NOTICE OF MEETING
VILLAGE OF FOX POINT
BUILDING BOARD

Schwemer Hall
7200 North Santa Monica Blvd.
Fox Point, WI 53217

Wednesday
November 16, 2022
5:00 P.M.

Join Zoom Meeting

https://us02web.zoom.us/j/82780865980

Meeting ID: 827 8086 5980

Dial by your location: 312.626.6799

AGENDA

1. Roll call of board members and quorum confirmation.
2. Discussion, corrections, and approval of the minutes of the October 12, 2022 Building Board meeting.
3. Ted Calata, 1109 E Lilac Ln, proposed windows and shed roof over window.
4. Michael Hood, 502 E Willow Rd, proposed roof mounted solar.
5. Vincent Murray, 7823 N Boyd Way, proposed deck.
6. 1554 E Goodrich Ln, proposed master suite and mudroom addition.
7. April Pellmann, 7033 N Lombardy Rd, proposed hot tub.
8. Adjourn.

PLEASE NOTE: Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through sign language interpreters or other auxiliary aids. For additional information or to request these services, contact the Village Clerk at 414-351-8900. It is possible that members of, and possibly a quorum of members of, other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information; no action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice.

VILLAGE OF FOX POINT
BUILDING BOARD MINUTES

A meeting of the Building Board was held via Zoom, on Wednesday, October 12, 2022, at 5:00 pm. Those present included:

Justin Racinowski
Jeff Weber-Absent
William Feldman
Sharon Celek
Michael Rakow

Notice of the meeting was provided to the North Shore Now and to all others as required by State open meeting laws and posted on the official bulletin boards.

MINUTES

Motion was made by William Feldman to approve the minutes from September 14, 2022. Motion was seconded by Sharon Celek. Motion Passed.

AGENDA

- **Adam Woolridge, 300 W Nokomis Ct, proposed door removal.** It was the consensus of the Building Board to approve as submitted.
- **Jed Calata, 1109 E Lilac Ln, proposed windows and shed roof over window.** It was the consensus of the Building Board to table.

ADJOURN

Motion to adjourn Building Board was made by Justin Racinowski. Motion seconded by William Feldman. Motion Passed. Building Board adjourned at 5:07 pm.

Respectfully Submitted,

Michael Rakow
Building Inspector
Village of Fox Point

DRAFT

#520

VILLAGE OF FOX POINT

VILLAGE OF FOX POINT
7200 N Santa Monica Blvd
Fox Point, WI 53217
(414) 247-6622
www.villageoffoxpoint.com

Permit Number:

B-

OFFICE USE ONLY
Issued Date
Zoning

BUILDING PERMIT

Job Address 1109 E. ULAC LN. | **Building Type:** Residential [X] Commercial [ ]

Description of Work TEAR OUT & INSERT 4 WINDOWS INTO EXISTING OPENINGS. TEAR OUT & INSERT 1 ENTRY DOOR INTO EXISTING OPENING. TEAR OFF & RESIDE HOUSE & ATTACHED GARAGE (LP). INSTALL SINGLE SLOPE SHED ROOF OVER FRONT LEFT WINDOWS.

Estimated Cost of Project $ ~~52,000~~ 52,000

Owner/Occupant	
Business Name	Contact Name LARISA BROGLIE & JED CALATA
Address SAME AS JOB.	City/State/Zip
Phone 312.282.4605	Email N/A

Cautionary Statement required when homeowner is applying for permit

Contractor	
Company Name INFINITY EXTERIORS	Contact Name SADIE WARD
Address 16600 W. CLEVELAND AVE.	City/State/Zip NEW BERLIN 53151
Phone 262.650.~~5000~~ 5040	Email SADIE@INFINITYROOFING.COM
Dwelling Contractor # 998136 ✓	Dwelling Contractor Qualifier # 998137 ✓

Square Footage Under Construction				
1st Floor	2nd Floor	Basement	Addition	Garage

Description	**Rate**	**Amount**
Project - Per $1,000 of estimated cost	$10.00	520.00
Building Board	$75.00	75.00
Footing early start - $230.00 one and two family; $305.00 commercial		
Plan Review - $275.00 one and two family; New Single Family Construction $330.00 plus $30.00/unit commercial		
State Seal	$75.00	
Razing, Interior Demolition $925.00 max/bld $95.00 minimum plus	$0.13/sqft	
Moving buildings $250.00 plus	$0.13/sqft	
Fuel tanks - Per 1,000 gallons	$25.00	
Re-inspection	$100.00	
Work started without permit	**Double**	
Minimum Fee	**$70.00**	
Payable to: Village of Fox Point	**Total Permit Fee**	$

Applicant Signature Sam Wan **Date** 09.20.2022
Rev 01/22

ISSUED PERMITS are available on the Village website under *PERMITS & LICENSES*

VILLAGE OF FOX POINT
7200 N. SANTA MONICA BLVD
FOX POINT WI 53217 414-351-8900

Receipt No: 1.058131 Sep 26, 2022

1109 E Lilac LN

Previous Balance:	.00
LICENSES & PERMITS - BUILDING PERMIT	520.00
24-44460 BUILDING PERMIT	
Total:	520.00
CHECK Check No: 41166	520.00
Payor: Infinity Exteriors	
Total Applied:	520.00
Change Tendered:	.00

09/26/2022 11:31 AM

Hi Mr. Rakow,

I live at 1109 E. Lilac Lane and my husband and I were looking to have some improvements done on the exterior of our home. We are working with Infinity Exteriors (Isaac Tomlins, cc'ed here) to update the siding, front door, 4 windows, and add an awning above a window (and paint the brick, company to be used TBD). We received the list of information to supply in order to bring our request to the Building Board, but wanted some clarification on what exactly is needed. Please see attached for the PDF design renderings that we are working off of (not all will be done right now, this is just a design to guide. Our current home photo is included). Let us know what else we can supply to help guide the Building Board in their decision.

Thanks,

Larisa Broglie and Jed Calata

2365

VILLAGE OF FOX POINT
7200 N Santa Monica Blvd
Fox Point, WI 53217
(414) 247-6622
www.villageoffoxpoint.com

Permit Number:

B- _____

OFFICE USE ONLY
Issued Date
Zoning

BUILDING PERMIT

☑ ☐

Job Address 502 E Willow Rd, Milwaukee, WI 53217	**Building Type:** Residential - Commercial
Description of Work	
Roof Mounted Solar Install - Average Size	
Estimated Cost of Project $ 49,500.00	

Owner/Occupant	
Business Name Michael Hool	Contact Name Traditions LLC. DBA SolEnergy
Address 502 E Willow Rd, Milwaukee, WI 53217	City/State/Zip 7182 Hwy 14, Unit #201, Middleton, WI 53562
Phone 414-791-8255	Email Approval@solenergysolar.com

*****Cautionary Statement required when homeowner is applying for permit*****

Contractor	
Company Name Traditions LLC. DBA SolEnergy	Contact Name Jake Hirsbrunner
Address 7182 Hwy 14	City/State/Zip Unit #201, Middleton, WI 53562
Phone 608-558-3842	Email Approval@solenergysolar.com
Dwelling Contractor # 042100451	Dwelling Contractor Qualifier # 052100555

Square Footage Under Construction				
1st Floor	2nd Floor	Basement	Addition	Garage

Description	Rate	Amount
Project - Per $1,000 of estimated cost	$10.00	490
Building Board	$75.00	75
Footing early start - $230.00 one and two family; $305.00 commercial		
Plan Review - $275.00 one and two family; New Single Family Construction $330.00 plus $30.00/unit commercial		
State Seal	$75.00	
Razing, Interior Demolition $925.00 max/bld $95.00 minimum plus	$0.13/sqft	
Moving buildings $250.00 plus	$0.13/sqft	
Fuel tanks - Per 1,000 gallons	$25.00	
Re-inspection	$100.00	
Work started without permit	**Double**	
Minimum Fee	**$70.00**	
Payable to: Village of Fox Point **Total Permit Fee**	**$** 565.00	

Applicant Signature Michael Hool **Date** 2022-09-28

Rev 01/22

ISSUED PERMITS are available on the Village website under *PERMITS & LICENSES*

9/28/2022

RE: Structural Certification for Installation of Residential Solar
MICHAEL HOOL:502 E WILLOW ROAD, MILWAUKEE, WI 53217

Attn: To Whom It May Concern

This Letter is for the existing roof framing which supports the new PV modules as well as the attachment of the PV system to existing roof framing. From the field observation report, the roof is made of Asphalt Shingle roofing over roof plywood supported by 2X4 Rafters at 24 inches. The slope of the roof was approximated to be 20 degrees. The maximum allowable chord span is 7 feet between supports.

After review of the field observation data and based on our structural capacity calculation, **the existing roof framing has been determined to be adequate to support the imposed loads without structural upgrades.** Contractor shall verify that existing framing is consistent with the described above before install. Should they find any discrepancies, a written approval from SEOR is mandatory before proceeding with install. Capacity calculations were done in accordance with applicable building codes.

Design Criteria

Code	2015 International Residential Code (ASCE 7-10)					
Risk category		II		Wind Load	(component and Cladding)	
Roof Dead Load	Dr	10	psf		V(ult)	120 mph
PV Dead Load	DPV	3	psf		Exposure	C
Roof Live Load	Lr	20	psf			
Ground Snow	S	30	psf			

If you have any questions on the above, please do not hesitate to call.

Sincerely,

By Yuri at 3:21:56 PM, 9/29/2022

Structural Letter for PV Installation

Date:	9/28/2022
Job Address:	**502 E WILLOW ROAD**
	MILWAUKEE, WI 53217
Job Name:	**MICHAEL HOOL**
Job Number:	**220928MH**

Scope of Work

This Letter is for the existing roof framing which supports the new PV modules as well as the attachment of the PV system to existing roof framing. All PV mounting equipment shall be designed and installed per manufacturer's approved installation specifications.

Table of Content

Sheet	
1	Cover
2	Attachment checks
3	Snow and Roof Framing Check
4	Seismic Check and Scope of work

Engineering Calculations Summary

Code	2015 International Building Code (ASCE 7-10)		
Risk category		II	
Roof Dead Load	Dr	10	psf
PV Dead Load	DPV	3	psf
Roof Live Load	Lr	20	psf
Ground Snow	S	30	psf
Wind Load	(component and Cladding)		
	V (Ult)	120	mph
	Exposure	C	

References

2 NDS for Wood Construction

Sincerely,

By Yuri at 3:22:02 PM, 9/29/2022

Wind Load Cont.

Risk Category =	II		ASCE 7-10 Table 1.5-1
Wind Speed (3s gust), V =	**120**	**mph**	**ASCE 7-10 Figure 26.5-1A**
Roughness =	**C**		**ASCE 7-10 Sec 26.7.2**
Exposure =	**C**		**ASCE 7-10 Sec 26.7.3**
Topographic Factor, K_{ZT} =	1.00		ASCE 7-10 Sec 26.8.2
Pitch =	20.0	Degrees	
Adjustment Factor, λ =	1.21		ASCE 7-10 Figure 30.5-1
a =	3.60	ft	ASCE 7-10 Figure 30.5-1

Where a: 10% of least horizontal dimension or 0.4h, whichever is smaller, but not less than 4% of least horizontal dimension or 3ft (0.9m)

Uplift (0.6W)	Zone 1 (psf)	Zone 2 (psf)	Zone 3 (psf)	
Pnet30=	-15.4	-21.7	-34.3	Figure 30.5-1
Pnet = 0.6 x λ x KZT x Pnet30)=	11.20	15.77	24.87	Equation 30.5-1
Downpressure (0.6W)	Zone 1 (psf)	Zone 2 (psf)	Zone 3 (psf)	
Pnet30=	8.3	8.3	8.3	Figure 30.5-1
Pnet = 0.6 x λ x KZT x Pnet30)=	6.00	6.00	6.00	Equation 30.5-1

Rafter Attachments: 0.6D+0.6W (CD=1.6)

Connection Check

Attachement max. spacing=	4	ft	
5/16" Lag Screw Withdrawal Value=	266	lbs/in	Table 12.2A - NDS
Lag Screw Penetration	2.5	in	DFL Assumed
Prying Coefficient	1.4	in	
Allowable Capacity=	760		

Zone	**Trib Width**	**Area (ft)**	**Uplift (lbs)**	**Down (lbs)**		
1	4	11.0	103.4	99.0		
2	4	11.0	153.7	99.0		
3	4	11.0	253.7	99.0		
		Max=	253.7		<	760
			CONNECTION IS OK			

1. Pv seismic dead weight is negligible to result in significant seismic uplift, therefore the wind uplift governs
2. Embedment is measured from the top of the framing member to the tapered tip of a lag screw. Embedment in sheading or other material does not count.

Vertical Load Resisting System Design

Roof Framing **Rafters**

Snow Load Fully Exposed

pg=	30	psf	ASCE 7-10 , Section 7.2	p_f =	21	psf		
C_e =	0.9		ASCE 7-10 , Table 7-2	$p_{fmin.}$ =	**20.8**	psf		
C_t =	1.1		ASCE 7-10 , Table 7-3	p_s =	**21**	psf	33.3	plf
I_s =	1.0		ASCE 7-10 , Table 1.5-1	Conservatively (Cs=0.8)				

Max Length, L = **7.0** ft (Beam maximum Allowable Horizontal Span)

Tributary Width, W_T = **24** in

Dr = **10** psf 20 plf

PvDL = 3 psf 6 plf

Load Case: DL+0.6W

Pnet+ $P_{pv}\cos(\theta)+P_{DL}$= 38.0 plf

Max Moment, M_u = 207 lb-ft Conservatively

Pv max Shear 99.0 lbs

Max Shear, V_u=wL/2+Pv Point Load = 190 lbs

Load Case: DL+0.75(0.6W+S)

0.75(Pnet+Ps)+ $P_{pv}\cos(\theta)+P_{DL}$= 60 plf

M_{down}= 324 lb-ft

Mallowable = Sx x Fb' (wind)= 634 lb-ft > 324 lb-ft **OK**

Load Case: DL+S

Ps+ $P_{pv}\cos(\theta)+P_{DL}$= 59 plf

M_{down}= 321 lb-ft

Mallowable = Sx x Fb' (wind)= 456 lb-ft > 321 lb-ft **OK**

Max Shear, V_u=wL/2+Pv Point Load = 209 lbs

Member Capacity

DF-L No.2

2X4	Design Value	C_L	C_F	C_i	C_r	K_F	ϕ	λ	Adjusted Value
F_b =	900 psi	1.0	1.5	1.0	1.15	2.54	0.85	0.8	1553 psi
F_v =	180 psi	N/A	N/A	1.0	N/A	2.88	0.75	0.8	180 psi
E =	1600000 psi	N/A	N/A	1.0	N/A	N/A	N/A	N/A	1600000 psi
E_{min} =	580000 psi	N/A	N/A	1.0	N/A	1.76	0.85	N/A	580000 psi

Depth, d = 3.5 in

Width, b = 1.5 in

Cross-Sectonal Area, A = 5.25 in^2

Moment of Inertia, I_{xx} = 5.35938 in^4

Section Modulus, S_{xx} = 3.0625 in^3

Allowable Moment, $M_{all} = F_b'S_{xx}$ = 396.2 lb-ft DCR=M_u/M_{all} = 0.64 < 1 **Satisfactory**

Allowable Shear, $V_{all} = 2/3F_v'A$ = 630.0 lb DCR=V_u/V_{all} = 0.33 < 1 **Satisfactory**

Siesmic Loads Check

Roof Dead Load	10	psf
% or Roof with Pv	29.3%	
Dpv and Racking	3	psf
Averarage Total Dead Load	10.9	psf
Increase in Dead Load	5.9%	**OK**

The increase in seismic Dead weight as a result of the solar system is less than 10% of the existing structure and therefore no further seismic analysis is required.

Limits of Scope of Work and Liability

We have based our structural capacity determination on information in pictures and a drawing set titled PV plans - MICHAEL HOOL. The analysis was according to applicable building codes, professional engineering and design experience, opinions and judgments. The calculations produced for this structure's assessment are only for the proposed solar panel installation referenced in the stamped plan set and were made according to generally recognized structural analysis standards and procedures.

WI

WISCONSIN
YURIANTO
YURIANTO
47357
PLANO TX
PROFESSIONAL ENGINEER

By Yuri at 3:22:31 PM, 9/29/2022

THE MICHAEL HOOL RESIDENCE

502 E WILLOW ROAD, MILWAUKEE, WI 53217

8.10 kW (AC) AND 11.07 kW (DC) PHOTOVOLTAIC SYSTEM

SOLENERGY

COVER SHEET

THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
414-791-8255

SOLENERGY
PHIL SUTTER
LIC#: DC-04210045 EXP: 2023
7182 HWY 14, #201
MIDDLETON, WI 53562
608.558.3842
jdhirsbrunner@solenergysolar.com

SIGNED: _____ DATE: _____

09/15/2022

DRAWN BY: BPM

APN: 0590020000

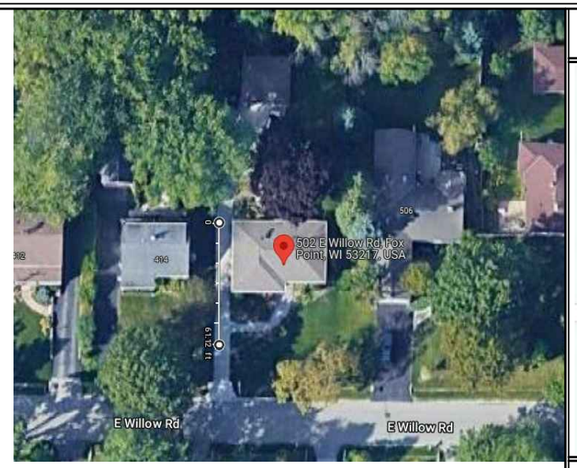
LOT: 0.25 ACRES

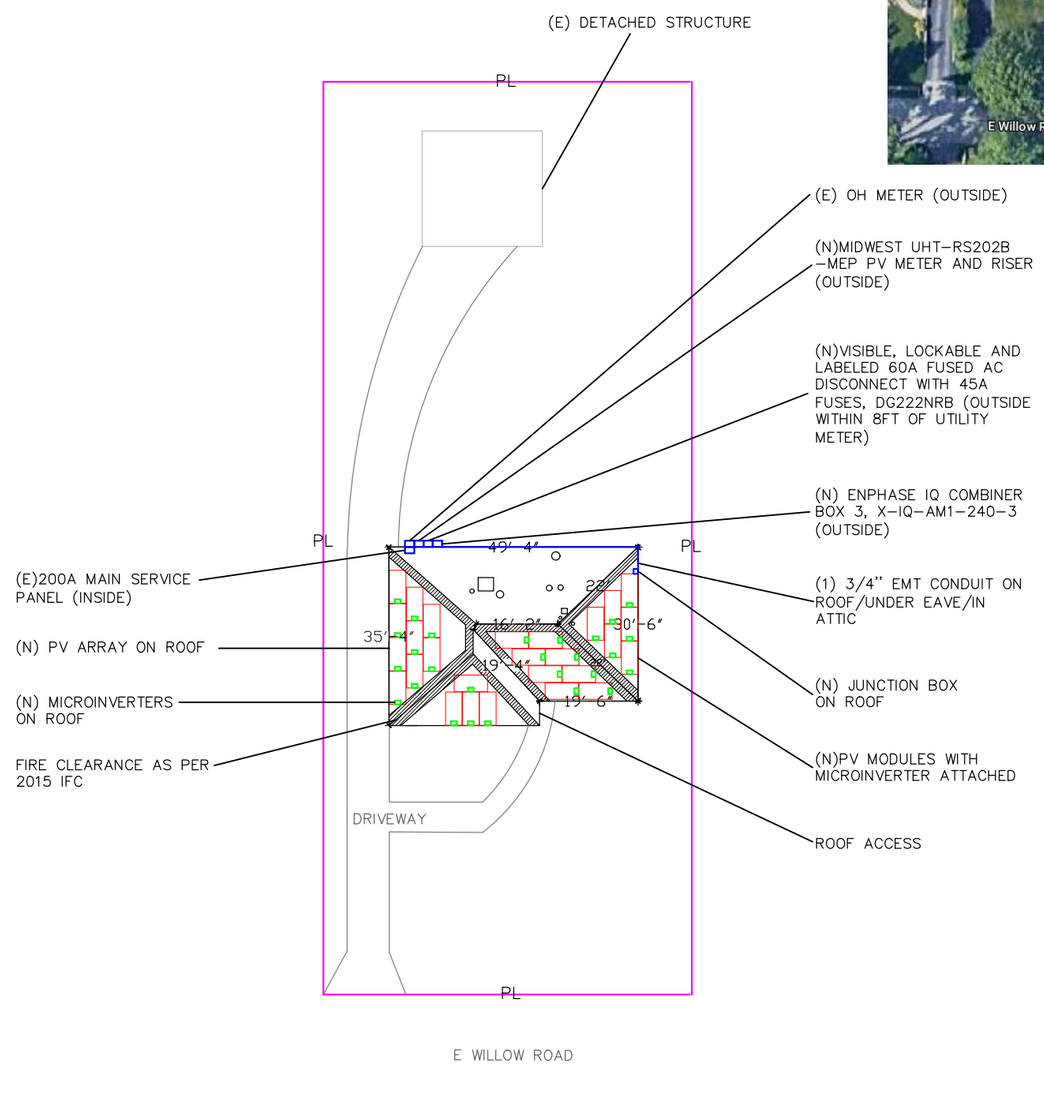
DWELLING: ---

C-1

MODULE DIM: 79.06" X 39.45"
MODULE WEIGHT: 49.6 lbs
NUMBER OF STORIES: 01
STRUCTURE TYPE: SFR
ROOF FRAMING: 2" X 4"
RAFTERS: 24" O.C
NUMBER OF ROOFS UTILIZED: 04

(3) STRINGS OF (09) MODULES WITH (09) MICROINVERTERS





WISCONSIN
YURIANTO
YURIANTO
47357
PLANO TX
PROFESSIONAL ENGINEER
WI

By Yuri at 3:22:34 PM, 9/29/2022

PHOTOVOLTAIC INSTALLATION PLAN

1

SCALE: 1"=30'

VICINITY MAP

SCOPE OF WORK

THIS PROJECT CONSISTS OF THE INSTALLATION OF (27) PHOTOVOLTAIC MODULES WITH (27) MICROINVERTERS AND (1) ENPHASE IQ COMBINER BOX 3. PV MODULES WILL BE MOUNTED TO AN EXISTING ASPHALT SHINGLE ROOFTOP WITH SUNMODO NANO RAFTER ATTACHMENT AND SUNMODO SMR100 168" RAIL.

THE ATTACHMENT SYSTEM IS SPECIFICALLY DESIGNED TO WITHSTAND 120MPH WIND LOADS, 30PSF SNOW LOADS AND SEISMIC LOADS ON EXISTING ROOFTOPS. REFER TO CODE COMPLIANT INSTALLATION MANUAL FOR DETAILED INFORMATION AND WATER PROOFING SPECIFICATIONS.

SHEET INDEX

SHEET NO.	INDEX NO.	DESCRIPTION:
01	C-1	COVER SHEET
02	T-1	TITLE SHEET
03	M-1	PHOTOVOLTAIC EQUIPMENT PLAN
04	E-1	SINGLE LINE DIAGRAM
05	D-1	PHOTOVOLTAIC MODULE DATA SHEET
06	D-2	MICROINVERTER DATA SHEET
07	D-3	COMBINER BOX DATA SHEET
08	D-4	AC DISCONNECT DATA SHEET
09	D-5	ATTACHMENT DATA SHEET
10	D-6	RAIL DATA SHEET
11	D-7	METER DATA SHEET
12	L-1	WARNING PLACARDS

PROJECT JURISDICTION

PREPARED FOR:

CITY OF COUNTY:	VILLAGE OF FOX POINT
ADDRESS:	7200 N SANTA MONICA,
CITY, STATE,ZIP:	FOX POINT, WI 53217
PH:	414-351-8900

CODE COMPLIANCE

ALL WORK SHALL CONFORM TO ALL PERTINENT CODES, REGULATIONS, LAWS, AND ORDINANCES AS REQUIRED BY THE STATE OF WISCONSIN

2017 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL EXISTIGN BUILDING CODE
2015 INTERNATIONAL FUEL GAS CODE
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE-RESIDENTIAL
2015 INTERNATIONAL ENERGY CONSERVATION CODE-COMMERCIAL

PV SYSTEM SPECIFICATIONS

MODULE	QTY.	MICROINVERTER	QTY.	RACKING	TILT	AZIMUTH	DC POWER RATING (STC)
JINKO 410W JKM410M-72HL-V	27	ENPHASE MICROINVERTER IQ8PLUS-72-2-US ENPHASE COMBINER X-IQ-AM1-240-3	27 01	SUNMODO NANO RAFTER ATTACHMENT SUNMODO SMR100 168" RAIL	20°	270° 180° 90°	11.07kW

SOLENERGY

TITLE SHEET

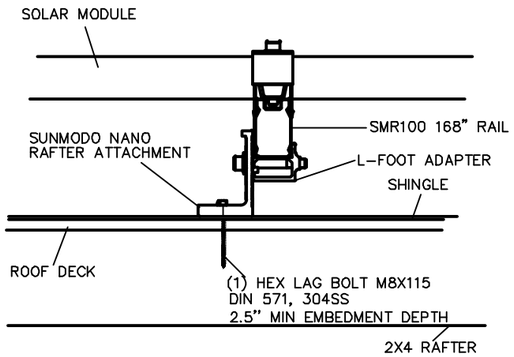
THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
414-791-8255

SOLENERGY
PHIL SUTTER
LIC#: DC-04210045 EXP: 2023
7182 HWY 14, #201
MIDDLETON, WI 53562
608.558.3842
jdhirsbrunner@solenergysolar.com

SIGNED: _____ DATE: _____

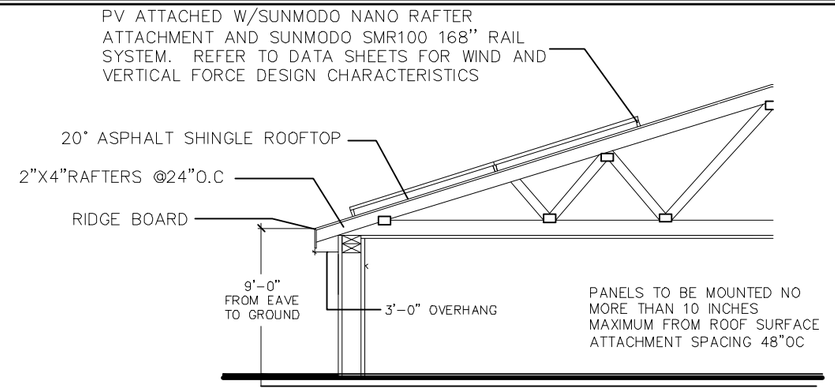
09/15/2022
DRAWN BY: BPM
APN: 0590020000
LOT: 0.25 ACRES
DWELLING: ---

T-1



CONNECTION DETAIL

N.T.S.



SECTION PLAN

N.T.S.

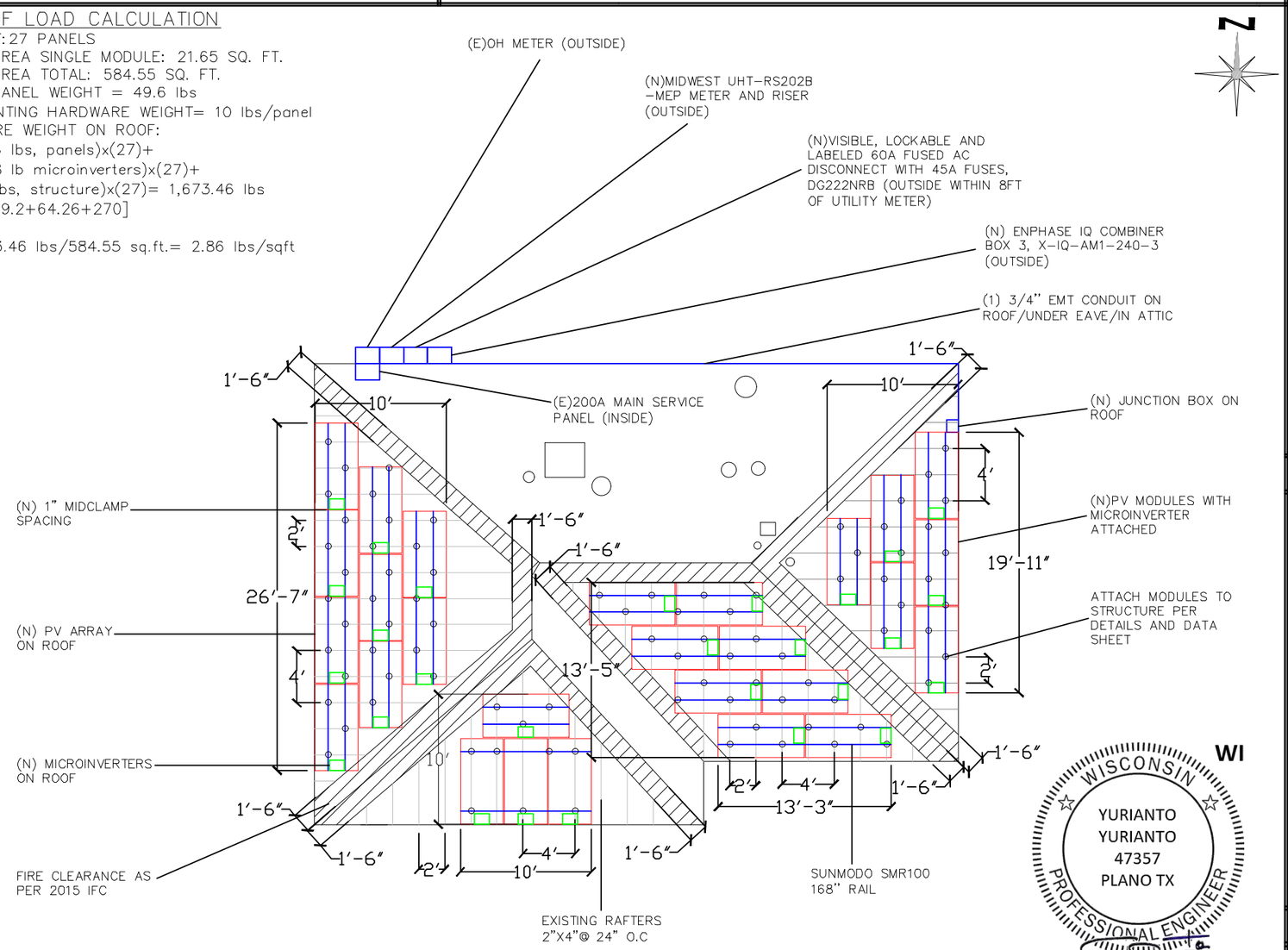
AERIAL VIEW

SOLENERGY

ROOF LOAD CALCULATION

ROOF: 27 PANELS
PV AREA SINGLE MODULE: 21.65 SQ. FT.
PV AREA TOTAL: 584.55 SQ. FT.
PV PANEL WEIGHT = 49.6 lbs
MOUNTING HARDWARE WEIGHT= 10 lbs/panel
ENTIRE WEIGHT ON ROOF:
(49.6 lbs, panels)x(27)+
(2.38 lb microinverters)x(27)+
(10 lbs, structure)x(27)= 1,673.46 lbs
[1,339.2+64.26+270]

1,673.46 lbs/584.55 sq.ft.= 2.86 lbs/sqft



PV LAYOUT PLAN

1

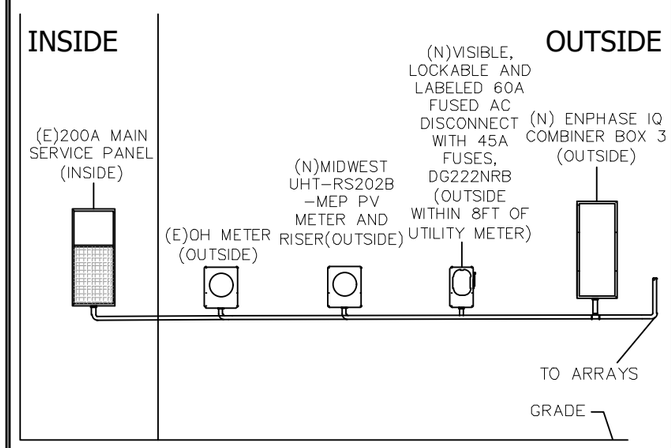
SCALE: 1" = 10'

WI

WISCONSIN
YURIANTO
YURIANTO
47357
PLANO TX
PROFESSIONAL ENGINEER

By Yuri at 3:22:36 PM, 9/29/2022

CLASS 1 – DIVISION 1
METALLIC CONDUIT W/NO JOINTS



MAIN SERVICE ELEVATION

GENERAL NOTES:

1. CONDUIT RUNS ARE DIAGRAMMATIC, SUBJECT TO FIELD CONDITIONS AND INSTALLATION CONTRACTOR'S FINAL LOCATIONS THAT MEET NEC REQUIREMENTS.
2. ALL EQUIPMENT INSTALLED SHALL BE IN ACCORDANCE WITH ALL LOCAL BUILDING AND ELECTRICAL CODES.
3. THE INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND UNDERSTANDING THE SECTION OF THE INVERTERS OPERATION AND MAINTENANCE MANUAL THAT PERTAINS TO THE SAFETY AND PROPER INSTALLATION.
4. THE SYSTEM SHALL NOT BE INTERCONNECTED UNTIL APPROVAL FROM LOCAL JURISDICTION AND THE UTILITY IS OBTAINED.
5. ALL CONDUCTORS TO BE COPPER UNLESS SPECIFIED OTHERWISE.
6. THE SOLAR PHOTOVOLTAIC INSTALLATION WILL NOT OBSTRUCT ANY PLUMBING, MECHANICAL OR BUILDING ROOF VENTS.
7. LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE SUNLIGHT RESISTANT.
8. THIS IS A UTILITY INTERACTIVE SYSTEM WITH NO STORAGE BATTERIES

PV EQUIPMENT PLAN

THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
414-791-8255

SOLENERGY
PHIL SUTTER
LIC#: DC-04210045 EXP: 2023
7182 HWY 14, #201
MIDDLETON, WI 53562
608.558.3842
jdhirsbrunner@solenergysolar.com

SIGNED: _____ DATE: _____

09/15/2022

DRAWN BY: BPM

APN: 0590020000

LOT: 0.25 ACRES

DWELLING: ---

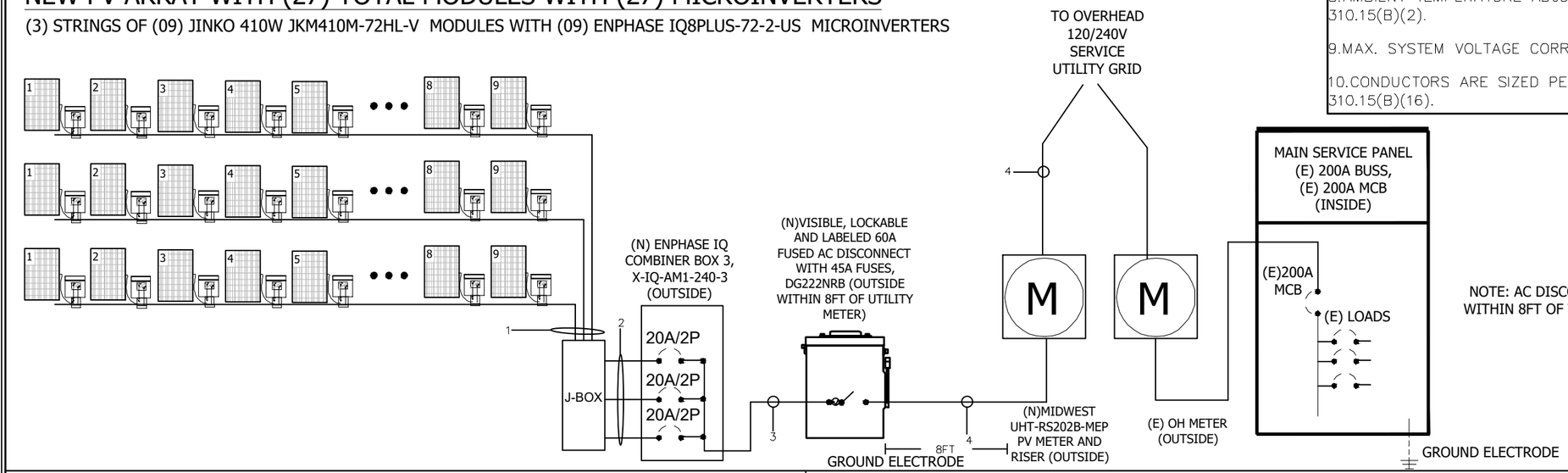
M-1

SINGLE LINE DIAGRAM: DC SYSTEM SIZE-11,070W, AC SYSTEM SIZE-8,100W

MICROINVERTER SPECIFICATIONS		MODULE SPECIFICATIONS	
MODEL	ENPHASE IQ8PLUS-72-2-US	MODEL	JINKO 410W JKM410M-72HL-V
MAX CONTINUOUS OUTPUT POWER	300W	MODULE POWER @ STC	410
MAX OUTPUT CURRENT	1.21A	OPEN CIRCUIT VOLTAGE: VOC	50.4V
CEC WEIGHTED EFFICIENCY	97%	MAX POWER VOLTAGE: VMP	42.3V
MAX DC VOLTAGE	60V	SHORT CIRCUIT CURRENT: ISC	10.60A
MAX DC POWER	235-440W	MAX POWER CURRENT: IMP	9.69A

NEW PV ARRAY WITH (27) TOTAL MODULES WITH (27) MICROINVERTERS

(3) STRINGS OF (09) JINKO 410W JKM410M-72HL-V MODULES WITH (09) ENPHASE IQ8PLUS-72-2-US MICROINVERTERS



NOTE: AC DISCONNECT IS PLACED WITHIN 8FT OF THE UTILITY METER

CONDUIT SCHEDULE				
TAG ID	CONDUIT SIZE	CONDUCTOR	NEUTRAL	GROUND
1	NONE	(6) #8 AWG THHN/THWN-2	NONE	(3)#6 AWG BARE COPPER
2	(1) 3/4 " EMT	(6) #8 AWG THHN/THWN-2	NONE	(1)#8 AWG BARE COPPER
3	(1) 3/4 " EMT	(3) #8 AWG THHN/THWN-2	(1) #8 AWG	(1)#8 AWG BARE COPPER
4	(1) 3/4 " EMT	(3) #6 AWG THHN/THWN-2	(1) #6 AWG	(1)#6 AWG BARE COPPER

NOTE:
MAIN PANEL RATING: 100A, MAIN BREAKER RATING: 200A
LINE SIDE TAP :100% ALLOWABLE BACKFEED IS = 200A

OCPD CALCULATIONS:
INVERTER OVERCURRENT PROTECTION= INVERTER O/P I X CONTINOUS LOAD (1.25)= (1.21A X 27 microinverters)= 32.67A
32.67A x 1.25 = 40.84A
TOTAL REQUIRED PV BREAKER SIZE/FUSE SIZE= 45A MIN

ELECTRICAL CALCULATIONS

AC WIRE SIZING CALCULATIONS BASED OF FOLLOWING EQUATIONS:

-REQUIRED CONDUCTORS AMPACITY: INVERTER OUTPUT CURRENT X #OF INVERTERS X MAX CURRENT PER 690.8(A)(3) X 125% PER 690.8(B)(2)(A)

-CORRECTED AMPACITY CALCULATIONS: AMPACITY X TEMPERATURE DERATE FACTOR X CONDUIT FILL DERATE= DERATED CONDUCTOR AMPACITY

-DERATED CONDUCTOR AMPACITY CHECK: MAX CURRENT PER 690.8(B)(2)(2)< DERATED CONDUCTOR AMPACITY.

AC WIRE CALCULATIONS:-MATERIAL: COPPER & TEMPERATURE RATING 90°C

TAG ID	REQUIRED CONDUCTOR AMPACITY	CORRECTED AMPACITY CALCULATION	DERATED CONDUCTOR AMPACITY CHECK
3	32.67A X 1.25 = 40.84A	#8AWG = 55 X 0.87 X 1 = 47.85	40.84A LESS THAN 47.85A
4	32.67A X 1.25 = 40.84A	#6AWG = 75 X 0.87 X 1 = 65.25	40.84A LESS THAN 65.25A

DC WIRE CALCULATIONS:-MATERIAL: COPPER & TEMPERATURE RATING 90°C

TAG ID	REQUIRED CONDUCTOR AMPACITY	CORRECTED AMPACITY CALCULATION	DERATED CONDUCTOR AMPACITY CHECK
	N/A	N/A	N/A

ELECTRICAL NOTES

1.CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT PER NEC 310.10(D).

2.CONDUCTORS EXPOSED TO WET LOCATIONS SHALL BE SUITABLE FOR USE IN WET LOCATIONS PER NEC 310.10(C).

3.MAXIMUM DC/AC VOLTAGE DROP SHALL BE NO MORE THAN 2%.

4.ALL CONDUCTORS SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED.

5.BREAKER/FUSE SIZES CONFORMS TO NEC 240.6 CODE SECTION.

6.AC GROUNDING ELECTRODE CONDUCTOR SIZED PER NEC 250.66.

7.AMBIENT TEMPERATURE CORRECTION FACTOR IS BASED ON NEC 690.31(C).

8.AMBIENT TEMPERATURE ADJUSTMENT FACTOR IS BASED ON NEC 310.15(B)(2).

9.MAX. SYSTEM VOLTAGE CORRECTION IS PER NEC 690.7.

10.CONDUCTORS ARE SIZED PER WIRE AMPACITY TABLE NEC 310.15(B)(16).

SOLENERGY

PV SINGLE LINE

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PHIL SUTTER
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SIGNED: _____ DATE: _____

09/15/2022

DRAWN BY: BPM

APN: 0590020000

LOT: 0.25 ACRES

DWELLING: ---

E-1

jinkosolar.us

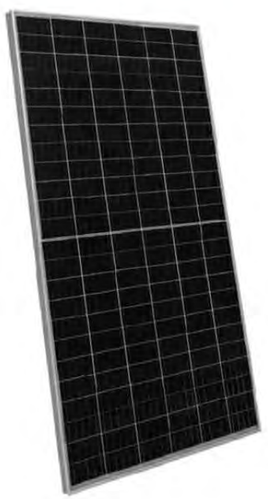
JinKO Solar
Building Your Trust in Solar

Eagle HC 72M G2

390-410 Watt

MONO PERC HALF CELL MODULE

Positive power tolerance of 0~+3%



KEY FEATURES

Diamond Cell Technology
Uniquely designed high performance 5 busbar mono PERC half cell

High Voltage
UL and IEC 1500V certified; lowers BOS costs and yields better LCOE

Higher Module Power
Decrease in current loss yields higher module efficiency

Shade Tolerance
More shade tolerance due to twin arrays

PID FREE
Reinforced cell prevents potential induced degradation

Strength and Durability
Certified for high snow (5400 Pa) and wind (2400 Pa) loads

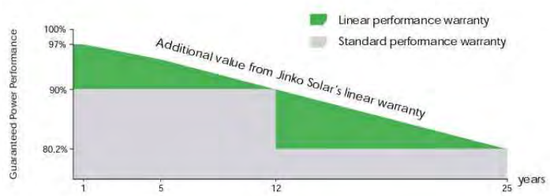
- ISO9001:2008 Quality Standards
- ISO14001:2004 Environmental Standards
- OHSAS18001 Occupational Health & Safety Standards
- IEC61215, IEC61730 certified products
- UL1703 certified products

Nomenclature:
JKM410M-72HL-V

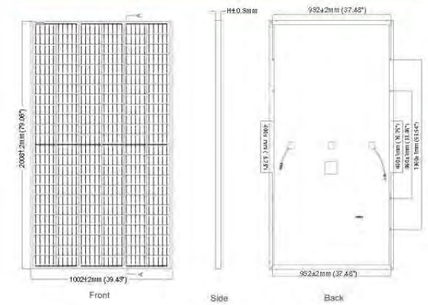
Code	Cell	Code	Cell	Code	Certification
null	Full	null	Normal	null	1000V
H	Half	L	Diamond	V	1500V

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty



Engineering Drawings

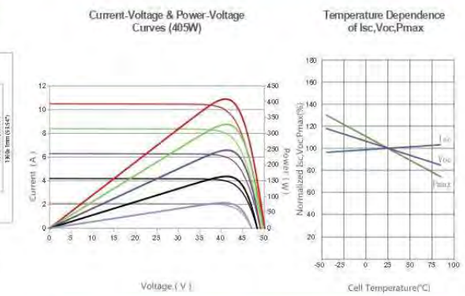


Packaging Configuration

(Two pallets = One stack)

26pcs/pallet, 52pcs/stack, 572pcs/40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	Mono PERC Diamond Cell (158.75 x 158.75 mm)
No.of Half-cells	144 (6×24)
Dimensions	2008×1002×40mm (79.06×39.45×1.57 inch)
Weight	22.5 kg (49.6 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated
Output Cables	12AWG, (+) 1400mm(55.12 in), (-) 1400mm(55.12 in) or Customized Length
Fire Type	Type 1

SPECIFICATIONS

Module Type	JKM390M-72HL-V		JKM395M-72HL-V		JKM400M-72HL-V		JKM405M-72HL-V		JKM410M-72HL-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	390Wp	294Wp	395Wp	298Wp	400Wp	302Wp	405Wp	306Wp	410Wp	310Wp
Maximum Power Voltage (Vmp)	41.1V	39.1V	41.4V	39.3V	41.7V	39.6V	42.0V	39.8V	42.3V	40.0V
Maximum Power Current (Imp)	9.49A	7.54A	9.55A	7.60A	9.60A	7.66A	9.65A	7.72A	9.69A	7.76A
Open-circuit Voltage (Voc)	49.3V	48.0V	49.5V	48.2V	49.8V	48.5V	50.1V	48.7V	50.4V	48.9V
Short-circuit Current (Isc)	10.12A	8.02A	10.23A	8.09A	10.36A	8.16A	10.48A	8.22A	10.60A	8.26A
Module Efficiency STC (%)	19.38%		19.63%		19.88%		20.13%		20.38%	
Operating Temperature (°C)	-40°C~+85°C									
Maximum System Voltage	1500VDC(UL)/1500VDC(IEC)									
Maximum Series Fuse Rating	20A									
Power Tolerance	0~+3%									
Temperature Coefficients of Pmax	-0.36%/°C									
Temperature Coefficients of Voc	-0.28%/°C									
Temperature Coefficients of Isc	0.048%/°C									
Nominal Operating Cell Temperature (NOCT)	45±2°C									

STC: Irradiance 1000W/m² Cell Temperature 25°C AM=1.5

NOCT: Irradiance 800W/m² Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s

* Power measurement tolerance: ± 3%

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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JKM390-410M-72HL-V-A1-US

1 MODULE DATA SHEET
SCALE: N.T.S.

SOLENERGY

MODULE DATA SHEET

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414-791-8255

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APN: 0590020000
LOT: 0.25 ACRES
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D-1

ENPHASE

DATA SHEET

IQ8 Series Microinverters

Our newest IQ8 Microinverters are the industry's first microgrid-forming, software-defined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently. The brain of the semiconductor-based microinverter is our proprietary application-specific integrated circuit (ASIC) which enables the microinverter to operate in grid-tied or off-grid modes. This chip is built in advanced 55nm technology with high speed digital logic and has super-fast response times to changing loads and grid events, alleviating constraints on battery sizing for home energy systems.

Part of the Enphase Energy System, IQ8 Series Microinverters integrate with the Enphase IQ Battery, Enphase IQ Gateway, and the Enphase App monitoring and analysis software.

Enphase 25 year limited warranty

IQ8 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 25 years.

Connect PV modules quickly and easily to IQ8 Series Microinverters using the included Q-DCC-2 adapter cable with plug-n-play MC4 connectors.

UL CERTIFIED SAFETY

IQ8 Series Microinverters are UL Listed as PV Rapid Shut Down Equipment and conform with various regulations, when installed according to manufacturer's instructions.

Easy to install

- Lightweight and compact with plug-n-play connectors
- Power Line Communication (PLC) between components
- Faster installation with simple two-wire cabling

High productivity and reliability

- Produce power even when the grid is down*
- More than one million cumulative hours of testing
- Class II double-insulated enclosure
- Optimized for the latest high-powered PV modules

Microgrid-forming

- Complies with the latest advanced grid support**
- Remote automatic updates for the latest grid requirements
- Configurable to support a wide range of grid profiles
- Meets CA Rule 21 (UL 1741-SA) requirements

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IQ8SE-DS-0001-01-EN-US-2022-03-17

* Only when installed with IQ System Controller 2, meets UL 1741. IQ8H-208V operates only in grid-tied mode.
** IQ8 Series Microinverters supports split phase, 240V. IQ8H-208 supports split phase, 208V only.

IQ8 Series Microinverters

INPUT DATA (DC)		IQ8-60-2-US	IQ8PLUS-72-2-US	IQ8M-72-2-US	IQ8A-72-2-US	IQ8H-240-72-2-US	IQ8H-208-72-2-US[1]
Commonly used module pairings[2]	W	235 – 350	235 – 440	260 – 460	295 – 500	320 – 540+	295 – 500+
Module compatibility		60-cell/120 half-cell		60-cell/120 half-cell, 66-cell/132 half-cell and 72-cell/144 half-cell			
MPPT voltage range	V	27 – 37	29 – 45	33 – 45	36 – 45	38 – 45	38 – 45
Operating range	V	25 – 48			25 – 58		
Min/max start voltage	V	30 / 48			30 / 58		
Max input DC voltage	V	50			60		
Max DC current[3] [module Isc]	A			15			
Overvoltage class DC port				II			
DC port backfeed current	mA			0			
PV array configuration		1x1 Ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit					
OUTPUT DATA (AC)		**IQ8-60-2-US**	**IQ8PLUS-72-2-US**	**IQ8M-72-2-US**	**IQ8A-72-2-US**	**IQ8H-240-72-2-US**	**IQ8H-208-72-2-US[1]**
Peak output power	VA	245	300	330	366	384	366
Max continuous output power	VA	240	290	325	349	380	360
Nominal (L-L) voltage/range[4]	V			240 / 211 – 264			208 / 183 – 250
Max continuous output current	A	1.0	1.21	1.35	1.45	1.58	1.73
Nominal frequency	Hz			60			
Extended frequency range	Hz			50 – 68			
AC short circuit fault current over 3 cycles	Arms			2			4.4
Max units per 20 A (L-L) branch circuit[5]		16	13	11	11	10	9
Total harmonic distortion				<5%			
Overvoltage class AC port				III			
AC port backfeed current	mA			30			
Power factor setting				1.0			
Grid-tied power factor (adjustable)				0.85 leading – 0.85 lagging			
Peak efficiency	%	97.5	97.6	97.6	97.6	97.6	97.4
CEC weighted efficiency	%	97	97	97	97.5	97	97
Night-time power consumption	mW			60			
MECHANICAL DATA							
Ambient temperature range		-40°C to +60°C (-40°F to +140°F)					
Relative humidity range		4% to 100% (condensing)					
DC Connector type		MC4					
Dimensions (HxWxD)		212 mm (8.3") x 175 mm (6.9") x 30.2 mm (1.2")					
Weight		1.08 kg (2.38 lbs)					
Cooling		Natural convection – no fans					
Approved for wet locations		Yes					
Pollution degree		PD3					
Enclosure		Class II double-insulated, corrosion resistant polymeric enclosure					
Environ. category / UV exposure rating		NEMA Type 6 / outdoor					
COMPLIANCE							
Certifications		CA Rule 21 (UL 1741-SA), UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 section 690.12 and C22.1-2018 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according to manufacturer's instructions.					

(1) The IQ8H-208 variant will be operating in grid-tied mode only at 208V AC. (2) No enforced DC/AC ratio. See the compatibility calculator at https://link.enphase.com/module-compatibility (3) Maximum continuous input DC current is 10.6A (4) Nominal voltage range can be extended beyond nominal if required by the utility. (5) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

IQ8SE-DS-0001-01-EN-US-2022-03-17

1 MICROINVERTER DATA SHEET

SCALE: N.T.S.

SOLENERGY

MICROINVERTER DATA SHEET

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MILWAUKEE, WI 53217
414-791-8255

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jdhirsbrunner@solenergysolar.com

SIGNED: _____ DATE: _____

09/15/2022

DRAWN BY: BPM

APN: 0590020000

LOT: 0.25 ACRES

DWELLING: ---

D-2

Data Sheet
Enphase Networking

Enphase IQ Combiner 3

(X-IQ-AM1-240-3)

The **Enphase IQ Combiner 3**™ with Enphase IQ Envoy™ consolidates interconnection equipment into a single enclosure and streamlines PV and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.

Smart

- Includes IQ Envoy for communication and control
- Flexible networking supports Wi-Fi, Ethernet, or cellular
- Optional AC receptacle available for PLC bridge
- Provides production metering and optional consumption monitoring

Simple

- Reduced size from previous combiner
- Centered mounting brackets support single stud mounting
- Supports back and side conduit entry
- Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
- 80 A total PV or storage branch circuits

Reliable

- Durable NRTL-certified NEMA type 3R enclosure
- Five-year warranty
- UL listed

LISTED

To learn more about Enphase offerings, visit **enphase.com**

ENPHASE

Enphase IQ Combiner 3

MODEL NUMBER	
IQ Combiner 3 X-IQ-AM1-240-3	IQ Combiner 3 with Enphase IQ Envoy™ printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 +/- 0.5%) and optional* consumption monitoring (+/- 2.5%).
ACCESSORIES and **REPLACEMENT PARTS** (not included, order separately)	
Enphase Mobile Connect™ CELLMODEM-03 (4G / 12-year data plan) CELLMODEM-01 (3G / 5-year data plan) CELLMODEM-M1 (4G based LTE-M / 5-year data plan)	Plug and play industrial grade cellular modem with data plan for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.)
Consumption Monitoring* CT CT-200-SPLIT	Split core current transformers enable whole home consumption metering (+/- 2.5%).
Circuit Breakers BRK-10A-2-240 BRK-15A-2-240 BRK-20A-2P-240	Supports Eaton BR210, BR215, BR220, BR230, BR240, BR250, and BR260 circuit breakers. Circuit breaker, 2 pole, 10A, Eaton BR210 Circuit breaker, 2 pole, 15A, Eaton BR215 Circuit breaker, 2 pole, 20A, Eaton BR220
EPLC-01	Power line carrier (communication bridge pair), quantity 2
XA-PLUG-120-3	Accessory receptacle for Power Line Carrier in IQ Combiner 3 (required for EPLC-01)
XA-ENV-PCBA-3	Replacement IQ Envoy printed circuit board (PCB) for Combiner 3
ELECTRICAL SPECIFICATIONS	
Rating	Continuous duty
System voltage	120/240 VAC, 60 Hz
Eaton BR series busbar rating	125 A
Max. continuous current rating (output to grid)	65 A
Max. fuse/circuit rating (output)	90 A
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series Distributed Generation (DG) breakers only (not included)
Max. continuous current rating (input from PV)	64 A
Max. total branch circuit breaker rating (input)	80A of distributed generation / 90A with IQ Envoy breaker included
Production Metering CT	200 A solid core pre-installed and wired to IQ Envoy
MECHANICAL DATA	
Dimensions (WxHxD)	49.5 x 37.5 x 16.8 cm (19.5" x 14.75" x 6.63"). Height is 21.06" (53.5 cm with mounting brackets).
Weight	7.5 kg (16.5 lbs)
Ambient temperature range	-40° C to +46° C (-40° to 115° F)
Cooling	Natural convection, plus heat shield
Enclosure environmental rating	Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction
Wire sizes	• 20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors • 60 A breaker branch input: 4 to 1/0 AWG copper conductors • Main lug combined output: 10 to 2/0 AWG copper conductors • Neutral and ground: 14 to 1/0 copper conductors Always follow local code requirements for conductor sizing.
Altitude	To 2000 meters (6,560 feet)
INTERNET CONNECTION OPTIONS	
Integrated Wi-Fi	802.11b/g/n
Ethernet	Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included)
Cellular	Optional, CELLMODEM-01 (3G) or CELLMODEM-03 (4G) or CELLMODEM-M1 (4G based LTE-M) (not included)
COMPLIANCE	
Compliance, Combiner	UL 1741 CAN/CSA C22.2 No. 107.1 47 CFR, Part 15, Class B, ICES 003 Production metering: ANSI C12.20 accuracy class 0.5 (PV production)
Compliance, IQ Envoy	UL 60601-1/CANCSA 22.2 No. 61010-1

* Consumption monitoring is required for Enphase Storage Systems.

To learn more about Enphase offerings, visit **enphase.com**

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2018-09-13

ENPHASE

1 COMBINER BOX DATA SHEET
SCALE: N.T.S.

SOLENERGY

COMBINER DATA SHEET

THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
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PHIL SUTTER
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APN: 0590020000
LOT: 0.25 ACRES
DWELLING: ---

D-3

pe.eaton.com

Eaton general duty cartridge fuse safety switch

DG222NRB

UPC:782113144221

Dimensions:

- **Height:** 14.37 IN
- **Length:** 7.35 IN
- **Width:** 8.4 IN

Weight:10 LB

Notes: Maximum hp ratings apply only when dual element fuses are used. 3-Phase hp rating shown is a grounded B phase rating, UL listed.

Warranties:

- Eaton Selling Policy 25-000, one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.

Specifications:

- **Type:** General duty, cartridge fused
- **Amperage Rating:** 60A
- **Enclosure:** NEMA 3R
- **Enclosure Material:** Painted galvanized steel
- **Fuse Class Provision:** Class H fuses
- **Fuse Configuration:** Fusible with neutral
- **Number Of Poles:** Two-pole
- **Number Of Wires:** Three-wire
- **Product Category:** General duty safety switch
- **Voltage Rating:** 240V

Supporting documents:

- Eatons Volume 2-Commercial Distribution
- Eaton Specification Sheet - DG222NRB

Certifications:

- UL Listed

Product compliance: No Data

1 AC DISCONNECT DATA SHEET

SCALE: N.T.S.

SOLENERGY

AC DISCONNECT DATA SHEET

THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
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SIGNED: _____ DATE: _____

09/15/2022

DRAWN BY: BPM

APN: 0590020000

LOT: 0.25 ACRES

DWELLING: ---

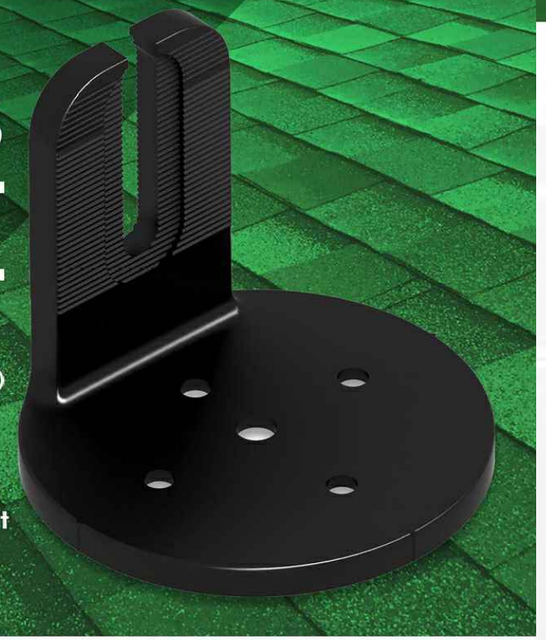
D-4

SUNMODO

SOLAR'S FASTEST ATTACHMENT

NanoMount®

Rafter or Deck Mount



Damaging roof shingles used to be one of a solar installers' worst challenges.

Now, the easy, affordable solution is NanoMount®, SunModo's patented solar mounting innovation.

The mount eliminates the need for lifting shingles and dramatically reduces the installation time.

The NanoMount® Advantage

- ✓ The fastest roof attachment in solar.
- ✓ Versatile mounting options including direct-to-decking.
- ✓ Eliminates the need to lift shingles and prevents damage to shingles.
- ✓ High-Velocity Hurricane Zone Approved - Passed TAS 100 (a) Wind-Driven Rain Test.
- ✓ All materials are compatible with asphalt shingles and single-ply roof membranes.

Key Features of NanoMount®

SUNMODO

5 levels of protection against water penetration

Technical Data

Application	Residential roof coverings, commercial single-ply roof membranes
Material	High grade aluminum, 304 stainless steel hardware
Finish	Black powder coating
Roof Attachment	Rafter and decking
Structural integrity	IBC and IRC Compliant
Warranty	25 years

SunModo, Corp. Vancouver, WA., USA • www.sunmodo.com • 360.844.0048 • info@sunmodo.com

1 ATTACHMENT DATA SHEET
SCALE: N.T.S.

SOLENERGY

ATTACHMENT DATA SHEET

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SOLENERGY
PHIL SUTTER
LIC#: DC-04210045 EXP: 2023
7182 HWY 14, #201
MIDDLETON, WI 53562
608.558.3842
jdhirsbrunner@solenergysolar.com

SIGNED: _____ DATE: _____

09/15/2022
DRAWN BY: BPM
APN: 0590020000
LOT: 0.25 ACRES
DWELLING: ---

D-5

SUNMOD

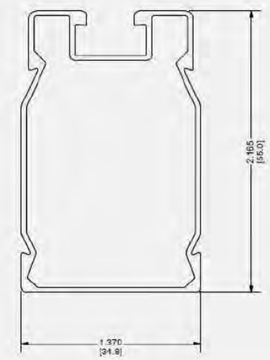
SMR100 Rail

SMR200 Rail

Part Number	Description
A20422-168-BK	SMR100 Rail, Black Anodized, 168"
A20431-168-BK	SMR200 Rail, Black Anodized, 168"
A20440-BK1	SMR100 Rail End Cap, Black
A20440-BK2	SMR200 Rail End Cap, Black

Cut Sheet

SMR100 Rail



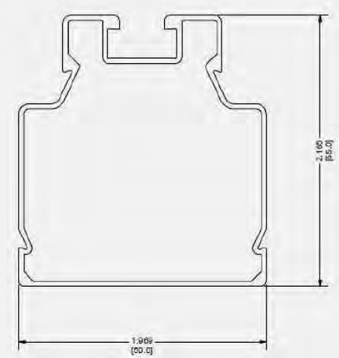
Mechanical Properties

Material: 6005-T5 Aluminum
Weight: 0.4126 lbs/ft (0.614 kg/m)
Ultimate Tensile Strength: 37.7 ksi (260 MPa)
Yield Strength: 34.8 ksi (240 MPa)

Section Properties

Sx: 0.196 in^3 (3.21 cm^3)
Sy: 0.146 in^3 (2.39 cm^3)
Area (X-section): 0.352 in^2 (2.27 cm^2)

SMR200 Rail



Mechanical Properties

Material: 6005-T5 Aluminum
Weight: 0.453 lbs/ft (0.626 kg/m)
Ultimate Tensile Strength: 37.7 ksi (260 MPa)
Yield Strength: 34.8 ksi (240 MPa)

Section Properties

Sx: 0.223 in^3 (3.74 cm^3)
Sy: 0.189 in^3 (3.10 cm^3)
Area (X-section): 0.388 in^2 (1.22 cm^2)

D10225-V001
Dimensions shown are inches (and millimeters)

Details are subject to change without notice

1 RAIL DATA SHEET
SCALE: N.T.S.

SOLENERGY

RAIL DATA SHEET

THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
414-791-8255

SOLENERGY
PHIL SUTTER
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7182 HWY 14, #201
MIDDLETON, WI 53562
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jdhirsbrunner@solenergysolar.com

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09/15/2022
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APN: 0590020000
LOT: 0.25 ACRES
DWELLING: ---

D-6

Catalog No. UHTRS202BMEP

Description: RESIDENTIAL 200 AMP OH

UPC No 784567721751

Home > Single Socket Metering > Single Socket Metering

METER SKT - (1) 200A 600V 1P3W N3R G90 4-TERM SMALL HUB OPNG HORN BYP TRIPLEX GRD TOP/BOTTOM FEED

Descriptors

Category	Single Socket Metering

Specifications

Phase	1
Voltage	600
Amps	200
Hub Type	Small Hub Opening
# of Terminals	4
Lever Bypass	No
Horned Bypass	Yes
Socket Type	Ringless
Enclosure Type	N3R
Metal Type	G90 Steel
Overhead/ Underground Line Feed	Top/Bottom
Wire Range (Cu/Al)	#8-250MCM
Triplex Ground	Yes

Publications

Title	Publication No.	Publication Type
Outline Drawing for Part # UHTRS202BMEP TOM FEED	UHTRS202BMEP	Drawings-Outline and Dimensional

Additional Documentation: Visit our Publication Library to find technical documentation, time current curves, CSI Specifications and promotional literature.

1 PV METER DATA SHEET

SCALE: N.T.S.

SOLENERGY

PV METER DATA SHEET

THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
414-791-8255

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608.558.3842
jdhirsbrunner@solenergysolar.com

SIGNED: _____ DATE: _____

09/15/2022

DRAWN BY: BPM

APN: 0590020000

LOT: 0.25 ACRES

DWELLING: ---

D-7

JUNCTION BOX & CONDUIT RACEWAYS

NEC 690.31(E)(3) – CONDUIT / ALL JUNCTION BOXES

WARNING:
PHOTOVOLTAIC POWER SOURCE

NEC 690.35(F) – UNDERGROUND SYSTEM JUNCTION BOXES

WARNING:
ELECTRIC SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNDERGROUND AND MAY BE ENERGIZED.

DC DISCONNECTS

NEC 690.14(4) GROUNDED SYSTEMS

WARNING:
ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS. TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.

NEC 690.35(F) UNGROUNDED SYSTEMS

WARNING:
ELECTRIC SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNDERGROUND AND MAY BE ENERGIZED.

NEC 690.14(C)(2)

PHOTOVOLTAIC
DC DISCONNECT

NEC 690.53

"GRID–TIED PHOTOVOLTAIC POWER SOURCE"
OPERATING CURRENT: 32.67A
OPERATING VOLTAGE: 240V
MAXIMUM SYSTEM VOLTAGE: 240V
MAXIMUM SYSTEM CURRENT: 40.84A
MAXIMUM INVERTER OUTPUT: 8,100W, 40.84A, 240VAC

INVERTER

NEC 690.5(C) – GROUNDED SYSTEMS

WARNING:
ELECTRIC SHOCK HAZARD IF A GROUND FAULT IS INDICATED, NORMALLY GROUNDED CONDUCTORS MAY BE UNDERGROUND AND ENERGIZED

NEC 690.35(F) – UNGROUNDED SYSTEMS

WARNING:
ELECTRIC SHOCK HAZARD
DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNDERGROUND AND MAY BE ENERGIZED

PRODUCTION METER

ONLY AT METER LOCATION

PHOTOVOLTAIC SYSTEM METER

AC DISCONNECTS

NEC 690.14(C)(2)

PHOTOVOLTAIC AC DISCONNECT

NEC 690.54

NOMINAL AC VOLTAGE	240V
RATED AC OUTPUT CURRENT	32.67A

NEC 705.12(D)(4) – ON A LINE SIDE TAP

WARNING: DUAL POWER SOURCE
SECOND SOURCE IS PV SYSTEM

PER CODE NEC 690.56(C)

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

MAIN SERVICE PANEL

NEC 705.12(D)(7) – NEAR PV BREAKER

WARNING:
INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS OVERCURRENT PROTECTION DEVICE

NEC 705.12(D)(4), 690.56(B) – ON PANEL COVER

WARNING: DUAL POWER SOURCE
POWER IS BEING SUPPLIED TO THIS PANEL FROM THE UTILITY AND A SOLAR PV SYSTEM.
THE SOLAR PV DISCONNECT IS LOCATED:

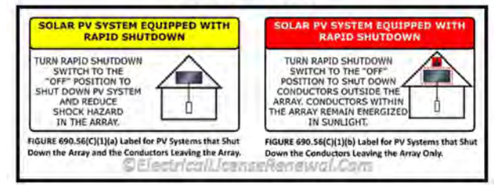
NEC 690.14(C)(2) – NEAR PV BREAKER

PHOTOVOLTAIC AC DISCONNECT

NEC 690.54 – ON PANEL COVER

NOMINAL AC VOLTAGE	240V
RATED AC OUTPUT CURRENT	32.67A

690.56(C) Buildings with Rapid Shutdown.



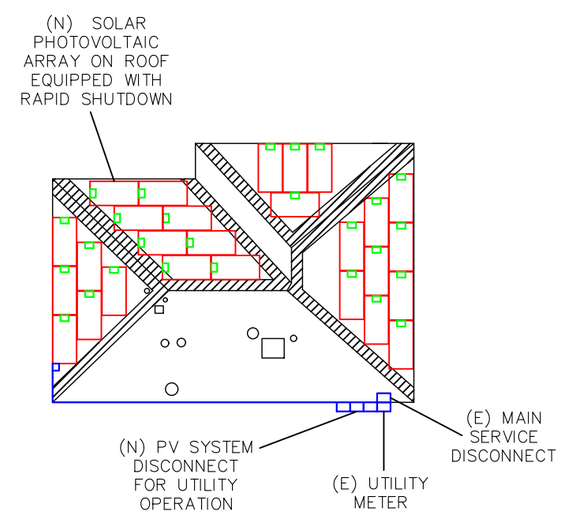
RED SIGNAGE W/WHITE 3/8" FONT

CAUTION ⚠

RED SIGNAGE W/WHITE 1/4" FONT

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN:

ADDRESS: 502 E WILLOW ROAD,
MILWAUKEE, WI 53217



RED SIGNAGE W/WHITE 1/8" FONT TYP.

1 WARNING PLACARDS
SCALE: N.T.S.

SOLENERGY

WARNING PLACARDS

THE MICHAEL HOOL RESIDENCE
502 E WILLOW ROAD,
MILWAUKEE, WI 53217
414–791–8255

SOLENERGY
PHIL SUTTER
LIC#: DC–04210045 EXP: 2023
7182 HWY 14, #201
MIDDLETON, WI 53562
608.558.3842
jdhirsbrunner@solenergysolar.com

SIGNED: _____ DATE: _____

09/15/2022
DRAWN BY: BPM
APN: 0590020000
LOT: 0.25 ACRES
DWELLING: ---

L-1

VILLAGE OF FOX POINT
7200 N Santa Monica Blvd
Fox Point, WI 53217
(414) 247-6622
www.villageoffoxpoint.com

Permit Number:

B- _____

OFFICE USE ONLY
Issued Date
Zoning

BUILDING PERMIT

Job Address 7823 N Boyd way	**Building Type:** Residential [X] Commercial [ ]
Description of Work Construction of New deck	
Estimated Cost of Project $ 16,000	

Owner/Occupant Vincent Murray	
Business Name	Contact Name Vincent Boyd
Address 7823 N Boyd Way	City/State/Zip Fox Point, WI 53217
Phone 262-573-0720	Email vmurray@dominicanhighschool.com

*****Cautionary Statement required when homeowner is applying for permit*****

Contractor Lakeside Contracting - Jason Rose	
Company Name Lakeside contracting	Contact Name Jason Rose
Address 208 N River Rd	City/State/Zip West Bend WI 53095
Phone 262-221-4321	Email lakesidecontractingmke@gmail.com
Dwelling Contractor # DC-0515 00021	Dwelling Contractor Qualifier # DCQ-0515000061

Square Footage Under Construction				
1st Floor	2nd Floor	Basement	Addition 384 SF+	Garage

Description	Rate	Amount
Project - Per $1,000 of estimated cost	$10.00	160.00
Building Board	$75.00	75.00
Footing early start - $230.00 one and two family; $305.00 commercial		
Plan Review - $275.00 one and two family; New Single Family Construction $330.00 plus $30.00/unit commercial		
State Seal	$75.00	
Razing, Interior Demolition $925.00 max/bld $95.00 minimum plus	$0.13/sqft	
Moving buildings $250.00 plus	$0.13/sqft	
Fuel tanks - Per 1,000 gallons	$25.00	
Re-inspection	$100.00	
Work started without permit	**Double**	
Minimum Fee	**$70.00**	
Payable to: Village of Fox Point **Total Permit Fee**		**$**

Applicant Signature _____ **Date** 10/17/22
Rev 01/22

ISSUED PERMITS are available on the Village website under *PERMITS & LICENSES*

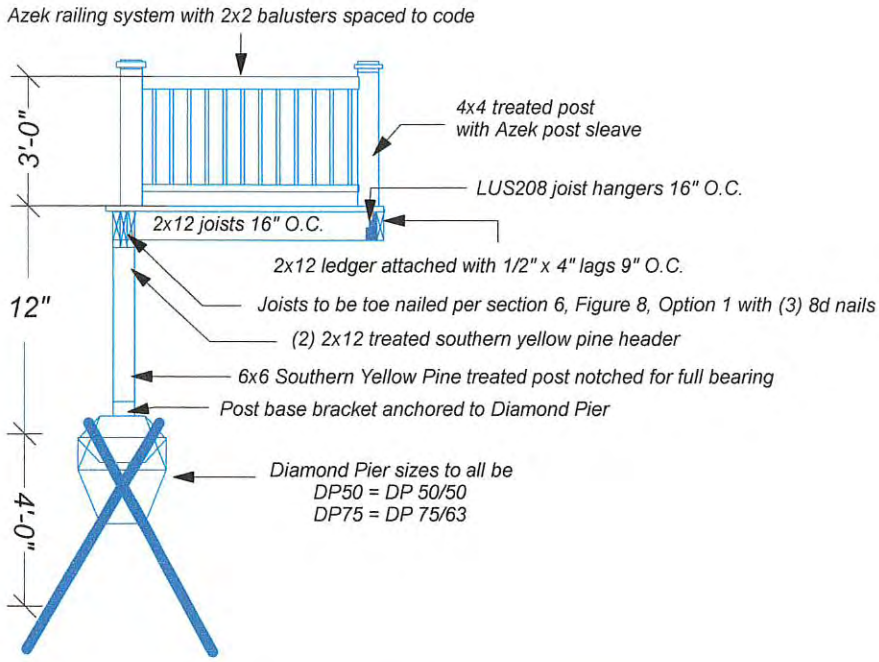
VILLAGE OF FOX POINT
7200 N. SANTA MONICA BLVD
FOX POINT WI 53217 414-351-8900

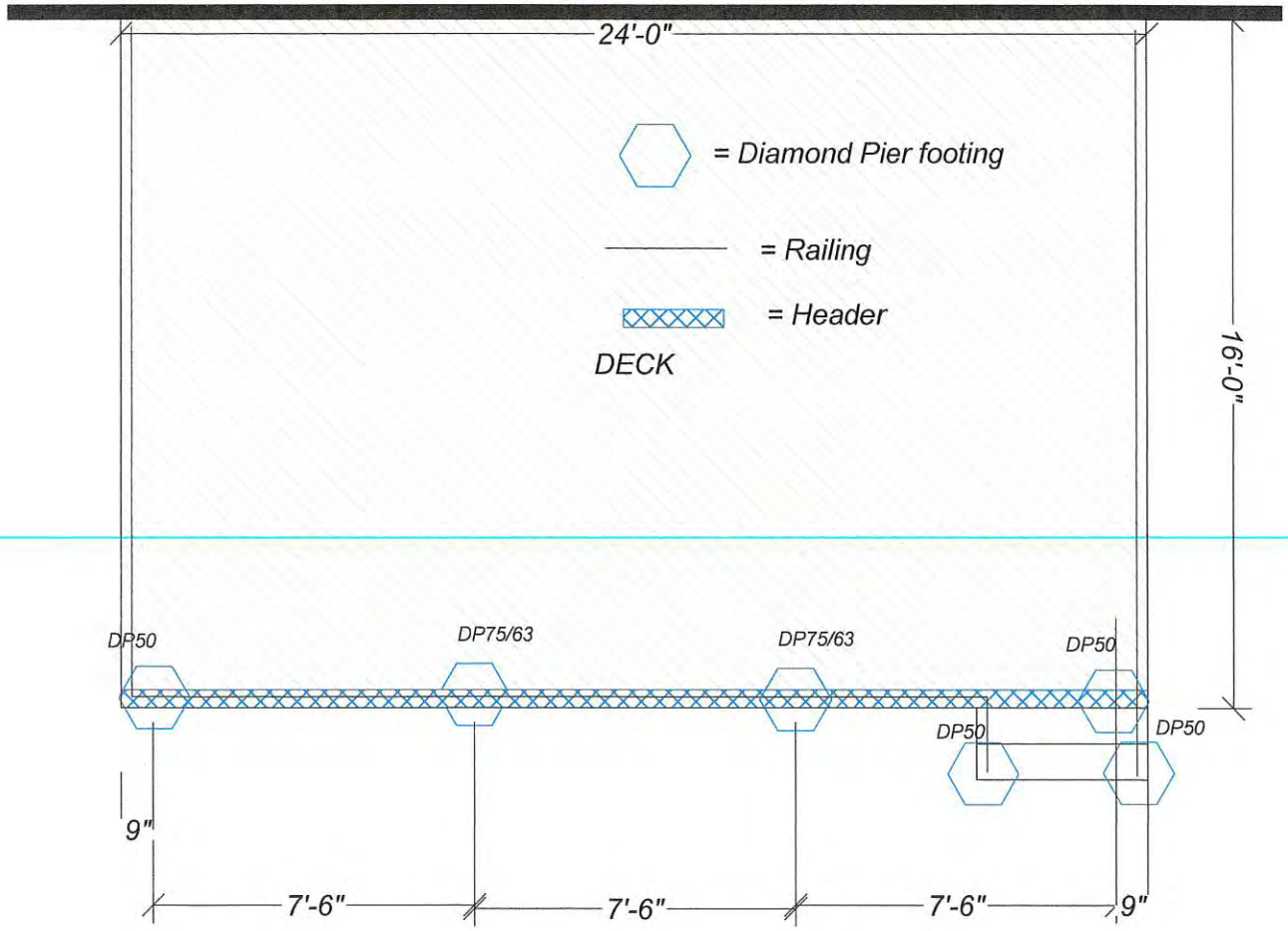
Receipt No: 1.058212 Oct 18, 2022

7823 N Boyd Way

Previous Balance:	.00
LICENSES & PERMITS - BUILDING PERMIT	160.00
24-44460 BUILDING PERMIT	
Total:	160.00
CREDIT CARD	160.00
Payor: Caleb Rose	
Total Applied:	160.00
Change Tendered:	.00

10/18/2022 11:03 AM


Azek railing system with 2x2 balusters spaced to code
3'-0"
4x4 treated post
with Azek post sleave
LUS208 joist hangers 16" O.C.
2x12 joists 16" O.C.
2x12 ledger attached with 1/2" x 4" lags 9" O.C.
12"
Joists to be toe nailed per section 6, Figure 8, Option 1 with (3) 8d nails
(2) 2x12 treated southern yellow pine header
6x6 Southern Yellow Pine treated post notched for full bearing
Post base bracket anchored to Diamond Pier
Diamond Pier sizes to all be
DP50 = DP 50/50
DP75 = DP 75/63
4'-0"


24'-0"
= Diamond Pier footing
= Railing
= Header
DECK
16'-0"
DP50
DP75/63
DP75/63
DP50
DP50
DP50
9"
7'-6"
7'-6"
7'-6"
9"

Job No. _____

H. C. WEBSTER & SON

790 NORTH SECOND STREET
MILWAUKEE 3, WIS.

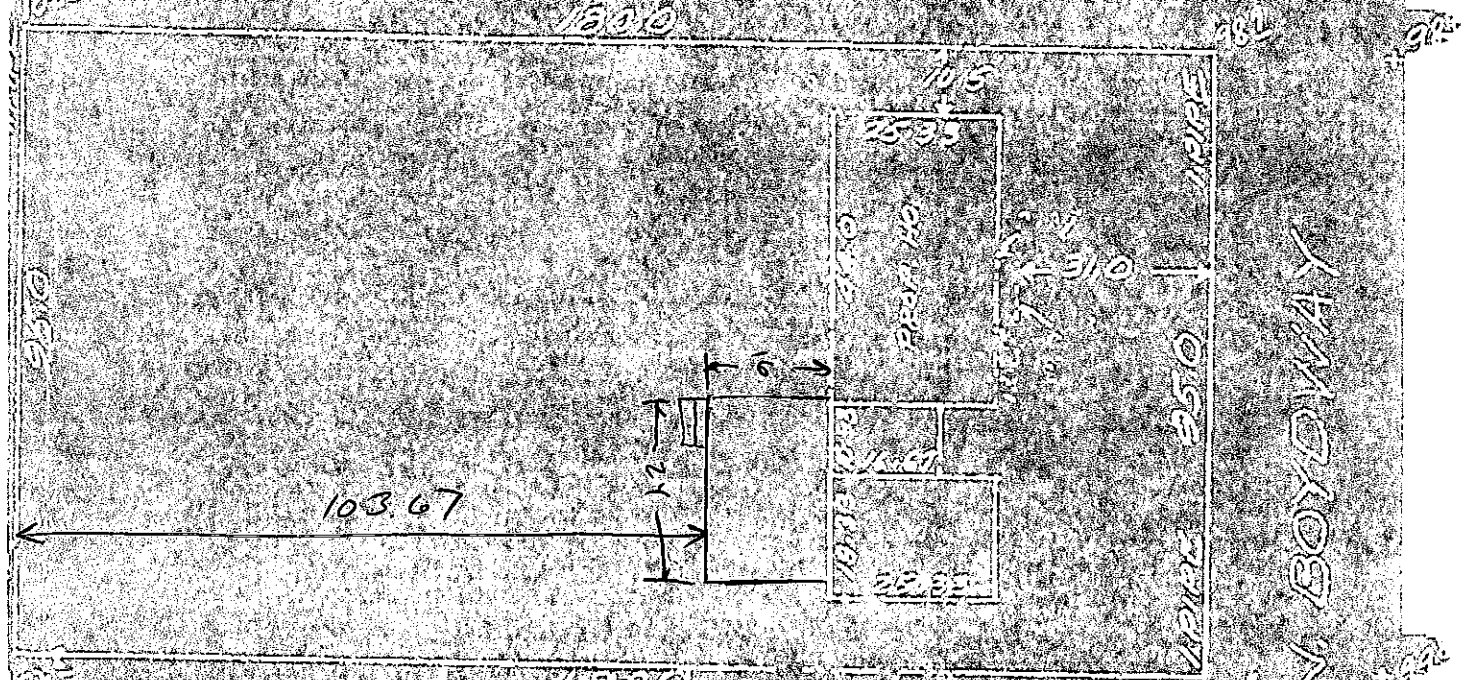
DONALD W. WEBSTER
Registered Civil Engineer

Associate
ROY J. CHARNOC

PLAT OF SURVEY

OF PROPERTY OF Paul Sanz & Co.

Located as follows: Lot 4 Box Point Landowns in the NE¼ of Section 16-6-21
Village of Fox Point.


BOYDOWN AVE
1800
1800
103.67
6
22
Bldg. No.
Bldg. No.
Bldg. No.

VILLAGE OF FOX POINT
7200 N Santa Monica Blvd
Fox Point, WI 53217
(414) 247-6622
www.villageoffoxpoint.com

Permit Number:

B- _____

OFFICE USE ONLY
Issued Date
Zoning

BUILDING PERMIT

Job Address 1554 E. Goodrich Lane	**Building Type:** Residential [X] Commercial [ ]
Description of Work Master Suite addition & Mudroom addition	
Estimated Cost of Project $ $350,000.00	

Owner/Occupant	
Business Name	Contact Name
Address	City/State/Zip
Phone	Email

*****Cautionary Statement required when homeowner is applying for permit*****

Contractor	
Company Name Kleiber Construction	Contact Name Tom Damrow
Address 510 Water Street	City/State/Zip Sheboygan Falls, WI 53085
Phone 1-920-838-6260	Email tom@kleiberconstruction.com
Dwelling Contractor # 1252264	Dwelling Contractor Qualifier # 1252202

Square Footage Under Construction				
1st Floor	2nd Floor	Basement	Addition 1,169 sq ft	Garage

Description	Rate	Amount
Project - Per $1,000 of estimated cost	$10.00	3,500.00
Building Board	$75.00	75.00
Footing early start - $230.00 one and two family; $305.00 commercial		
Plan Review - $275.00 one and two family; New Single Family Construction $330.00 plus $30.00/unit commercial		
State Seal	$75.00	
Razing, Interior Demolition $925.00 max/bld $95.00 minimum plus	$0.13/sqft	
Moving buildings $250.00 plus	$0.13/sqft	
Fuel tanks - Per 1,000 gallons	$25.00	
Re-inspection	$100.00	
Work started without permit	**Double**	
Minimum Fee	**$70.00**	
Payable to: Village of Fox Point **Total Permit Fee**		$ 3,575.00

Applicant Signature Tom Damrow **Date** 10/24/22

Rev 01/22

ISSUED PERMITS are available on the Village website under *PERMITS & LICENSES*

30 0 30 60

SCALE 1"=30' FEET

LEGEND

- 1" IRON PIPE FOUND IN PLACE
- 1/2" IRON PIPE FOUND IN PLACE
- WOODEN FENCE
- SETBACK LINE
- EXISTING GROUND CONTOURS
- X 000.00 PROPOSED SPOT ELEVATIONS
- X 000.00 EXISTING SPOT ELEVATIONS
- SILT SOCK
- EXISTING CONCRETE
- TRACKING PAD

PARCEL AREA	38,887 S.F.	0.89 ACRES
GOODRICH R/W	4,681 S.F.	0.11 ACRES
UNNAMED R/W	1,282 S.F.	0.03 ACRES
TOTAL AREA	44,481 S.F.	1.03 ACRES

EXISTING IMPERVIOUS SURFACE CALCULATIONS

–EXISTING HOUSE = 2,223 S.F.

TOTAL IMPERVIOUS= 2,223 S.F.
TOTAL AREA = 44,481 S.F
OPEN AREA = 42,258 S.F.

PROPOSED IMPERVIOUS SURFACE CALCULATIONS

–EXISTING HOUSE = 2,223 S.F.
–PROPOSED MUD ROOM ADDITION = 244 S.F.
–PROPOSED BEDROOM ADDITION = 894 S.F.

TOTAL IMPERVIOUS= 3,361 S.F.
TOTAL AREA = 44,481 S.F
OPEN AREA = 41,120 S.F.

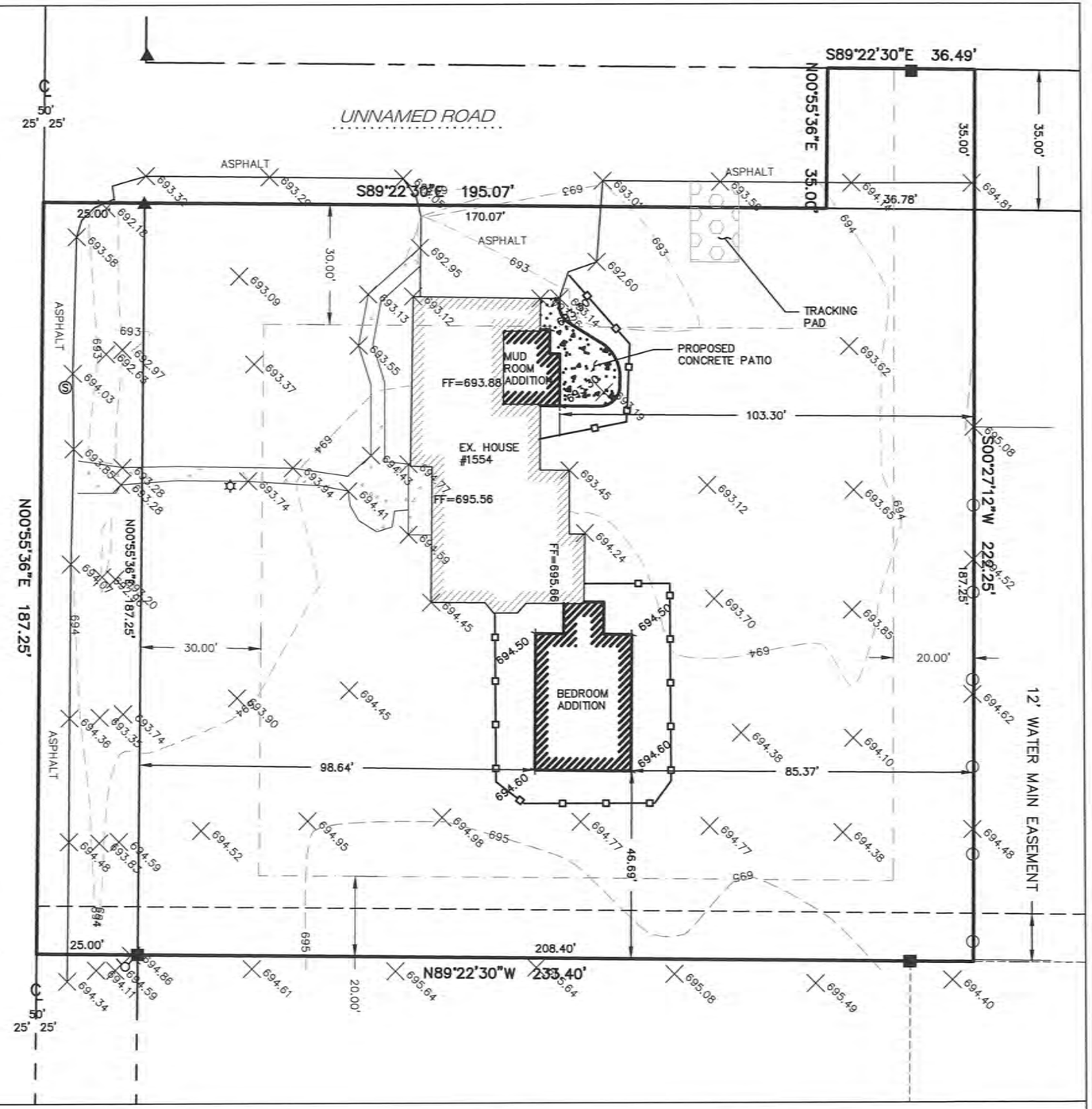
ELEVATION CERTIFICATION

I HEREBY CERTIFY THAT THE IMPROVEMENTS SHOWN ON THIS DRAWING ARE A TRUE AND CORRECT REPRESENTATION OF THE EXISTING CONDITIONS AS OBTAINED BY FIELD OCTOBER 21, 2022

10/24/22

ERIC R. OTTE, PLS S-2440

WISCONSIN ERIC R. OTTE S-2440 FOND DU LAC, WI LAND SURVEYOR



DRAWN BY DTH CHECKED BY ERO APPROVED BY ERO	SCALES HORIZONTAL 1" = 30' VERTICAL N/A	PROJECT NO. 045.119 DATE 10/24/2022	REVISIONS	BENCH MARK	SANITARY MANHOLE RIM COVER @ THE NORTHWEST CORNER OF PROPERTY, IN THE EAST EDGE OF PAVEMENT OF E. GOODRICH LANE ELEV.=693.99	DATUM NAVD '88 ☒ ASSUMED ☐ CITY ☐ PROJECT ☐	SITE/DRAINAGE PLAN FOR DAVID & JULIE ROSENE 1554 E. GOODRICH LANE VILLAGE OF FOX POINT, MILWAUKEE COUNTY, WISCONSIN

J.E. ARTHUR AND ASSOCIATES, INC.
ENGINEERS SURVEYORS PLANNERS
FOND DU LAC, WISCONSIN 54935
PHONE (920) 922-5703

SHEET 1 OF 1 SHEETS FILE NO. 045.119

FINAL PLAN

REAR ELEVATION
SCALE: 1/4" = 1'-0"

NOTE

1) NEW DAVINCI SELECT SHAKES AT ENTIRE ROOF

2) CEDAR SOFFIT, FASCIA, CROWN AND BED MOULDING TO MATCH EXISTING HOUSE

3) MARVIN ULTIMATE WINDOWS

NOTE

BUILDER IS TO VERIFY ALL DIMENSIONS AND HEIGHTS OFF EXISTING BUILDING AT JOBSITE BEFORE ACTUAL CONSTRUCTION BEGINS.

FRONT ELEVATION
SCALE: 1/4" = 1'-0"

LEFT ELEVATION
SCALE: 1/4" = 1'-0"

PRELIMINARY PLAN	1-7-21
REVISIONS:	2-21-22
REVISIONS:	3-14-22
REVISIONS:	3-30-22
REVISIONS:	6-6-22
REVISIONS:	9-6-22
BID PLAN	10-26-22
FINAL PLAN	

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CALCULATED DIMENSIONS TAKE PRECEDENCE OVER MEASUREMENTS BY SCALE. CONTACT BUILDING DESIGNER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED DURING CONSTRUCTION.

ALL HEADERS NOT LABELED AS LVL OVERHANGS ARE 2'-0" UNLESS NOTED OTHERWISE

ALL DIMENSIONS ARE TO THE ROUGH STUD UNLESS NOTED OTHERWISE

2x4 WALLS= 5 1/2"
2x6 WALLS= 7 1/2"

WINDOWS:
OVHD DR.=DOOR + 3" FC CLADDED 2" IF NOT SHOWN ON PLAN
INT. DOORS: CLOSING BIFOLD=DOOR + 2 1/2"
DBL. DOOR: SWING=DOOR + 1 1/2"
POCKET DOOR: DOOR + 3 1/2" + 1/2" + 3/4"
BI-PASS DOOR: DOOR WIDTH / 2 + 3/4"

Drawing no. 1 of 1
Drawing name: 1554 E. GOODRICH LANE - ROSENE - A21-421-K.dwg
Date created: 10/26/2022 2:17:17 PM
Last saved: 10/26/2022 2:17:17 PM

PROPOSED NEW PROJECT FOR:

ROSENE
DAVID & JULIE

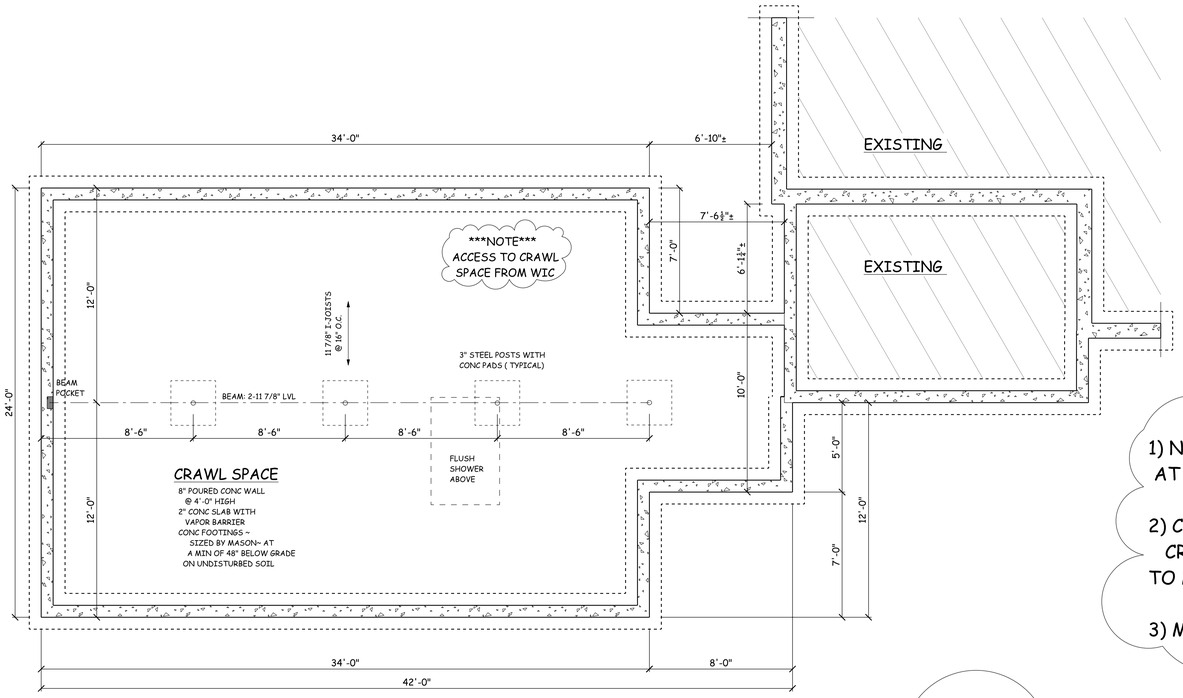
1554 E. GOODRICH LANE
FOX POINT, WI

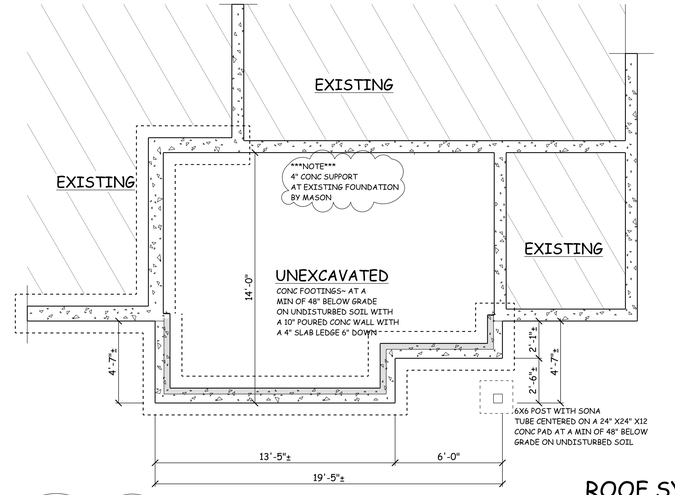
Drexel™ BUILDING SUPPLY
DrexelTeam.com

DRAWN BY: J.WASHATKO
SCALE: 1/4" = 1'-0"
SHEET NO. A1
DRAWING NO. A21-421-K

FINAL PLAN

FOUNDATION PLAN
SCALE: 1/4" = 1'-0"





NOTE

1) NEW DAVINCI SELECT SHAKES AT ENTIRE ROOF

2) CEDAR SOFFIT, FASCIA, CROWN AND BED MOULDING TO MATCH EXISTING HOUSE

3) MARVIN ULTIMATE WINDOWS

NOTE

BUILDER IS TO VERIFY ALL DIMENSIONS AND HEIGHTS OFF EXISTING BUILDING AT JOBSITE BEFORE ACTUAL CONSTRUCTION BEGINS.

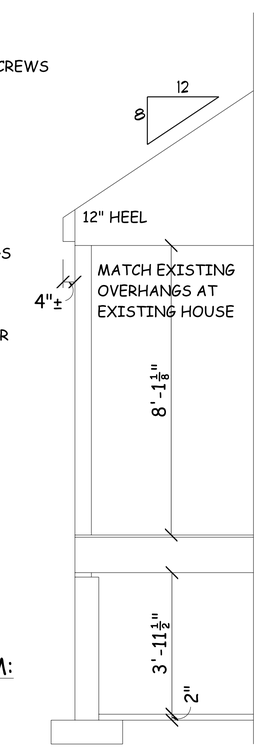
ROOF SYSTEM:
RIDGE VENT
SHINGLES ~ DAVINCI SELECT SHAKES -ENTIRE HOUSE
ROOF FELT
1/2" OSB SHEATHING
PROPER VENTS WITH HURRICANE TIES/TRUSS SCREWS AS REQUIRED
ROOF TRUSSES @ 24" O.C. 8/12 PITCH ~ 12" HEELS
INSULATION ~ R-38 MIN
VAPOR BARRIER
5/8" GYP BOARD

CEDAR SOFFIT, FASCAI, CROWNS AND BED MOULDINGS TO MATCH EXISTING HOUSE

WALL SYSTEM:
SIDING ~ 1X10 BEVELED CEDAR VERTICAL GRAIN ~ CLEAR (MATCH EXISTING)
HOUSE WRAP
7/16" OSB SHEATHING
2X6 STUDS @ 16" O.C.
INSULATION ~ R-19 MIN
VAPOR BARRIER
1/2" GYP BOARD

FLOOR SYSTEM:
3/4" T&G OSB SUBFLOOR
11 7/8" I-JOISTS @ 16" O.C
2X6 TRT'D SILL PLATE
SPRAY FOAM @ BOXSILLS

FOUNDATION SYSTEM:
GROUND BREAKER
1" FOAM TO FOOTING
8" POURED CONC WALL @ 4'-0" HIGH
2" CONC SLAB WITH VAPOR BARRIER
CONC FOOTINGS ~ SIZED BY MASON~ AT A MIN OF 48" BELOW GRADE ON UNDISTURBED SOIL
DRAINTILES W/ BLEEDERS AS REQUIRED



PRELIMINARY PLAN:	
REVISIONS:	2-21-22
REVISIONS:	3-14-22
REVISIONS:	3-30-22
REVISIONS:	6-6-22
REVISIONS:	9-6-22
REDPLAN:	10-26-22
FINAL PLAN:	

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CALCULATED DIMENSIONS TAKE PRECEDENCE OVER MEASUREMENTS BY SCALE. CONTACT BUILDING DESIGNER IF ANY DIMENSIONS ARE NOT CLEAR DURE TO OCCASIONAL FLITTER &ALLFUNCTION PRINTING WHEN THE PLAN IS

ALL HEADERS NOT LABELED AS LVL: 2x10 HDR ~ 2-2x10's

ALL DIMENSIONS ARE TO THE ROUGH STUD (UNLESS NOTED OTHERWISE)
2x4 WALLS= 3 1/2"
2x6 WALLS= 5 1/2"

WINDOWS ~
OVHD DR.&DOOR ~ 3" PC.CLADDED 2" IF NOT
EXT. DOORS ENCLUDING BIFOLDS&DOOR = 2 1/2"
INT. DOORS ENCLUDING BIFOLDS&DOOR = 1 3/8"
DBL. DOOR WAITING&DOOR = 1 1/2"
POCKET DOORS&DOOR WIDTH = 1 3/4"
BIFOLDS&DOOR WIDTH = 1 3/4"

Drexel BUILDING SUPPLY
DrexelTeam.com

PROPOSED NEW PROJECT FOR:
ROSENE
DAVID & JULIE

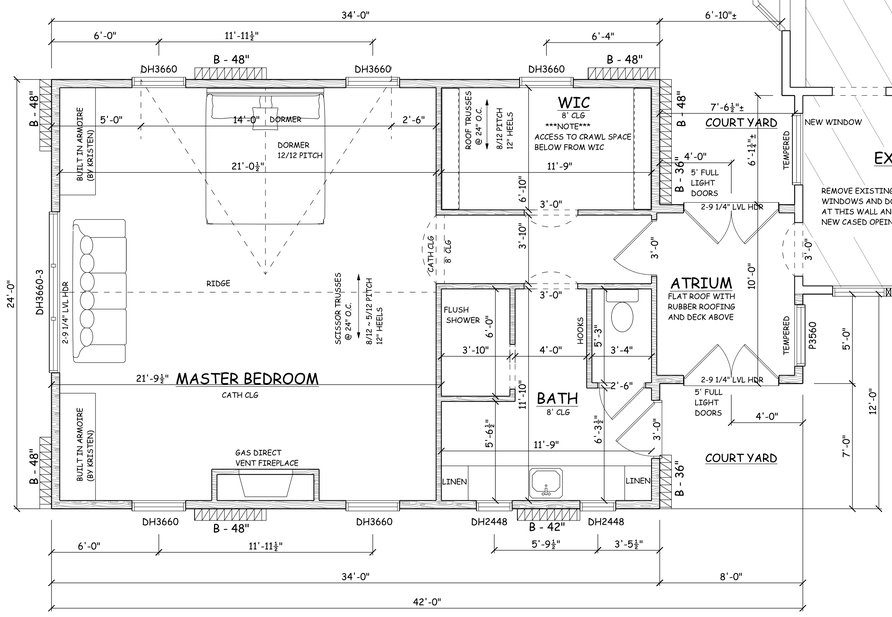
1554 E. GOODRICH LANE
FOX POINT, WI

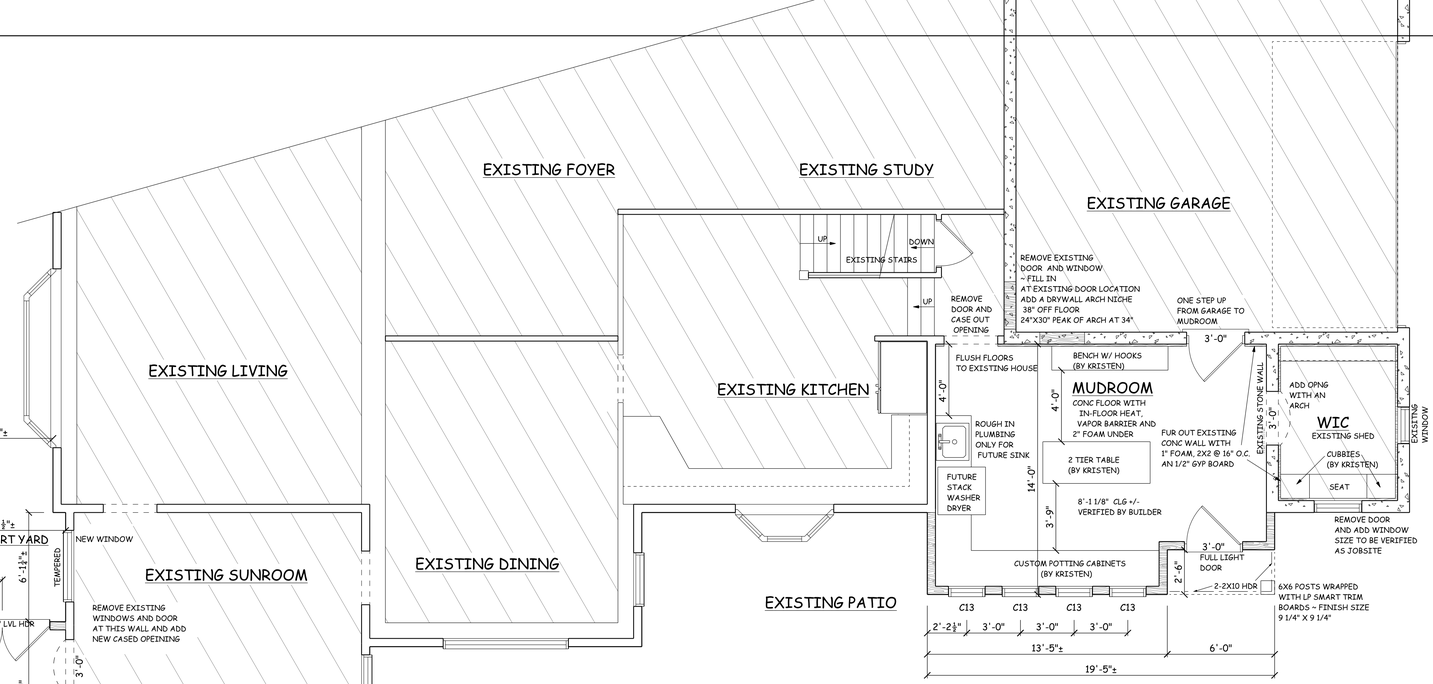
DRAWN BY: J.WASHATKO
SCALE: As Noted
SHEET NO. A2
DRAWING NO. A21-421-K

FINAL PLAN

FLOOR PLAN
SCALE: 1/4" = 1'-0"

NOTE
WINDOW ROUGH OPENINGS
BY WINDOW SPECIALIST



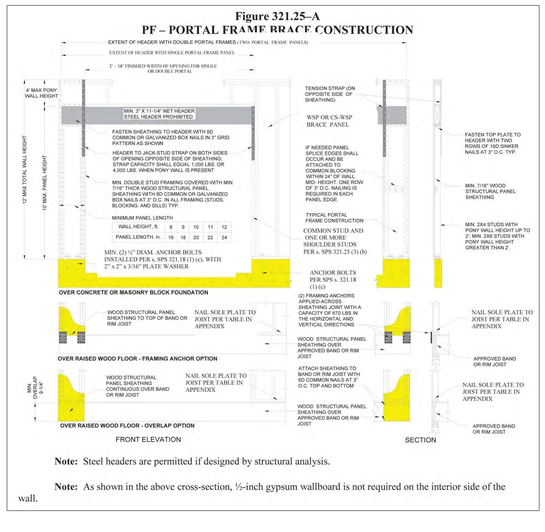


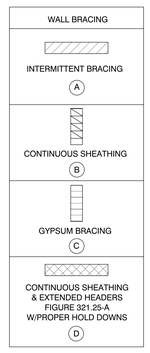
NOTE
BUILDER IS TO VERIFY ALL DIMENSIONS AND HEIGHTS OFF EXISTING BUILDING AT JOBSITE BEFORE ACTUAL CONSTRUCTION BEGINS.

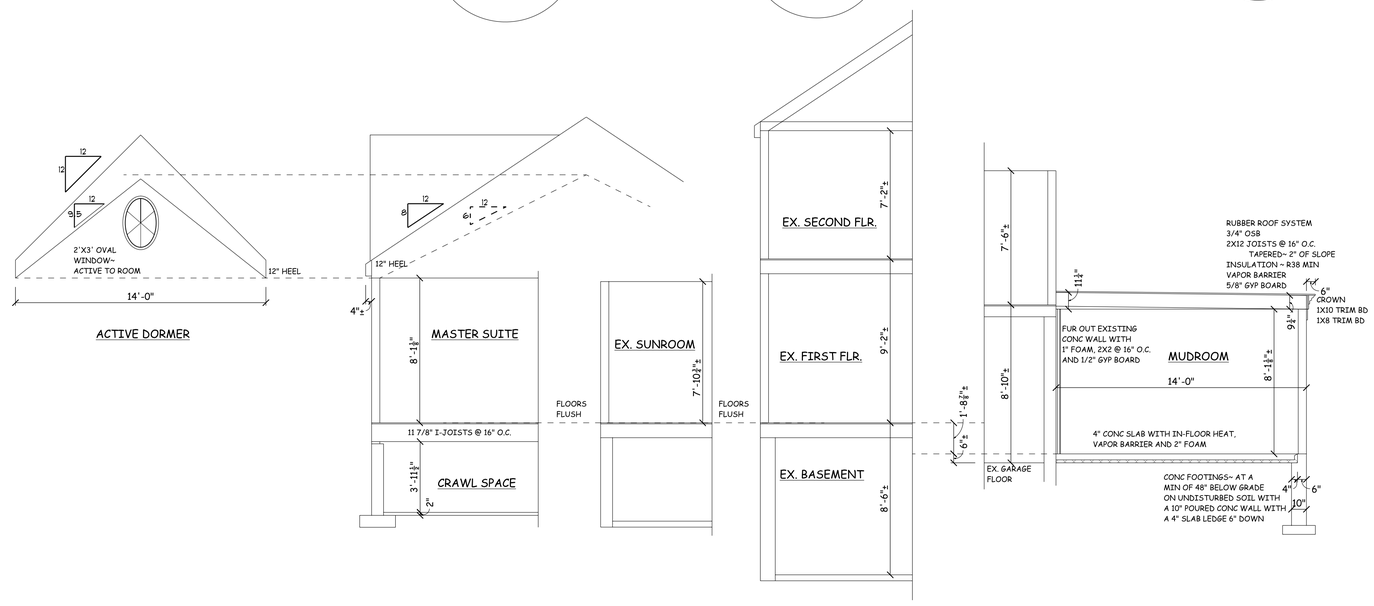
NOTE
1) NEW DAVINCI SELECT SHAKES AT ENTIRE ROOF

2) CEDAR SOFFIT, FASCIA, CROWN AND BED MOULDING TO MATCH EXISTING HOUSE

3) MARVIN ULTIMATE WINDOWS







PRELIMINARY PLAN:	
REVISIONS:	3-30-22
REVISIONS:	6-6-22
REVISIONS:	9-6-22
REVISIONS:	10-26-22
REVISIONS:	
REVISIONS:	
BID PLAN:	
FINAL PLAN:	

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CALCULATED DIMENSIONS TAKE PRECEDENCE OVER MEASUREMENTS BY SCALE. CONTACT BUILDING DESIGNER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND TO AVOID ADDITIONAL FOOTER & FOUNDATION WORK.

ALL HEADERS NOT LABELED AS LVL: (2)2X10 UNLESS NOTED OTHERWISE

ALL DIMENSIONS ARE TO THE ROUGH STUD (UNLESS NOTED OTHERWISE)
2x4 WALLS= 3 1/2"
2x6 WALLS= 5 1/2"

TYPICAL HEADER SIZES:
OVHD DR.&DOOR: 3" PC LAMINATED 7" IF NOT
INT. DOORS ON LIVING HEIGHT: DR.&DOOR = 2 1/2"
INT. DOORS ON LIVING HEIGHT: DR.&DOOR = 2 1/2"
BBL. DOOR: 8/4 MAHOGANY&DOOR = 3 1/2"
PGL. DOOR: 8/4 MAHOGANY&DOOR = 3 1/2"
PGL. DOOR: 8/4 MAHOGANY&DOOR = 3 1/2"
PGL. BI-PASS DOOR: 8/4 MAHOGANY&DOOR = 3 1/4"
PGL. BI-PASS DOOR: 8/4 PINE&DOOR = 3 1/4"

ALWAYS USE THE LARGEST HEADER IN THE WALL. ALL HEADERS MUST HAVE A MINIMUM OF 1 JACK STUD AND 1 KING STUD. ALL HEADERS MUST HAVE A MINIMUM OF 1 JACK STUD AND 1 KING STUD.

PROPOSED NEW PROJECT FOR:
ROSENE
DAVID & JULIE

1554 E. GOODRICH LANE
FOX POINT, WI

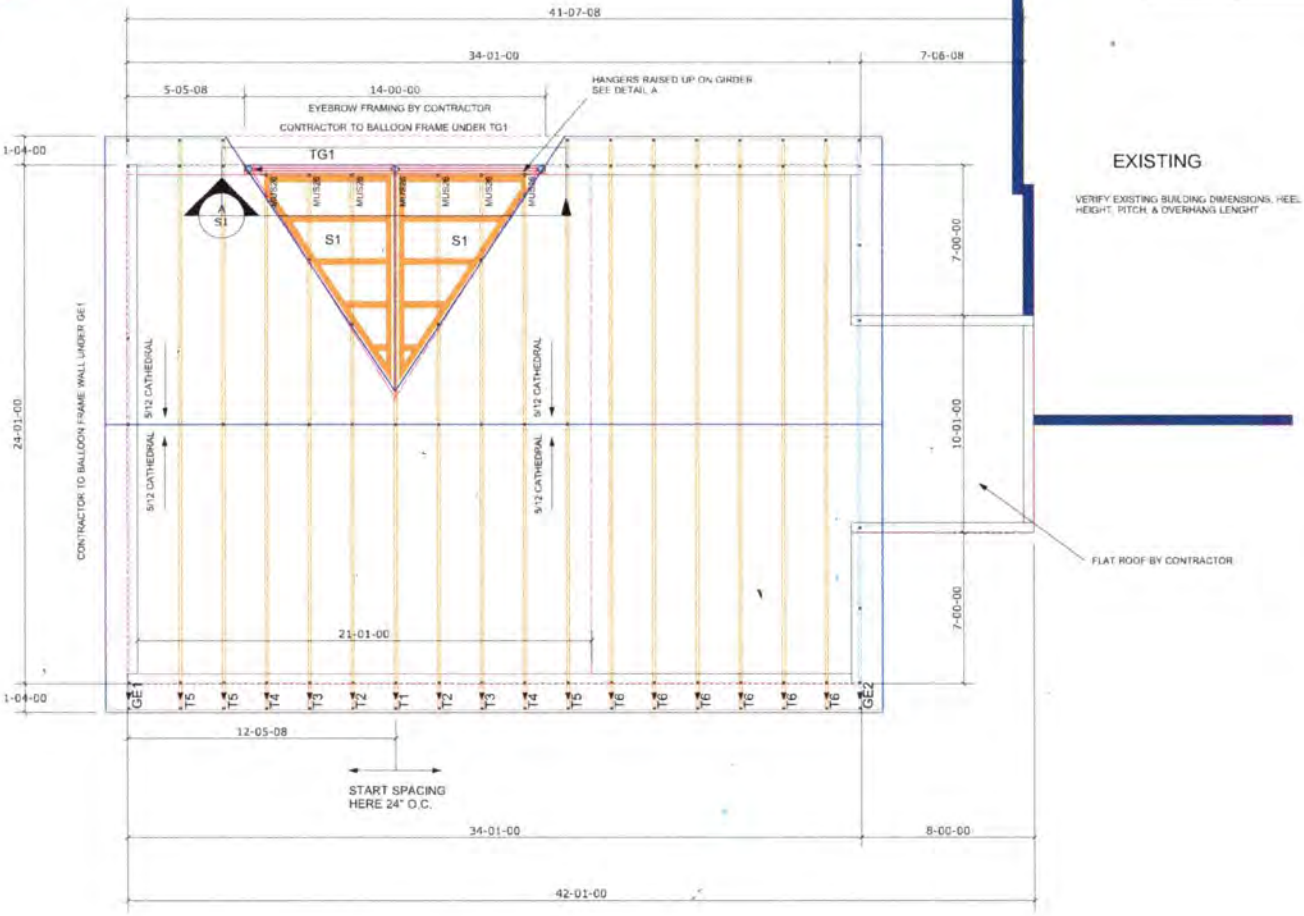
Drexel™ BUILDING SUPPLY
DrexelTeam.com

DRAWN BY:	J.WASHATKO
SCALE:	1/4" = 1'-0"
SHEET NO.	A3
DRAWING NO.	A21-421-K

ROOF TRUSS LAYOUT

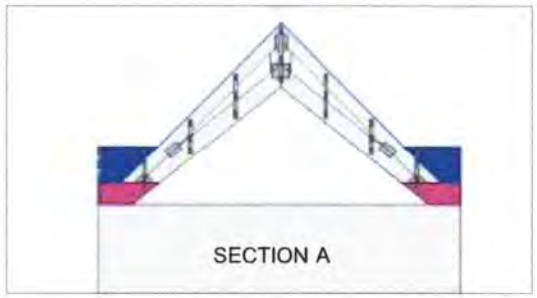
REVIEW PLANS COMPLETELY BEFORE INSTALLATION

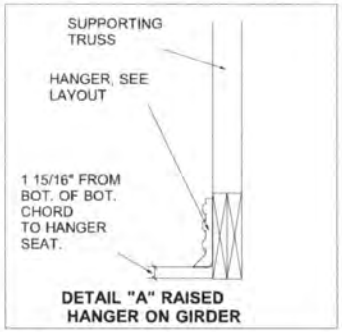
PRELIMINARY ONLY NOT FOR CONSTRUCTION



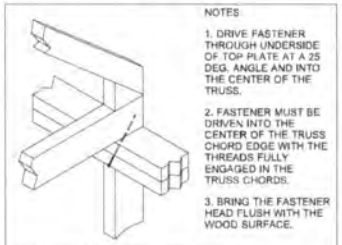
ENGINEERED WOOD TRUSSES 24" O.C.
HOUSE:
8/12 PITCH WITH 12" HEEL & 16" OVERHANG
GABLE:
12/12 PITCH WITH 12" HEEL

****TRIANGLE INDICATES TAGGED END OF TRUSS****





DETAIL "A" RAISED HANGER ON GIRDER



NOTES

1. DRIVE FASTENER THROUGH UNDERSIDE OF TOP PLATE AT A 25 DEG. ANGLE AND INTO THE CENTER OF THE TRUSS.
2. FASTENER MUST BE DRIVEN INTO THE CENTER OF THE TRUSS CHORD EDGE WITH THE THREADS FULLY ENGAGED IN THE TRUSS CHORDS.
3. BRING THE FASTENER HEAD FLUSH WITH THE WOOD SURFACE.

FOR MORE COMPLETE INSTRUCTIONS SEE GUIDE IT SITE PACK

FRAMEFAST TRUSS SCREW DETAIL (DOUBLE TOP PLATE)

ROOF DATA

****FOR REFERENCE ONLY****

ROOF AREA = 1151.81 ft² SQ FT
HORIZONTAL SUBFASCIA = 64.85 ft LF
RAKED SUBFASCIA = 84.1 ft LF
RIDGELINES = 46.58 LF
HIP LINES = 0 ft LF
VALLEY LINES = 32.53 ft LF

ROOF TRUSS DESIGN CRITERIA

Building code = IRC 2009
TCLL = 30.0 lb/ft² Roof snow
TCDL = 10.0 lb/ft²
BCLL = 0.0 lb/ft²
BCDL = 10.0 lb/ft²
Deflection criteria = L/240 LL, L/180 TL

ALL DIMENSIONS ARE OR HAVE BEEN ADJUSTED TO BE FACE OF STUD UNLESS OTHERWISE NOTED

CONTACT INFO:
Dreseal Building Supply

GENERAL NOTICE:

THIS PLAN IS DESIGNED TO ASSIST IN THE LOCATIONS AND ERECTION OF ORDER SYSTEMS COMPONENTS ONLY. IT IS IN NO WAY TO BE REGARDED AS A COMPLETE CONSTRUCTION DRAWING. THE BUILDER IS RESPONSIBLE FOR ERECTION AND COMPLETION OF THE BUILDING USING SATISFACTORY CONSTRUCTION METHODS AND TECHNIQUES, AND FOR COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES, ORDINANCES, AND STATUTES IN THAT REGARD.

TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLATION, AND BRACING. REFER TO AND FOLLOW THE LATEST EDITION OF THE BCSI (BUILDING COMPONENT SAFETY INFORMATION, BY TPI AND WTCA) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. INSTALLERS SHALL PROVIDE TEMPORARY BRACING PER BCSI, UNLESS NOTED OTHERWISE. TOP CHORDS SHALL HAVE PROPERLY ATTACHED STRUCTURAL SHEATHING AND BOTTOM CHORDS SHALL HAVE A PROPERLY ATTACHED RIGID CEILING. LOCATIONS SHOWN FOR PERMANENT BRACING OF WEB MEMBERS SHALL HAVE BRACING INSTALLED PER BCSI SECTIONS B1, B3, OR B11 AS APPLICABLE.

HANGER GENERAL NOTICE:

SET CREW SHALL BE SOLEY RESPONSIBLE FOR CORRECT INSTALLATION OF ALL HANGERS. THIS SHALL INCLUDE, BUT NOT LIMITED TO, CORRECT NAIL SIZE, CORRECT NAIL DIAMETER, CORRECT HANGER LOCATION, AND CORRECT HANGER SIZE AS NOTED ON THIS LAYOUT. ALL NAIL HOLES ARE TO BE FILLED PER HANGER SPECIFICATION. ANY DISCREPANCY BETWEEN HANGERS NOTED ON THE PLAN AND HANGERS DELIVERED TO THE SITE SHALL BE REPORTED PRIOR TO THE INSTALLATION OF THE HANGERS. PLEASE REFER TO THE "INSTALLATION GUIDE FOR PLATED TRUSS CONNECTORS" FOR MORE INFORMATION.

BUILDER:	KLEIBER CONSTRUCTION
PROJECT:	ROSENE
SITE ADDRESS:	1554 E. GOODRICH LN MILWAUKEE, WI
SCALE:	1/2" = 1'-0"
DATE:	9/21/2022
DRAWN BY:	Steve Luddeman
JOB#	221396

R1

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	GE1	Scissor Structural Gable	1	1	ROSENE

Drexel Truss Systems, Little Chute, WI
Run: 8.6 S 0 Aug 11 2022 Print: 8.600 S Aug 11 2022 MiTek Industries, Inc. Wed Sep 21 09:34:52 Page: 1
ID:Ifp7WYBBaVPCcQ6F5rSzG8ynZMr-Z1l8_H5AwZxr1WvD9FR99mbOKX16miYWpjQFoWybS1p

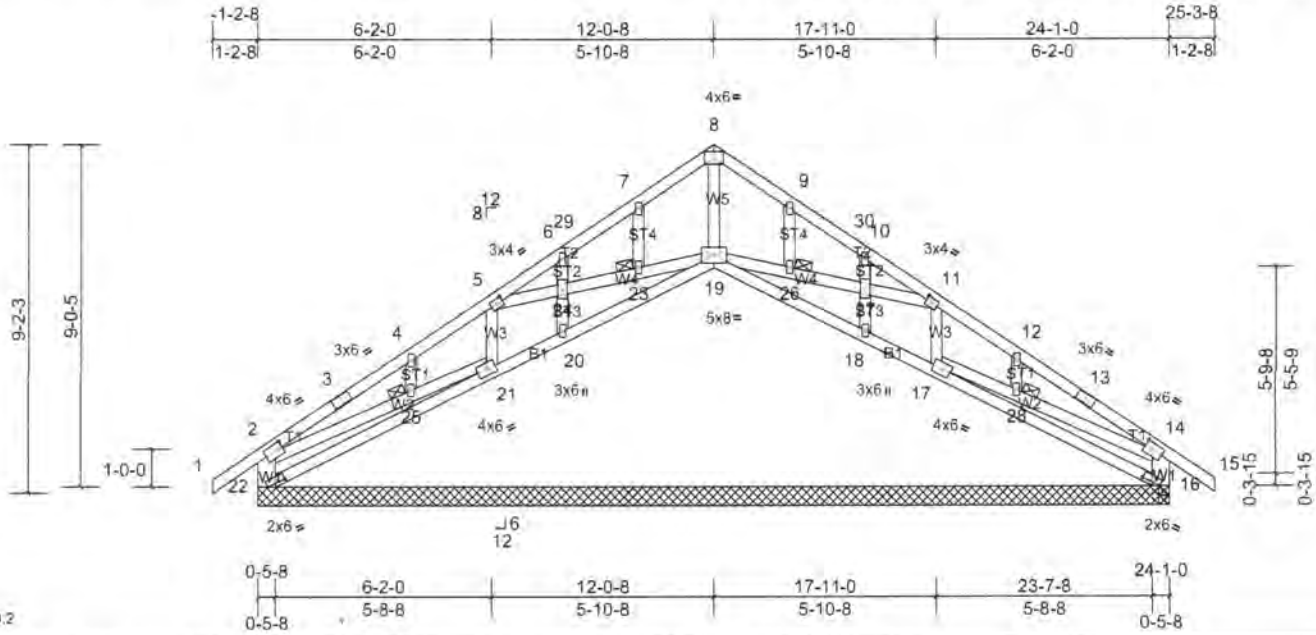


Plate Offsets (X, Y): [2:0-2-8,0-2-0], [5:0-1-12,0-1-8], [11:0-1-12,0-1-8], [14:0-2-8,0-2-0], [16:0-3-0,0-0-11], [22:0-3-0,0-0-11]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.00	21-22	>999	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.12	Vert(TL)	-0.05	21-22	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.01	17	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 114 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2 *Except* W1:2x6 SPF 1650F 1.5E
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 23, 25, 26, 28

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 24-1-0. except 16=0-3-8
(lb) - Max Horiz 22=-237 (LC 5)
Max Uplift All uplift 100 (lb) or less at joint(s) 17, 18, 20, 21 except 16=-150 (LC 8), 22=-121 (LC 8)
Max Grav All reactions 250 (lb) or less at joint (s) except 16=398 (LC 3), 17=452 (LC 1), 18=366 (LC 3), 19=405 (LC 1), 20=366 (LC 2), 21=452 (LC 1), 22=398 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-22=-430/174, 14-16=-430/187
BOT CHORD 21-22=-279/324
WEBS 8-19=-288/0, 11-17=-264/67, 5-21=-264/77, 20-24=-333/107, 18-27=-333/107

NOTES

1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-5-5, Exterior (2) 8-5-5 to 15-7-11, Interior (1) 15-7-11 to 21-8-5, Exterior (2) 21-8-5 to 25-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
8) Bearing at joint(s) 22, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 17, 21, 20, 18 except (jt=lb) 22=121, 16=149.
10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	GE2	Common Structural Gable	1	1	ROSENE

Drexel Truss Systems, Little Chute, WI
Run: 8.6 S 0 Aug 11 2022 Print: 8.600 S Aug 11 2022 MiTek Industries, Inc. Wed Sep 21 09:34:52 Page: 1
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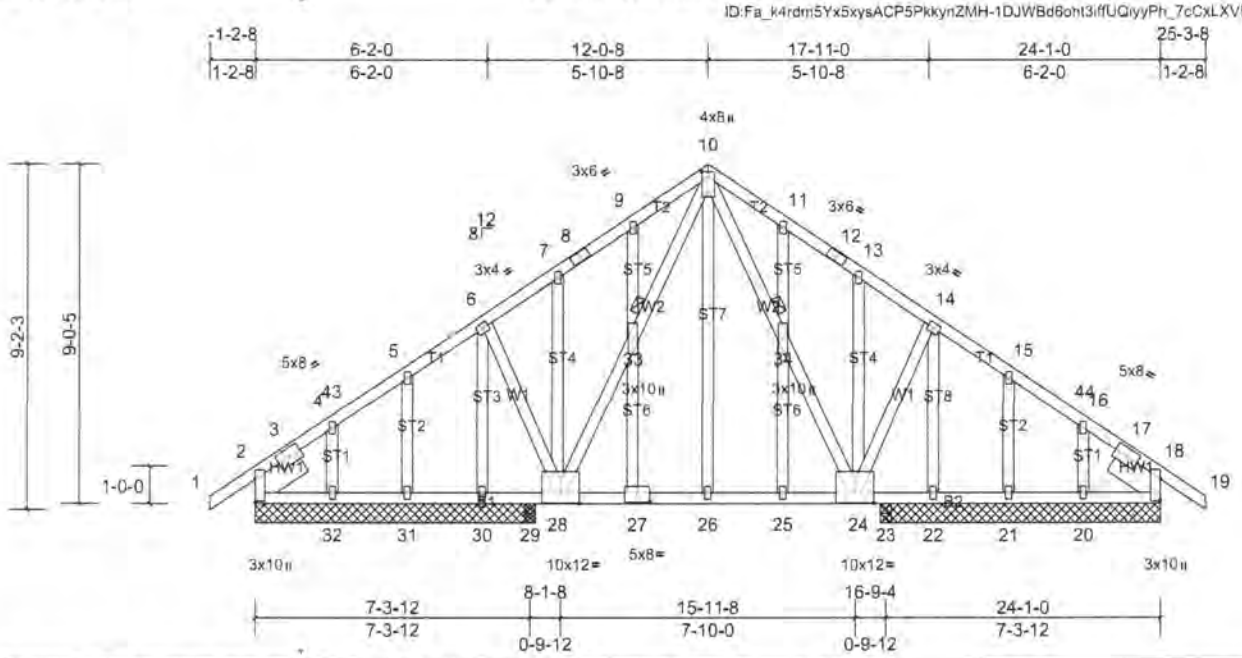

Scale = 1:59.6

Plate Offsets (X, Y): [2:0-7-1,0-0-1], [10:0-1-12,0-2-0], [18:0-7-1,0-0-1], [24:0-6-0,0-3-4], [27:0-4-0,0-3-0], [28:0-6-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.02	25	>999	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.17	Vert(TL)	-0.03	25	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.01	18	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 165 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Left 2x8 SP 2400F 2.0E -- 1-6-0, Right 2x8 SP 2400F 2.0E -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 33, 34

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 7-5-8, except 29=0-3-8, 23=0-3-8
(lb) - Max Horiz 2=-203 (LC 5), 35=-203 (LC 5)
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 18, 20, 21, 22, 23, 29, 30, 31, 32, 35, 39
Max Grav All reactions 250 (lb) or less at joint (s) 20, 21, 23, 29, 31, 32 except 2=299 (LC 2), 18=286 (LC 3), 22=511 (LC 3), 30=502 (LC 2), 35=299 (LC 2), 39=286 (LC 3)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-7=-292/121, 7-8=-359/150, 8-9=-264/157, 9-10=-288/198, 10-11=-274/203, 11-12=-254/166, 12-13=-336/157, 13-14=-281/110
WEBS 14-24=0/363, 6-28=0/353, 7-28=-277/83, 6-30=-543/55, 13-24=-253/83, 14-22=-556/46

NOTES

1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-0-8, Exterior (2) 8-0-8 to 15-5-14, Interior (1) 15-5-14 to 21-8-5, Exterior (2) 21-8-5 to 25-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 18, 30, 31, 32, 22, 21, 20, 29, 23, 2, 18.
9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	S1	Lay-In Gable	2	1	ROSENE

Drexel Truss Systems, Little Chute, WI

Run: 8.6 S 0 Aug 11 2022 Print: 8.600 S Aug 11 2022 MiTek Industries, Inc. Wed Sep 21 09:34:52 Page: 1
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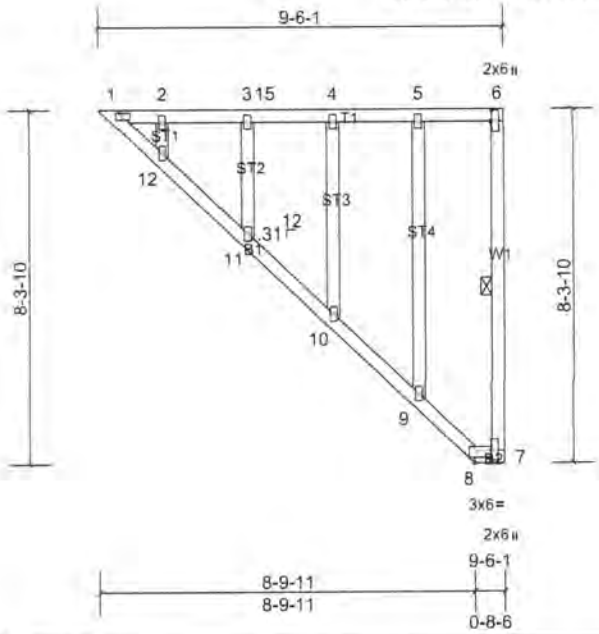


Scale = 1:52.8

Plate Offsets (X, Y): [6:0-3-0,0-0-4], [7:0-2-12,0-0-4], [8:0-4-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 51 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-7

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

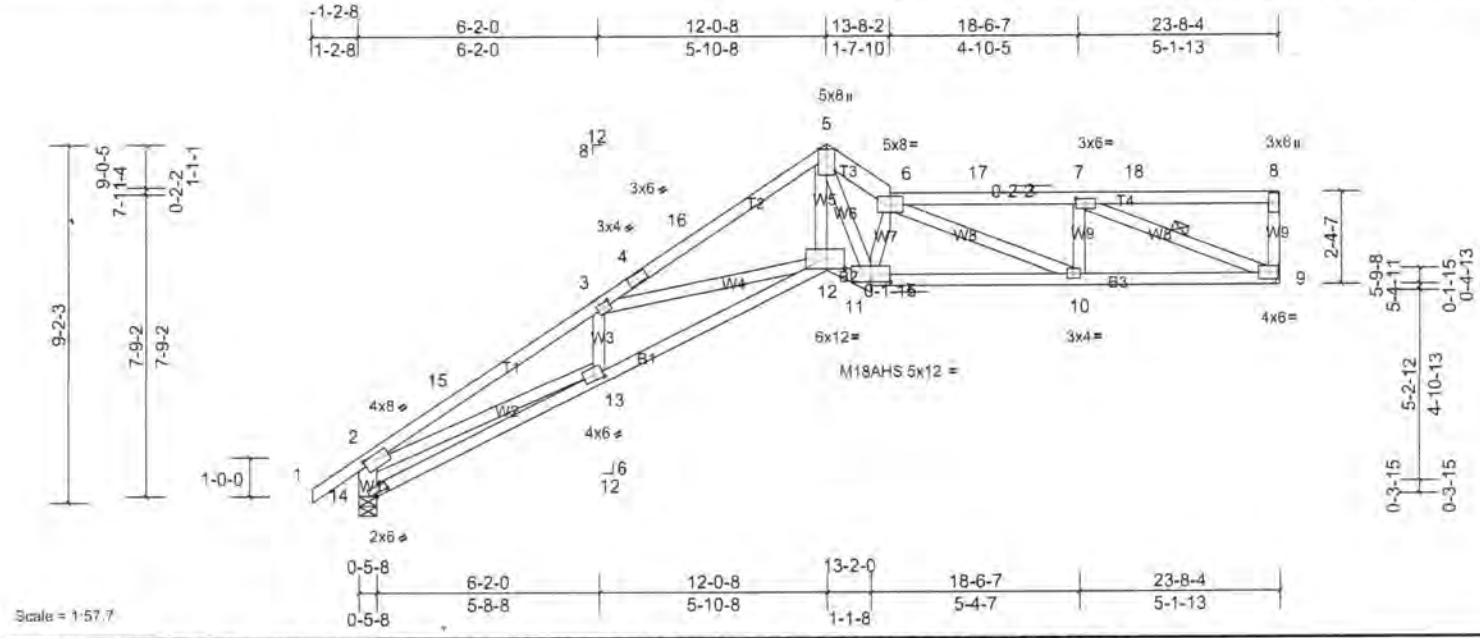
REACTIONS All bearings 9-2-5.
(lb) - Max Horiz 1=-142 (LC 5)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 7, 9, 10, 11, 12 except 8=-185 (LC 5)
Max Grav All reactions 250 (lb) or less at joint (s) 1, 7, 8, 9, 10, 11, 12

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) 0-3-11 to 3-10-15, Interior (1) 3-10-15 to 5-6-1, Exterior (2) 5-6-1 to 9-4-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp., Ct=1.10, Lu=0-0-0
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 7, 12, 11, 10, 9 except (jt=lb) 8=185.
7) Non Standard bearing condition. Review required.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	T1	Roof Special	1	1	ROSENE



Scale = 1:57.7

Plate Offsets (X, Y): [2:0-4-0,0-1-12], [3:0-1-12,0-1-8], [7:0-2-12,0-1-8], [11:0-6-0,0-0-15], [12:0-5-8,0-3-8], [13:0-3-0,0-1-12], [14:0-4-2,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.28	12-13	>999	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.60	Vert(TL)	-0.59	12-13	>478	180	M18AHS	142/136
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horiz(TL)	0.38	9	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 104 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF 1650F 1.5E *Except* T3:2x6 SPF 1650F 1.5E

BOT CHORD 2x4 SPF 1650F 1.5E

WEBS 2x4 SPF No.2 *Except* W1:2x6 SPF 1650F 1.5E

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
8-11-0 oc bracing: 12-13.

WEBS 1 Row at midpt 7-9

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 9=1162/ Mechanical, (min. 0-1-8), 14=1284/0-5-8, (min. 0-1-8)
Max Horiz 14=261 (LC 7)
Max Uplift 9=-186 (LC 6), 14=-147 (LC 7)
Max Grav 9=1314 (LC 16), 14=1284 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-15=-3474/523, 3-15=-3332/544, 3-4=-2995/373, 4-16=-2889/383, 5-16=-2859/403, 5-6=-3329/470, 6-17=-2460/331, 7-17=-2460/331, 8-9=-266/63, 2-14=-1369/316

BOT CHORD 13-14=-335/369, 12-13=-650/3105, 11-12=-379/2592, 10-11=-441/3096, 9-10=-365/2460

WEBS 3-13=-267/112, 3-12=-515/252, 5-12=-347/2401, 6-10=-917/192, 7-10=-18/497, 7-9=-2584/365, 6-11=-1989/275, 5-11=-147/1134, 2-13=-299/2600

NOTES

1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-5-5, Exterior (2) 8-5-5 to 13-8-2, Interior (1) 13-8-2 to 19-11-5, Exterior (2) 19-11-5 to 23-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=0-0-0
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 186 lb uplift at joint 9 and 147 lb uplift at joint 14.
10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	T2	Roof Special	2	1	ROSENE

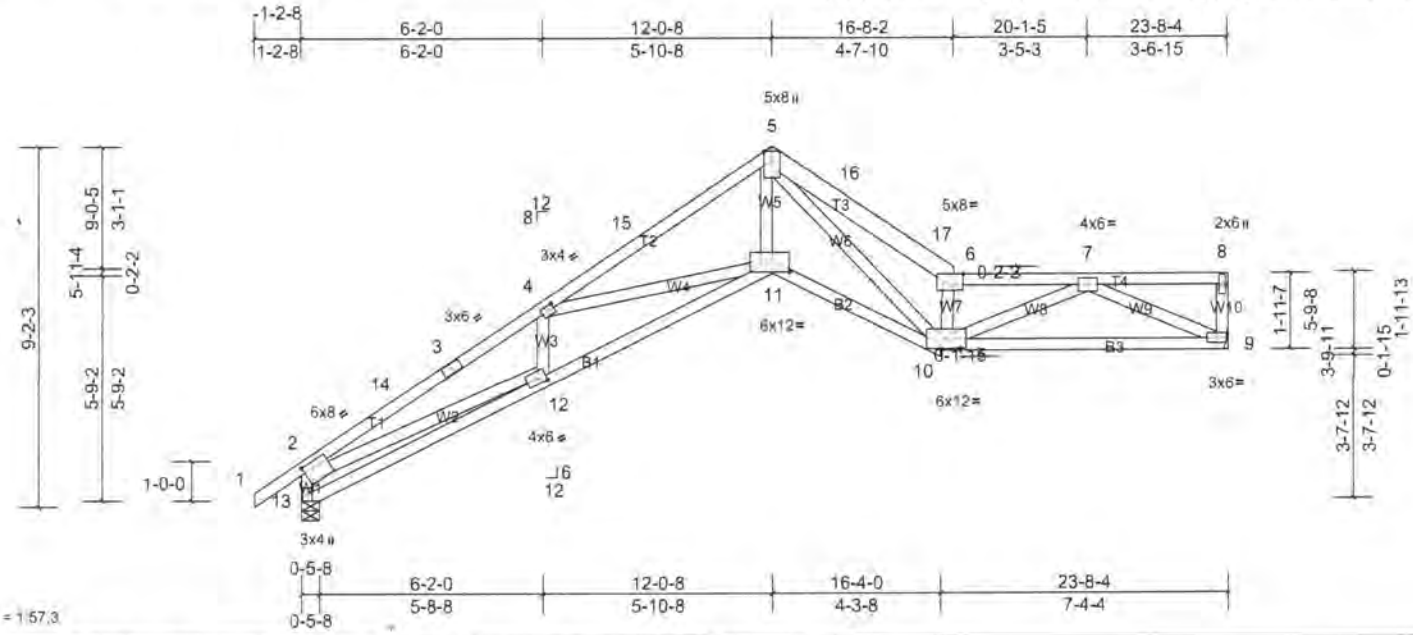


Plate Offsets (X, Y): [2:0-3-0,0-1-12], [4:0-1-12,0-1-8], [6:0-2-12,Edge], [11:0-5-4,0-3-8], [12:0-2-12,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.29	11-12	>984	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.60	Vert(TL)	-0.60	11-12	>464	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horiz(TL)	0.40	9	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 105 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF 1650F 1.5E *Except* T3:2x6 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-5-3 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 9=1167/ Mechanical, (min. 0-1-8), 13=1281/0-5-8, (min. 0-1-11)
Max Horiz 13=248 (LC 6)
Max Uplift 9=-127 (LC 8), 13=-153 (LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-14=-3527/493, 3-14=-3387/496, 3-4=-3364/514, 4-15=-3019/335, 5-15=-2882/355, 5-16=-3525/463, 16-17=-3577/449, 6-17=-3644/441, 6-7=-3390/390, 2-13=-1360/304
BOT CHORD 12-13=-302/358, 11-12=-580/3162, 10-11=-275/2680, 9-10=-238/2016
WEBS 4-12=-265/108, 4-11=-549/270, 5-11=-281/2589, 5-10=-222/1011, 6-10=-2354/332, 2-12=-272/2662, 7-10=-140/1512, 7-9=-2168/299

NOTES

1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-5-5, Exterior (2) 8-5-5 to 15-7-11, Interior (1) 15-7-11 to 19-11-5, Exterior (2) 19-11-5 to 23-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=0-0-0
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 9 and 153 lb uplift at joint 13.
9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	T3	Roof Special	2	1	ROSENE

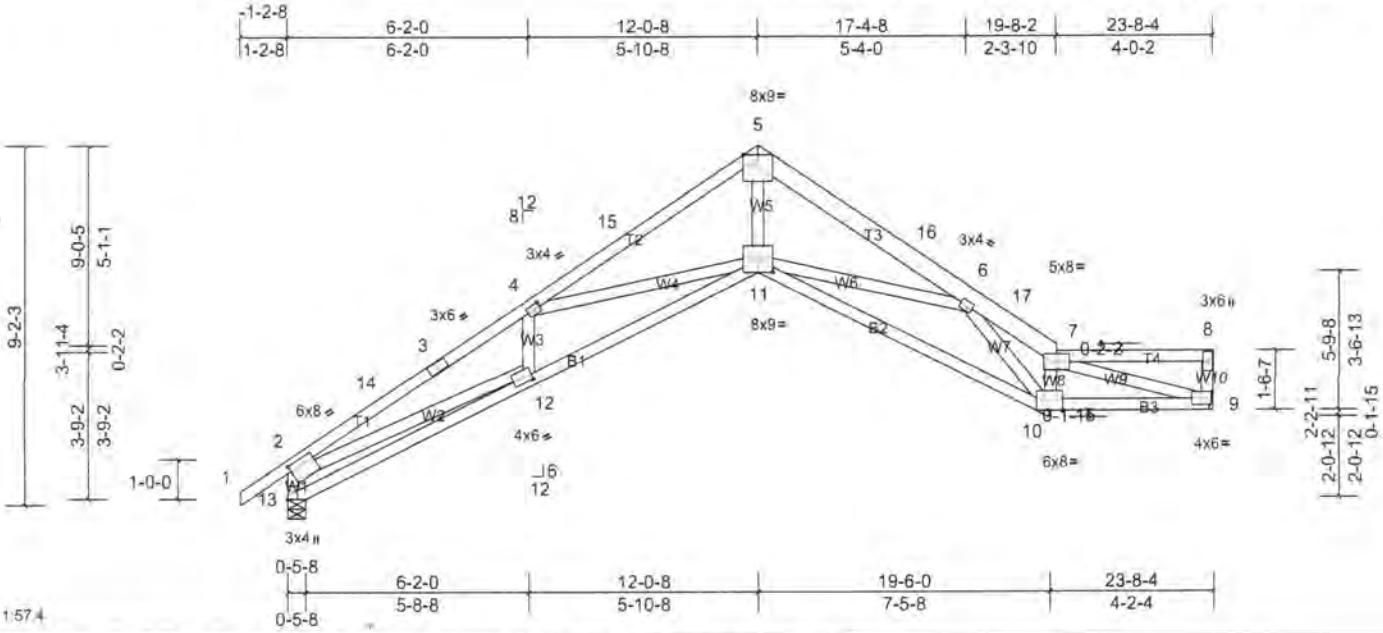


Plate Offsets (X, Y): [2:0-3-0,0-1-12], [4:0-1-12,0-1-8], [10:0-4-2,Edge], [11:0-4-8,0-3-15], [12:0-2-12,0-1-12], [13:Edge,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.29	11-12	>966	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.70	Vert(TL)	-0.68	10-11	>412	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horiz(TL)	0.50	9	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 106 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 1650F 1.5E *Except* T3:2x6 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 9=1167/ Mechanical, (min. 0-1-8), 13=1281/0-5-8, (min. 0-1-11)
Max Horiz 13=247 (LC 6)
Max Uplift 9=-117 (LC 8), 13=-159 (LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-14=-3523/444, 3-14=-3382/448, 3-4=-3359/465, 4-15=-3031/262, 5-15=-2895/282, 5-16=-2920/301, 6-16=-3003/279, 6-17=-3284/354, 7-17=-3351/348, 8-9=-252/54, 2-13=-1360/290
BOT CHORD 12-13=-296/360, 11-12=-489/3159, 10-11=-312/3327, 9-10=-261/2890
WEBS 4-12=-271/99, 4-11=-534/291, 5-11=-208/2795, 7-10=-1196/165, 7-9=-2945/275, 2-12=-231/2656, 6-11=-710/298, 6-10=-363/207

NOTES
1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-5-5, Exterior (2) 8-5-5 to 15-7-11, Interior (1) 15-7-11 to 19-8-2, Exterior (2) 19-8-2 to 23-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=0-0-0
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 9 and 159 lb uplift at joint 13.
9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	T4	Roof Special	2	1	ROSENE

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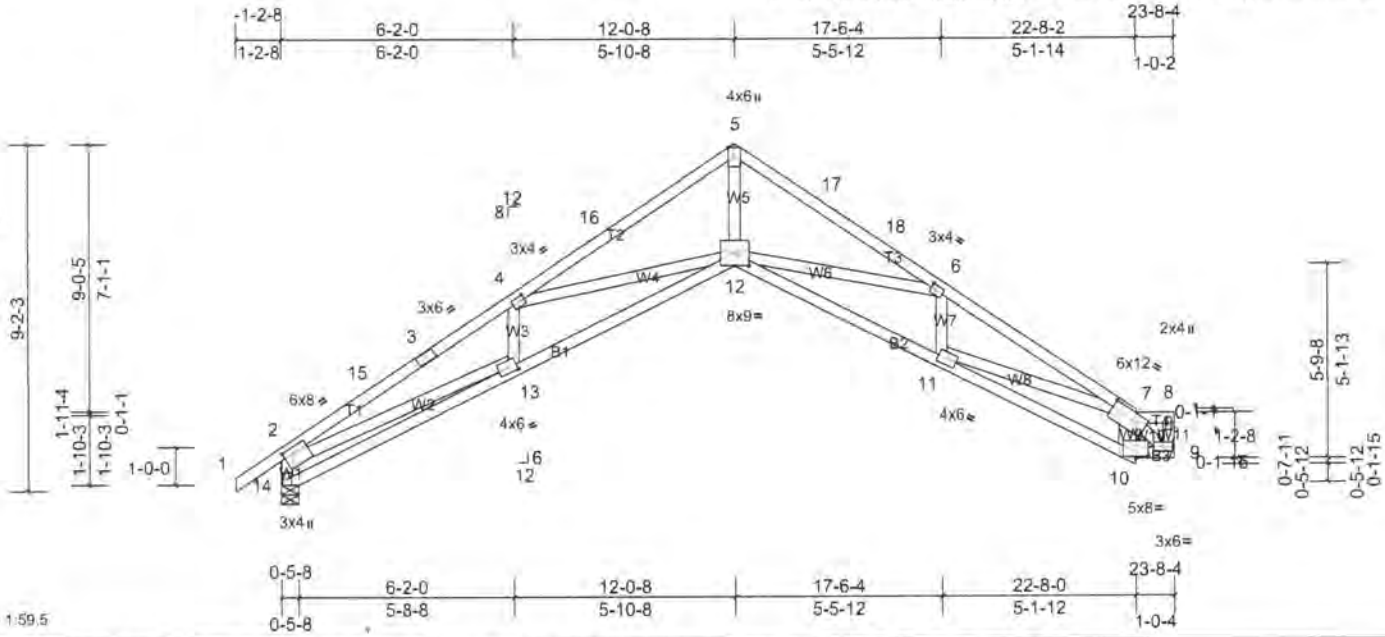

Scale = 1:59.5

Plate Offsets (X, Y): [2:0-3-0,0-1-12], [4:0-1-12,0-1-8], [6:0-1-12,0-1-8], [7:0-8-12,0-2-8], [10:0-4-0,0-0-8], [12:0-4-8,0-3-15], [13:0-2-12,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.29	12-13	>956	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.60	Vert(TL)	-0.62	12-13	>453	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horiz(TL)	0.63	9	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 102 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2 *Except* W9:2x6 SPF 1650F 1.5E

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 9=1167/ Mechanical, (min. 0-1-8), 14=1281/0-5-8, (min. 0-1-11)
Max Horiz 14=246 (LC 6)
Max Uplift 9=-111 (LC 8), 14=-163 (LC 7)
Max Grav 9=1271 (LC 17), 14=1281 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-15=-3528/383, 3-15=-3387/386, 3-4=-3364/404, 4-16=-3019/184, 5-16=-2881/204, 5-17=-2863/224, 17-18=-2881/210, 6-18=-3009/197, 6-7=-3702/255, 2-14=-1360/273
BOT CHORD 13-14=-292/357, 12-13=-391/3162, 11-12=-173/3298, 10-11=-129/1379, 9-10=-110/1235
WEBS 4-13=-267/94, 4-12=-564/307, 5-12=-126/2766, 6-12=-743/313, 6-11=-268/75, 7-11=-70/1787, 7-10=-605/101, 7-9=-1758/168, 2-13=-179/2663

NOTES

1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-5-5, Exterior (2) 8-5-5 to 15-7-11, Interior (1) 15-7-11 to 22-8-2, Exterior (2) 22-8-2 to 23-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=0-0-0
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 9 and 163 lb uplift at joint 14.
9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	T5	Scissor	3	1	ROSENE

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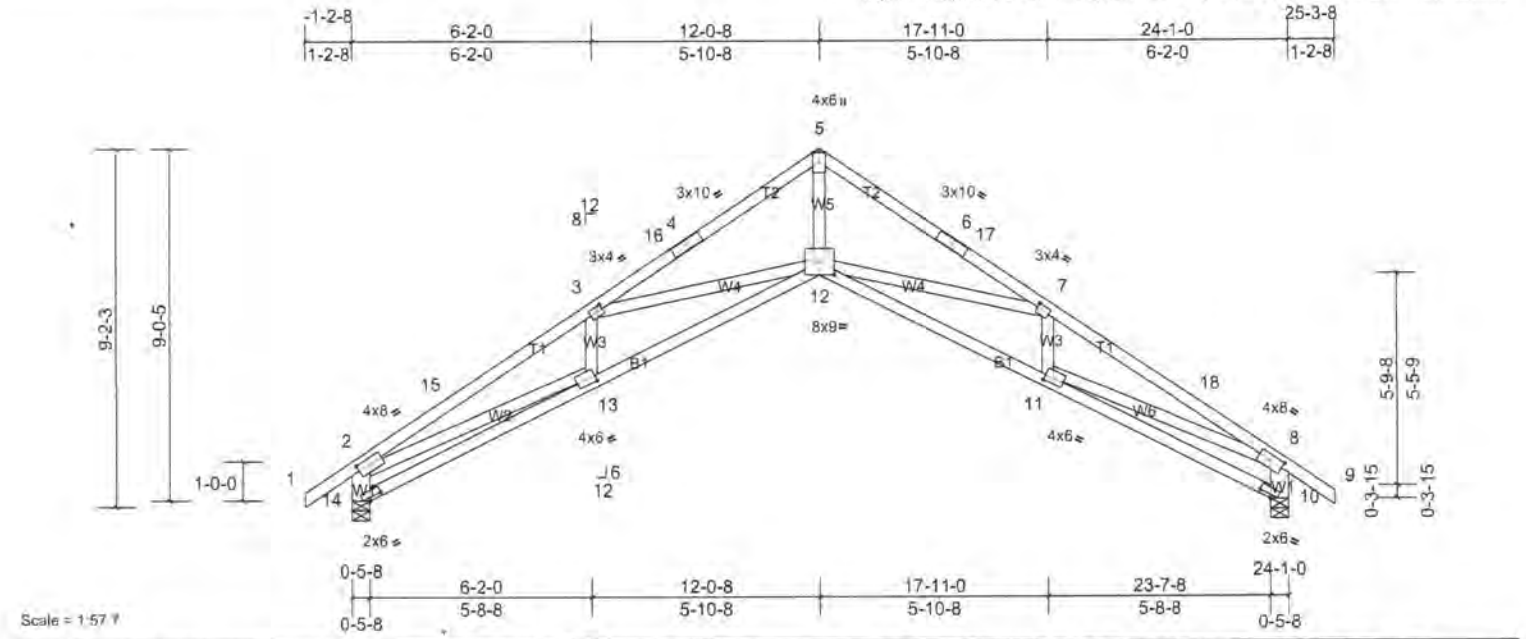

Plate Offsets (X, Y): [2:0-4-0,0-1-12], [3:0-1-12,0-1-8], [7:0-1-12,0-1-8], [8:0-4-0,0-1-12], [10:0-4-2,0-1-0], [11:0-2-12,0-1-12], [12:0-4-8,0-3-15], [13:0-3-0,0-1-12], [14:0-4-2,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.31	11-12	>908	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.59	Vert(TL)	-0.66	11-12	>431	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horiz(TL)	0.72	10	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 104 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2 *Except* W1:2x6 SPF 1650F 1.5E

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 10=1296/0-5-8, (min. 0-1-8), 14=1296/0-5-8, (min. 0-1-8)
Max Horiz 14=-237 (LC 5)
Max Uplift 10=-167 (LC 8), 14=-167 (LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-15=-3515/316, 3-15=-3373/337, 3-16=-3061/93, 4-16=-2952/104, 4-5=-2926/123, 5-6=-2926/142, 6-17=-2952/123, 7-17=-3061/112, 7-18=-3373/201, 8-18=-3515/180, 2-14=-1382/258, 8-10=-1382/203
BOT CHORD 13-14=-281/373, 12-13=-289/3149, 11-12=-94/3149, 10-11=-45/372
WEBS 5-12=-32/2792, 7-12=-535/376, 7-11=-276/74, 3-12=-535/318, 3-13=-276/85, 2-13=-123/2632, 8-11=-48/2632

NOTES
1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-5-5, Exterior (2) 8-5-5 to 15-7-11, Interior (1) 15-7-11 to 21-8-5, Exterior (2) 21-8-5 to 25-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
5) Bearing at joint(s) 14, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 167 lb uplift at joint 14 and 167 lb uplift at joint 10.
7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	T6	Common	6	1	ROSENE

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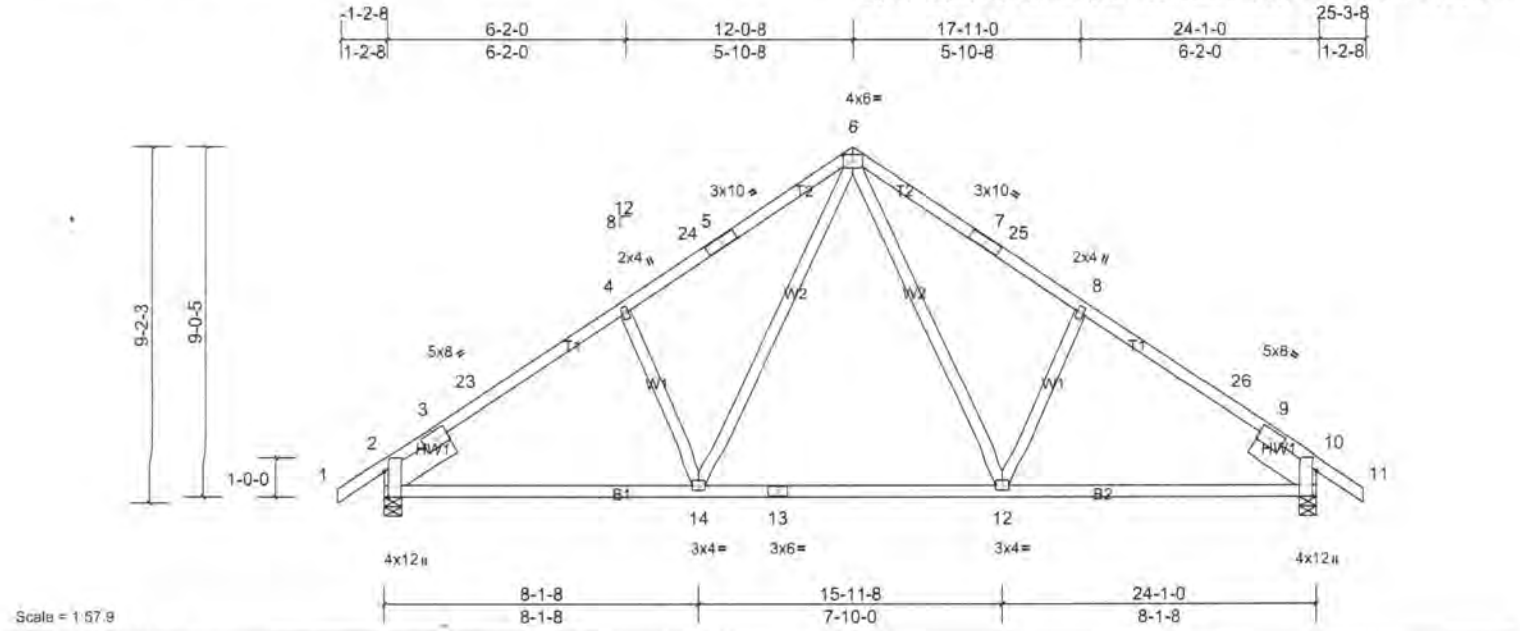


Plate Offsets (X, Y): [2:0-7-13,Edge], [6:0-3-0,0-1-12], [10:0-7-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.12	12-14	>999	240	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.47	Vert(TL)	-0.27	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.07	10	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 109 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x8 SP 2400F 2.0E – 2-0-0, Right 2x8 SP 2400F 2.0E – 2-0-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=1301/0-5-8, (min. 0-2-1), 10=1301/0-5-8, (min. 0-2-1)
Max Horiz 2=-206 (LC 5)
Max Uplift 2=-161 (LC 7), 10=-161 (LC 8)

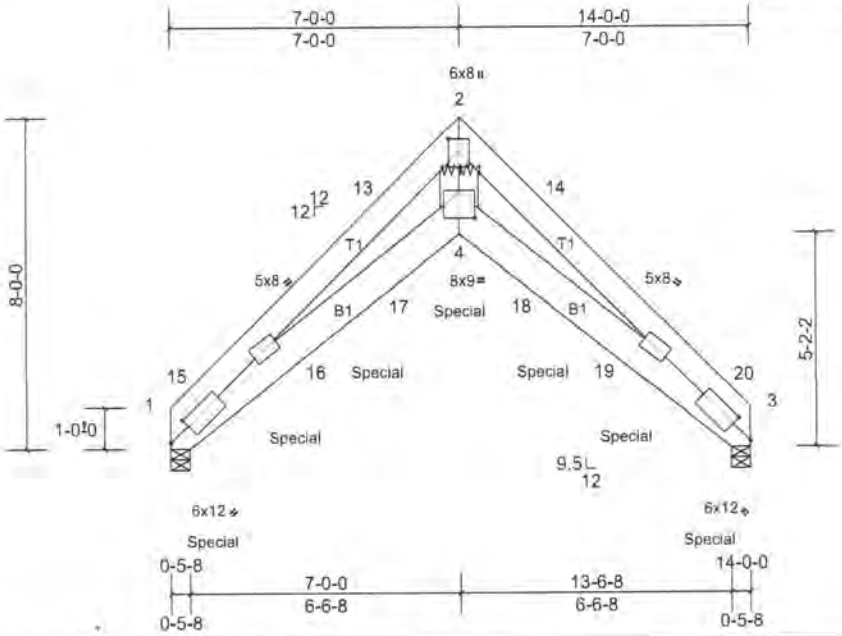
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-427/0, 3-23=-1530/155, 4-23=-1342/176, 4-24=-1381/217, 5-24=-1270/228, 5-6=-1249/247, 6-7=-1249/247, 7-25=-1270/228, 8-25=-1381/217, 8-26=-1342/176, 9-26=-1530/156
BOT CHORD 2-14=-167/1175, 13-14=0/834, 12-13=0/834, 10-12=-57/1175
WEBS 6-12=-125/562, 8-12=-412/204, 6-14=-125/562, 4-14=-412/204

NOTES

1) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone and C-C Exterior (2) -1-2-8 to 2-4-11, Interior (1) 2-4-11 to 8-5-5, Exterior (2) 8-5-5 to 15-7-11, Interior (1) 15-7-11 to 21-8-5, Exterior (2) 21-8-5 to 25-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 161 lb uplift at joint 2 and 161 lb uplift at joint 10.
6) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	KLEIBER CONSTRUCTION
221396-R1	TG1	Scissor Girder	1	3	ROSENE



Scale = 1:54.1

Plate Offsets (X, Y): [1:0-7-1,0-2-6], [2:0-3-12,0-3-0], [3:0-7-1,0-2-6], [4:0-4-8,0-7-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.11	4-12	>999	240	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.27	Vert(TL)	-0.22	4-12	>781	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.26	Horiz(TL)	-0.38	1	n/a	n/a		
BCLL	0.0	Code	IRC2009/TPI2007	Matrix-MS								
BCDL	10.0										Weight: 428 lb	FT = 20%

LUMBER
TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x6 SPF 1650F 1.5E

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=5057/0-5-8, (min. 0-2-10), 3=4726/0-5-8, (min. 0-1-8)
Max Horiz 3=-177 (LC 4)
Max Uplift 1=-584 (LC 7), 3=-546 (LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-13=-11011/1322, 2-13=-10873/1342, 2-14=-10792/1274, 3-14=-10931/1257
BOT CHORD 1-15=-512/3788, 1-15=-584/4586, 1-16=-1070/8734, 16-17=-1138/9471, 4-17=-1229/10201, 4-18=-1280/10336, 18-19=-1189/9606, 3-19=-1118/8869, 3-20=-536/3495, 3-20=-471/2703
WEBS 2-4=-1809/14963

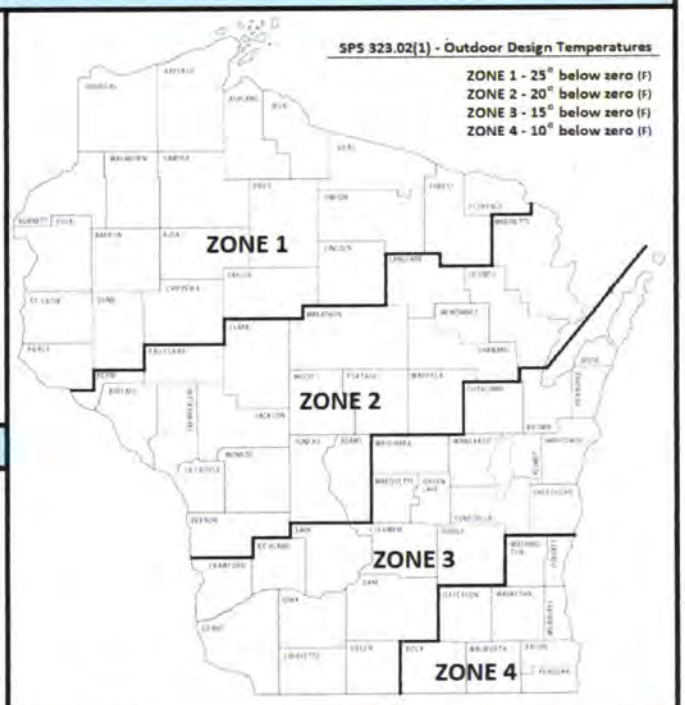
NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-11-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.
Web connected as follows: 2x6 - 2 rows staggered at 1-0-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-05; 90mph; TCDL=5.0psf; BCDL=5.0psf; h=40ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Bearing at joint(s) 1, 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 584 lb uplift at joint 1 and 546 lb uplift at joint 3.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1251 lb down and 121 lb up at 1-0-0, 1147 lb down and 137 lb up at 3-0-0, 1147 lb down and 147 lb up at 5-0-0, 1294 lb down and 196 lb up at 7-0-0, 1147 lb down and 147 lb up at 9-0-0, and 1147 lb down and 137 lb up at 11-0-0, and 1251 lb down and 121 lb up at 13-0-0 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-80, 2-3=-80, 4-5=-20, 4-10=-20
Concentrated Loads (lb)
Vert: 4=-1294, 15=-1251, 16=-1147, 17=-1147, 18=-1147, 19=-1147, 20=-1251

HEATING EQUIPMENT SIZING SUMMARY

General Information

Project Name/Address:	Rosene Addition, Neumann Plumbing	
Job Site County:	Milwaukee	
Your UA:	203	UA
Conditioned Floor Area:	1068	(ft^2)
Average Wall Height:	9	(ft)
Infiltration Rate:	0.50	(ACH)
Equipment Oversizing Factor:	15	(%)



Load Summary

Conductive Losses:	16240	Btu/Hr
Infiltration Losses:	6921	Btu/Hr
Equipment Oversizing Factor Losses:	3474	Btu/Hr
TOTAL BUILDING HEATING LOAD:	**26635**	**Btu/Hr**

How To Use the Heating Equipment Sizing Summary

1. Enter your **"Project Name / Address"**. Using the same labelling as your ResCheck makes it easier to keep track of.

2. Select your **"Job Site County"** from the pull-down Menu. This will determine the Design Temperature based on the Outdoor Design Temperatures Map, as included. SPS323.02(1).

3. Enter the **"Your UA"** and **"Conditioned Floor Area"** numbers from your ResCheck print out.

4. Enter the **"Average Wall Height"** in Feet. This is similar to previous versions of ResCheck and will calculate the volume of building air needed for Infiltration Losses.

5. Enter your **"Infiltration Rate"**. This should be calculated at a maximum of 0.50 air changes per hour SPS322.30(2).

6. Enter an **"Equipment Oversizing Factor"** greater than 0 if you wish to generate a Btu/Hr load greater than calculated conductive and infiltration losses.

RESCheck Software Version 4.6.2
Compliance Certificate

Project Test House

Energy Code: 2009 IECC
Location: Wausau, Wisconsin
Construction Type: Single-family
Project Type: New Construction
Orientation: Bldg. faces 0 deg. from North
Conditioned Floor Area: 2,320 ft2
Glazing Area 10%
Climate Zone: 6 (8427 HDD)
Permit Date:
Permit Number:

Construction Site: Owner/Agent: Designer/Contractor:

Compliance: Passes using UA trade-off
Compliance: 4.0% Better Than Code Maximum UA: 248 Your UA: 238
The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules it DOES NOT provide an estimate of energy use or cost relative to a minimum-code home

7. "**Conductive Losses**" = Your UA x Design Temperature Difference

8. **"Infiltration Losses"** = 0.018 BTU (heat capacity of air) x Conditioned Floor Area x Average Wall Height x Infiltration Rate x Design Temperature Difference

9. **"Equipment Oversizing Factor Losses"** = (Conductive Losses + Infiltration Losses) x Equipment Oversizing Factor

10. "**Total Building Heating Load**" = Conductive Losses + Infiltration Losses + Oversizing Factor Losses

REScheck Software Version 4.7.2
Compliance Certificate

Project Rosene Home Addition

Energy Code:	**2009 IECC**
Location:	**Fox Point, Wisconsin**
Construction Type:	**Single-family**
Project Type:	**Addition**
Orientation:	**Unspecified**
Climate Zone:	**6 (6804 HDD)**
Permit Date:	
Permit Number:	

Construction Site:
1554 E Goodrich Lane
Fox Point, WI 53217

Owner/Agent:

Designer/Contractor:
Rick Eggebeen
Neumann Plumbing & Heating
Howards Grove, WI 53083

Compliance: Passes using UA trade-off

Compliance: **0.0% Better Than Code** Maximum UA: **203** Your UA: **203**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.
It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

NOTE: Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Bedroom Foundation: Solid Concrete or Masonry Wall height: 4.1' Depth below grade: 4.0' Insulation depth: 4.1'	490	0.0	5.0	0.121	0.065	30	16
Bedroom Wall: Wood Frame, 16" o.c. Orientation: Unspecified	1,076	19.0	0.0	0.060	0.057	50	48
Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E Orientation: Unspecified	136			0.300	0.350	41	48
Breezeway Doors: Glass Orientation: Unspecified	84			0.300	0.350	25	29
Bathroom Door: Solid Orientation: Unspecified	21			0.100	0.350	2	7
Mudroom Wall: Wood Frame, 16" o.c. Orientation: Unspecified	258	19.0	0.0	0.060	0.057	13	12
Window 2: Vinyl/Fiberglass Frame:Double Pane with Low-E Orientation: Unspecified	24			0.300	0.350	7	8
Mudroom Door: Glass Orientation: Unspecified	21			0.300	0.350	6	7
Bedroom Ceiling: Cathedral Ceiling	827	38.0	0.0	0.027	0.026	22	22
Mudroom Ceiling: Flat Ceiling or Scissor Truss	241	38.0	0.0	0.030	0.026	7	6

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Mudroom Floor: Slab-On-Grade:Heated Insulation depth: 6.0'	29		15.0	0.655	0.033	0	0

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2009 IECC requirements in RES*check* Version 4.7.2 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Name - Title | Signature | Date

RES*check* Software Version 4.7.2

Inspection Checklist

Energy Code: 2009 IECC

Requirements: 0.0% were addressed directly in the RES*check* software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.2 [PR1][1]	Construction drawings and documentation demonstrate energy code compliance for the building envelope.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
103.2, 403.7 [PR3][1]	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the commercial code.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.6 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads per ACCA Manual J or other approved methods.	Heating: Btu/hr____ Cooling: Btu/hr____	Heating: Btu/hr____ Cooling: Btu/hr____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1 [FO1][1]	Slab edge insulation R-value.	R-____ ☐ Unheated ☐ Heated	R-____ ☐ Unheated ☐ Heated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2, 402.2.8 [FO2][1]	Slab edge insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1 [FO3][1]	Slab edge insulation depth/length.	____ ft	____ ft	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.2.9 [FO7][1]	Unvented crawl space wall insulation R-value.	R-____ R-____	R-____ R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2 [FO8][1]	Unvented crawl space wall insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.9 [FO9][1]	Unvented crawl space continuous vapor retarder installed over exposed earth, joints overlapped by 6 in. and sealed, extending at least 6 in. up and attached to the wall.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.9 [FO10][1]	Unvented crawl space wall insulation depth of burial or distance from top of wall.	____ in.	____ in.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2.1 [FO11][2]	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.8 [FO12][2]	Snow- and ice-melting system controls installed.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.4 [FR1][1]	Door U-factor.	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.1, 402.3.1, 402.3.3, 402.5 [FR2][1]	Glazing U-factor (area-weighted average).	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.3 [FR4][1]	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.4 [FR20][1]	Fenestration that is not site built is listed and labeled as meeting AAMA/WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.5 [FR16][2]	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.1 [FR12][1]	Supply ducts in attics are insulated to ≥R-8. All other ducts in unconditioned spaces or outside the building envelope are insulated to ≥R-6.	R-____ R-____	R-____ R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.2 [FR13][1]	All joints and seams of air ducts, air handlers, filter boxes, and building cavities used as return ducts are sealed.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.3 [FR15][3]	Building cavities are not used for supply ducts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3 [FR17][2]	HVAC piping conveying fluids above 105 ºF or chilled fluids below 55 ºF are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4 [FR18][2]	Circulating service hot water pipes are insulated to R-2.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5 [FR19][2]	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13][2]	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.4, 402.2.5 [IN3][1]	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies.	R-____ ☐ Wood ☐ Mass ☐ Steel	R-____ ☐ Wood ☐ Mass ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2 [IN4][1]	Wall insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2 [FI1][1]	Ceiling insulation R-value. Where > R-30 is required, R-30 can be used if insulation is not compressed at eaves. R-30 may be used for 500 ft² or 20% (whichever is less) where sufficient space is not available.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.1.1, 303.2 [FI2][1]	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft².			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.3 [FI3][1]	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.2, 402.4.2.1 [FI17][1]	Building envelope tightness verified by blower door test result of <7 ACH at 50 Pa. This requirement may instead be met via visual inspection, in which case verification may need to occur during Insulation Inspection.	ACH 50 =____	ACH 50 =____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.2 [FI4][1]	Post construction duct tightness test result of ≤8 cfm to outdoors, or ≤12 cfm across systems. Or, rough-in test result of ≤6 cfm across systems or ≤4 cfm without air handler. Rough-in test verification may need to occur during Framing Inspection.	____ cfm	____ cfm	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.1 [FI9][2]	Programmable thermostats installed on forced air furnaces.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.2 [FI10][2]	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4 [FI11][2]	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1 [FI6][1]	50% of lamps in permanent fixtures are high efficacy lamps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
401.3 [FI7][2]	Compliance certificate posted.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.3 [FI18][3]	Manufacturer manuals for mechanical and water heating equipment have been provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

2009 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	19.00
Below-Grade Wall	5.00
Floor	15.00
Ceiling / Roof	38.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
Window	0.30	
Door	0.30	

Heating & Cooling Equipment	Efficiency
Heating System:_____	_____
Cooling System:_____	_____
Water Heater:_____	_____

Name: _____ Date:_____

Comments

VILLAGE OF FOX POINT

VILLAGE OF FOX POINT
7200 N Santa Monica Blvd
Fox Point, WI 53217
(414) 247-6622
www.villageoffoxpoint.com

Permit Number:

B- _____

OFFICE USE ONLY
Issued Date
Zoning C, 70'

BUILDING PERMIT

Job Address 7033 N. LOMBARDY RD	**Building Type:** Residential [X] Commercial [ ]
Description of Work	
hot tub installation back yard	
Estimated Cost of Project $	

Owner/Occupant	
Business Name APRIL PELLMANN	Contact Name —
Address as above	City/State/Zip FOX POINT, WI 53217
Phone 414, 704, 7187	Email april.pellmann@gmail.com

Cautionary Statement required when homeowner is applying for permit

Contractor	
Company Name PIEPER Power Electric	Contact Name
Address	City/State/Zip
Phone	Email
Dwelling Contractor #	Dwelling Contractor Qualifier #

Square Footage Under Construction				
1st Floor	2nd Floor	Basement	Addition	Garage

Description	Rate	Amount
Project - Per $1,000 of estimated cost	$10.00	
Building Board	$75.00	75.00
Footing early start - $230.00 one and two family; $305.00 commercial		
Plan Review - $275.00 one and two family; New Single Family Construction $330.00 plus $30.00/unit commercial		
State Seal	$75.00	
Razing, Interior Demolition $925.00 max/bld $95.00 minimum plus	$0.13/sqft	
Moving buildings $250.00 plus	$0.13/sqft	
Fuel tanks - Per 1,000 gallons	$25.00	
Re-inspection	$100.00	
Work started without permit	**Double**	
Minimum Fee	**$70.00**	
Payable to: Village of Fox Point **Total Permit Fee**		$ 75.00

Applicant Signature April Pellmann **Date** 10/27/22
Rev 01/22

ISSUED PERMITS are available on the Village website under *PERMITS & LICENSES*

VILLAGE OF FOX POINT
7200 N. SANTA MONICA BLVD
FOX POINT WI 53217 414-351-8900

Receipt No: 1.058242 Oct 27, 2022

7033 N Lombardy

Previous Balance:	.00
LICENSES & PERMITS - BUILDING PERMIT	75.00
24-44460 BUILDING PERMIT	
Total:	75.00
CHECK Check No: 2732	75.00
Payor: April Pellmann	
Total Applied:	75.00
Change Tendered:	.00

Duplicate Copy

10/27/2022 2:33 PM

VILLAGE OF FOX POINT
7200 N Santa Monica Blvd
Fox Point, WI 53217
(414) 247-6622
www.villageoffoxpoint.com

CAUTIONARY STATEMENT TO OWNERS OBTAINING BUILDING PERMITS

101.65(1r) of the Wisconsin Statutes requires municipalities that enforce the Uniform Dwelling Code to provide an owner who applies for a building permit with a statement advising the owner that:

If the owner hires a contractor to perform work under the building permit and the contractor is not bonded or insured as required under s. 101.654(2)(a), the following consequences might occur:

(a) The owner may be held liable for any bodily injury to or death of others or for any damage to the property of others that arises out of the work performed under the building permit or that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

(b) The owner may not be able to collect from the contractor damages for any loss sustained by the owner because of a violation by the contractor of the one- and two- family dwelling code or an ordinance enacted under sub. (1)(a), because of any bodily injury to or death of others or damage to the property of others that arises out of the work performed under the building permit or because of any bodily injury to or death of others or damage to the property of others that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

Wetlands Notice to Permit Applicants

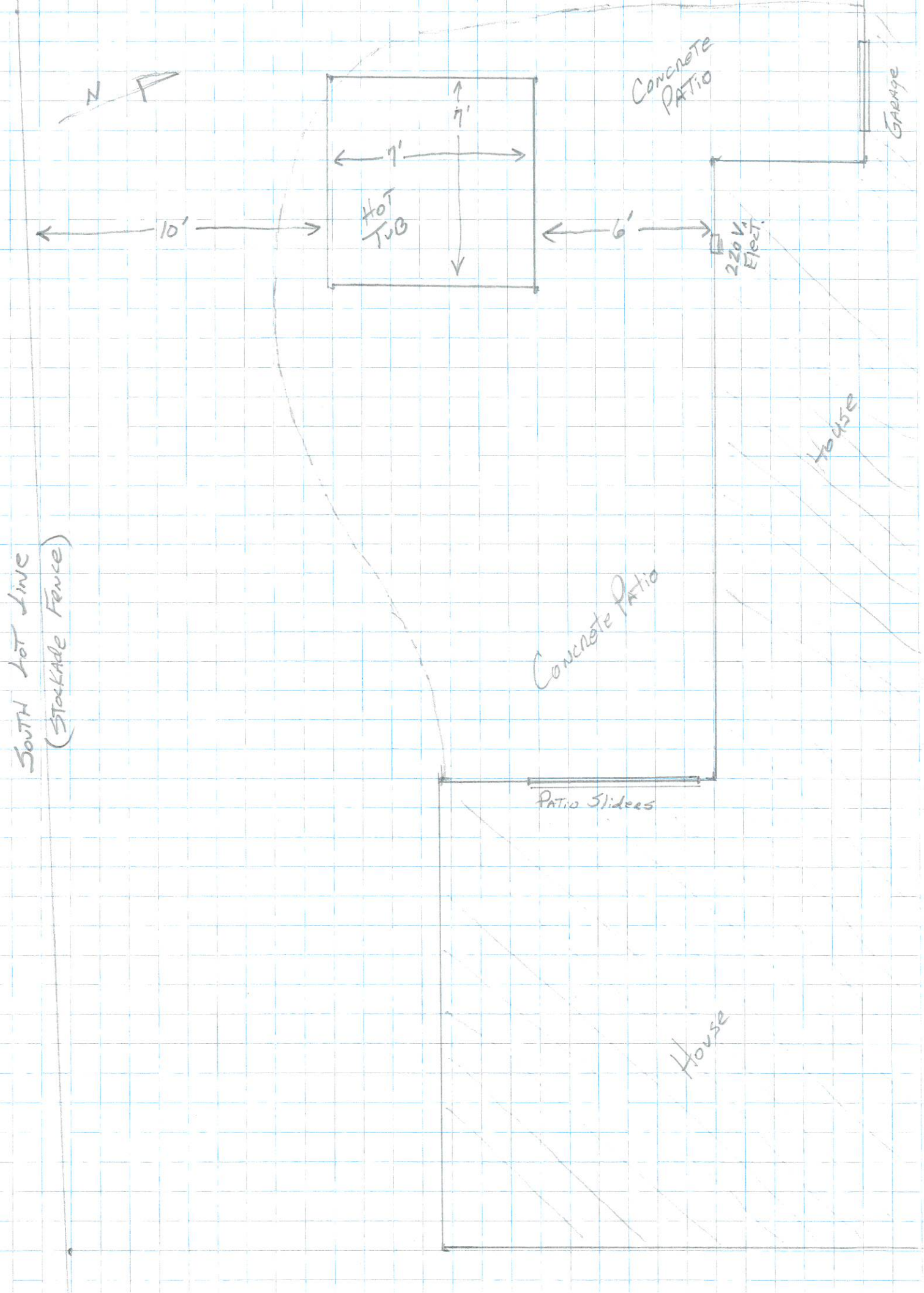
You are responsible for complying with state and federal laws concerning the construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the Department of Natural Resources wetlands identification web page or contact a Department of Natural Resources service

Additional Responsibilities for Owners of Projects Disturbing One or More Acre of Soil

I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and will comply with those standards.

APRIL M. PELLMANN	7033 N. LOMBARDY RD.
Homeowner's Name – PRINTED	Property Address
April M. Pellmann	10-27-22
Homeowner's Signature	Date

Rev 09/20


N
7'
7'
Hot Tub
10'
6'
Concrete Patio
Garage
220 V. Elect.
House
South Lot Line
(Stockade Fence)
Concrete Patio
Patio Slidees
House

No. 1687

WISCONSIN SURVEYS & ENGINEERING

Surveying — Mapping — Engineering

[redacted] Milwaukee 13, Wis. GReenfield 6[redacted]-8080

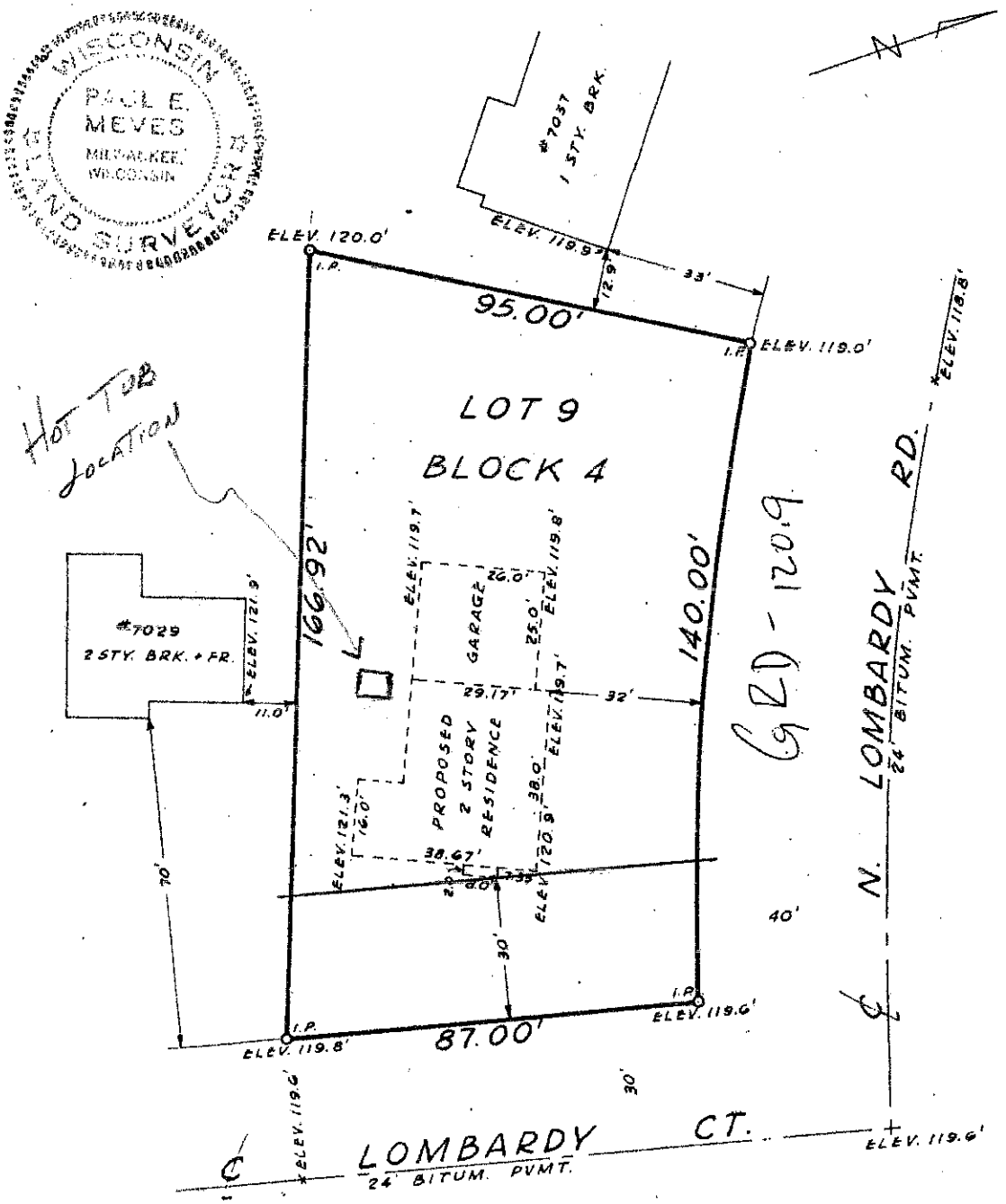
537 N. Hawley Rd.

PLAT OF SURVEY

Survey For: M. & P. Construction Co. Inc.

Address of Property: 7033 N. Lombardy Rd.
Fox Point, Wis.

Description: Lot 9, Block 4, in CARL MILLER SUBDIVISION NO. 7, being a division of Lot 17, Block 2, Carl Miller Subdivision No. 5, in the NW¼ of Section 21, Town 8 North, Range 22 East, in the Village of Fox Point, Milwaukee County, Wisconsin.



State of Wisconsin
County of Milwaukee } ss.

Scale: 1" = 30'

We hereby certify that we have surveyed the above described property and that the above plat is a true representation thereof and correctly shows the exterior boundary lines, location of buildings and other improvements thereon.

Date of survey: June 25, 1960

Paul E. Meves

Surveyor

Jacuzzi® J-345™

Comfort Hot Tub with Open Seating

Seats: 6+

Jets: 41

Get Pricing

Request Brochure

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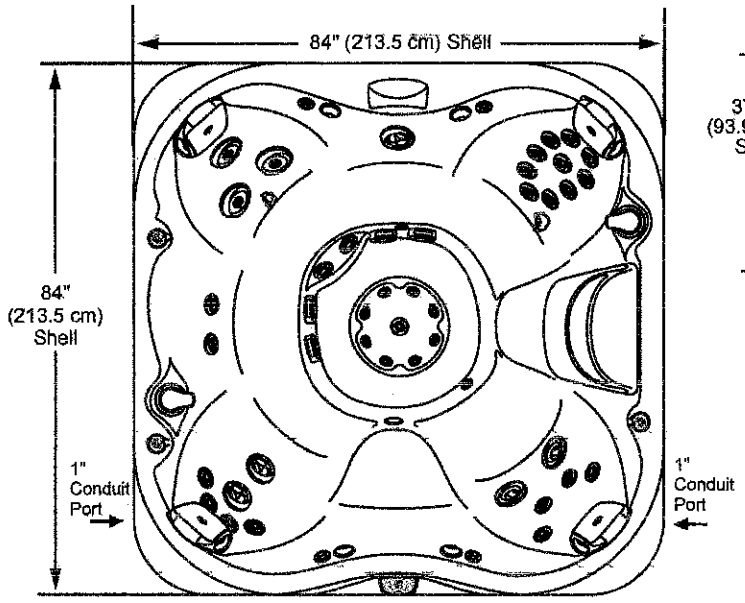
TOP VIEW

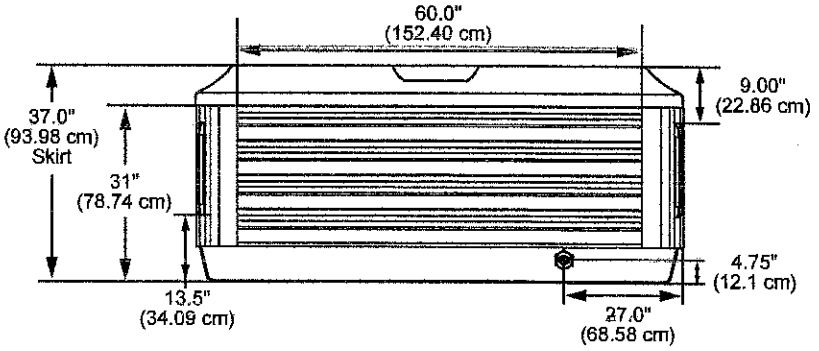


FRONT

Equipment Bay/Pump Access CLEARRAY, Optional BLUEWAVE, and Optional SmartTub Module behind skirt panels

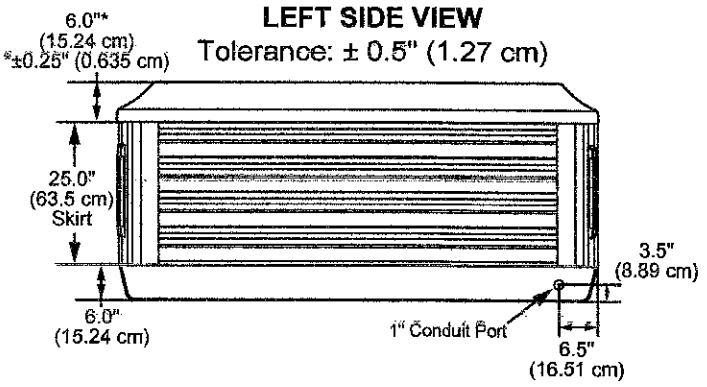
FRONT/BACK VIEW

Tolerance: ± 0.5" (1.27 cm)

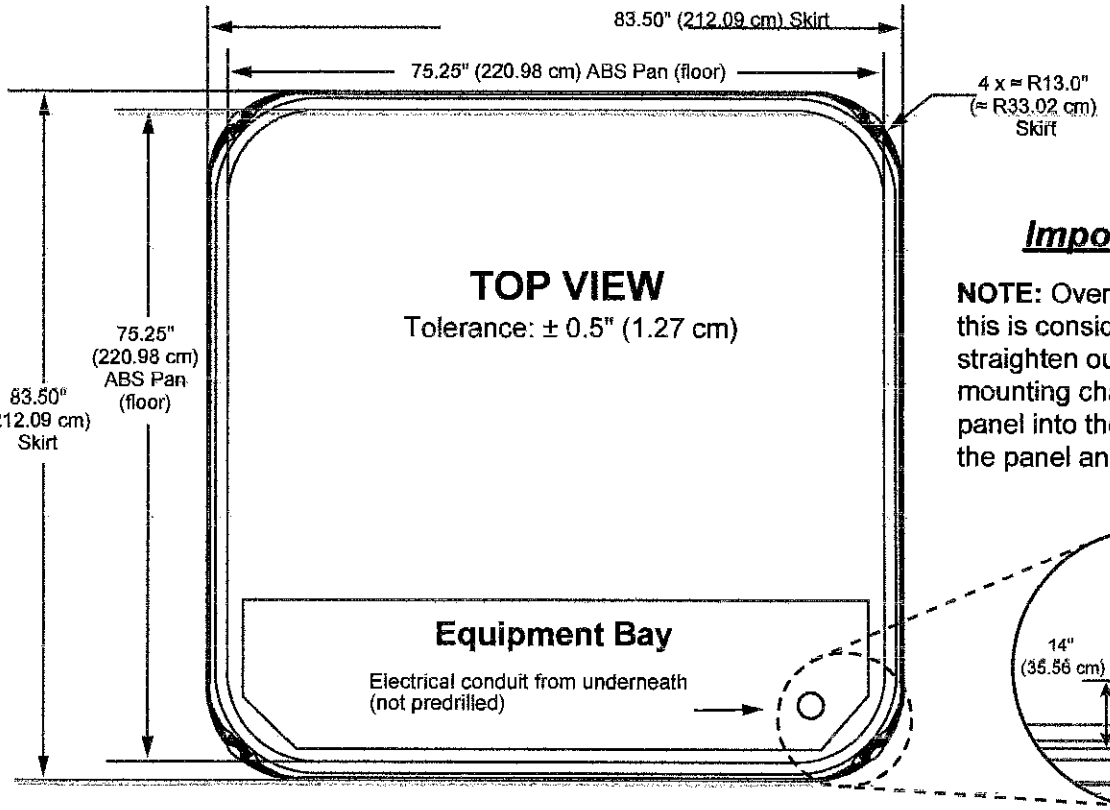


LEFT SIDE VIEW

Tolerance: ± 0.5" (1.27 cm)

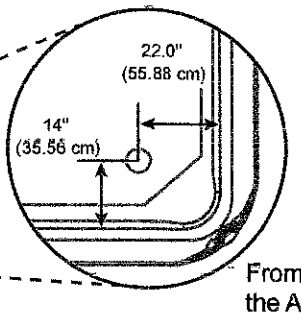


STOP **IMPORTANT! Always measure each hot tub for exact dimensions BEFORE designing its foundational support and/or decking.** **STOP**



Important Panel Details

NOTE: Over time the panel(s) may bow, this is considered normal. The panels will straighten out when reinstalled into the mounting channel. Place one end of the panel into the channel first then flatten the panel and insert the other end.



From the edge of the ABS pan

PIEPER ELECTRIC, INC. | Solutions Powered by People Since 1947

10/25/2022

April Pellmann

7033 N. Lombardy Road

Fox Point, WI 53217

414-704-7187

Hot tub wiring;

We will run a 50 amp 240 volt circuit from the panel to the exterior.

We will install a disconnect on the exterior.

We will run a rigid conduit from the disconnect across the patio slab to the tub location.

We will switch over to flex and terminate in the tub.

We will install a 50 amp 240 volt circuit to the tub.

We will install a GFCI breaker to protect the tub.

We will pull a permit.

$1675.00

50% down with a signed proposal. Balance due upon completion

5477 South Westridge Court | New Berlin, WI 53151 | Telephone: 262-549-9474

Rev 04 20

TERMS AND CONDITIONS OF SALE

1. LIEN NOTICE. As required by the Wisconsin Construction Lien Law, Seller (Pieper Electric, Inc. and all DBAs) hereby notifies Owner that persons or companies furnishing labor or materials for the construction on Owner's land may have lien rights on the Owner's land and buildings if not paid. Those entitled to lien rights, in addition to Seller, are those who contract directly with the Owner or those who give the Owner notice within sixty (60) days after they first furnish labor or materials for the construction. Accordingly, Owner will probably receive notices from those who furnish labor or materials for the construction, and should give a copy of each notice received to his mortgage lender, if any. Seller agrees to co-operate with the Owner and his lender, if any, to see that all potential lien claimants are dulypaid.

2. ENTIRE AGREEMENT. This Agreement constitutes the entire contract for material, work, and other goods and services (collectively "Goods") between the Seller and the buyer ordering such Goods ("Buyer"). It is expressly agreed that no statement, arrangement, warranty, or understanding, oral or written, expressed or implied, will be recognized unless it is stated in, or otherwise permitted by, this Agreement. This Agreement is solely for the benefit of Buyer and Seller, and is not intended for the benefit of any other party.

3. PROPOSAL. Seller is responsible for, and shall have sole control of, the construction methods, sequences and coordination of all work described in the Proposal, unless expressly stated to the contrary. Any items not listed are not included in the Agreement price and shall be the obligation of the Buyer.

4. CONSTRUCTION MATERIALS. All materials and work shall be furnished in accordance with normal industry tolerances for color, variation, thickness, size, weight, amount, finish, texture and performance standards. Excess materials delivered to job site and/or materials not physically attached to the structure after substantial completion of the work contemplated by this Agreement shall remain the property of Seller.

5. ACCESS TO WORK AND SITE. Buyer shall provide electric power, water, telephone and toilet facilities for use by Seller and its subcontractors/employees. Storage of materials and storage of Seller's equipment shall also be provided by Buyer. All utility connections and service charges, if any, shall be paid by the Buyer. Furthermore, Buyer agrees to maintain access for Seller at the Project Site to keep Project Site free from obstructions and conflicting work, and to obtain permission for Seller to gain access through adjacent property, if required by Seller to do so. Buyer shall be solely responsible for all risk, shall hold Seller harmless and free of liability, and shall compensate for any damages or costs arising out of such access or the failure to maintain access, except to the extent due to the intentional acts of Seller, its agents and/or employees.

6. INSURANCE. Seller shall maintain workers' compensation, automobile liability, commercial general liability and such other insurance as required by law. Seller will furnish a Certificate of Insurance evidencing the types and amounts of its coverage, upon request. Buyer shall maintain insurance covering all physical loss expressly including, but not limited to, coverage for collapse, fire, wind damage, theft, vandalism and malicious mischief, naming Seller as additional insured. Buyer assumes risk of loss during construction, except for the intentional acts of Seller, its subcontractors or employees.

7. ENVIRONMENTAL HAZARDS. Seller is not responsible for any environmental hazards. The Buyer shall be solely responsible for all risk, shall indemnify and hold Seller harmless and free of liability, and shall bear the costs of any removal or correction of environmental materials.

8. SITE CONDITIONS. Seller shall not be responsible for additional costs due to the existence of latent conditions that are not disclosed in writing to Seller. The raising, disconnection, re-connection or relocation of any mechanical equipment that may be necessary for Seller to perform the work shall be performed by others or treated as an extra.

9. PAYMENT. Buyer shall timely make all payments required by this Agreement. Time is of the essence as to all terms of payment. Buyer agrees that, in addition to other remedies available to Seller, if payment is not timely made, Seller shall be entitled to a service charge of 1.0% per month on all past due amounts, plus, if not contrary to any law, all costs of collection including actual attorneys' fees. Seller shall furnish lien waivers to Buyer at the time each Progress Payment and the Final Payment is made to Seller for the proportionate value of all Goods ordered or delivered as of the time the payment is made. Final Payment shall constitute acceptance and approval of all work, and a waiver of all claims by Buyer, except those arising from liens or the warranty included in this Agreement. No retention shall apply to any of the work.

10. JOB SIGN. Buyer agrees to allow Seller to display a construction sign at the Project Site.

11. CHANGES. No changes, additions, alterations, deviations or extras to the Plans and Specifications shall be made without a written Change Order signed by the Buyer and Seller in advance, which will be performed based on Seller's standard time and material rates. Notwithstanding, Buyer's signature shall not be required for changes necessary to conform to codes, laws or regulations required by any utility or governmental authority, or to address existing conditions of the Project Site unknown to Seller at the time Seller signs this Agreement. All Change Orders shall be incorporated as part of this Agreement. Upon Seller's request, Buyer agrees to pay for all changes in advance of each change being commenced. Buyer understands and agrees that changes will extend the time of performance by at least 5 work days for each change unless otherwise agreed in writing.

12. WORK STOPPAGE. Should work be stopped for any reason, including but not limited to, public authority, Force Majeure event defined in paragraph 13, or the Buyer for more than thirty calendar days, Seller may terminate this Agreement and collect for the value of all work completed and materials ordered as of the date work is stopped, plus Seller's anticipated profit under this Agreement. Buyer's failure to sign Change Orders or Buyer's refusal to make progress payments, or any other cause beyond Seller's sole control, shall also be cause for work stoppage by Seller.

13. DELAY. Work shall be completed within the number of working days stated in this Agreement, unless delay occurs due to work stoppage, adverse weather conditions, labor disputes, changes by Buyer, work performed by Buyer (or Buyer's separate contractors) or governmental authorities, unavailability of materials or supplies, unavoidable casualties, accidents, environmental hazards, a Force Majeure event (includes but not limited to: war, riots, earthquakes, hurricanes, tornadoes, floods, lightning, explosions, energy blackouts/brownouts, lockouts, slowdowns, strikes, terrorism, unforeseen governmental legislation, action or declaration, or health emergency (including local, regional, or nation epidemic or pandemic)). Buyer's failure to make payments as required by this Agreement, or any other cause beyond Seller's sole control. Any such delay shall extend the time of performance or, at Seller's Option, terminate this Agreement if the cause of the delay cannot be resolved within thirty calendar days. Where Seller elects to extend performance, Seller shall also be entitled to additional payment to reflect any increased cost of labor and/or materials. Seller will give notice to Buyer of delay and any adjustments to time of performance or cost of the work necessitated by the delay.

14. DISPUTES. These Terms shall be deemed to have been made in and governed by the laws of the State of Wisconsin. Any legal suit or action with regard to these Terms or the Project hereunder may, at Seller's option, be venued in Milwaukee County Circuit Court, Wisconsin. Seller may also, at Seller's sole discretion, elect arbitration and/or mediation in place of civil litigation, without regard to whether litigation has been commenced by Buyer. If an Arbitrator cannot be agreed upon, Seller can petition Circuit Court for same.

15. WARRANTY. Seller warrants and guarantees to Buyer that all material and equipment, and the work to be performed hereunder, will be of good quality and free from faults and defects. This warranty shall cover material (except lamps and other expendables) for the manufacturer's stated warranty period and workmanship for one year from the date of substantial completion. This warranty does not apply to bid work if the bid documents stipulate a lesser warranty. This warranty is in lieu of all other warranties, express or implied, of merchantability, fitness for a particular purpose, performance, or otherwise. Seller's liability under the warranty is strictly and exclusively limited to the repair or replacement at the job site of such work (including material and equipment) as is found to be defective within such warranty period, and with respect to which the Buyer has given Seller prompt written notice within such period. No allowance will be made for repairs or alterations unless made with Seller's prior written consent or approval. In no event shall Seller be liable for claims for any other damages based upon breach of express or implied warranty or negligence whether direct, immediate, foreseeable, consequential or special. This paragraph states Seller's entire liability with respect to warranties, guarantees, or representations, express orimplied. Seller will be held harmless against claims, damages, losses and expenses, including attorneys' fees arising from work not done by Seller's own workforce.

16. CONFLICTS/INCONSISTENCIES. If any inconsistency or ambiguity is believed to exist among any of the documents comprising the contract, the inconsistency or ambiguity shall be resolved by applying the following order of precedence: (a) this Agreement including these Terms and Conditions; (b) the plans and specifications, if any; (c) other documents comprising the contract, if any.

17. ASBESTOS AND TOXIC MATERIALS. This proposal and contract is based upon the work to be performed by Seller not involving asbestos-containing or toxic materials and that such materials will not be encountered or disturbed during the course of performing the work. Seller is not responsible for expenses, claims or damages arising out of the presence, disturbance, or removal of asbestos-containing or toxic material. In the event that such materials are encountered, Seller shall be entitled to reasonable compensation for all additional expenses incurred as a result of the presence of asbestos-containing or toxic materials at the work site.

18. PROTECTION OF PERSONAL PROPERTY AND PROJECT SITE. Buyer agrees to remove or protect any personal property inside and outside the Project Site. Seller shall make reasonable efforts to avoid damage to existing property. Seller will make every effort to keep dust down to a bare minimum. Seller is not responsible for housecleaning or damages during normal constructionactivities.

19. IMPAIRMENT OF CREDIT. If Buyer is or becomes insolvent, or is unable to pay his debts as they mature, or files or has filed against him a bankruptcy, insolvency, or similar petition or fails to pay any debt arising hereunder to Seller on time, or if Seller in good faith doubts the ability of Buyer to pay, Seller may, at its option, either: (a) terminate the work at any time thereafter, and Buyer shall thereupon pay for all work performed on a pro-rata basis plus all lost profit or (b) discontinue work until such time as the Buyer has paid Seller in full for work performed, has agreed to pay Seller for any additional costs incurred because of such discontinuance, and upon such other terms or conditions as may be imposed by Seller to ensure the payment for the work.

20. HOLD HARMLESS. Seller will hold harmless and defend Buyer against any claims brought by a third party for damages or losses arising out of Seller's performance of work under this contract, provided that the third party claim is attributable to bodily injury or death, or injury to or from destruction of tangible property, but only to the extent caused by the negligence of Seller or Seller's Subcontractors and not caused in whole or in part by the Buyer or its agents, employees or representatives. Seller shall not be liable for any consequential damages claimed by any party including, but not limited to, lost profits, loss of use, or attorney's fees. As conditions precedent to Seller's duties under this provision, Buyer must (a) provide Seller with written notice of any claim against Buyer immediately after Buyer is aware of the claim; and (b) remain current with all of Buyer's obligations under this contract. This provision is null and void if the Buyer fails to perform any of its obligations under this contract. Seller shall have the sole right to manage the defense of the claim or resolve the claim. Buyer agrees to fully cooperate with Seller in the investigation and defense of any claim brought by another party.

21. WORKING HOURS. Unless specifically noted, all work included in this contract is to be performed during normal business hours, Monday through Friday. Work performed at any other time, or on legal holidays, will result in an extra charge to Buyer.

GENERAL EXCLUSIONS. Seller shall not be responsible for coordinating or supervising work performed by Buyer's own forces or contractors. Seller shall be entitled to an equitable adjustment for hidden or latent conditions. Cost of pumping water from basements and other excavations is not included in quotation. Any alteration or deviation from the specifications as outlined on reverse involving extra cost of material or labor will only be executed upon written orders for same and will become an extra charge over the sum mentioned in this contract. Seller is not responsible for damage to underground services. Any changes in local or state codes effective after date of proposal will be charged as an extra or credited as the case may be. Patching of walls and floors is to be done by others unless specifically stated in this contract as Seller's responsibility.

Gmail

April Pellmann <april.pellmann@gmail.com>

Tub pics

1 message

April Pellmann <april.pellmann@gmail.com>
To: April Pellmann-Span <april.pellmann@gmail.com>

Thu, Oct 27, 2022 at 9:26 AM

7 attachments

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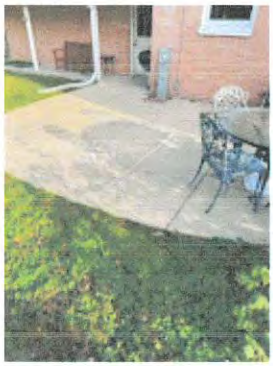

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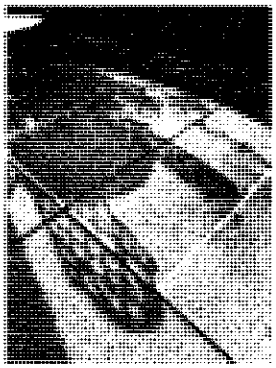
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