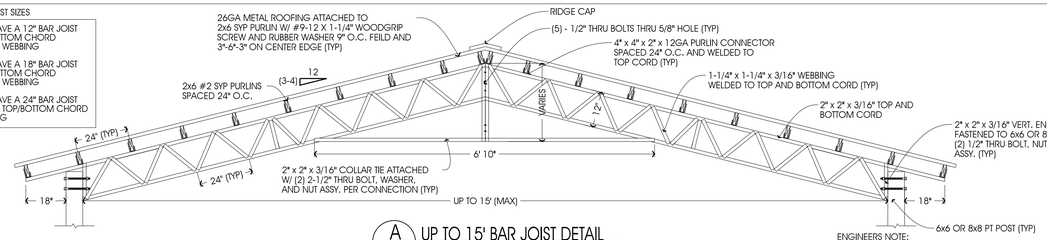
TYPICAL BAR JOIST SIZES

BAR JOIST UP TO 15' SHALL HAVE A 1'2" BAR JOIST
2" X 2" X 3/16" TOP/BOTTOM CHORD
1-1/4" X 1-1/4" X 3/16" WEBBING

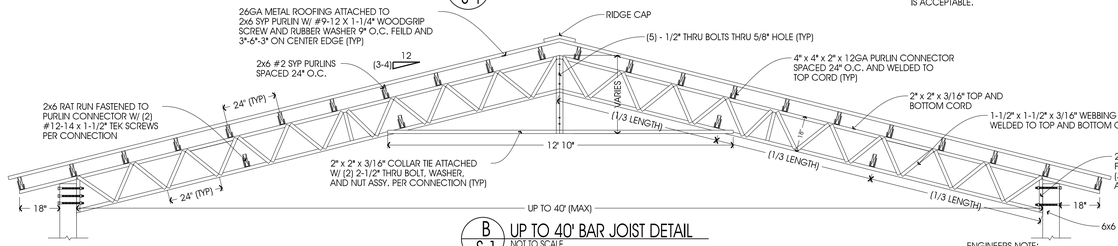
BAR JOIST UP TO 40' SHALL HAVE A 18" BAR JOIST
2" X 2" X 3/16" TOP/BOTTOM CHORD
1-1/2" X 1-1/2" X 3/16" WEBBING

BAR JOIST UP TO 60' SHALL HAVE A 24" BAR JOIST
2-1/2" X 2-1/2" X 3/16" TOP/BOTTOM CHORD
2" X 2" X 3/16" WEBBING



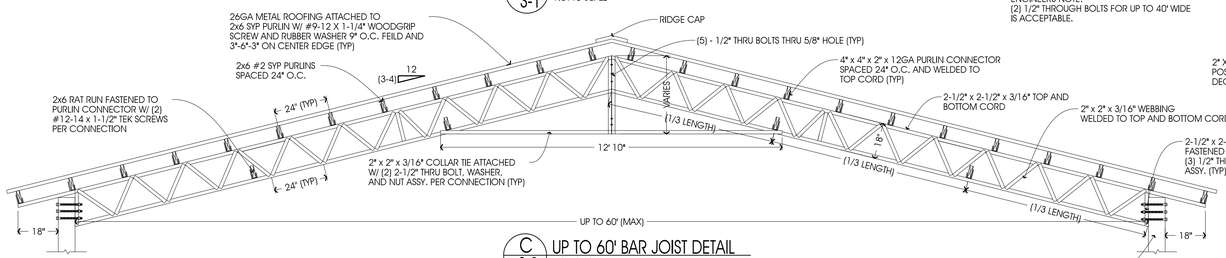
ENGINEERS NOTE:
(2) 1/2" THROUGH BOLTS FOR UP TO 40' WIDE IS ACCEPTABLE.

A S-1 UP TO 15' BAR JOIST DETAIL
NOT TO SCALE

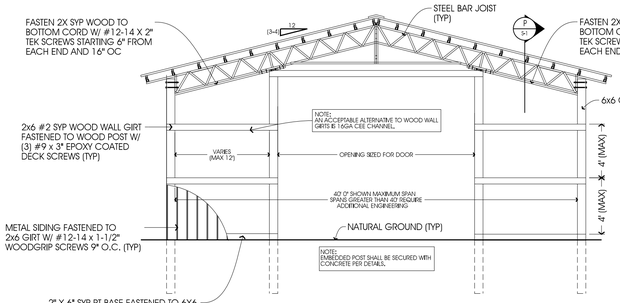


ENGINEERS NOTE:
(2) 1/2" THROUGH BOLTS FOR UP TO 40' WIDE IS ACCEPTABLE.

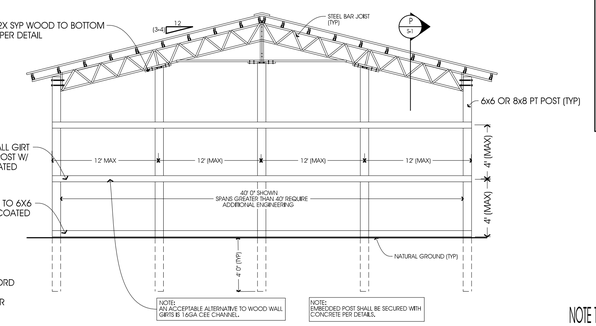
B S-1 UP TO 40' BAR JOIST DETAIL
NOT TO SCALE



C S-1 UP TO 60' BAR JOIST DETAIL
NOT TO SCALE



M S-1 GABLE END VIEW W/ GARAGE OPENING (OPTIONAL)
NOT TO SCALE



N S-1 GABLE END ENCLOSURE (OPTIONAL)
NOT TO SCALE

GENERAL NOTES

OVERALL REVISION DATE
February 20, 2024

1. ALL CONCRETE WORK SHALL BE 3,000 P.S.I. AT 28 DAYS.
2. MINIMUM SOIL BEARING SHALL BE ASSUMED AT 2,000 P.S.F.
3. ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH THE 2023 8TH EDITION FLA. BLDG. CODE AND ASCE 7-22 WIND CODES FOR AN ULTIMATE WIND SPEED OF 130 MPH AND GREATER. THESE PLANS INCLUDE DESIGN FOR ALL WIND SPEEDS UP TO AND INCLUDING 150 MPH ULTIMATE WIND SPEED.
4. ALL SIDING AND ROOFING TO MINIMUM OF 26 GAUGE ATTACHED TO THE COLUMNS AS SHOWN AND CONSIDERED TO BE A MIN. OF 3 SPAN.
5. FOR ZONE LOCATIONS SEE FBC FIGURE 1609(c). THE VALUE OF "a" SHALL BE 3'-0". FOR ZONE LOADING SEE COMPONENTS AND CLADDING LOADING CHARTS THIS SHEET.
6. DESIGN LOADINGS:
   DEAD LOAD = 4 PSF
   ROOF LIVE LOAD = 20 PSF
   WIND LOAD = PER TABLE
7. DOOR AND WINDOW DATA: PER TABLE
8. ALL WINDOWS AND MAN DOORS MAY USE 12-14 1-1/4" LONG TEK SCREWS IN LIEU OF THE WOOD SCREWS WHEN CONNECTING THE UNITS TO METAL FRAME. FOLLOW THE MANUFACTURERS SPECIFICATIONS FOR LOCATING CONNECTORS.
9. TYPE OF CONSTRUCTION TYPE II-B
   BUILDING CATEGORY (I)
10. CORNER BRACES REQUIRED ONLY REQUIRED WITH WIND SPEEDS GREATER THAN OR EQUAL TO 150 MPH OR AS CALLED OUT ON PLANS.
11. ALL WELDS ARE CONTINUOUS WELDS DONE AT THE FACTORY.
12. ALL STEEL BUILDING MATERIALS ARE FLOOD RESISTANT AND WILL NOT BE DAMAGED BY FLOOD OR RAIN.

NOTES:

1. MATERIALS SHALL CONFORM TO STEEL ASTM 513
2. ALL STEEL SHALL BE 50 KSI IN ACCORDANCE WITH CURRENT ALSC MANUAL.
3. WELDING ELECTRODES TYPE E70XX
4. ALL WELDING SHALL BE IN ACCORDANCE WITH CURRENT AWWA REQUIREMENTS
5. ALL WELDING SHALL BE DONE BY A CERTIFIED WELDER.
6. BOLTS SHAT BE ASTM A325 W/ WASHERS AND NUTS (TYP).
7. WELD STRENGTH 70 KSI MIN.
8. ALL POST SHALL BE PRESSURE TREATED GROUND CONTACT.
9. PRIMING & PAINTING SHALL BE DONE BY TRUSS MANUFACTURER
10. MIN. EDGE DISTANCE FOR BOLTS HOLES SHALL BE 3/4" MIN.
11. MAX TRUSS SPACING SHALL NOT EXCEED 12' 0" O.C.
12. THE DESIGNER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF POOR WORKMANSHIP, OR IMPROPER USE, AND ACCEPTS NO RESPONSIBILITY OR EXERCISES NO CONTROL WITH REGARD TO FABRICATION, HANDLING, AND INSTALLATION OF TRUSSES

COMPONENTS AND CLADDING (exp=B, pcpi=0.00 (Open))

VELOCITY ULTIMATE	PRESSURE (PSF) ROOF 1	2	3	WALLS 4 AVE AVOID CORNER	5 AVE AVOID PARALLEL
130 MPH	-12.4	-18.5	-30.9	+12.7	-14.3	+14.6	-19.9
140 MPH	-14.3	-21.5	-35.9	+14.8	-16.6	+16.9	-23.1
150 MPH	-16.5	-24.7	-41.2	+16.9	-19.0	+19.4	-26.5

COMPONENTS AND CLADDING (exp=B, pcpi=+0.18 (Enclosed))

VELOCITY ULTIMATE	PRESSURE (PSF) ROOF 1	2	3	WALLS 4 AVE AVOID CORNER	5 AVE AVOID PARALLEL
130 MPH	-15.1	-21.3	-33.7	+15.5	+17.1	+17.4	-22.7
140 MPH	+17.4	-24.7	-39.1	+18.0	+19.8	+20.1	-26.3
150 MPH	-20.2	-28.4	-44.9	+20.7	+20.7	+23.1	-30.2

COMPONENTS AND CLADDING (exp=B, pcpi=+0.55 (Partially Enclosed))

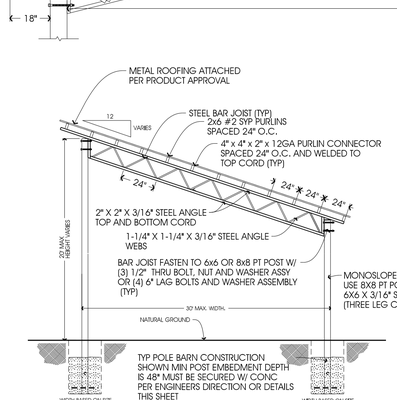
VELOCITY ULTIMATE	PRESSURE (PSF) ROOF 1	2	3	WALLS 4 AVE AVOID CORNER	5 AVE AVOID PARALLEL
130 MPH	-20.9	-27.1	-39.4	+21.2	+22.8	+23.1	-28.4
140 MPH	-24.2	-21.4	-45.7	+24.6	+26.4	+26.8	-32.9
150 MPH	-27.8	-36.0	-52.5	+28.3	+30.3	+32.7	-37.8

NOTE TO INSTALLER

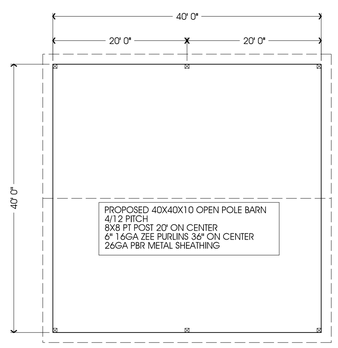
1. INSTALLER SHALL ADD LATERAL BRACING DURING THE ERECTION PROCESS TO PREVENT BAR JOIST MOVEMENT.

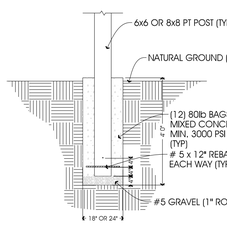
DESCRIPTION	FIELD ZONE 1	FIELD ZONE 2	LEADING EDGE ZONE 3
MAXIMUM UPLIFT DESIGN PRESSURE	34.3	37.7	52.8
FASTENER PATTERN	9"-9"-9"-9"		6"-3"-6"-3"-6"
SUPPORT SPACING	48" O.C.		48" O.C.

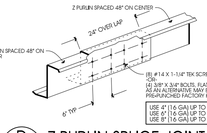
DESIGN PRESSURE BASED ON A SAFTEY FACTOR OF 2



S S-1 POLE BARN MONOSLOPE (OPTIONAL)
NOT TO SCALE







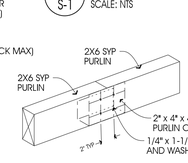
D S-1 Z PURLIN SPLICE JOINT
SCALE: NTS

1 S-1 SITE SPECIFIC LAYOUT
NOT TO SCALE

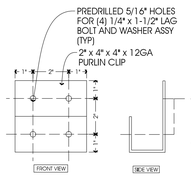
ENGINEERS NOTE:
THIS PLAN HAS BEEN ENGINEERED A RISK CATEGORY 1 AGRICULTURAL BUILDING. THE PLAN HAS NOT BEEN ENGINEERED FOR A RISK CATEGORY II RESIDENCE.

BAR JOIST SIZE	POST BASE SIZE
UP TO 30'	18" x 48" W/ 12" MIN. #5 REBAR
30' 1" - 40' 0"	24" x 48" W/ 16" MIN. #5 REBAR
40' 1" - 60' 0"	36" x 48" W/ 24" MIN. #5 REBAR

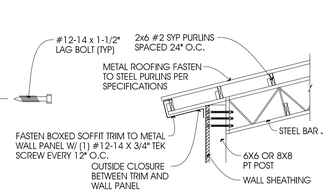
E S-1 POST AND FOOTING DETAIL
NOT TO SCALE



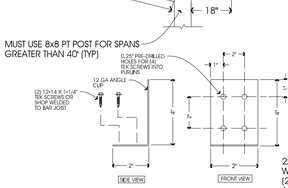
F S-1 PURLIN BUTT JOINT
NOT TO SCALE



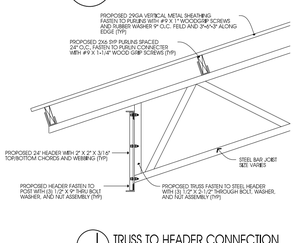
G S-1 PURLIN CLIP
NOT TO SCALE



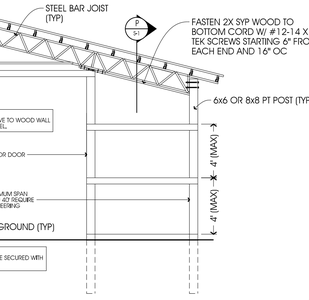
H S-1 BOXED SOFFIT DETAIL (EAVE)
NOT TO SCALE

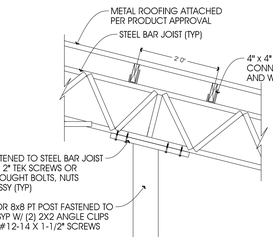


T S-1 ANGLE CLIPS
NOT TO SCALE



I S-1 TRUSS TO HEADER CONNECTION
NOT TO SCALE



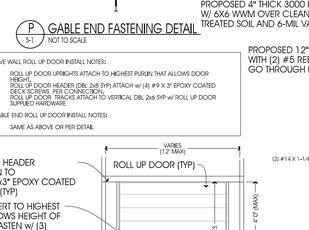


O S-1 GABLE END POST ATTACHMENT
NOT TO SCALE

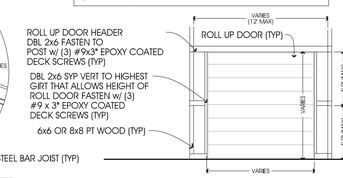
P S-1 GABLE END FASTENING DETAIL
NOT TO SCALE

EAVE WALL ROLL UP DOOR INSTALL NOTES:
1) ROLL UP DOOR UPRIGHTS ATTACH TO HIGHEST PURLIN THAT ALLOWS DOOR TO FIT
2) ROLL UP DOOR HEADER (DBL 2x6 SYP) ATTACH w/ (4) #9 X 3" EPOXY COATED DECK SCREWS PER CONNECTION
3) ROLL UP DOOR TRACKS ATTACH TO VERTICAL DBL 2x6 SYP w/ ROLL UP DOOR SUPPLIED HARDWARE

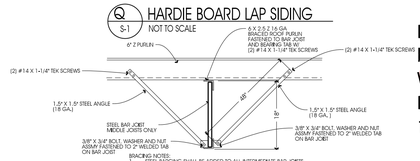
GABLE END ROLL UP DOOR INSTALL NOTES:
1) SAME AS ABOVE OR PER DETAIL



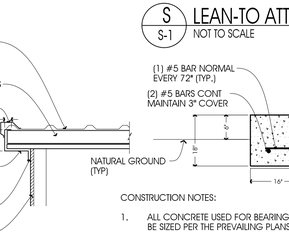
Q S-1 HARDIE BOARD LAP SIDING
NOT TO SCALE



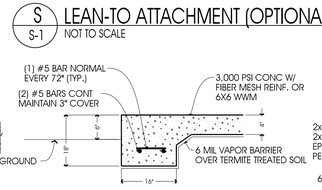
L S-1 ROLL DOOR DETAIL (OPTIONAL)



R S-1 Z-PURLIN BRACING DETAIL
SCALE: NTS



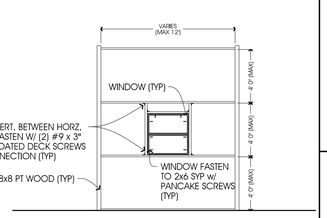
I S-1 BOXED SOFFIT DETAIL (GABLE END)
NOT TO SCALE



CONSTRUCTION NOTES:

1. ALL CONCRETE USED FOR BEARING SUPPORT OF THE BUILDING SHALL BE SIZED PER THE PREVAILING PLANS. ALL OTHERS AREAS MAY BE 4" IN THICKNESS.

J S-1 CONCRETE FOUNDATION (OPTIONAL)
NOT TO SCALE



K S-1 WINDOW DETAIL (OPTIONAL)
NOT TO SCALE

CLIENT INFORMATION:

POLE BARN PLAN PREPARED FOR:

359 SW RALPH TERRACE, LAKE CITY, FL 32024

PROPOSED 40X40X10 OPEN POLE BARN
4/12 PITCH
8X8 PT POST 20' ON CENTER
6" 16GA ZEE PURLINS 36" ON CENTER
26GA PBR METAL SHEATHING

Columbia County Building Department
Plans Reviewed for Code Compliance
State of Florida

DESIGN STATEMENT:

THESE PLANS WERE DESIGNED FOLLOWING THE 2023 8TH EDITION FLORIDA BUILDING CODE AND ASCE 7-22.INCLUDING CHAPTER 16 ON STRUCTURAL DESIGN. THIS STRUCTURE HAS BEEN DESIGNED WITH AN MINIMUM ULTIMATE WIND SPEED OF 130 MPH, (3 SECOND GUST) IN WIND EXPOSURE CATEGORY "B". THIS STRUCTURE HAS BEEN DESIGNED AS RISK CATEGORY I. THE COMPONENTS AND CLADDING WERE DESIGNED BASED THE INCLUDED TABLE DESIGN PRESSURES.

SHEET NO.
S-1
DATE: 3/18/2024

ENGINEERING • PLANNING • PERMITTING

REVISIONS:

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

EPI
ENGINEERED PERMITS, INC.
311 SOUTH WOODLAND BLVD.
SUITE A
DELAND, FL 32720
PHONE: 386-734-0830
FAX: 386-734-8226
CERT NO. 26298
EMAIL: epi@epieng.net

PROJECT: FREEDOM MANUFACTURING AND ROOFING SUPPLIES LLC

SHEET TITLE: MASTER BAR JOIST (WOOD PURLIN)

Michael J Wojtuniak

Digitally signed by Michael J Wojtuniak
Date: 2024.03.18 16:42:36 -04'00'

MICHAEL J. WOJTUNIAK, P.E.
LICENSE No. 60954
3-18-2024
STATE OF FLORIDA
PROFESSIONAL ENGINEER
MICHAEL J. WOJTUNIAK, P.E.
FL.NO. 60954
EMAIL: mwojtuniak@epieng.net

***THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY MICHAEL J. WOJTUNIAK, P.E. ON 3/18/2024 USING A SHA AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. UNLESS THE RAISED SEAL HAS BEEN UTILIZED. ***