Midstreams Elementary School
2. Veterans Memorial Elementary School
3. Veterans Memorial Middle School
4. Lake Riviera Middle School
5. Emma Haven Young Elementary School
6. Education Enrichment Center

In all of the zones where panels are proposed on these roofs, we have confirmed that the roof has a minimum reserve capacity of at least 4 PSF and would be capable of supporting the proposed PV arrays installed using the Grid-Lite racking system.

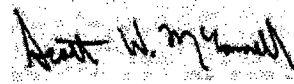
We trust that this evaluation will provide you with the information required to finalize the layout and design of the PV systems. If you have any questions regarding this matter, please feel free to contact my office at 609-489-5511.

Brick Township BOE Solar Evaluation Report

We appreciate the opportunity to assist you with this evaluation.

Sincerely,

MPP Engineers, LLC

A handwritten signature in black ink, appearing to read "Scott W. McConnell", is written over a light gray rectangular background.

Scott W. McConnell
Principal
NJ PE Lic No. 40281

Encl.

Figure 1 – Brick Township High School Roof Reserve Capacity

Appendix A – Proposed PV Roof Layouts and Grid-Lite Racking Information



MPP Engineers LLC
34 S. Main Street, Ste. D
Allentown, NJ 08501
Phone: (609) 489-5511

Scott W. McConnell
NJ Prof. Eng. Lic. No. 40281

CLIENT:
GeoPeak Energy

PROJECT NAME:

Brick BOE
Roof Assessment for Solar
Brick Twp High School
Brick, NJ

PLOT SCALE
NONE

DATE
2/22/16

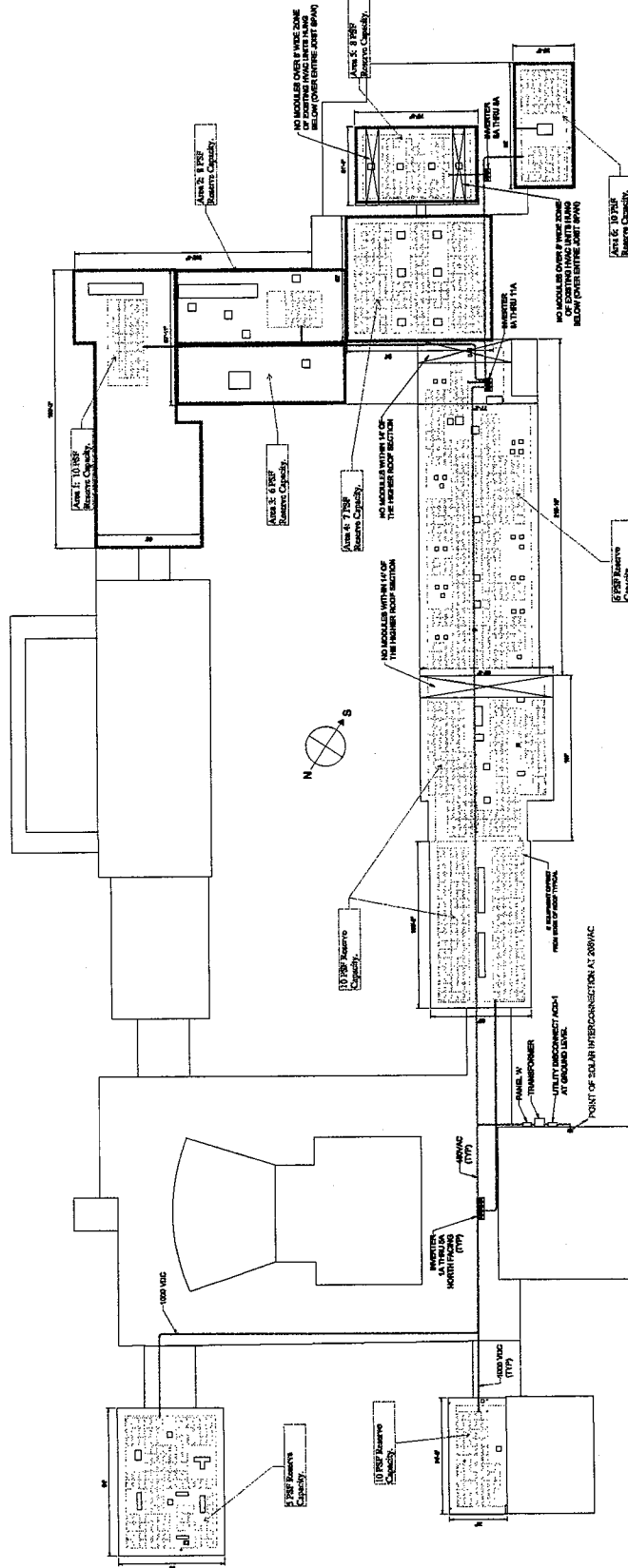
DRAWN BY
SWM

DESIGNED BY
SWM

MPP PROJECT NO.
14-0729

SKETCH NO:

Figure 1



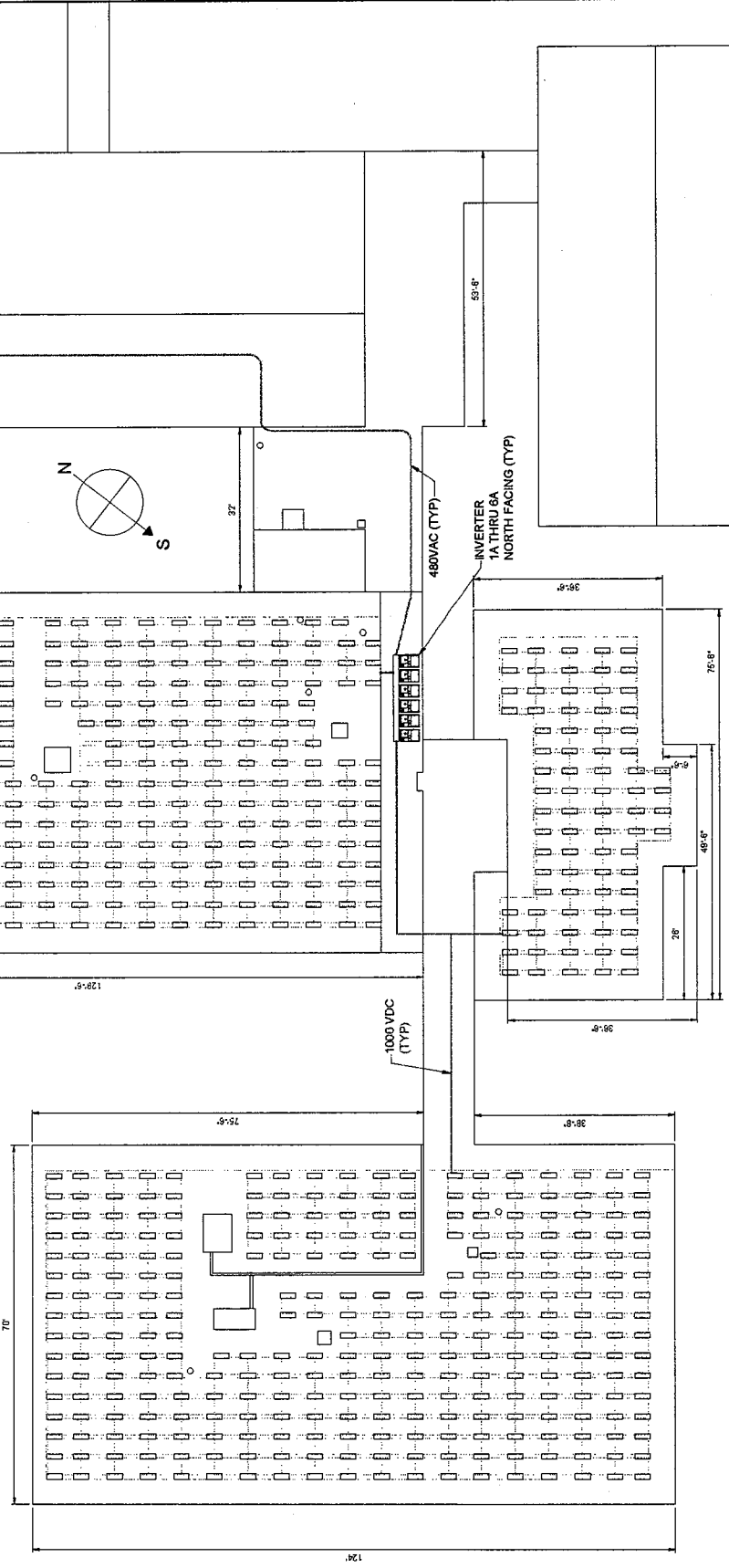


Appendix A

PV Array Layouts & Grid-Lite Racking System Information

MIDSTREAMS ELEMENTARY SCHOOL - WIRE AND CONDUIT SCHEDULE				
Item	Description	Wire Size	Wire Type	Voltage/Phase
1	PANEL TO PANEL	24 AWG	AL THW-2	480V
2	PANEL TO PANEL	24 AWG	AL THW-2	480V
3	PANEL TO PANEL	24 AWG	AL THW-2	480V
4	PANEL TO PANEL	24 AWG	AL THW-2	480V
5	PANEL TO PANEL	24 AWG	AL THW-2	480V
6	PANEL TO PANEL	24 AWG	AL THW-2	480V
7	PANEL TO PANEL	24 AWG	AL THW-2	480V
8	PANEL TO PANEL	24 AWG	AL THW-2	480V
9	PANEL TO PANEL	24 AWG	AL THW-2	480V
10	PANEL TO PANEL	24 AWG	AL THW-2	480V
11	PANEL TO PANEL	24 AWG	AL THW-2	480V
12	PANEL TO PANEL	24 AWG	AL THW-2	480V
13	PANEL TO PANEL	24 AWG	AL THW-2	480V
14	PANEL TO PANEL	24 AWG	AL THW-2	480V
15	PANEL TO PANEL	24 AWG	AL THW-2	480V
16	PANEL TO PANEL	24 AWG	AL THW-2	480V
17	PANEL TO PANEL	24 AWG	AL THW-2	480V
18	PANEL TO PANEL	24 AWG	AL THW-2	480V
19	PANEL TO PANEL	24 AWG	AL THW-2	480V
20	PANEL TO PANEL	24 AWG	AL THW-2	480V
21	PANEL TO PANEL	24 AWG	AL THW-2	480V
22	PANEL TO PANEL	24 AWG	AL THW-2	480V
23	PANEL TO PANEL	24 AWG	AL THW-2	480V
24	PANEL TO PANEL	24 AWG	AL THW-2	480V
25	PANEL TO PANEL	24 AWG	AL THW-2	480V
26	PANEL TO PANEL	24 AWG	AL THW-2	480V
27	PANEL TO PANEL	24 AWG	AL THW-2	480V
28	PANEL TO PANEL	24 AWG	AL THW-2	480V
29	PANEL TO PANEL	24 AWG	AL THW-2	480V
30	PANEL TO PANEL	24 AWG	AL THW-2	480V
31	PANEL TO PANEL	24 AWG	AL THW-2	480V
32	PANEL TO PANEL	24 AWG	AL THW-2	480V
33	PANEL TO PANEL	24 AWG	AL THW-2	480V
34	PANEL TO PANEL	24 AWG	AL THW-2	480V
35	PANEL TO PANEL	24 AWG	AL THW-2	480V
36	PANEL TO PANEL	24 AWG	AL THW-2	480V
37	PANEL TO PANEL	24 AWG	AL THW-2	480V
38	PANEL TO PANEL	24 AWG	AL THW-2	480V
39	PANEL TO PANEL	24 AWG	AL THW-2	480V
40	PANEL TO PANEL	24 AWG	AL THW-2	480V
41	PANEL TO PANEL	24 AWG	AL THW-2	480V
42	PANEL TO PANEL	24 AWG	AL THW-2	480V
43	PANEL TO PANEL	24 AWG	AL THW-2	480V
44	PANEL TO PANEL	24 AWG	AL THW-2	480V
45	PANEL TO PANEL	24 AWG	AL THW-2	480V
46	PANEL TO PANEL	24 AWG	AL THW-2	480V
47	PANEL TO PANEL	24 AWG	AL THW-2	480V
48	PANEL TO PANEL	24 AWG	AL THW-2	480V
49	PANEL TO PANEL	24 AWG	AL THW-2	480V
50	PANEL TO PANEL	24 AWG	AL THW-2	480V
51	PANEL TO PANEL	24 AWG	AL THW-2	480V
52	PANEL TO PANEL	24 AWG	AL THW-2	480V
53	PANEL TO PANEL	24 AWG	AL THW-2	480V
54	PANEL TO PANEL	24 AWG	AL THW-2	480V
55	PANEL TO PANEL	24 AWG	AL THW-2	480V
56	PANEL TO PANEL	24 AWG	AL THW-2	480V
57	PANEL TO PANEL	24 AWG	AL THW-2	480V
58	PANEL TO PANEL	24 AWG	AL THW-2	480V
59	PANEL TO PANEL	24 AWG	AL THW-2	480V
60	PANEL TO PANEL	24 AWG	AL THW-2	480V
61	PANEL TO PANEL	24 AWG	AL THW-2	480V
62	PANEL TO PANEL	24 AWG	AL THW-2	480V
63	PANEL TO PANEL	24 AWG	AL THW-2	480V
64	PANEL TO PANEL	24 AWG	AL THW-2	480V
65	PANEL TO PANEL	24 AWG	AL THW-2	480V
66	PANEL TO PANEL	24 AWG	AL THW-2	480V
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73	PANEL TO PANEL	24 AWG	AL THW-2	480V
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77	PANEL TO PANEL	24 AWG	AL THW-2	480V
78	PANEL TO PANEL	24 AWG	AL THW-2	480V
79	PANEL TO PANEL	24 AWG	AL THW-2	480V
80	PANEL TO PANEL	24 AWG	AL THW-2	480V
81	PANEL TO PANEL	24 AWG	AL THW-2	480V
82	PANEL TO PANEL	24 AWG	AL THW-2	480V
83	PANEL TO PANEL	24 AWG	AL THW-2	480V
84	PANEL TO PANEL	24 AWG	AL THW-2	480V
85	PANEL TO PANEL	24 AWG	AL THW-2	480V
86	PANEL TO PANEL	24 AWG	AL THW-2	480V
87	PANEL TO PANEL	24 AWG	AL THW-2	480V
88	PANEL TO PANEL	24 AWG	AL THW-2	480V
89	PANEL TO PANEL	24 AWG	AL THW-2	480V
90	PANEL TO PANEL	24 AWG	AL THW-2	480V
91	PANEL TO PANEL	24 AWG	AL THW-2	480V
92	PANEL TO PANEL	24 AWG	AL THW-2	480V
93	PANEL TO PANEL	24 AWG	AL THW-2	480V
94	PANEL TO PANEL	24 AWG	AL THW-2	480V
95	PANEL TO PANEL	24 AWG	AL THW-2	480V
96	PANEL TO PANEL	24 AWG	AL THW-2	480V
97	PANEL TO PANEL	24 AWG	AL THW-2	480V
98	PANEL TO PANEL	24 AWG	AL THW-2	480V
99	PANEL TO PANEL	24 AWG	AL THW-2	480V
100	PANEL TO PANEL	24 AWG	AL THW-2	480V

NOTE: EXACT INVERTER LOCATION AND INSTALLATION TO BE DETERMINED BY SUB-CONTRACTOR PER NEC 2014. MANUFACTURER'S RECOMMENDATION AND SUB-CONTRACT DOCUMENTS IN COMPLIANCE WITH ROOFING WARRANTY.



04

1 SOLAR ROOF LAYOUT

SCALE: 1"=8'

TOTAL MODULES: 528 (310W PV MODULES)

TOTAL SYSTEM SIZE: 163.68 KW DC

Stantec

David D. Fricke, P.E.

PROJECT NAME: SOLAR ROOF LAYOUT AND CONDUIT SCHEDULE

PROJECT NO: A-101

PROPERTY LOCATION: MONTICELLO ELEMENTARY SCHOOL, 600 MONTICELLO ROAD, BRICK, NJ 08723

GEOPEAK ENERGY

Smart Solutions, Clean Alternatives

285 DAVIDSON AVENUE

SOMERSET, NJ 08873

(888) 526-4478

DESIGNED BY: JMK

DRAWN BY: JMK

CHECKED BY: JMK

CLIENT APPROVAL BY: JMK

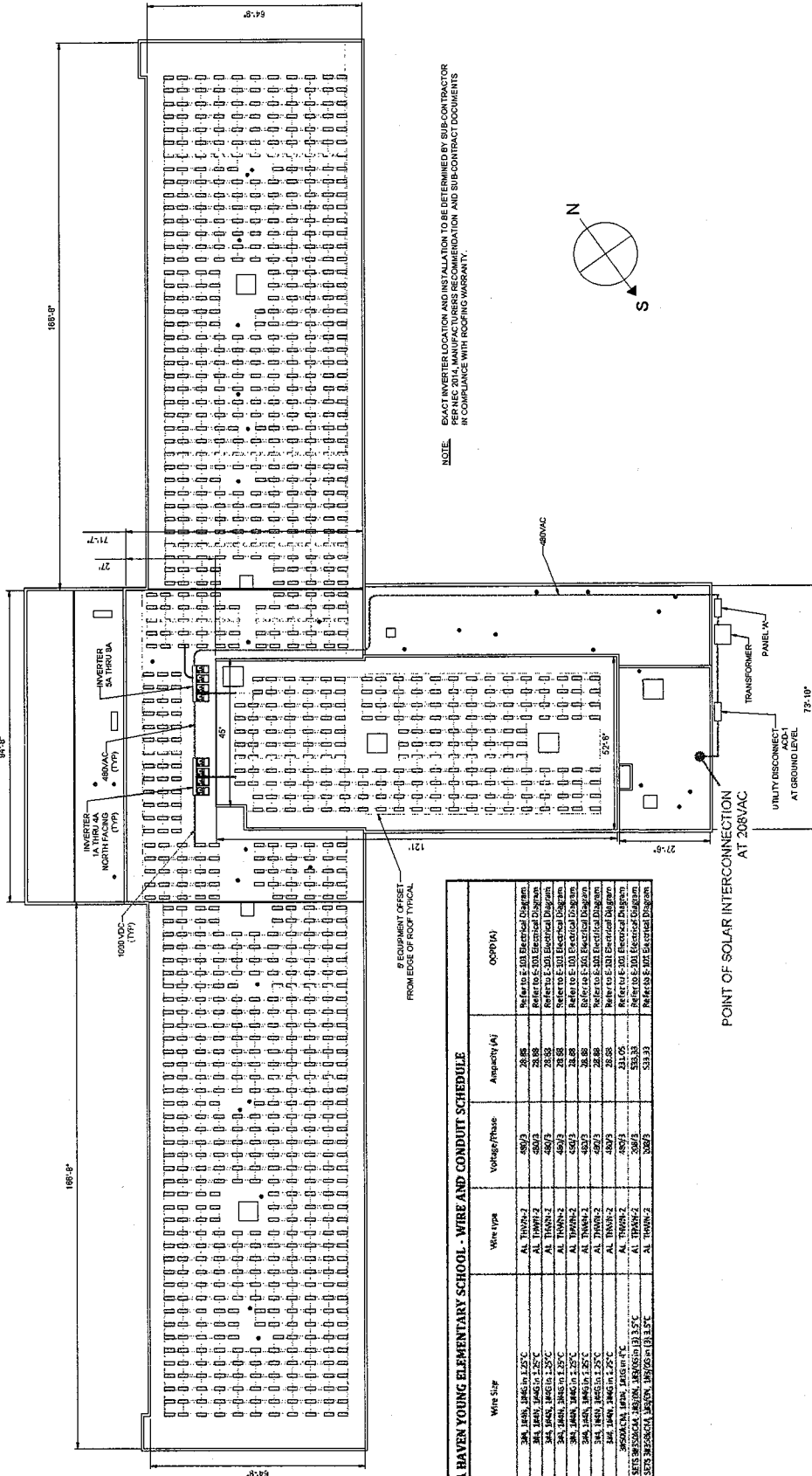
REVISION NUMBER: 3

SCALE: AS SHOWN

DATE: 10-26-15

PROJECT NO.: 10-26-15

REVISION NUMBER: 3



NOTE: EXACT INVERTER LOCATION AND INSTALLATION TO BE DETERMINED BY SUB-CONTRACTOR
 REFERENCE 2014 MANUFACTURER'S RECOMMENDATION AND SUB-CONTRACT DOCUMENTS
 IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

EMMA HAVEN YOUNG ELEMENTARY SCHOOL - WIRE AND CONDUIT SCHEDULE

Item	Description	Wire Size	Wire Type	Voltage/Phase	Quantity (ft)	Quantity (ft)	Notes
1	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
2	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
3	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
4	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
5	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
6	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
7	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
8	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
9	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
10	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
11	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
12	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
13	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
14	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
15	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
16	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
17	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
18	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
19	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
20	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram
21	INVERTER TO PNL A	3/4" 1600V 1445 in 1.25°C	AL THHN-2	480/3	28.85	28.85	Refer to E-301 Electrical Diagram

06

1 SOLAR ROOF LAYOUT

SCALE: 1" = 8'

DESIGNED BY: JMK

CHECKED BY: JMK

DATE: 10-26-15

PROJECT NO.: 10-26-15

CLIENT APPROVAL BY: JMK

REVISION NUMBER: 3

DESIGNED BY: JMK

CHECKED BY: JMK

DATE: 10-26-15

PROJECT NO.: 10-26-15

CLIENT APPROVAL BY: JMK

REVISION NUMBER: 3

Stantec

GEOPEAK ENERGY®

Smart Solutions, Clean Alternatives

285 DAVIDSON AVENUE
 SOMERSET, NJ 08873
 (888) 525-4478

PROJECT NAME: BRICK TNSP SCHOOL ROOF SYSTEM PHOTOVOLTAIC CONSTRUCTION PLANS

PROPERTY LOCATION: EMMA HAVEN YOUNG ELEMENTARY SCHOOL 43 DRUMFONTR ROAD BRICK, NJ 08720

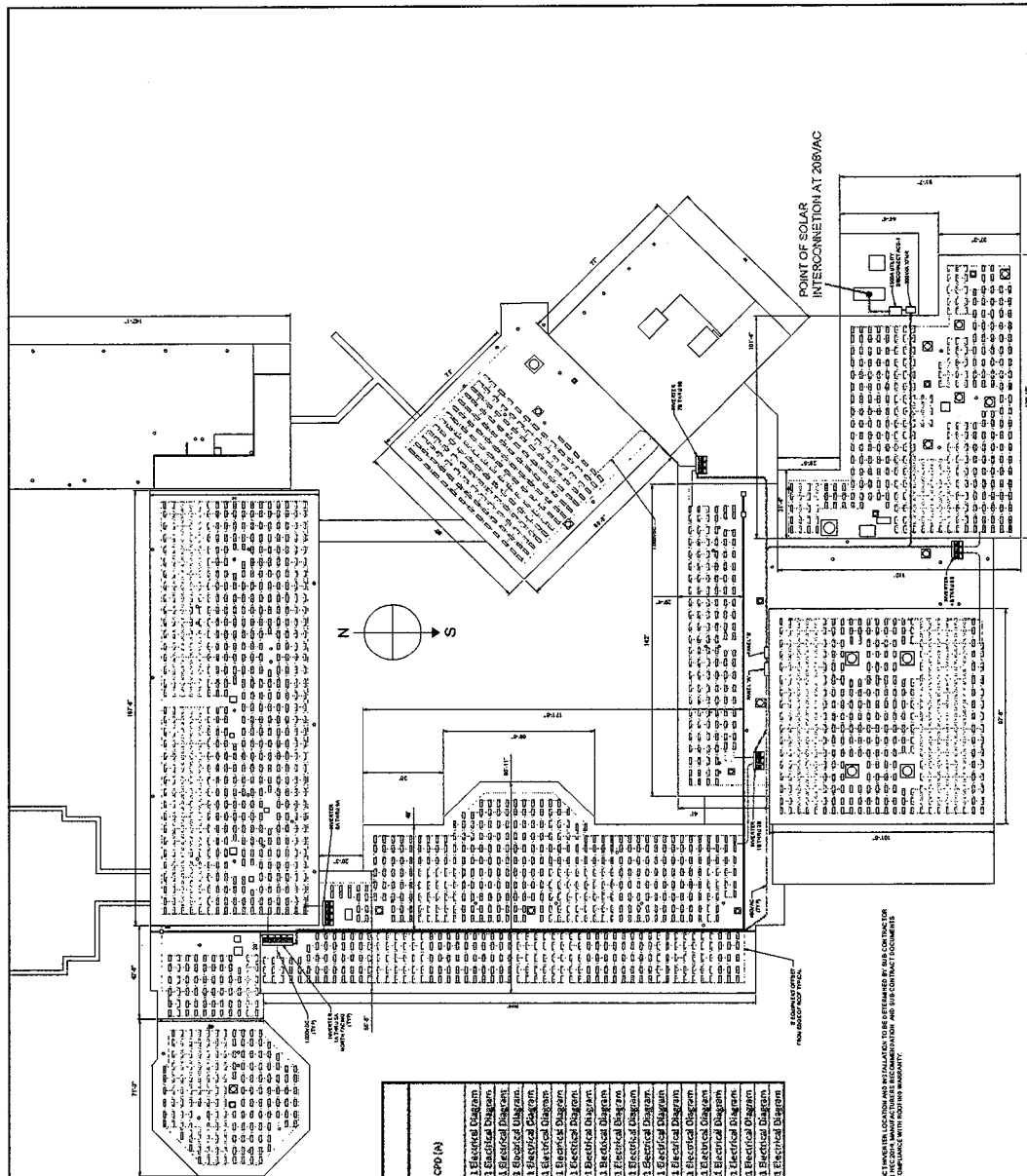
PROJECT NO.: A-101

SHEET NO.: 4 OF 14

DRAWING NAME: SOLAR ROOF LAYOUT AND CONDUIT SCHEDULE

TOTAL MODULES: 866 (280W PV MODULES)

TOTAL SYSTEM SIZE: 251.16 kW DC

[illegible]

NOTE: EXACT INVERTER LOCATION AND INSTALLATION TO BE DETERMINED BY SUB-CONTRACTOR PER NEC 2014, MANUFACTURERS RECOMMENDATION AND SUB-CONTRACT DOCUMENTS.

1 SOLAR ROOF LAYOUT

1 SOLAR F
SCALE: 1:5000

TOTAL MODULES: 2,040 (260W PV MODULES)
TOTAL SYSTEM SIZE: 530.40 KW DC



Stantec



GEOPEAK ENERGY®
Smart Solutions. Clean Alternatives

285 DAVIDSON AVENUE
SOMERSET, NJ 08873
(888) 526-4478

David D. Evans, P.E.

DRAWING NAME: SOLAR ROOF LAYOUT AND CONDUIT SCHEDULE

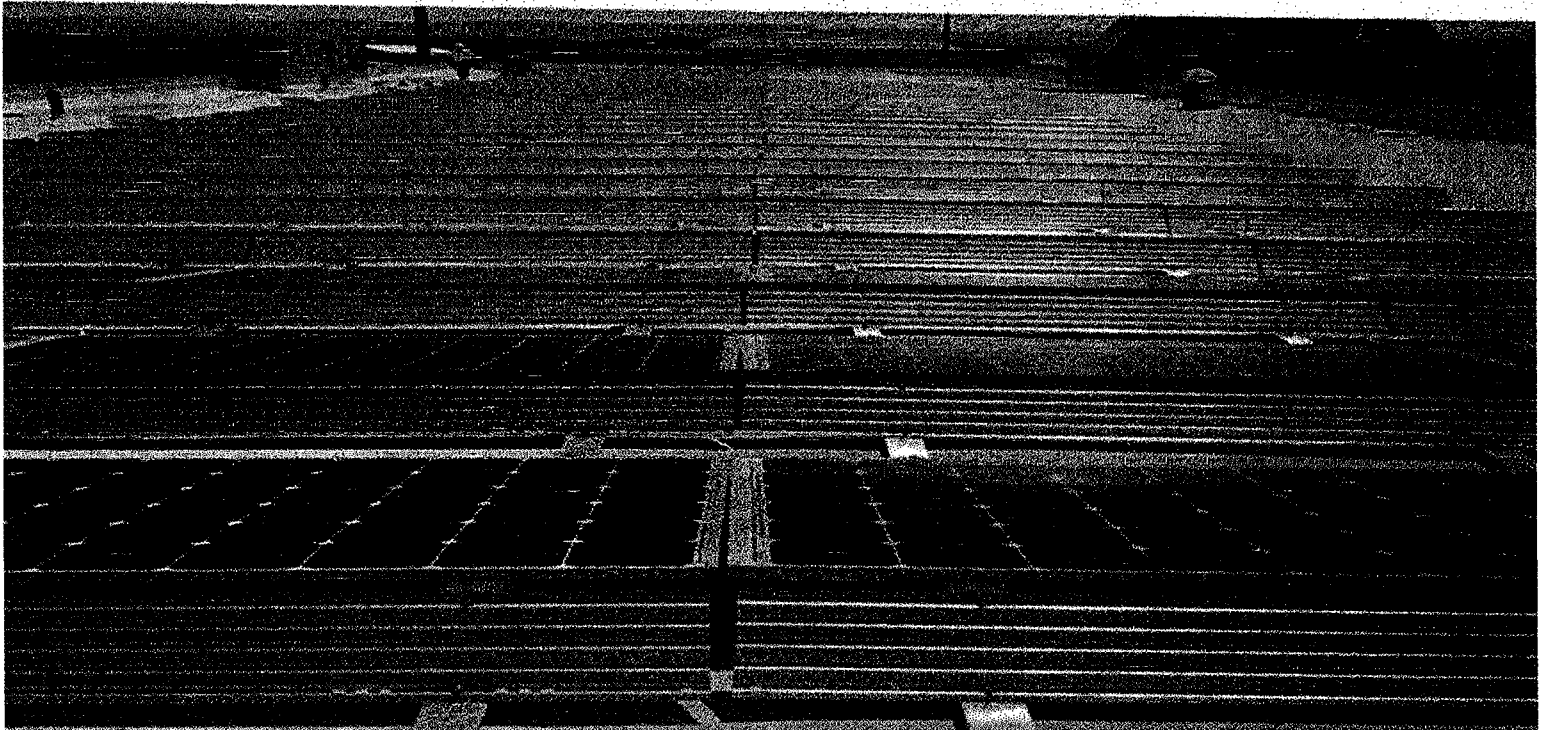
A-101

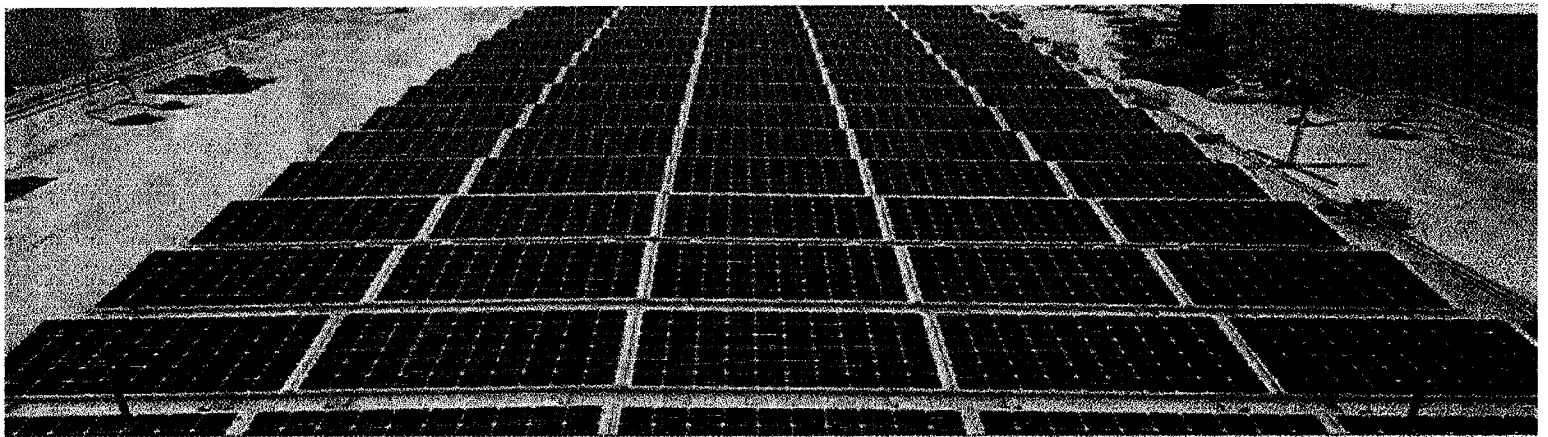
101-X

24" x 36"

Grid-Lite™

- Interlocking grid design combined with next-gen wind deflector reduces ballast to minimal or zero
- Industry's best system to handle most severe seismic conditions
- Integrated wire management trays enable string wiring throughout entire array prior to panelizing
- Near zero ballast saves up to \$.02/watt
- Fast install with minimal components
- 5 and 10 degree tilts
- Durable G90 and stainless steel components
- ETL / UL 2703 tested, ETL/UL 1703/2703 Class A fire rated
- 20-year warranty - Made in USA
- Wind tunnel testing industry leader CPP and rated for 150mph wind speed





Features

- Interlocking grid design combined with Nextgen wind deflector reduces ballast to minimal or zero
- Fire proof, durable galvanized and stainless steel components
- Minimal ballast when required on edges quickly installs with additional rail
- Ultra high grade galvanized interlocking rails install quickly to build grid
- Industry's best system to handle most severe seismic conditions
- Typical roof loading 0 to 1 psf for ballast; 2.5-3.5 total load including ballast, panels and racking
- Less ballast and related labor reduce total installed cost
- Full layout and engineering analysis for every project
- Panel supports both 5 and 10° tilt
- Snap-on EPDM blocks available in place of slip sheets
- Unique design innovations protected under patent pending
- Made in the U.S.A.

Installation

- Fast install with minimal components
- Integrated wire management trays enable string wiring throughout entire array for NE & EW runs prior to panelizing
- Pre-punched slots in wind deflectors enable fast east-west string wiring prior to panelizing
- Can be installed on any flat roof
- Flexibility for up to 5 degree roof slope variations
- 5 men install est. 195 panels, racks and ballast per day
- 15 men install .90 MW per week
- Bundles typically 3100lbs. maximum for easy offloading
- 2 trucks per MW typical

Grounding

- Racking system has integrated grounding utilizing ETL/UL teethed panel clips two corner of each array
- Grounding must be done by electrician at row end at corner array



Ultra high grade galvanized interlocking rails install quickly to build grid.



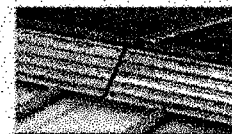
Interlocking grid design combined with Nextgen wind deflector reduces ballast to minimal or zero



Integrated wire management trays enable string wiring throughout entire array for NE & EW runs prior to panelizing



Panel supports for both 5 and 10° tilt. EPDM blocks available in place of slip sheets



Pre-punched slots in wind deflectors enable fast EW string wiring prior to panelizing



Fire proof, durable galvanized and stainless steel components.

Test & Certification

- Wind tunnel testing in progress with industry leader CPP and rated for 150 mph wind speed
- Unique design innovations with patents pending
- Class A fire rating tested by ETL to UL 1703 & 2703 covers essentially all available modules (Fire guards optional at additional cost)
- ETL/UL 2703 listed
- 60 psf ground snow load rated
- Meets IBC and ASME standards for structural loading
- Warranty 20 years
- Minimum order size 300 KW

Calculations

- 100% code compliant designs for any locality
- Third-party structural PE stamped drawings and calculations
- Individual system structural calculations
- Individual system design calculations based on regional load values Design loads according to IBC 2009 or 2012
- Patent pending profile geometries with optimum material utilization

Distribution Load

- Typical roof loading 0 to 1 psf ballast; 2.5-3.5 total load including ballast, panels and racking
- Pan Row Spacing:
5 and 10° tilt option, 10.5/18.7 inches
- Shade Angles:
5 and 10° tilts; 18/19° shade angle

Material

- Rails, Panel Supports, Wind Deflectors, Fire Guards optional at additional cost: G90 galvanized steel
- Panel Clips: stainless steel
- Hardware - 1/4-20 x 2-1/2 inch bolts with serrated flange nuts; 5/16-inch x 1/2 inch machine screws; 3/8-inch x 1-3/4 bolts with serrated flange nuts; stainless steel or Magnacoat



tyz@gamechangeracking.com
www.gamechangeracking.com



QUALITY. VALUE. INNOVATION.



CONSTRUCTION PERMIT

Date Issued 6/21/2016
Control # C-16-002085
Permit # 16-2042

IDENTIFICATION Block: 1068 Lot: 15.01 Qualifier _____
Work Site Location: 103 HENDRICKSON AVE Brick Township, NJ Contractor ALTEC BUILDING SYSTEMS CORP
Address 904 Atlantic Ave. Point Pleasant NJ 08742
Owner in Fee BRICK TOWNSHIP BOARD OF EDUCATION
101 HENDRICKSON AVE. BRICK NJ 08724 Telephone: (732) 903-6264
Telephone: _____ Lic. No. or Bldrs. Reg. No. 11073 11073 11073
Federal Employee No. 22-3292289

Is hereby granted permission to perform the following work:

- ☒ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☒ ELECTRICAL ☐ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☐ OTHER

DESCRIPTION OF WORK:

SOLAR PANELS ...INSTALL 332.2 kw ROOF MOUNT PHOTOVOLTAIC SOLAR SYSTEM

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$564,740

D. Mariani
Construction Official

6/21/16
Date

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	\$0
Electrical	\$0
Plumbing	\$0
Fire Protection	\$0
Elevator Devices	\$0
Other	\$0.00
DCA Training Fee	\$0
CO Fee	
Other	\$0
Total	\$0
Check No.	
Cash	\$0
Credit	\$0
Collected By	

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☒ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☒ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.

RECEIVING CLERK MCJ
DATE REC'D 5/3/10

ZONING PERMIT APPLICATION

PERMIT #

DATE ISSUED

2P-16-00928
6/11/10BLOCK: 1068LOT: 15.01

QUALIFIER:

SITE ADDRESS:

103 Hendrickson Ave, brick

IDENTIFICATION:

Veterans Memorial1. NAME OF OWNER IN FEE: Brick Township Board of Education
COMPLETE ADDRESS: 101 Hendrickson Avenue
brick, NJ 08724PHONE # 732-785-3000 EMAIL:2. NAME OF APPLICANT: Alter Building Systems Corp.
APPLICANT ADDRESS: 904 Atlantic Avenue
Pt. Pleasant, NJ 08742PHONE # 732-903-10814 EMAIL: info@alterbuildingssystem.com3. RESPONSIBLE PERSON FOR WORK: Bob SmithPHONE # 732-1009-1187 FAX # 732-903-60984. SIGNATURE OF APPLICANT: 

FOR OFFICE USE ONLY

FEE SUMMARY:

APPLICATION FEE: \$ 0OTHER: \$ 0TOTAL: \$ 0

REQUIRED BY APPLICANT

RESIDENTIAL:

COMMERCIAL: CommercialEXISTING USE: School

PROPOSED USE:

BOARD APPROVAL: PB ZB

RESOLUTION#:

APPROVAL DATE:

PROJECT DESCRIPTION: (PLEASE CHECK APPLICABLE WORK & DESCRIBE)

*NEW BUILDING: *ADDITION *ALTERATION ☒ *PORCH *DECK POOL: ABOVE GROUND IN GROUND FENCE: HEIGHT TYPE MATERIAL HEIGHT: (*IF APPLICABLE)OTHER Solar SystemDESCRIPTION: 330.2 kw roof mount system

ZONING REVIEW:

DATE REVIEWED: 5-9-10

DATE DENIED:

DATE APPROVED: 5-9-10INTLS: on

(SEE BACK PAGE)

TOWNSHIP OF BRICK ZONING CHECKLIST

1) Four (4) copies of plot plan containing:

- All existing and proposed structures
- All dimensions of the lot and structures
- All setbacks from the structures to the property lines
- All adjacent streets and waterways

- If applicable, include a copy of the Zoning Board of Adjustment Resolution, the date that the map was signed, and/or the date that the subdivision map was filed with the Ocean County Clerk, along with the file map and number.

2) Two copies of the plans with dimensions and heights noted:

- Floor plans and elevations
- Signed site plans
- Property map
- Survey map

Choose which is applicable for submission

3) Plot plans and building plans must match for complete review

NOTE: NO PARTIAL, TAPED, FAXED, REDUCED OR ENLARGED COPIES CAN BE ACCEPTED

01/2010

RECEIVED
MAY 25 2016
ZONING
[Signature]

ZONING

[illegible][illegible]

LAND USE

245 Attachment 5

Township of Brick

SCHEDULE OF AREA, YARD AND BUILDING REQUIREMENTS

Township of Brick

Ocean County, New Jersey

[Amended 6-26-1979 by Ord. No. 354-2B-79; 4-22-1980 by Ord. No. 354-2H-80; 10-14-1980 by Ord. No. 354-2N-80; 9-23-1980 by Ord. No. 354-1B-80; 8-25-83 by Ord. No. 354-2SS-83; 11-5-1984 by Ord. No. 354-2AAA-84; 11-5-1984 by Ord. No. 354-2CCC-84; 6-24-1986 by Ord. No. 354-2WWW-86; 9-13-1988 by Ord. No. 354-2TTT-88; 9-27-1988 by Ord. No. 354-2XXX-88; 9-12-2000 by Ord. No. 354-2EE-00; 5-9-2000 by Ord. No. 354-2Z-00; 3-26-2002 by Ord. No. 354-2C-02; 11-26-2002 by Ord. No. 354-2L-02; 3-25-2003 by Ord. No. 354-2D-03; 6-13-2006 by Ord. No. 19-06]

Zone	Minimum Lot Size						Minimum Required Yard Depth						Maximum Building Height			Minimum Floor/ Building Area (square feet) 2 stories/ story	Maximum Allowable Impervious Coverage
	Interior Lots			Corner Lots			Principal Building			Accessory Building			Maximum Building Height				
	Area (square feet)	Width (feet)	Depth (feet)	Area (square feet)	Width (feet)	Depth (feet)	Front Yard (feet)	Side Yard, Each (feet)	Both Sides Combined (feet)	Rear Yard (feet)	Side Yard (feet)	Rear Yard (feet)	Stories	Eaves (feet)	Ridge (feet)		
R-R	40,000	150	150	40,000	150	150	50	25		50	25	25	—	25			
RR-2	See § 245-90.																
RR-3	See § 245-103.																
R-20	20,000	100	125	25,000	100	125	40	15	—	40	10	10	—	25	35	38.5	
R-15	15,000	100	115	17,250	100	115	35	12	—	35	10	10	—	25	35	38.5	
R-10	10,000	90	100	10,500	100	100	30	6	20	20	5	5	—	25	35	38.5	
R-7.5	7,500	75	90	9,000	75	90	25	6	15	15	5	5	—	25	35	38.5	
R-5	5,000	50	75	6,000	50	75	20	5	12	15	5	5	—	25	35	38.5	
O-P	15,000	100	150	15,000	100	150	50	10	—	50	20	50	2	—	35	38.5	
B-1	10,000	100	90	12,500	100	125	30	10	—	20	10	20	2	—	35	38.5	
B-2	20,000	125	125	20,000	125	125	50	10	—	50	10	50	2	—	35	38.5	
B-3	2 acres	200	200	2 acres	200	200	75	30	—	50	20	50	—	—	35	38.5	
B-4	5 acres	300	300	—	—	—	100 (150')	50 (150')	—	100 (150')	20	50	3	—	35	38.5	
M-1	5 acres	300	300	5 acres	300	300	100	50	—	150	75	150	—	—	35	38.5	
R-M	25 acres	350	200	—	—	—	50	50	—	30	30	30	—	25	35	38.5	
O-P-T	40,000	150	150	40,000	150	150	50	20	—	50	20	50	2	—	35	38.5	
H-S													—	—	—	—	

See § 245-261

NOTES:

- 1 If adjacent to residential zone or use.
- 2 The maximum lot coverage shall refer only to that percentage of an affected lot which is suitable for building.
- 3 For rear yard setback requirements for accessory buildings on waterfront property, see § 245-10D.



Brick Township
401 Chambers Bridge Rd.

Brick, NJ 08723
(732) 262-1336

Date Issued:

Application Number: ZA-16-00744

Application Date: 05/09/2016

Project Number: _____

Permit Number: _____

Fee: \$0.00

Zoning Permit

Worksite **101 - 107 HENDRICKSON AVE**
Location: **Brick Township, NJ 08724**

Block: **1068**

Lot: **15.01**

Qualifier: _____

Zone: **O-P-T**

Owner: **BRICK TOWNSHIP BOARD OF EDUCATION**
Address: **101 HENDRICKSON AVE.**
BRICK, NJ 08724

Applicant: **Altec Building Solutions**
Address: **904 Atlantic Ave.**
Point Pleasant, NJ 08742

Application Approved Date: 05/09/2016

This Certifies that an application for the issuance of a Zoning Permit has been examined.

Use is: Brick Board of Education Facility (Veterans Memorial Middle School)

Nonconforming Use is: _____

Work Description:

Solar Energy System - Installation of a 332.2 KW solar panel system, mounted on the roof of the building.

Additional Zoning permit is required for additional work.

Upon review it was determined that the Zoning Permit:

- ☒ Permitted by Ordinance
- ☐ Permitted by Variance approved on: _____
- ☐ Valid Nonconforming Use is established by
 - ☐ Zoning Board of Adjustment
 - ☐ Zoning Officer

05/09/2016

Date

Christopher J. Romano
Christopher J. Romano, Assistant Zoning Officer

5/20/16
Date

Sean Kinnevy
Sean Kinnevy, Zoning Officer



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1008 Lot 15101 Qualification Code _____

Work Site Location 103 Hendrickson Ave.

Owner in Fee: Brick Township Board of Education

Tel. 908-785-2000 e-mail _____

Address 101 Hendrickson Ave., Brick, NJ 08724 zip code _____

Contractor: Altec Electrical Corp. 732 (903-6264

Address 904 Atlantic Avenue e-mail jlawroski@altecbuildingsystems.com

Pt. Pleasant, NJ 08742

Contractor License No. 11073 Exp. Date 3/31/18

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): 13VH04948600

Federal Emp. ID No. 22-3292289 FAX: (732) 903-6298

B. ELECTRICAL CHARACTERISTICS

Use Group _____ Present _____ Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as School Utility Co. JCP

Est. Cost of Elec. Work \$ 222,370

JOB SUMMARY (Office Use Only)

PLAN REVIEW

[] No Plans Required

[] Partial - Underslab Utilities Approved

Date: _____ Approved by: _____

[] Electric Plans Approved

Date: 6/4/16 Approved by: DX

Joint Plan Review Required:

[] Bldg. [] Plumb. [] Fire. [] Elev.

SUBCODE APPROVAL FOR PERMIT

Date: 6/4/16

Approved by: PP

SUBCODE APPROVAL FOR CERTIFICATE

[] CO [] CCO [] CA

Date: _____

Approved by: _____

Date of Grounding and Bonding

Certification

INSPECTIONS

Type: _____

Rough _____

Barrier-Free _____

Trench _____

Temp. Serv. _____

Constr. Serv. _____

TCO _____

Other _____

Serviced _____

Final _____

Barrier-Free _____

Temp. Cut-in-Card Date Issued _____

Final Cut-in-Card Date Issued _____

Annual Pool Inspection _____

Date of Grounding and Bonding _____

Certification _____

Dates (Month/Day)

Failure _____

Approval _____

Initial _____

Veterans Memorial

Date Received

Control #

Date Issued

Permit #

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the agent of owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor

sign and seal here:

Print name here:

James E. Lawroski Jr.

☒ Licensed Elec. Contractor [] Certifd Landscape Irrigation Contr [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK: Intel 11000 System 992.2 KW

FEE (Office Use Only)

QTY.

SIZE

ITEMS

Lighting Fixtures

Receptacles

Switches

Detectors

Light Poles

Motors—Fract. HP

Emergency & Exit Lights

Communications Points

Alarm Devices/F.A.C. Panel

TOTAL NUMBERS

Pool Permit/with UW Lights

Storable Pool/Spa/Hot Tub

KW Elec. Range/Receptacle

KW Oven/Surface Unit

KW Elec. Water Heater

KW Elec. Dryer/Receptacle

KW Dishwasher

HP Garbage Disposal

KW Central A/C Unit

HP/KW Space Heater/Air Handler

KW Baseboard Heat

HP Motors 1/4 HP

KW Transformer/Generator Inverters

AMP Service AC Disconnect

AMP Subpanels

AMP Motor Control Center

KW Elec. Sign/Outline Light

Modules

Administrative Surcharge \$

Minimum Fee \$

State Permit Surcharge Fee \$

TOTAL FEE \$

To reorder call: ALLEGRA

Marketing • Print • Mail

(609)-390-1400

Veterans Mem

6/21/10

16-2042



**BUILDING SUBCODE
TECHNICAL SECTION**



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO. 1-800-272-1000.

Block 1008 Lot 15.01 Qualification Code _____
Work Site Location 103 Hendrickson Avenue

Owner in Fee: Brick Township Board of Education
Tel. (732) 785-3000 e-mail _____

Address 101 Hendrickson Ave, Brick, NJ 08724

Contractor: Altec Building Systems Corp. Tel. (732) 903-6264
904 Atlantic Avenue e-mail info@alterc.com

Address A. Perant, NJ 08742 Building Systems, Inc.
Contractor License No. or Builder Registration No. 13VH04948000 Exp. Date 3/31/17

Home Improvement Contractor Registration No. or Exemption Reason (if applicable):
Federal Emp. ID No. 223292289 FAX: (732) 903-6298

JOB SUMMARY (Office Use Only)		PLAN REVIEW		INSPECTIONS		DATES (Month/Day)	
	Date	Initial	Type:	Failure	Approval	Failure	Initial
☒ No Plans Required	<u>6/17/10</u>	<u>JPW</u>	Footing				
☐ All			Footing Bonding				
☐ Footings/Foundations			Foundation				
☐ Structural/Framework			Slab				
☐ Exterior			Frame				
☐ Interior			Truss Sys./Bracing				
Joint Plan Review Required:			Barrier-Free				
☐ Elec. ☐ Plumb. ☐ Fire ☐ Elevator			Insulation				
SUBCODE APPROVAL for PERMIT			Finishes -Base Layer				
Date:	<u>6/17/10</u>		Finishes -Final				
Approved by:	<u>JPW</u>		Energy				
SUBCODE APPROVAL for CERTIFICATE			Mechanical				
☐ CO ☐ CCO ☐ CA			TCO				
Date:			Other				
Approved by:			Final				
			Barrier-Free				

B. BUILDING CHARACTERISTICS

Use Group	Present	Proposed	Constr. Class	Present	Proposed
No. of Stories			If Industrialized Building:		
Height of Structure	ft.		State Approved	HUD	
Area — Largest Floor	sq. ft.		Est. Cost of Bldg. Work:		
New Bldg. Area/All Floors	sq. ft.		1. New Bldg.	\$	
Volume of New Structure	cu. ft.		2. Rehabilitation	\$	<u>282,370</u>
Max. Live Load			3. Total (1+2)	\$	
Max. Occupancy Load					

U.C.C. F110 (rev. 11/09)

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here: _____

Print name here: James C. Lowry Jr.

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Rooftop Solar Installation
32.2kW

FEE (Office Use Only)

TYPE OF WORK:	
☐ New Building	
☐ Addition	
☒ Rehabilitation	
☐ Roofing	
☐ Siding	
☐ Fence	
☐ Sign	Sq. Ft. _____
☐ Pool	
☐ Retaining Wall	Sq. Ft. _____
☐ Asbestos Abatement Subchapter 8	
☐ Lead Haz. Abatement NJAC 5:17	
☐ Radon Remediation	
☐ Other	
☐ Demolition	

Administrative Surcharge	\$
Minimum Fee	\$
State Permit Surcharge Fee	\$
TOTAL FEE	\$

1 White = Inspection Copy
2 Canary = Office Copy
3 Pink = Office Copy
4 Gold = Applicant Copy

THIS DOCUMENT IS PRINTED ON WATERMARKED PAPER WITH A MULTI-COLORED
BACKGROUND AND MULTIPLE SECURITY FEATURES. PLEASE VERIFY AUTHENTICITY.

NOT AN
ELECTRICIAN'S
OR PLUMBER'S
LICENSE

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

HAS REGISTERED

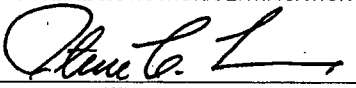
Altec Electric Corp./ Altec Building Systems Corp.
James E. Lawrosko Jr./Debra Lawroski
904 Atlantic Avenue
Point Pleasant Beach NJ 08742

FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

03/03/2016 TO 03/31/2017
VALID

13VH04948600
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder


ACTING DIRECTOR

New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

HAS REGISTERED

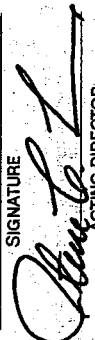
Altec Electric Corp./ Altec Building Systems Corp.
Home Improvement Contractor

NOT AN ELECTRICIAN'S OR PLUMBER'S LICENSE

03/03/2016 TO 03/31/2017

VALID

SIGNATURE



13VH04948600

LICENSE/REGISTRATION/CERTIFICATE #

ACTING DIRECTOR

PLEASE DETACH HERE
IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:
Division of Consumer Affairs
P.O. Box 46016
Newark, NJ 07101

PLEASE DETACH HERE

Veterans Memorial

BLOCK: 10008 LOT: 15.01 ADDRESS: 103 Hendrickson Avenue

ENGINEERING PERMIT APPLICATION

RECEIVING CLERK: _____
PERMIT #: _____

IDENTIFICATION:

1. WORK SITE ADDRESS: 103 Hendrickson Ave, Brick, NJ 08723

2. NAME OF OWNER IN FEE: Brick Township Board of Education
ADDRESS: 101 Hendrickson Ave PHONE #: 732 785-3000
Brick, NJ 08724 FAX #: ()

3. PRINCIPAL CONTRACTOR: Altec Building Systems Corp.
ADDRESS: 904 Atlantic Ave. PHONE #: 732 903-6244
Pt. Pleasant, NJ 08742 FAX #: 732 903-6298

4. ARCHITECT OR ENGINEER: Stanlee
ADDRESS: 1971 Rt 34, Wall, NJ PHONE: # 732 449-0099

5. RESPONSIBLE PERSON FOR WORK: Bob Smith
ADDRESS: 904 Atlantic Ave, Pt. Pleasant, NJ 08742
PHONE #: 732 609-1187 FAX #: 732 903-6098 E-MAIL: Bsmith@altc.com

PROJECT DESCRIPTION: ☐ GRADING/CLEARING ☐ ROAD OPENING
☐ SOIL REMOVAL/FILL ☐ RETAINING WALL ☐ POOL
☐ BULKHEAD/DOCK ☐ DWELLING ☐ TREE REMOVAL
☐ OTHER Solec System Roof top

LENGTH: _____ WIDTH: _____ HEIGHT: _____

ENGINEERING REVIEW:

FEE SUMMARY:

APPLICATION FEE: \$ _____

REVIEW FEE: \$ _____

INSPECTION FEE: \$ _____

OTHER: \$ _____

BOND(S): \$ _____

TOTAL: \$ _____

SPECIAL CONDITIONS:

OCEAN COUNTY SOILS: _____

DRAINAGE EASEMENTS: _____

UTILITY EASEMENTS: _____

CONSERVATION EASEMENTS: _____

FEMA REQUIREMENTS: _____

D.E.P. PERMITS: _____

BOARD APPROVAL: ☐ PB ☐ ZB

APPLICATION NUMBER: _____

APPROVED DATE: _____

DATE RECEIVED: _____ DATE REJECTED: _____ DATE APPROVED: _____ INITIALS: _____

TOWNSHIP OF BRICK

OCEAN COUNTY, NEW JERSEY
401 CHAMBERS BRIDGE ROAD, BRICK, N.J. 08723

John G. Ducey, Mayor

Township Council:

Paul Mummolo - President
Heather deJong - Vice President
Jim Fozman
Susan Lydecker
Bob Moore
Marianna Pontoriero
Andrea Zapcic



Division of Engineering

Elissa C. Commins, PE, PP, CME, CPWM, CFM
Township Engineer & Floodplain Manager
Ecommins@twp.brick.nj.us

732-262-1040
Fax: 732-262-2941
www.twp.brick.nj.us

Date: 5/3/14

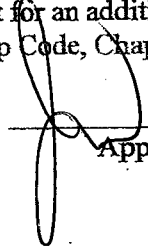
**ENGINEERING
PLOT PLAN EXEMPT FORM
(ONLY IF NOT IN A FLOOD ZONE)**

Block: 1068 Lot: 15-01

Property Address: 101 Hendrichs Ave

I, Joseph Lowry of 904 Atlantic Ave, A. Pleasant
(name) (address)

request to be exempt from the plot plan requirement for an addition, fence, shed, deck, pool, retaining wall, etc. as outlined in the Township Code, Chapter 245, Section 245-29.


Applicant's Signature

The following shall be submitted with this request:

1. Submit surveys locating existing dwelling and proposed addition. Dimensions of the addition should be included.
2. **Proof that the property is not located in a Flood Hazard Area.**

Note: Prior to approval a site inspection by the Engineering Department will be performed to verify that the proposed addition will not create a drainage problem.

FOR OFFICE USE ONLY

Approved on: _____ Signed: _____

Rejected on: _____ Signed: _____

Comments:

