

12'-0" WIDE CARPORT STYLE BUILDINGS

DESIGN NOTES

- ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH IBC 2015, OSHA, AISC 360, AISI 100, ASCE 7-10, AWS D1.3 CODES AND ALL APPLICABLE LOCAL REQUIREMENTS.
- 2. ALL MATERIALS IDENTIFIED BY MANUFACTURER NAME MAY BE SUBSTITUTED WITH MATERIAL EQUAL OR EXCEEDING ORIGINAL.
- 3. ALL SHOP CONNECTIONS SHALL BE WELDED CONNECTIONS.
- 4. ALL STRUCTURAL FIELD CONNECTIONS SHALL BE #12-14 X 3/4" SDS (ESR-2196 OR EQ) WITHOUT WASHERS.
- 5. STEEL SHEATHING SHALL BE 29GA, CORRUGATED GALV, OR PAINTED STEEL - MAIN RIB HT. 3/4" (FY=80KSI) OR EQ. CONNECTIONS SHALL BE #12-14 X 3/4" SDS (ESR-2196 OR EQ) WITH NEOPRENE WASHERS.
- 6. ALL STRUCTURAL LIGHT GAUGE TUBING AND CHANNELS SHALL BE GRADE 50 STEEL (FY = 50 KSI, FU = 65 KSI).
- 7. STRUCTURAL TUBE 2 1/2" X 2 1/2" 14GA. IS EQUIVALENT TO TS 2 12" X 2 12" - 12GA AND EITHER ONE MAY BE USED IN LIEU OF THE OTHER.
- 8. GYPSUM BOARD OR DRYWALL FINISH OR ANY BRITTLE BASE MATERIAL IS NOT CONSIDERED OR ACCOUNTED FOR ON THE DESIGN CRITERIA.
- 9. ALL DESIGN CRITERIA MUST BE INCREASED TO THE NEXT HIGHER INCREMENT BASED ON THE TABLES ON PAGE 4. NO INTERPOLATION IS ALLOWED.

DESIGN CRITERIA

PREVAILING CODE: USE GROUP: RISK CATEGORY:

NCBC 2018 (IBC 2015) U (CARPORTS, BARNS)

Pg = 20 - 90 PSF

V_{ULT} = 105 - 180 MPH

BUILDING INFORMATION

FRAME TYPE:

ROOF DEAD LOAD (D) 2. ROOF LIVE/SNOW LOAD (Lr)

Lr = 20 - 61 PSF (AS PER SNOW LOAD SEE TABLE 4)

15 = 0.8

Ct = 1.2

Ce = 1.0

 $C_5 = 1.0$

3. SNOW LOAD (S) GROUND SNOW LOAD IMPORTANCE FACTOR THERMAL FACTOR EXPOSURE FACTOR ROOF SLOPE FACTOR

WIND LOAD (W) BASIC WIND SPEED EXPOSURE

5. SEISMIC LOAD (E) DESIGN CATEGORY IMPORTANCE FACTOR

1e = 1.00

LOAD COMBINATIONS:

- D+(Lr OR S) D + (0.6W OR ±0.7E)
- D + 0.75 (0.6W OR ±0.7E) + 0.75 (Lr OR S)
 - 0.6D + (0.6W OR ±0.7E)

DRAWING INDEX

COVER SHEET SCHEDULES & MEMBER -SECTIONS FRAME SECTIONS & DETAILS SPACING SCHEDULES -& ENCLOSURE NOTES PURLIN & GIRT SCHEDULES SHEATHING OPTIONS SIDE WALL FRAMING & OPENINGS END WALL FRAMING & OPENINGS 8-A. 8-B

Omar Abu-Yasein

A-FRAME

☐ REGULAR

CORNER BRACING DETAILS

FOUNDATION OPTIONS

OPTIONAL LEAN-TO ADDITION

Digitally signed by Omar Abu-Yasein Date: 2024.01.13

08:30:23 -06'00'

--- 11-A TO 11-D

CERTIFICATION VALIDITY NOTICE

DATE OF PLANS 08-30-2024

CERTIFICATION ON THESE DRAWINGS IS VALID FOR ONE YEAR FROM DATE OF ISSUE

MANUFACTURED BY:



DRAWING INFORMATION

PROJECT: 12'-O" WIDE BUILDINGS

LOCATION: STATE OF NORTH CAROLINA

PROJECT NO.: 325-23-2447 SHEET TITLE:

COVER SHEET

1 / 11 SHEET NO .:

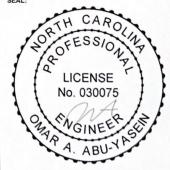
DRAWN BY: AW DATE: 7/18/22 CHECKED BY: OAA DATE: 7/18/22

LEGAL INFORMATION

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SEAL

10



DATE EXPIRES: 12-31-2024 DATE SIGNED: 08-30-2023

CUSTOMER INFORMATION Darlene Williams OWNER

ADDRESS

231 Golden Oats Dr. Angier, NC 27501

DESIGN LOADS GROUND SNOW: 30 psf WIDTH: 10' ROOF LIVE LOAD: 20 psf

BASIC WIND SPEED: 115 mph

LENGTH: 16' неібнт: 6'

M FULL **ENCLOSURE** ☐ PARTIAL OPEN

TABLE 21. MEMBED PROPERTIES

NO.	LABEL	PROPERTY	DETAIL NO.
1	COLUMN POST	2.5" X 2.5" X 14GA TUBE	1
2	ROOF BEAM	2.5" X 2.5" X 14GA TUBE	1
3	BASE RAIL	2.5" X 2.5" X 14GA TUBE	1
4	PEAK BRACE	2.5" X 2.5" 14GA CHANNEL	4
5	KNEE BRACES	2.5" X 1.5" 14GA CHANNEL	4
6	CONNECTOR SLEEVE	2.25" X 2.25" X 12GA TUBE	2
7	BASE ANGLE	2" X 2" X 3" LG. 3/16" ANGLE	10
8	PURLIN	4.25" X 1.5" X 14GA / 18GA HAT CHANNEL	5
9	GIRT	4.25" X 1.5" X 14GA / 18GA HAT CHANNEL	5
9A	OPT. END WALL GIRT	2.5" X 1.5" 14GA CHANNEL	1
10	SHEATHING	29 GA CORRUGATED SHEET	8
11	END WALL POST	2.5" X 2.5" X 14GA TUBE	1
12	DOOR POST	2.5" X 2.5" X 14GA TUBE	1
13	SINGLE HEADER	2.5" X 2.5" X 14GA TUBE	1
14	DOUBLE HEADER	DBL. 2.5" X 2.5" X 14GA TUBE	1
15	SERVICE DOOR / WINDOW FRAMING	2.5" X 2.5" X 14GA TUBE	1
16	ANGLE BRACKET	2" X 2" X 2" LG. 14GA ANGLE	7
17	STRAIGHT BRACKET	2" X 2" X 4" LG. 14GA PLATE	6
18	PB SUPPORT	2.5" X 2.5" X 14GA TUBE	1
19	DIAGONAL BRACE	2" X 2" X 14 GA TUBE	3
20	GABLE BRACE	2" X 2" X 14 GA TUBE	3
21	DB BRACKET	2.25" X 2.25" X 6" LG. 14GA ANGLE	9
22	TRUSS SPACER	2.5" X 2.5" X 14GA TUBE	1
23	ALL FASTENERS	#12 X 1" SELF-DRILL SCREWS (ESR-2196 OR EQ) W/ NEOPRENE/STEEL WASHER	1.00

TABLE 2.2: SHEATHING FASTENER SCHEDULE

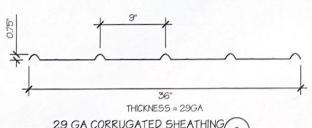
LOCATION	CORNER PANELS	SIDE LAPS	EDGE LAPS	ELSEWHERE
SPACING	9" C/C	MIN.1	4½" C/C	9" C/C

FASTENER TYPE: #12X1" SELF-DRILL SCREWS (ESR-2196 OR EQ) W/

NEOPRENE/STEEL WASHER "SEE TYP. SHEATHING FASTENER SCHEDULE DIAGRAM ON PAGE 6.

TABLE 23. GALIGE THICKNESS

171	VLL 2.0.	JAOOL III	CKILOO	
GAUGE	29	18	14	12
THICKNESS (IN)	0.0135	0.049	0.083	0.109



29 GA CORRUGATED SHEATHING SCALE: NTS



THICKNESS = 14GA





THICKNESS = 12GA

2.25" X 2.25" 12GA TUBE,



THICKNESS = 14GA 2" X 2" 14GA TUBE/



THICKNESS = 14GA

2.5" X 1.5" 14GA CHANNEL,



THICKNESS = 14GA / 18GA 4.25" X 1.5" X 14GA / 18GA HAT CHANNEL

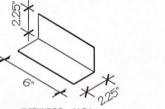
SCALE: NTS

THICKNESS = 14GA STRAIGHT BRACKET

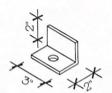


THICKNESS = 14GA

ANGLE BRACKET



THICKNESS = 14GA DB BRACKET SCALE: NTS



THICKNESS = 3/16"

BASE ANGLE SCALE: NTS



MANUFACTURED BY:

DRAWING INFORMATION

PROJECT: 12'-O" WIDE BUILDINGS

LOCATION: STATE OF NORTH CAROLINA

PROJECT NO.: 325-23-2447

SHEET TITLE:

SCHEDULES & MEMBER SECTIONS

SHEET NO .:

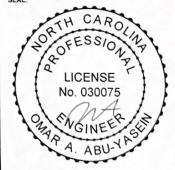
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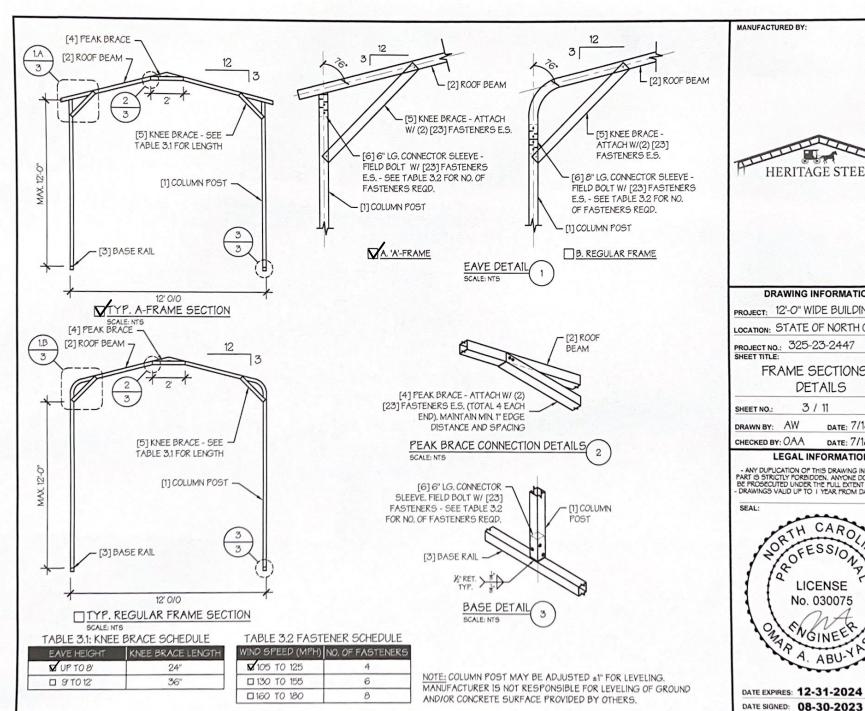
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DATE EXPIRES: 12-31-2024 DATE SIGNED: 08-30-2023



MANUFACTURED BY: HERITAGE STEEL DRAWING INFORMATION PROJECT: 12'-O" WIDE BUILDINGS LOCATION: STATE OF NORTH CAROLINA PROJECT NO.: 325-23-2447 SHEET TITLE: FRAME SECTIONS & DETAILS 3/11 SHEET NO .: DRAWN BY: AW DATE: 7/18/22 CHECKED BY: OAA DATE: 7/18/22 **LEGAL INFORMATION** - ANY DUPUCATION OF THIS DRAWING IN WHOLE OR PART IS STRICTLY FORBIDDEN. ANYONE DOING SO WILL BE PROSECUTED UNDER THE FULL EXTENT OF THE LAW.
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TABLE 4: FRAME SPACING CHART / SCHEDULE

	GROUND SNOW / ROOF LIVE			▼ ENCLO	SED BUIL	DINGS					■ OPE	EN BUILDI	NG5		
								WIND SPEED (MPH)							
	LOAD (PSF)	□105	1 15	□130	□140	□155	□165	 □180	□105	□ 115	□13O	□14O	□ 155	□165	 □180
	30/20	60	60	54/60	54	42	42	36	60	54/60	48/60	42/54	36/42	36/42	36
GHT = 12'-0"	40/27	48/60	48/60	42/60	42/54	42	42	36	48/60	48/60	42/60	42/54	36/42	36/42	36
HEIGHT TO 12'-C	□50/34	40/54	40/54	40/54	40/54	40/42	40/42	36	40/54	40/54	40/54	40/54	36/42	36/42	36
単ら	□ 60 / 41	36/48	36/48	36/48	36/48	36/42	36/42	36	36/48	36/48	36/48	36/48	36/42	36/42	36
ゆり	70/47	32/42	32/42	32/42	32/42	32/42	32/42	32/36	32/42	32/42	32/42	32/42	32/42	32/42	32/36
EAVE 10-0"	□80/54	30/42	30/42	30/42	30/42	30/36	30/36	30/36	30/42	30/42	30/42	30/42	30/36	30/36	30/36
	90/61	30/36	30/36	30/36	30/36	30/36	30	30	30/36	30/36	30/36	30/36	30	30	30
S. S. S.	30/20	60	60	54/60	54	48	42/48	42	60	54/60	48/60	42/54	36/48	36/48	36/42
± 0	40/27	48/60	48/60	42/60	42/54	42/48	42/48	42	48/60	48/60	42/60	42/54	36/48	36/48	36/42
7.9	□50/34	40/54	40/54	40/54	40/54	40/48	40/48	40/42	40/54	40/54	40/54	40/54	36/48	36/48	36/42
HEIGHT TO 9-0	□ 60 / 4 1	36/48	36/48	36/48	36/48	36/48	36/48	36/42	36/48	36/48	36/48	36/48	36/48	36/48	36/42
	70/47	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42
EAVE 7-0	□80/54	30/42	30/42	30/42	30/42	30/36	30/36	30/36	30/42	30/42	30/42	30/42	30/36	30/36	30/36
	90/61	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36
	☑30/20	60	60	54/60	54	48	42/48	42	60	54/60	48/60	42/54	36/48	36/48	36/42
	□ 40 / 27	48/60	48/60	42/60	42/54	42/48	42/48	42	48/60	48/60	42/60	42/54	36/48	36/48	36/42
F 5	□50/34	40/54	40/54	40/54	40/54	40/48	40/48	40/42	40/54	40/54	40/54	40/54	36/48	36/48	36/42
HEIGHT TO 6'-O"	G 60 / 41	36/48	36/48	36/48	36/48	36/48	36/48	36/42	36/48	36/48	36/48	36/48	36/48	36/48	36/42
VE T	70/47	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42	32/42
EAVE UP 1	□80/54	30/42	30/42	30/42	30/42	30/36	30/36	30/36	30/42	30/42	30/42	30/42	30/36	30/36	30/36
V	90/61	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36	30/36

NOTES:

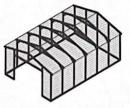
- . FRAME SPACINGS ARE IN UNITS OF INCHES (IN).
- 2. WHERE TWO VALUES ARE SHOWN, THE HIGHER VALUE CAN ONLY BE USED FOR YERTICAL SHEATHING.
- 3. SNOW LOADS AND ROOF LIVE LOADS ARE IN POUNDS PER SQUARE FOOT (PSF). WIND SPEED IS 3 SEC. GUST IN MILES PER HOUR (MPH).
- 4. FOR VALUES THAT LIE BETWEEN TWO CELLS, THE HIGHER (MORE STRINGENT) VALUE HAS TO BE USED. INTERPOLATION BETWEEN CELLS IS NOT ALLOWED.

ENCLOSURE CLASSIFICATION:

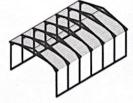
- ENCLOSED BUILDING = ALL 4 WALLS FULLY ENCLOSED WITH DOORS/WINDOWS = USE ENCLOSED BUILDING SPACING CHART.
- 2. OPEN BUILDING = ALL 4 WALLS FULLY OPEN = USE OPEN BUILDING SPACING CHART.
- 3. 3FT PARTIALLY ENCLOSED = BOTH END-WALLS FULLY OPEN, WITH BOTH SIDE-WALLS ONLY 3FT ENCLOSED = USE OPEN BUILDING SPACING CHART.
- PARTIALLY ENCLOSED = BOTH END-WALLS FULLY OPEN, WITH BOTH SIDE-WALLS
 ENCLOSED MORE THAN 3FT = START WITH OPEN BUILDING SPACING CHART AND THEN
 REDUCE SPACING BY 6".
- 3 SIDED ENCLOSED = ALL WALLS ARE ENCLOSED EXCEPT FOR 1 END-WALL = START WITH ENCLOSED BUILDING SPACING + THE OPEN END FRAME MUST HAVE EITHER A GABLED END OR HAVE DOUBLED WELDED LEGS.
- FOR ALL SHEATHING ENCLOSURES NOT LISTED ABOVE, REFER TO SHEET 5 FOR SPACING AND DESIGN REQUIREMENTS.

GENERAL NOTES:

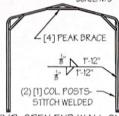
- THE MAX. BUILDING LENGTH FOR ENCLOSED BUILDINGS 15 50'-0". THIS CAN BE INCREASED BY ADDING A DOUBLE FRAME AT THE CENTER TO BREAK THE LENGTH OF THE BUILDING.
- BUILDINGS WITH PARTIALLY ENCLOSED END WALLS NEED TO HAVE SIDE WALL BRACING TO SUPPORT THE PARTIALLY ENCLOSED END WALL. (SEE FIGURE A ON SHEET 5).







TYP. OPEN BUILDING



SIDE ENCLOSED BUILDING





DRAWING INFORMATION

PROJECT: 12'-O" WIDE BUILDINGS

LOCATION: STATE OF NORTH CAROLINA

PROJECT NO.: 325-23-2447

SHEET TITLE:

SPACING SCHEDULES & ENCLOSURE NOTES

SHEET NO.: 4 / 11

DRAWN BY: AW DATE: 7/18/22

CHECKED BY: OAA DATE: 7/18/22

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SEAL:



DATE EXPIRES: 12-31-2024

DATE SIGNED: 08-30-2023

TABLE 5.1: PURLIN SPACING SCHEDULE GROUND ■ 14GA. HAT CHANNEL PURLIN ■ 18GA HAT CHANNEL PURLIN SNOW / WIND SPEED (MPH) ROOF LIVE WIND SPEED (MPH) LOAD (PSF) 130 140 30/20 42 36 0 40 / 27 42 36 050/34 0 60 / 41 36 | 36 36 36 0 70 / 47 32 32 080/54 30 30 30 30 D 90 / 61 24 24 D 30 / 20 54 48 42 D 40 / 27 42 42 D 50 / 34 40 40 0 60 / 41 36 36 36 070/47 32 | 32 080/54 0 90 / 61 30 30 ₩ 30 / 20 40/27 24 | 24 050/34 0 60 / 41 36 36 36 0 70 / 47 080/54 32 | 32 30 30 30 90/61 D 30 / 20 48 42 40/27 50 / 34 0 60 / 41 36 | 36 32 32 32 32 32 0 70 / 47 080/54 0 90 / 61 30 30 D 30 / 20 0 40 / 27 D 50 / 34 36 | 36 0 60 / 41 0 70 / 47 32 | 32 080/54 30 30 30 30 30 30 30 0 90 / 61

- NOTES: PURLIN SPACING UNITS ARE IN INCHES.
- FRAME SPACING NEEDS TO BE DETERMINED FROM TABLE 4.

IRREGULAR BUILDING NOTES:

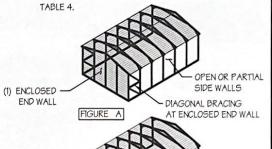
- FIGURES A. B. C & D ON THE RIGHT INDICATE EXAMPLES OF IRREGULAR BUILDINGS.
- FOR IRREGULAR BUILDINGS, FRAME SPACING MUST BE REDUCED BY 12" FROM OPEN BUILDING SPACING TABLE. SEE SHEET 4 FOR OPEN BUILDING TABLE.
- SITE SPECIFICS MAY ALLOW FOR ALTERNATIVE SPACING.

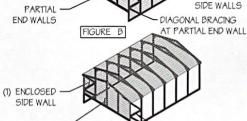
TABLE 5.2: GIRT SPACING SCHEDULE

FRAME	WIND SPEED (MPH)								
SPACING	105	115	130	140	155	165	180		
□5'-O'	60	48	36	30	24	24	18		
□4'-6"	60	60	48	42	36	30	24		
□ 4'-O"	60	60	54	54	42	36	30		
□3'-6"	60	60	54	54	48	42	42		
□2'-0' TO 3'-0"	60	60	54	54	48	42	42		

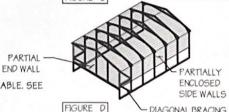
NOTES:

- 1. GIRT SPACING UNITS ARE IN INCHES.
- 2. THIS SCHEDULE IS TO BE USED FOR BOTH 14GA AND 18 GA GIRTS.
- 3. FRAME SPACING NEEDS TO BE DETERMINED FROM









DIAGONAL BRACING AT PARTIAL END WALL

ENCLOSED



MANUFACTURED BY:

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PROJECT NO.: 325-23-2447

SHEET TITLE:

PURLIN & GIRT SPACING SCHEDULES

SHEET NO .:

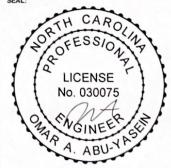
5 / 11

DRAWN BY: AW CHECKED BY: OAA

DATE: 7/18/22 DATE: 7/18/22

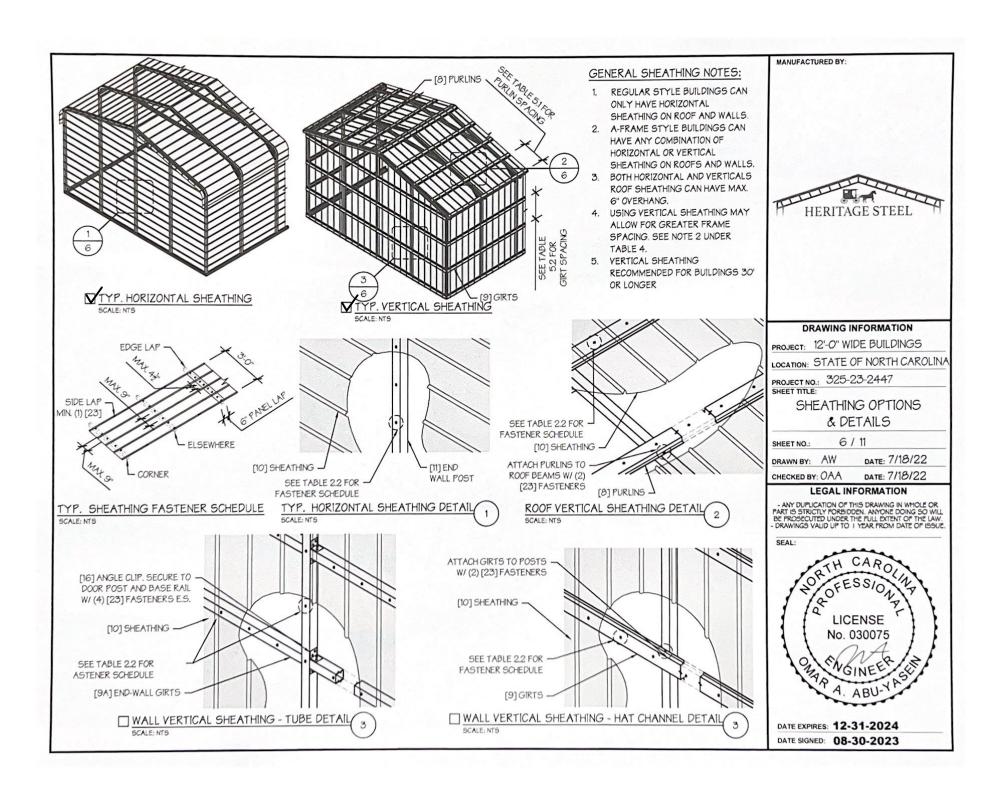
LEGAL INFORMATION

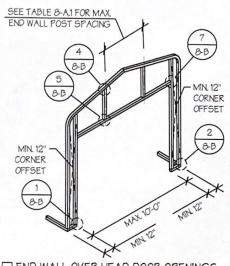
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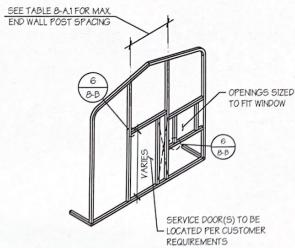
DATE EXPIRES: 12-31-2024

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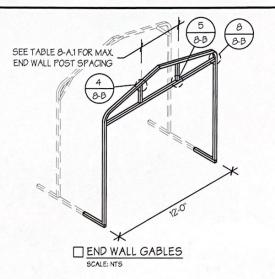
END WALL OVER HEAD DOOR OPENINGS
SCALE: NTS



END WALL SERVICE DOOR AND WINDOW OPENINGS

END WALL FRAMING NOTES:

- 1. DESIGNS AND DETAILS SHOWN HERE ARE APPLICABLE TO BOTH REGULAR AND A-FRAME STYLE BUILDINGS.
- 2. MIN. 12" CLEARANCE MUST BE MAINTAINED BETWEEN ANY TWO OPENINGS (OVERHEAD DOOR OR SERVICE DOOR) AND FROM CORNERS.
- 3. SERVICE DOORS AND WINDOWS CAN BE PLACED AS NEEDED.
- DIAGONAL BRACES NEED TO BE ADDED FOR PARTIAL END WALL ENCLOSURES. SEE SHEET 9 FOR DIAGONAL BRACE CONNECTION DETAILS.



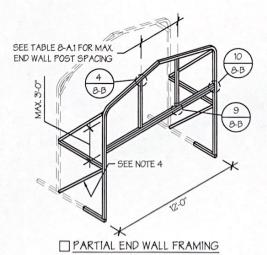


TABLE 8-A.1: END WALL POST SPACING SCHEDULE

WIND SPEED	EAVE HEIGHT							
(MPH)	WUP TO 7	■ 8'TO 9'	■10' TO 12'					
□ 105	5'	5'	5'					
₫ 115	5'	5'	4.5'					
□ 13O	4.5'	4.5'	4'					
140	4.5'	4.5'	3'					
□ 155	4'	4'	2.5'					
□ 165 - 180	3.5'	3'	2'					





DRAWING INFORMATION

PROJECT: 12'-O" WIDE BUILDINGS

LOCATION: STATE OF NORTH CAROLINA

PROJECT NO.: 325-23-2447

SHEET TITLE:

END WALL FRAMING

SHEET NO .: 8-A / 11

CHECKED BY: OAA

DRAWN BY: AW DATE: 7/18/22

LEGAL INFORMATION

DATE: 7/18/22

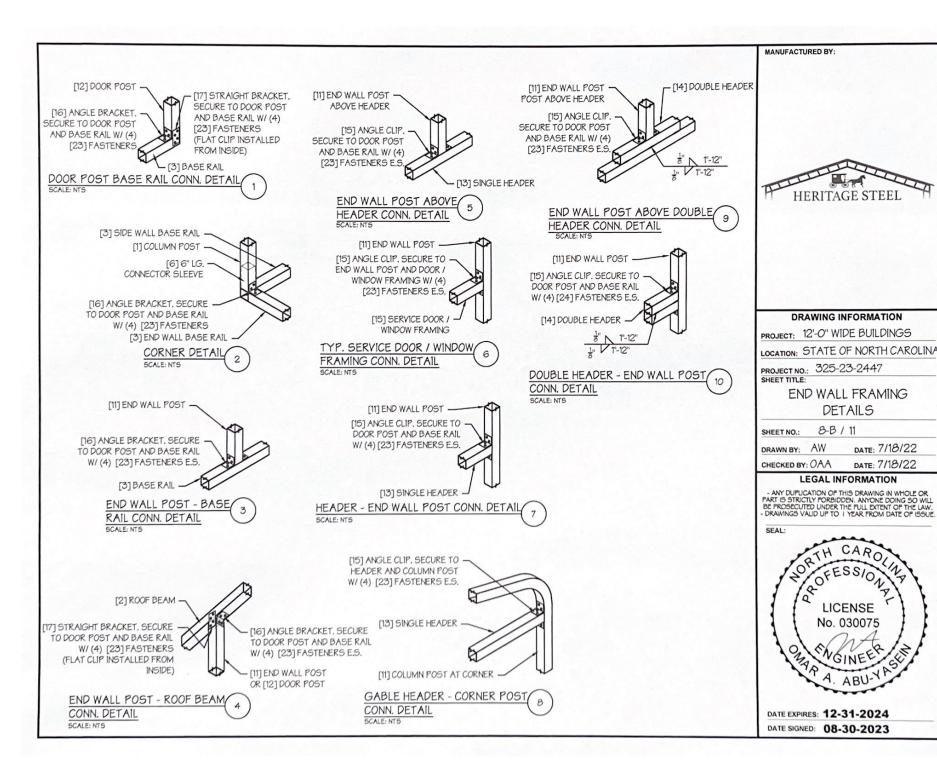
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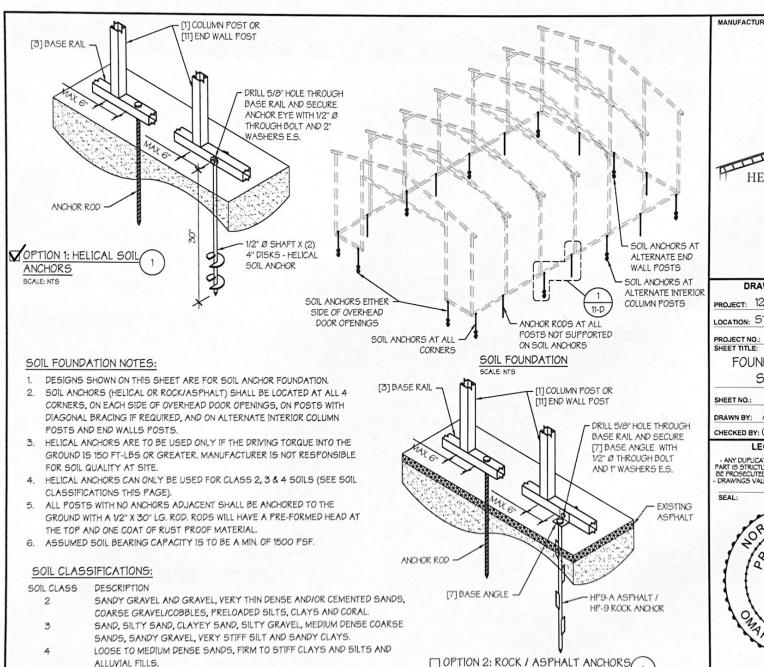
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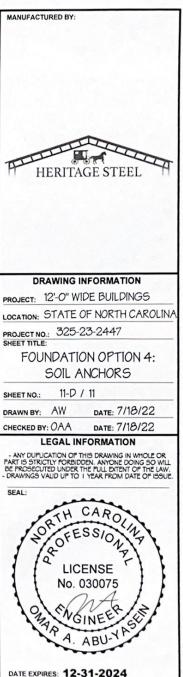


DATE: 7/18/22

DATE: 7/18/22



*FROM HUD "MODEL MANUFACTURED HOME INSTALLATION STANDARDS"



DATE SIGNED: 08-30-2023