Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

Stand alone single family dwelling with detached garaged and shed. Traditional style house with NW facade facing towards the street.

Description of Work Proposed: Please give an overview of the work to be undertaken:

To install solar array on NE, SE, SW sides of single family dwelling unit. Also add solar on detached garage and shed. There will be no solar on the roof plane facing the street.

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Montgomery County
Historic Preservation Commission

REVIEWED
By Devon.Murtha at 4:09 pm, Feb 12, 2026

Work Item 1: solar

Description of Current Condition:	Proposed Work:
shingled roof	add solar on NE, SE, SW sides of single family dwelling unit. Also add solar on detached garage and shed.

Work Item 2:

Description of Current Condition:	Proposed Work:

Work Item 3:

Description of Current Condition:	Proposed Work:

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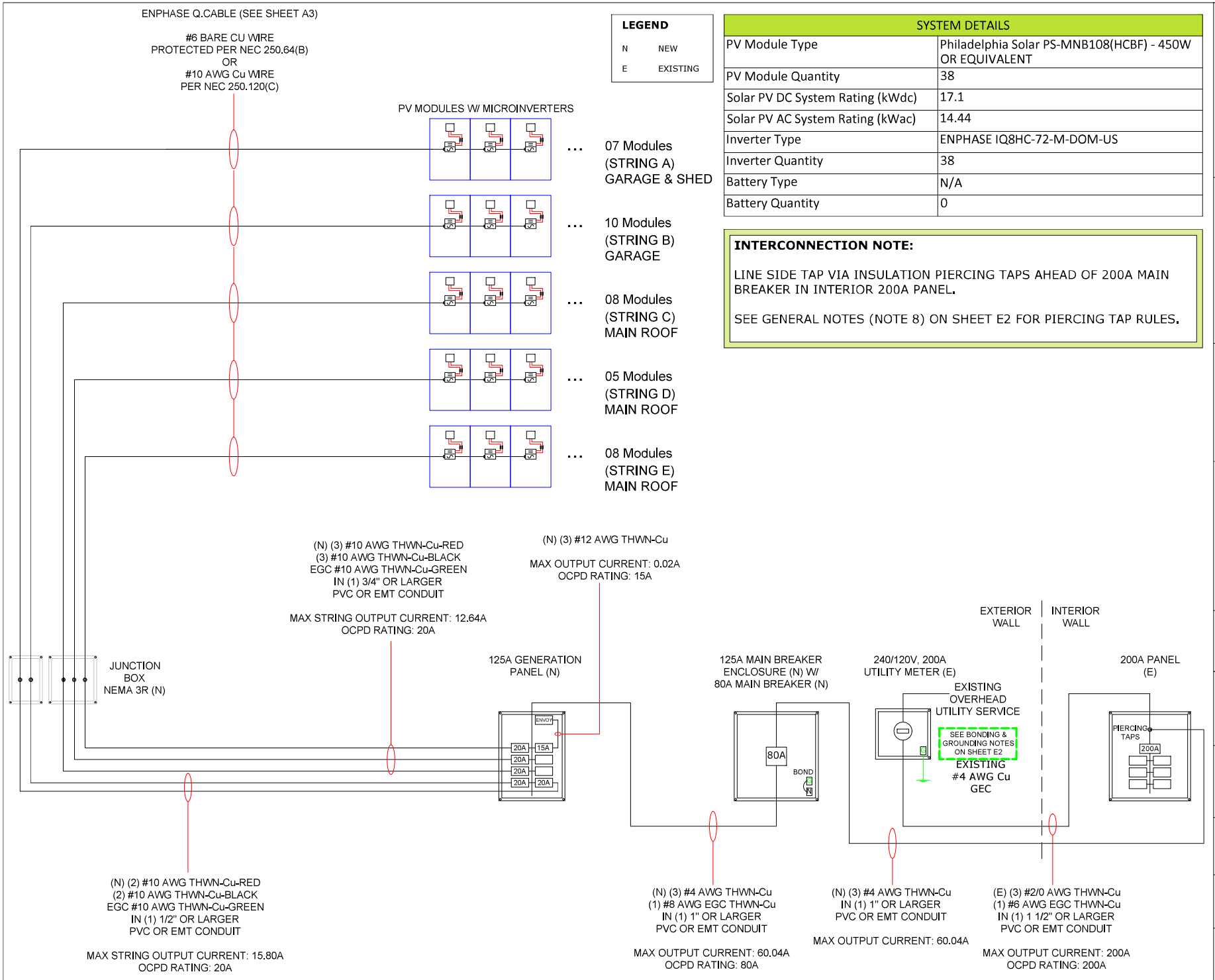
By Devon.Murtha at 4:09 pm, Feb 12, 2026



SYSTEM DETAILS	
PV Module Type	Philadelphia Solar PS-MNB108(HCBF) - 450W OR EQUIVALENT
PV Module Quantity	38
Solar PV DC System Rating (kWdc)	17.1
Solar PV AC System Rating (kWac)	14.44
Inverter Type	ENPHASE IQ8HC-72-M-DOM-US
Inverter Quantity	38
Battery Type	N/A
Battery Quantity	0

INTERCONNECTION NOTE:

LINE SIDE TAP VIA INSULATION PIERCING TAPS AHEAD OF 200A MAIN BREAKER IN INTERIOR 200A PANEL.

SEE GENERAL NOTES (NOTE 8) ON SHEET E2 FOR PIERCING TAP RULES.

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STATE OF MARYLAND · AMJAD MARDI · 64690 · PROFESSIONAL ENGINEER

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APPROVED Montgomery County Historic Preservation Commission

REVIEWED By Devon.Murtha at 4:09 pm, Feb 12 2026

PROJECT NAME:

GRIFFIN WITTE RESIDENCE

PROJECT ADDRESS:

7423 Buffalo Ave
Takoma Park, MD 20912

Date:	SEE P.E. STAMP
Designed By:	SAM
Reviewed by:	AKM
REVISION HISTORY	

DRAWING SCALE:

N.T.S.

SHEET NAME:

ELECTRICAL RISER DIAGRAM

SHEET NUMBER:

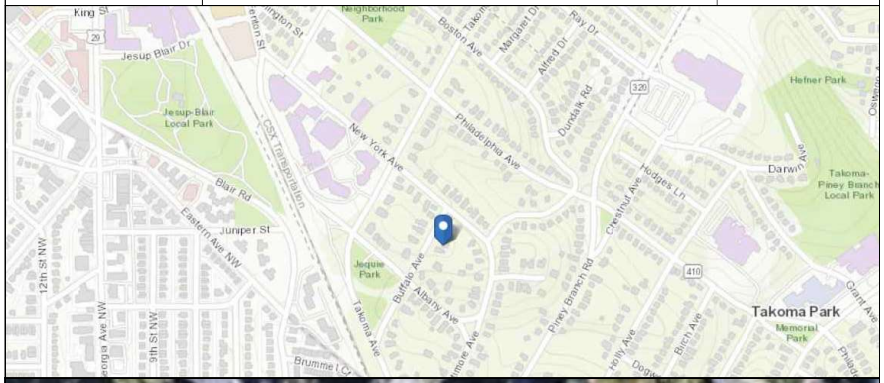
E1

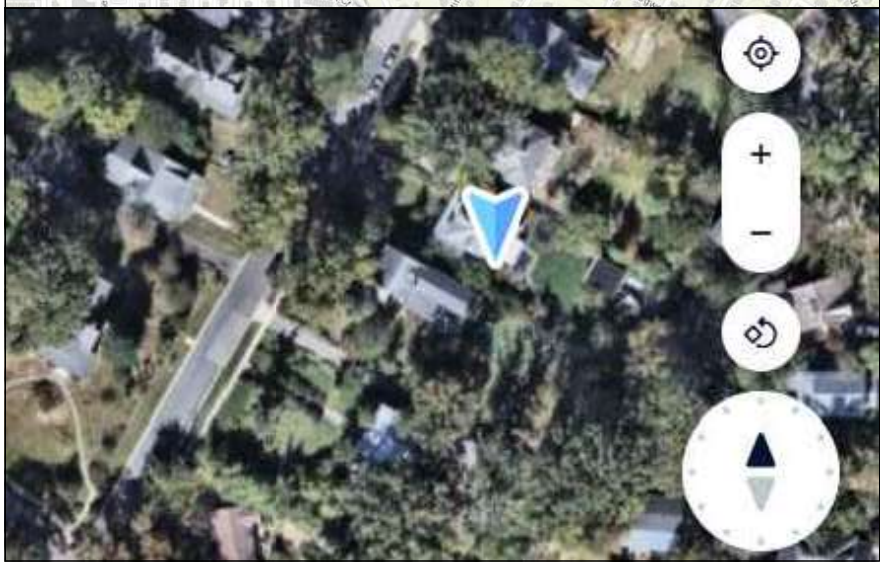
SCOPE of WORK	
This set of plans details the installation of a new grid-interactive solar photovoltaic system	
PV SYSTEM DETAILS	
PV Module Type	Philadelphia Solar PS-MNB108(HCBF) - 450W OR EQUIVALENT
PV Module Quantity	38
Solar PV DC System Rating (kWdc)	17.1
Solar PV AC System Rating (kWac)	14.44
Inverter Type	ENPHASE IQ8HC-72-M-DOM-US
Inverter Quantity	38
Battery Type	N/A
Battery Quantity	0
Mounting Location (Roof/Ground/Pergola)	Roof
Mounting Attachments Type	Unirac Stronghold w/ Butyl & Solar Stack
Racking & Rails Type	Unirac SM Standard Rail
CONTRACTOR DETAILS	
Company Name	Solar Solution
MHIC License	05-151456
SITE DETAILS	
Property Owner Name	Griffin Witte
Site Coordinates	38.982461, -77.018835
Property Address	7423 Buffalo Ave, Takoma Park, MD 20912
Utility Company	PEPCO
Building Occupancy	R-3 single or double dwelling unit
Construction Type	V-B
EXPOSURE NOTES	
Wind Exposure Category	B
Design Wind Speed (mph)	115
Risk Category/Structure Type	II/Enclosed
NAVD Flood Elevation	N/A (Not in a Flood Zone)
GOVERNING CODES	
Structural Codes	2021 IBC/IRC, IEBC 2021, ASCE 7-22, IFC 2018
Electrical Codes	IECC 2021, NEC 2017 (NFPA 70)
Fire Safety Codes	FIRE CODE 2018 NFPA 1, 2019 NFPA 13D, IRC 2018 (With Local AHJ Amendments, if applicable
STRUCTURAL & ELECTRICAL AFFIDAVITS/CERTIFICATIONS	
Structural Certification	I, AMJAD MARDI, PE, CERTIFY THAT THE INSTALLATION OF THE SOLAR MODULES IS IN COMPLIANCE WITH ALL APPLICABLE BUILDING CODES. BUILDING STRUCTURE WILL SAFELY ACCOMMODATE WIND LATERAL AND UPLIFT FORCES, AND EQUIPMENT DEAD LOADS.
Electrical Certification	I, AMJAD MARDI, PE, CERTIFY THAT THE SOLAR PHOTOVOLTAIC ELECTRICAL SYSTEM AND COMPONENTS ARE DESIGNED AND APPROVED USING ALL APPLICABLE CODE REQUIREMENTS AND STANDARDS.

LEGEND

- MBE — MAIN BREAKER ENCLOSURE
- CP — COMBINER PANEL
- MDP — MAIN DISTRIBUTION PANEL
- M — METER
- (#) — # OF PLANE
- FIRE SETBACK
- ROOF ZONE 1
- ROOF ZONE 2
- ROOF ZONE 3
- 29.24 PSF / 21.02 SF / 3.721' / 5.649' — MODULE
- RAILS
- RAFTER
- ATTACHMENT
- SOLAR STACK END-CLAMP
- SOLAR STACK MID-CLAMP
- EXPOSED MODULE

Table Of Contents





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Takoma Park, MD 20912

Date:	SEE P.E. STAMP
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Reviewed by:	AKM
REVISION HISTORY	

DRAWING SCALE:

N.T.S.

SHEET NAME:

COVER PAGE

SHEET NUMBER:

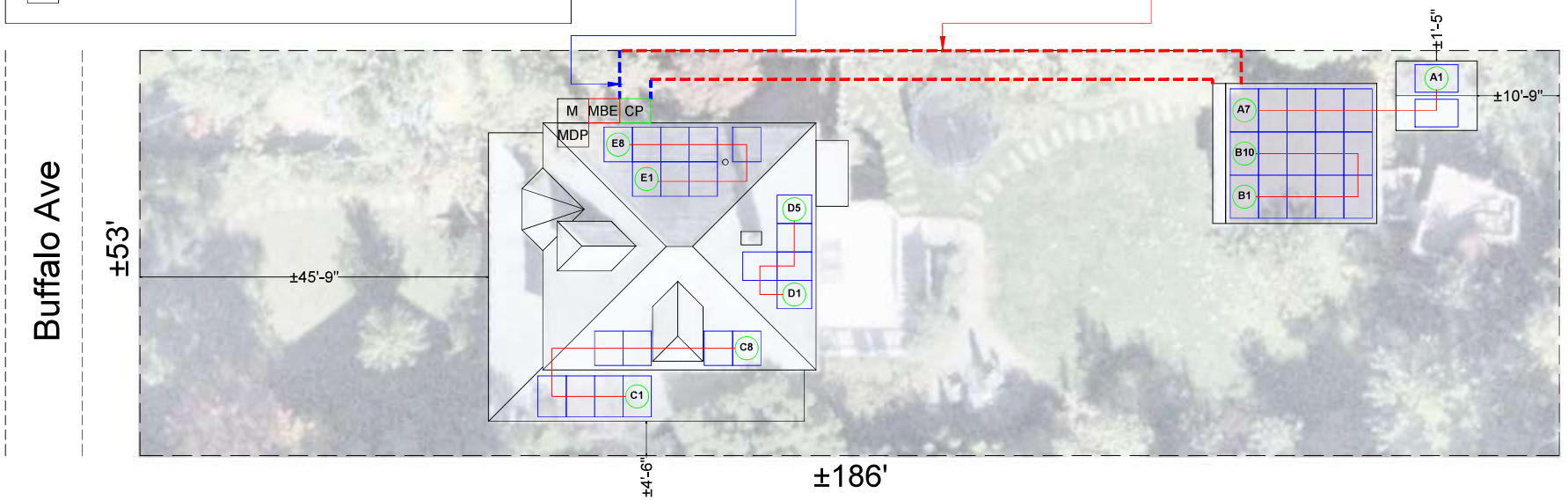
G1

LEGEND

MBE	MAIN BREAKER ENCLOSURE	#	STRING NUMBER
CP	COMBINER PANEL	29.24 PSF / 3.721' / 21.02 SF / 5.649'	MODULE
MDP	MAIN DISTRIBUTION PANEL		
M	METER		

±8 FT TRENCH IN 1/2" (OR LARGER) PVC CONDUIT BURIED MINIMUM 18" UNDERGROUND

±75 FT EXISTING CONDUIT ABOVE THE GROUND ALONG WITH THE FENCE IN 1/2" (OR LARGER) PVC CONDUIT



GENERAL NOTES:

1. THE PROJECT IS DESIGNED IN GENERAL ACCORDANCE WITH ALL APPLICABLE BUILDING CODE AND OTHER REFERENCED CODES.
2. ABBREVIATIONS OTHER THAN AS PROVIDED ARE INDUSTRY STANDARD.
3. CONDITION AND CONSTRUCTION OF ROOF ASSEMBLY SHALL BE VERIFIED BY PHYSICAL INSPECTION AND ACCEPTED BY CONTRACTOR PRIOR TO COMMENCEMENT.
4. WORK TO BE COMPLETED SHALL BE VERIFIED BY INSTALLER AND ELECTRICIAN PRIOR TO COMMENCEMENT AND MATERIAL ORDER.
5. ALL CONTRACTORS AND SUB-CONTRACTORS SHALL BE LICENSED BY THE STATE OF MARYLAND AND AS REQUIRED BY PERMITTING AGENCY; NO UNLICENSED CONTRACTORS OR CONSTRUCTION AND TRADE WORKERS SHALL BE ALLOWED ON JOBSITE.
6. ALL CONTRACTORS AND SUB-CONTRACTORS SHALL INSPECT THE SITE AND ALL RESPECTIVE BUILDINGS IMMEDIATELY BEFORE PREPARING ANY BID AND BEFORE ORDERING ANY MATERIALS, AND SHALL PROVIDE CONTRACTOR WRITTEN NOTICE OF ANY DISCREPANCY BETWEEN FIELD CONDITIONS AND THE PLANS. AFTER VERIFICATION, MARDI ENGINEERING SHALL PREPARE ANY NECESSARY PLAN REVISION, GENERALLY WITHIN 72 HOURS OF SUCH NOTICE.
7. REQUIRED PLAN DIMENSIONS NOT PROVIDED SHALL BE CONFIRMED WITH ENGINEER OF RECORD. DIMENSIONS IN PARENTHESES ARE FOR ENGINEERING REFERENCE ONLY.
8. UNPLANNED ALTERATION OF STRUCTURAL ROOF OR WALL FRAMING SHALL REQUIRE WRITTEN APPROVAL BY THE EOR AND OWNER; PLANS SHALL BE SO REVISED.
9. FIRE PROTECTION PROCEDURES SHALL BE FOLLOWED IN ACCORDANCE WITH NEC 2014, Art. 690. 9. WORK SHALL BE INSPECTED PRIOR TO COVER BY BUILDING INSPECTOR, AND EOR UPON REQUEST.
10. BEST MANAGEMENT PRACTICES SHALL BE EXERCISED AT ALL TIMES TO MAINTAIN A SAFE AND CLEAN JOBSITE IN COORDINATION WITH PROPERTY OWNER AS APPLIES TO PARKING, TRASH REMOVAL, STORAGE, SOUND, UTILITIES AND TIMES OF WORK.
11. NO WORK SHALL BE PERFORMED IN RIGHT-OF-WAY OR EASEMENTS WITHOUT WRITTEN PERMISSION FROM THE APPROPRIATE PERMITTING AGENCY AND OWNER.
12. ALL MATERIALS NOT LISTED OR SPECIFIED HEREIN SHALL BE OBTAINED THROUGH CONTRACTOR-APPROVED VENDORS, GENERALLY NECESSARY TO COMPLETE TYPICAL SIMILAR CONSTRUCTION AND SHALL CONFORM TO CODE TABLE, INDUSTRY STANDARDS AND POLICIES OF THE PERMITTING AGENCY.
13. DETAILS OR SPECIFICATIONS ARE CALLED OUT BY LOCATION, ARRAY, ELEMENT OR AS OTHERWISE APPLIES.
14. IN THE EVENT OF WEATHER AND OTHER CIRCUMSTANCES THAT COULD MATERIALLY AFFECT BUILDING CONDITIONS OR INSTALLATION, CONTRACTOR SHALL PERFORM A RE-INSPECTION ALONG WITH OTHER CONTRACTORS AS REQUIRED THEN ADJUST PROJECT SCHEDULE TO INCLUDE RESPECTIVE PLAN REVISIONS.

ROOF FIRE SAFETY NOTES:

1. FIRE PROTECTION PROCEDURES SHALL BE FOLLOWED IN ACCORDANCE WITH NEC 2014, A. 690.9. WORK SHALL BE INSPECTED PRIOR TO COVER BY BUILDING INSPECTOR, AND EOR UPON REQUEST.
2. ACCESS POINT ARE LOCATED FOR FIRE DEPT. LADDER(S) CLEAR OF OPENINGS/OBSTRUCTIONS.
3. WORK SHALL BE PERFORMED IN ACCORDANCE WITH ROOF SAFETY RATING (CLASS A). (UL 790 / ASTM E108)

NOTE TO INSTALLER:

1. ALL PANELS SHALL BE ATTACHED TO EXISTING ROOF STRUCTURE USING THE REQUIRED NUMBER OF ATTACHMENTS IN THE PROPER CONFIGURATION AS DEFINED IN THIS PLAN SET.
2. ALL PANELS SHALL BE FULLY OUTSIDE OF ANY ROOF AREAS DEFINED AS "FIRE SETBACK" IN THIS SITE PLAN. FIRE SETBACKS ARE DEFINED BY THE DIMENSIONS IN RED AND ARE CONSIDERED ABSOLUTE.
3. ANY DIMENSIONS NOTED AS "MAX" SHALL BE BE UNDERSTOOD TO BE ABSOLUTE REQUIREMENTS WITH A TOLERANCE OF +0.0"
3. ANY DIMENSIONS NOTED AS "MIN" SHALL BE BE UNDERSTOOD TO BE ABSOLUTE REQUIREMENTS WITH A TOLERANCE OF -0.0"
4. STANDARD DIMENSIONS (NOT INCLUDING FIRE SETBACKS) SHALL BE UNDERSTOOD TO BE REQUIREMENTS WITH A TOLERANCE OF ±2.0"
5. ANY DIMENSIONS NOTED AS "APPROX" SHALL BE UNDERSTOOD TO BE APPROXIMATE IN NATURE AND SHOULD BE USED AS A GUIDE. EXACT PLACEMENT OF THE PANELS RELATIVE TO THESE DIMENSIONS ARE LEFT TO THE INSTALLERS DISCRETION ASSUMING THAT ALL OTHER DEFINED REQUIREMENTS ARE MET.
6. ANY DIMENSIONS IN PARENTHESES () ARE FOR ENGINEERING REFERENCE ONLY AND ARE NOT NEEDED FOR INSTALLATION.
7. IT IS THE CONTRACTOR RESPONSIBILITY TO INSTALL THE SYSTEM AND ITS SUPPORTS AS INDICATED IN THESE PLANS. THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD IF SITE CONDITIONS DIFFER FROM WHAT IS DEPICTED ON PLANS.

ATTACHMENT SYSTEM:
ATTACHMENT SYSTEM AND FLASHING METHOD SHALL BE CONSTRUCTED ACCORDING MANUFACTURER'S INSTALLATION MANUAL AND AS SPECIFIED BY EOR.

SUGGESTED ELECTRICAL EQUIPMENT MOUNTING LOCATION
THE SUGGESTED EQUIPMENT MOUNTING LOCATION MAY BE ADJUSTED AT INSTALLER'S DISCRETION SO LONG AS LOCAL AHJ REQUIREMENTS ARE ADHERED TO

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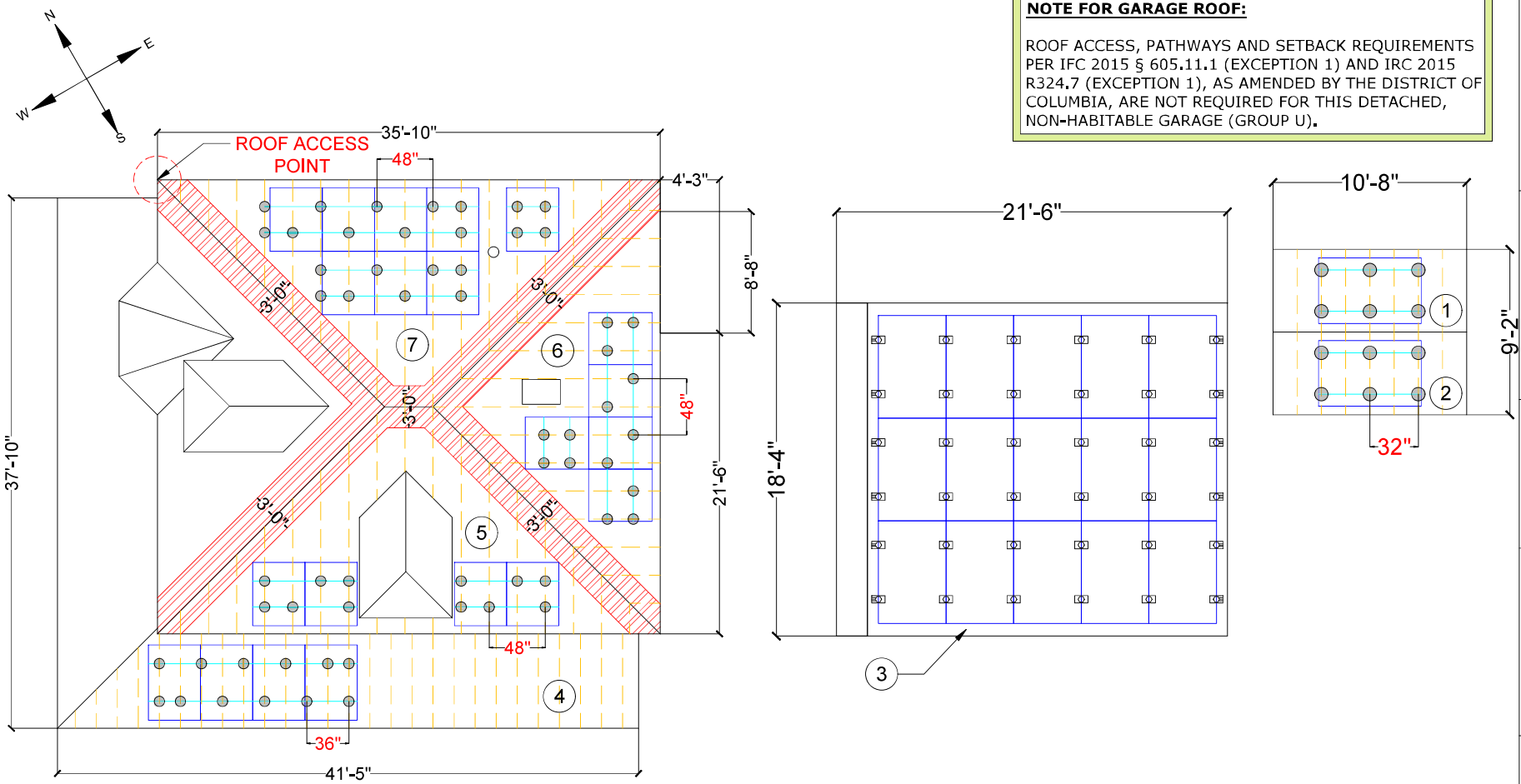
DRAWING SCALE:
N.T.S.

SHEET NAME:
SITE & ELECTRICAL PLAN

SHEET NUMBER:
S1

NOTE FOR GARAGE ROOF:

ROOF ACCESS, PATHWAYS AND SETBACK REQUIREMENTS PER IFC 2015 § 605.11.1 (EXCEPTION 1) AND IRC 2015 R324.7 (EXCEPTION 1), AS AMENDED BY THE DISTRICT OF COLUMBIA, ARE NOT REQUIRED FOR THIS DETACHED, NON-HABITABLE GARAGE (GROUP U).



MAIN ROOF (INCLUDING PORCH)

GARAGE & SHED

SYSTEM SUMMARY					
ROOF PLANE	NUMBER OF MODULES	ARRAY TILT (DEGREES)	AZIMUTH ANGLE (DEGREES)	ROOF SLOPE	ROOF SLOPE (DEGREES)
1	1	14.04	30	3:12	14.04
2	1	14.04	210	3:12	14.04
3	15	4.76	0	1:12	4.76
4	4	18.43	210	4:12	18.43
5	4	36.87	210	9:12	36.87
6	5	36.87	120	9:12	36.87
7	8	36.87	30	9:12	36.87

NOTE:

MAX CANTILEVER: 1/3 OF ALLOWABLE SPAN

MAX ALLOWABLE SPAN FOR MAIN ROOF & SHED: 48"
MAX ALLOWABLE SPAN FOR PORCH: 36"

NOTE:

SINCE PHOTOVOLTAIC SYSTEM WILL NOT OCCUPY MORE THAN 33% OF THE MAIN ROOF (SEE SHEET S2 FOR CALCULATION), RIDGE SETBACKS SHALL BE PERMITTED TO BE 18" (R324.6.2).

LEGEND

- FIRE SETBACK
- RAILS
- RAFTER
- ATTACHMENT
- SOLAR STACK END-CLAMP
- SOLAR STACK MID-CLAMP
- ROOF PLANE #
- MODULE (29.24 PSF, 21.02 SF, 3.721', 5.649')

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ATTACHMENT DETAIL & ARRAY LAYOUT

SHEET NUMBER:

S3