

# UNINHABITED UTILITY SHED UP TO 12' WIDE x UP TO 24' LONG

## PPTR, PPR, PTR, TR800

**STRUCTURAL NOTES:**

1. BUILDING CODE: 2018 NC BUILDING CODE  
2015 IBC & IRC

2. DESIGN LOADING:

A. ROOF LOADS

1. UNIFORM ROOF (LIVE): 20 PSF
  - A. SNOW EXPOSURE FACTOR,  $C_e$ : 1.0
  - B. IMPORTANCE FACTOR, I: 1.0
  - C. THERMAL FACTOR,  $C_t$ : 1.0
  - D. LUMBER DURATION,  $C_D$ : 1.25
2. DEAD LOAD: 10 PSF

B. WIND LOADS

1. BASIC WIND SPEED ( $V_{ult}$ ): 120 MPH
2. EXPOSURE: C
3. INTERNAL PRESSURE COEFFICIENT  $GC_{pi}$ :  $\pm 0.18$

C. SEISMIC DESIGN

1. IMPORTANCE FACTOR: 1.0
2. SPECTRAL RESPONSE ACCELERATIONS:  $S_s = 0.42$   
 $S_1 = 0.14$
3. SITE CLASS: D
4. SITE COEFFICIENTS:  $S_{DS} = 0.44$   
 $S_{D1} = 0.22$
5. SEISMIC DESIGN CATEGORY: C

LUMBER:

1. ALL LUMBER SHALL BE SPRUCE PINE FIR #2 GRADE (U.O.N.).
2. REFER TO THE TRUSS DESIGN FOR DESIGN INFORMATION.

HEADER NAILING:

HEADER TO STUD - 4-16d END NAIL  
DOUBLED HEADER  
- 16d @ 16" STAGGERED FACE NAIL

NAILING:

REFER TO SHEET 1 FOR WALL AND ROOF SHEATHING NAILING.

MAX WALL HEIGHT FOR EACH SHED:

PPTR, PTR, TR/TRD800 - 7'-8 $\frac{1}{4}$ " (92 $\frac{1}{4}$ ")  
PPR - 6'-8 $\frac{1}{4}$ " (80 $\frac{1}{4}$ ")

MAX ROOF SLOPE FOR EACH SHED:

PPTR, PPR - 5:12  
PTR, TR800 - 4:12

SIDE WALL EDGE NAILING REQUIREMENTS					
MARK WALLS BEING USED	END WALL WIDTH	SIDE WALL LENGTH	EDGE NAILING	MAX. COMB. OPENING (NOTE 2)	MIN TOTAL COMBINED SHEAR WALL

**NO OPENINGS ALONG THE WALL**

	8'	8'-24'	8d NAILS @ 6" O.C.	0'	8'-24'
	10'	10'-24'	8d NAILS @ 6" O.C.	0'	10'-24'
	12'	12'-24'	8d NAILS @ 6" O.C.	0'	12'-24'

**MIN 2'-6" RTN WALLS ON EACH END OF WALL- MIN 2'-6" WALL SEGMENT**

	8'	8'-24'	8d NAILS @ 6" O.C.	UP TO 12'	5'
	10'	10'-24'	8d NAILS @ 6" O.C.	UP TO 12'	5'
	12'	12'-24'	8d NAILS @ 6" O.C.	UP TO 12'	6'
	12'	12'-24'	8d NAILS @ 4" O.C.	UP TO 12'	5'

TABLE NOTES:

1. NAILING IS FOR 3/8" SMARTSIDE PANEL OR 3/8" SILVERSIDE PANEL.
2. NO SINGLE OPENING GREATER THAN 8'-0"
3. USE COMMON NAILS WITH A MINIMUM SHANK DIAMETER OF 0.113" AND A MINIMUM LENGTH OF 2 $\frac{1}{2}$ ".
4. FIELD NAILING FOR 3/8" SMARTSIDE: 8d @ 12" O.C.
5. (BS)- DESIGNATES WALLS THAT NEED TO BE SHEATHED ON BOTH SIDES.

**ROOF SHEATHING (1/8" OSB)**

WIDTH	LENGTH	FIELD NAILING	EDGE NAILING
8'	8'-24'	8d NAILS @ 6" O.C.	8d NAILS @ 4" O.C.
10'	10'-24'	8d NAILS @ 6" O.C.	8d NAILS @ 4" O.C.
12'	12'-24'	8d NAILS @ 6" O.C.	8d NAILS @ 4" O.C.

NOTES:

USE 0.113" X 2 $\frac{3}{8}$ " GALVANIZED RING SHANK NAILS OR 8d COMMON.

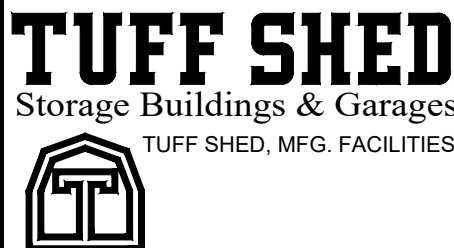
END WALL EDGE NAILING REQUIREMENTS					
MARK WALLS BEING USED	END WALL WIDTH	SIDE WALL LENGTH	EDGE NAILING	MAX. COMB. OPENING	MIN TOTAL COMBINED SHEAR WALL

**NO OPENINGS ALONG THE WALL**

	8'	8'-20'	8d NAILS @ 6" O.C.	0'	8'
	8'	22'-24'	8d NAILS @ 4" O.C.	0'	8'
	10'	10'-24'	8d NAILS @ 6" O.C.	0'	10'
	12'	12'-24'	8d NAILS @ 6" O.C.	0'	12'

**MIN 2'-6" RTN WALLS ON EACH END OF WALL- MIN 2'-6" WALL SEGMENT**

	8'	8'-12'	8d NAILS @ 6" O.C.	3'	5'
	8'	14'-18'	8d NAILS @ 4" O.C.	3'	5'
	8'	20'-24'	8d NAILS @ 3" O.C.	3'	5'
	10'	10'-14'	8d NAILS @ 6" O.C.	4'	6'
	10'	16'-20'	8d NAILS @ 4" O.C.	4'	6'
	10'	22'-24'	8d NAILS @ 3" O.C.	4'	6'
	10'	10'-12'	8d NAILS @ 6" O.C.	5'	5'
	10'	14'-18'	8d NAILS @ 4" O.C.	5'	5'
	10'	20'-22'	8d NAILS @ 3" O.C.	5'	5'
	10'	24'	8d NAILS @ 4" O.C.(BS)	5'	5'
	12'	12'-18'	8d NAILS @ 6" O.C.	4'	8'
	12'	20'-24'	8d NAILS @ 4" O.C.	4'	8'
	12'	12'-14'	8d NAILS @ 6" O.C.	6'	6'
	12'	16'-20'	8d NAILS @ 4" O.C.	6'	6'
	12'	22'-24'	8d NAILS @ 3" O.C.	6'	6'
	12'	12'-16'	8d NAILS @ 4" O.C.	7'	5'
	12'	18'-22'	8d NAILS @ 3" O.C.	7'	5'
	12'	24'	8d NAILS @ 4" O.C. (BS)	7'	5'



Order #: \_\_\_\_\_  
Customer: \_\_\_\_\_  
Site Address: \_\_\_\_\_  
Building Size: WIDTH - LENGTH - HEIGHT - SQ. FT. AREA

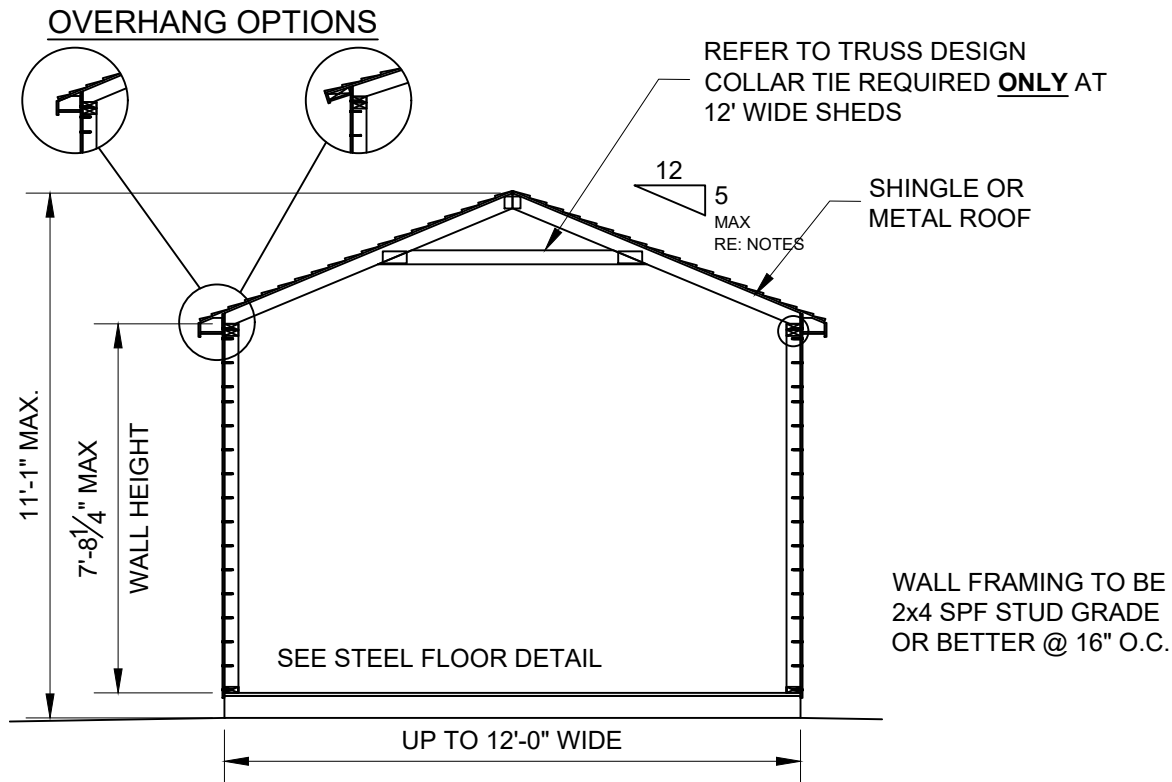
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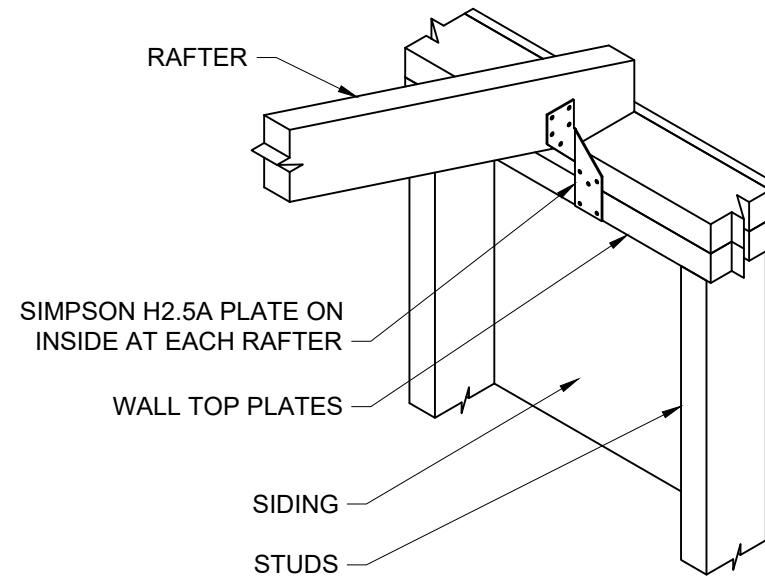
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GENERAL NOTES  
NAILING REQUIREMENTS  
120 MPH, EXP. C

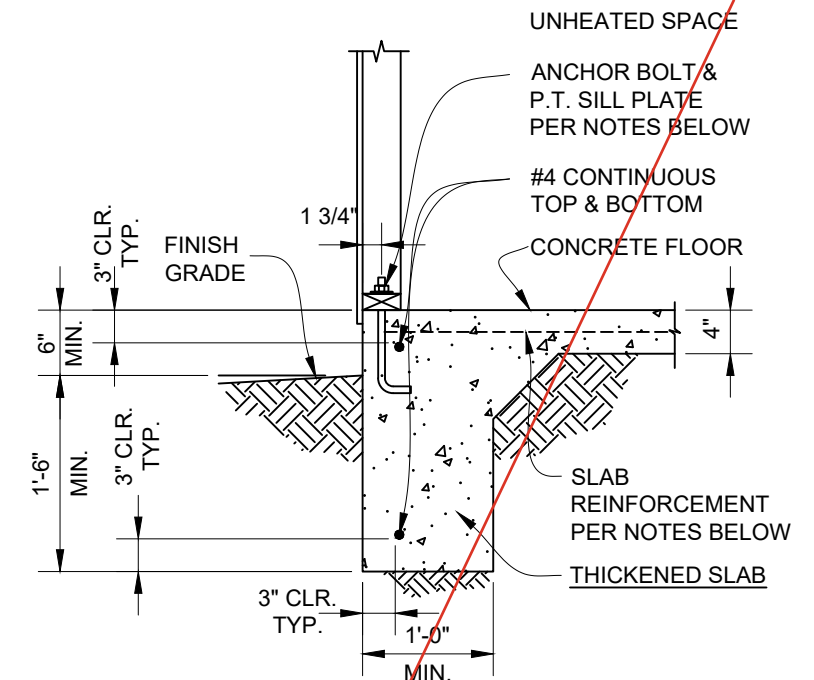
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SHEET 1  
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**1 BUILDING SECTION**  
SCALE: N.T.S.



**2 TRUSS ATTACHMENT DETAIL**  
SCALE: N.T.S.

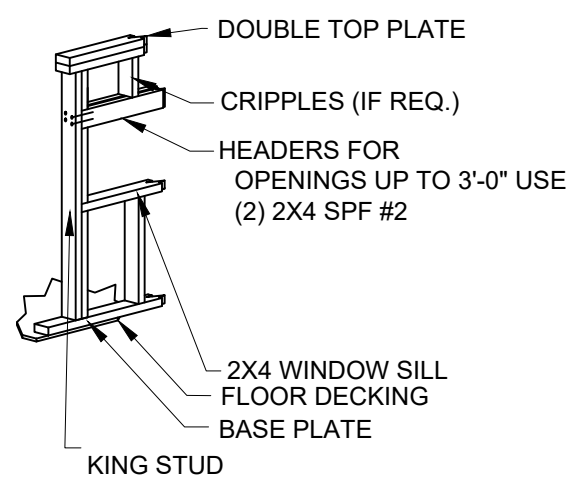


**MONOLITHIC FOUNDATION**

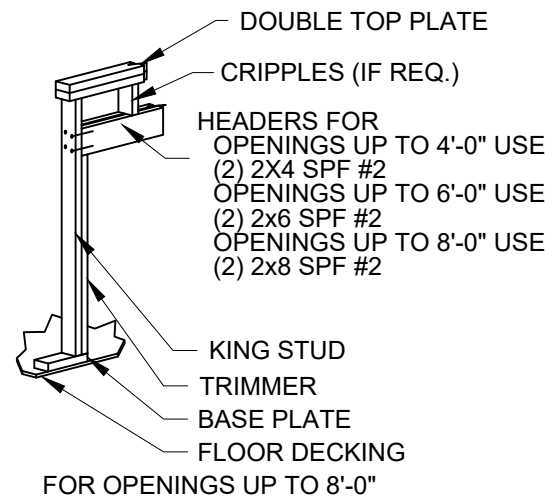
- CONTINUOUS FOOTING NOTES**
1. TOP OF CONCRETE TO BE 6" MIN. ABOVE GRADE. SLAB REINFORCEMENT SHALL BE WWF 6X6 W10xW10 PER ASTM A185. LOCATE AT MID-DEPTH OF SLAB.
  2. ALL FOOTING FORMS SHALL BE INSPECTED FOR SIZE AND REINFORCING BEFORE POURING CONCRETE.
  3. FOOTINGS SHALL BEAR ON UNDISTURBED NATURAL, COMPETENT SOIL, OR PROPERLY COMPACTED STRUCTURAL FILL. ALLOWABLE SOIL BEARING PRESSURE IS 1500 PSF AT 12" BELOW GRADE.
  4. CONCRETE: MINIMUM 28 DAY COMPRESSIVE STRENGTH,  $f_c = 2500$  PSI.
  5. REINFORCING STEEL: A615, GRADE 40 OR GRADE 60. ALL REINFORCING STEEL SHOWN TO BE CONTINUOUS MAY BE LAPPED A MINIMUM OF 38 BAR DIAMETERS OR 24".
  6. SEISMIC DESIGN CATEGORY: C
    - A. ATTACH PRESSURE TREATED SILL PLATE TO THE FOOTING USING 1/2" DIA X 10" LONG 'L' BOLTS WITH NUTS AND WASHERS.
    - B. ANCHOR BOLTS SHALL BE EMBEDDED AT LEAST 7" INTO THE CONCRETE AND SHALL BE SPACED NOT MORE THAN 6' OC.
    - C. THERE SHALL BE A MINIMUM OF 2 BOLTS PER SILL PLATE PIECE WITH 1 BOLT LOCATED NOT MORE THAN 12" NOR LESS THAN 7 BOLT DIAMETERS FROM EACH END OF EACH PIECE.

NOTE: FOR BUILDINGS 20' AND LONGER OR ANY BUILDING DESIGNED AS A 3-SIDED DIAPHRAGM, ADD SIMPSON SSTB16 ANCHORS AND HDU2 HOLD DOWNS AT EACH CORNER OF THE END WALLS. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.

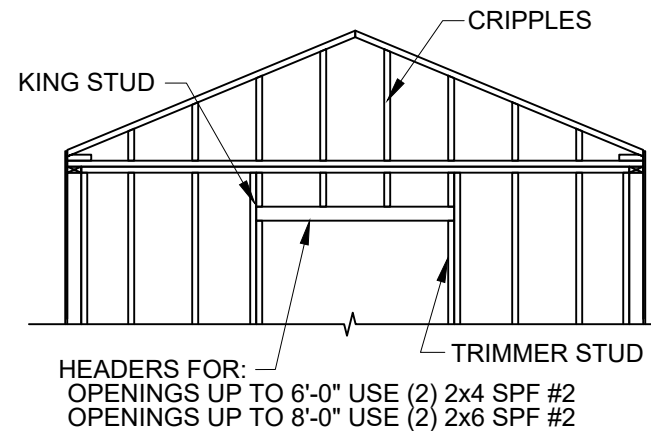
**5 OPTIONAL CONCRETE FOUNDATION DETAIL**  
SCALE: N.T.S.



**3A DOOR HEADER DETAIL FOR SIDE WALLS**  
SCALE: N.T.S.



**3B DOOR HEADER DETAIL FOR SIDE WALLS**  
SCALE: N.T.S.



**4 HEADER DETAIL FOR END WALLS**  
SCALE: N.T.S.



Order #: \_\_\_\_\_  
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Building Size: WIDTH - LENGTH - HEIGHT - SQ. FT. AREA \_\_\_\_\_

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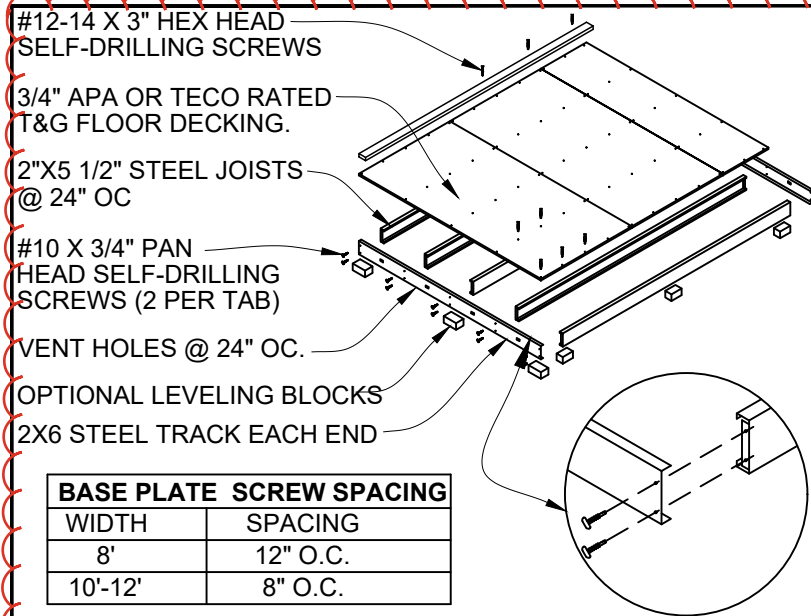
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TITLE  
GENERAL DETAILS  
HEADER FRAMING DETAILS  
120 MPH, EXP. C

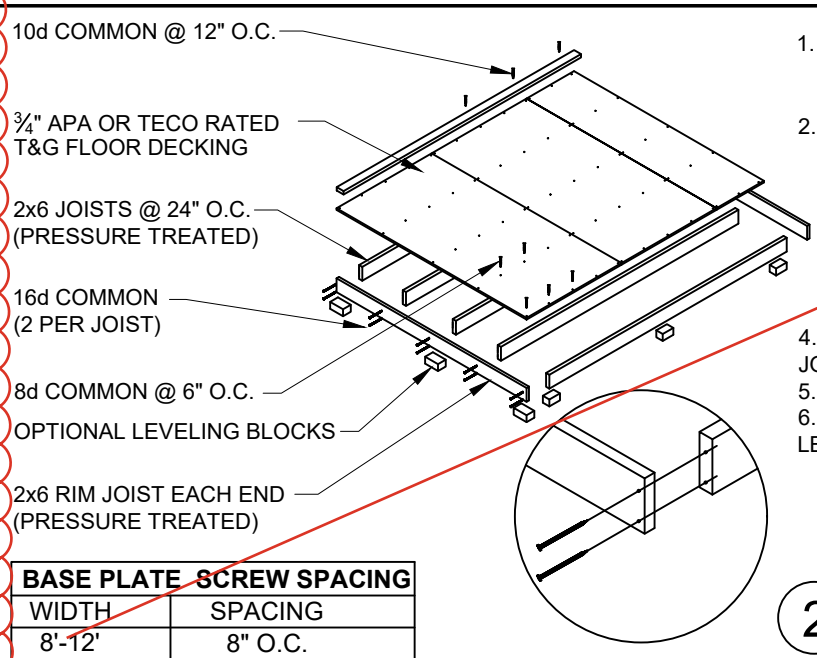
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BASE PLATE SCREW SPACING	
WIDTH	SPACING
8'	12" O.C.
10'-12'	8" O.C.

**1 STEEL SHED BASE DETAIL**  
SCALE: N.T.S.

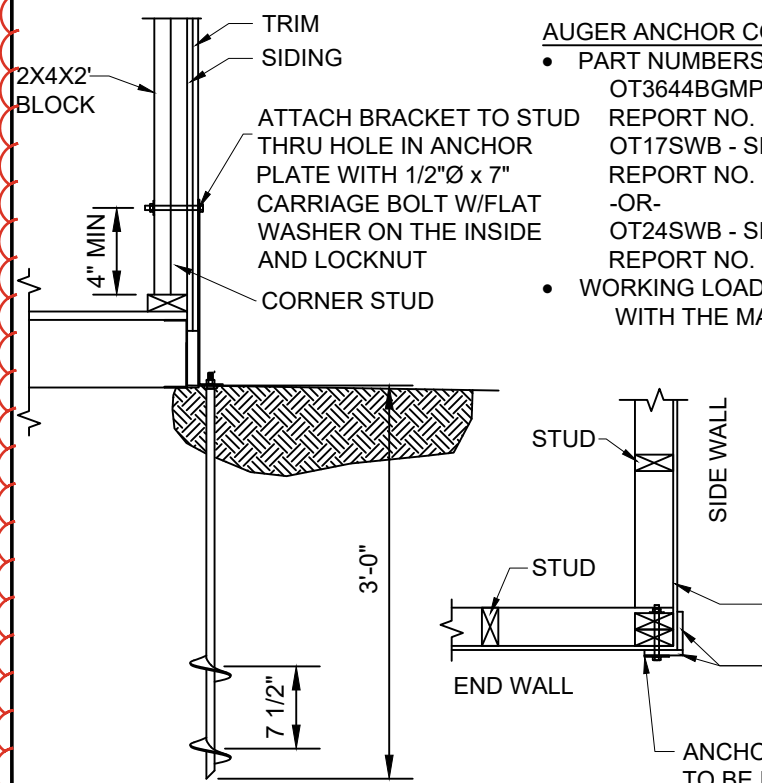
- STEEL SHED FOUNDATION:**  
550T125-054 - 16 GAUGE STEEL TRACKS G140 ZINC COATED  
550S137-054 - 16 GAUGE STEEL JOISTS G140 ZINC COATED @ 24" O.C.  
(SUPPLIER: ALLIED STUDCO (JOIST: 550S137-054 / TRACK: 550T125-054) ICC ER-4943P.
- 3/4" APA OR TECO RATED TONGUE AND GROOVE FLOOR DECKING. 24" MAX PANEL SPAN. STAGGER PANEL LAYOUT.
- FASTEN FLOOR DECKING TO JOIST & TRACKS USING #8 x 1-5/8" ZINC PLATED SCREWS @ 12" O.C. NO BLOCKING REQUIRED. ALL EDGES SHALL LIE ON FLOOR JOISTS. STAGGER PANEL LAYOUT PER APA CONDITION 1.
- FASTEN SOLE PLATE THROUGH FLOOR DECKING INTO JOISTS OR TRACKS WITH #12-14 X 3" GALVANIZED SELF-DRILLING SCREWS @ 12" O.C.
- ALLOWABLE FLOOR LIVE LOAD: 75 PSF FOR STEEL JOISTS CONTINUOUSLY SUPPORTED. 50 PSF FOR JOISTS ON BLOCKS AS SHOWN.
- USE OPTIONAL CONCRETE BLOCKS AS REQUIRED TO LEVEL BUILDING:  
SUGGESTED SIZES: 2X8 x 16", 4" x 8" x 16", OR 8" x 8" x 16".  
BLOCKS UNDER JOISTS SPACED @ 8'-0" O.C. MAXIMUM.  
BLOCKS UNDER TRACK SPACED @ 4'-0" O.C. MAXIMUM.



BASE PLATE SCREW SPACING	
WIDTH	SPACING
8'-12'	8" O.C.

**2 OPTIONAL WOOD SHED BASE DETAIL**  
SCALE: N.T.S.

- WOOD SHED FOUNDATION:**  
2x6 #2 PRESSURE TREATED HEM FIR RIM JOISTS  
2x6 #2 PRESSURE TREATED HEM FIR JOISTS @ 24" O.C.
- 3/4" APA OR TECO RATED TONGUE AND GROOVE FLOOR DECKING. 24" MAX PANEL SPAN. NO BLOCKING REQUIRED. ALL EDGES SHALL LIE ON FLOOR JOISTS. STAGGER PANEL LAYOUT PER APA CONDITION 1. NAIL PLYWOOD TO JOISTS AND RIM JOISTS:  
BORDER: 8d COMMON SPACED @ 6" O.C.  
EDGE: 8d COMMON SPACED @ 6" O.C.  
FIELD: 8d COMMON SPACED @ 12" O.C.
- FASTEN SOLE PLATE THROUGH FLOOR DECKING INTO JOISTS OR RIM JOISTS WITH 10d COMMON SPACED @ 12" O.C.
- ALLOWABLE FLOOR LIVE LOAD: 40 PSF
- USE OPTIONAL CONCRETE BLOCKS AS REQUIRED TO LEVEL BUILDING:  
SUGGESTED SIZES: 2" x 8" x 16", 4" x 8" x 16", OR 8" x 8" x 16".  
BLOCKS UNDER JOISTS SPACED @ 8'-0" O.C. MAXIMUM.  
BLOCKS UNDER RIM JOISTS SPACED @ 4'-0" O.C. MAXIMUM.



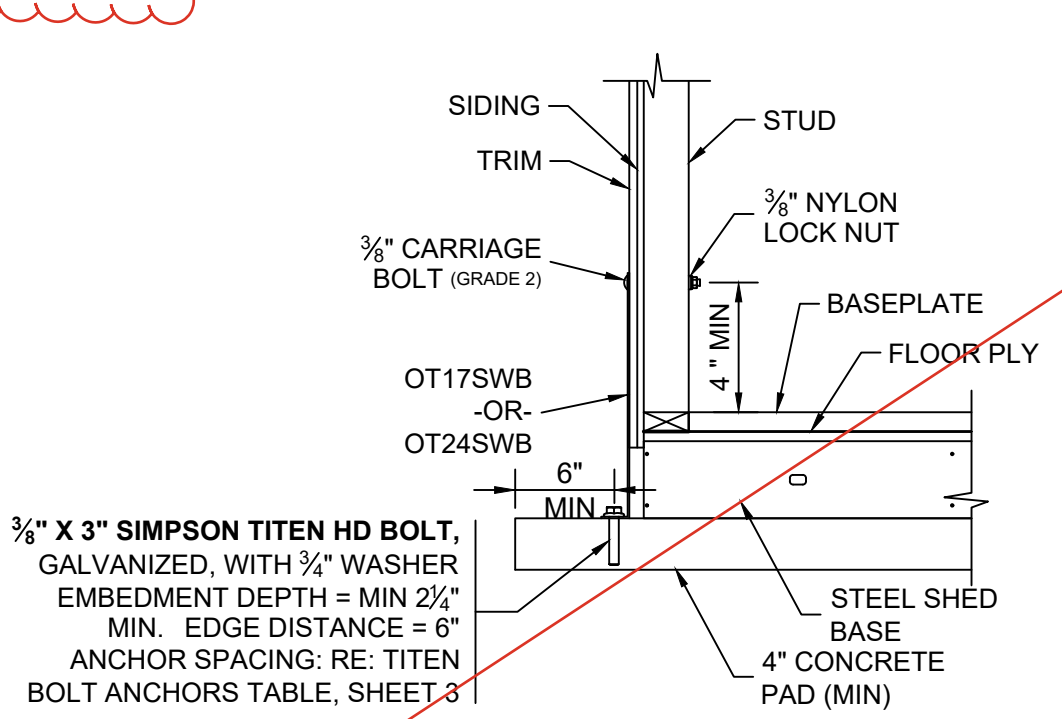
**AUGER ANCHOR COMPONENTS BY OLIVER TECHNOLOGIES**

- PART NUMBERS:**  
OT3644BGMP- 5/8" X 36" (36" IMBED) GALVANIZED AUGER REPORT NO. RAD-3060  
OT17SWB - SIDEWALL BRACKET FOR USE WITH THRU BOLTS REPORT NO. LO-FJ90129-A  
-OR-  
OT24SWB - SIDEWALL BRACKET FOR USE WITH THRU BOLTS REPORT NO. LO-FJ90129-B
- WORKING LOAD FOR ANCHOR SYSTEM IS 3,150 LBS WITH THE MAXIMUM LOAD OF 4,725 LBS

AUGER ANCHORS		
WIDTH	LENGTH	# OF ANCHORS
8'	8'-24'	4 ANCHORS
10'	10'-24'	4 ANCHORS
12'	12'-24'	4 ANCHORS

PROVIDE (1) ANCHOR AT EACH CORNER OF BUILDING.

**3 AUGER ANCHOR DETAIL**  
SCALE: N.T.S.



**3/8" X 3" SIMPSON TITEN HD BOLT, GALVANIZED, WITH 3/4" WASHER EMBEDMENT DEPTH = MIN 2 1/4" MIN. EDGE DISTANCE = 6" ANCHOR SPACING: RE: TITEN BOLT ANCHORS TABLE, SHEET 3**

TITEN HD ANCHOR BOLTS (INTO CONCRETE) RE: DETAIL 4 SHEET 3		
WIDTH	LENGTH	QTY
8'	8'-24'	6
10'	10'-22'	6
10'	24'	8
12'	12'-20'	6
12'	22'-24'	8

- NOTES:**
- ANCHORS TO BE SIMPSON TITEN HD ANCHORS. ANCHORS MAY BE GALVANIZED OR STAINLESS STEEL.
  - PROVIDE (1) ANCHOR AT EA. CORNER OF THE BUILDING. THE REMAINING ANCHORS EQUALLY SPACED ALONG THE LENGTH OF THE BUILDING (1/2 THE REMAINING ANCHORS ON EA. LENGTH SIDE EQUALLY SPACED).

**4 SIDEWALL BRACKET DETAIL**  
SCALE: N.T.S.



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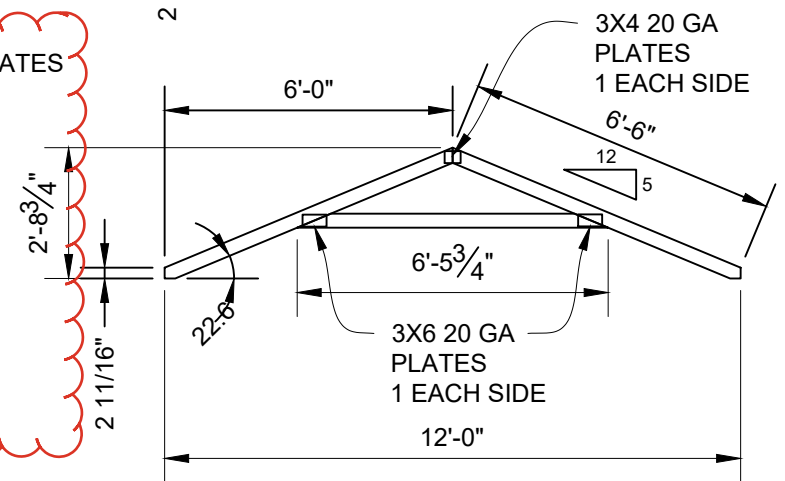
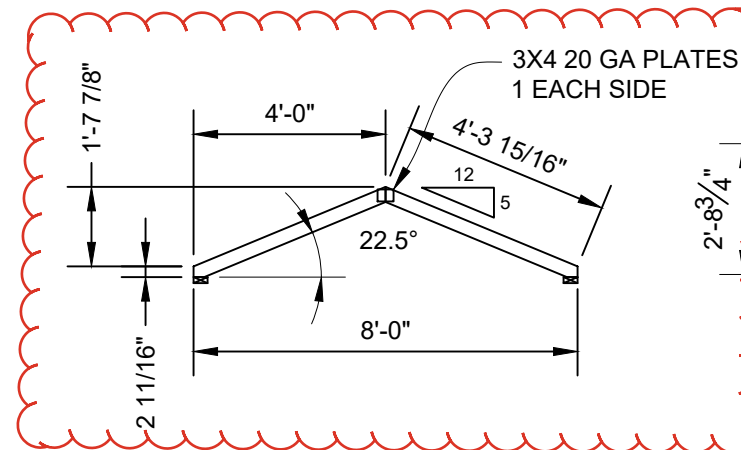
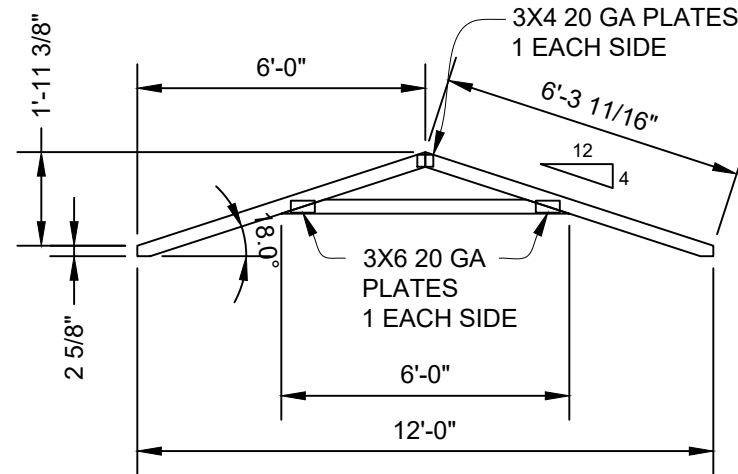
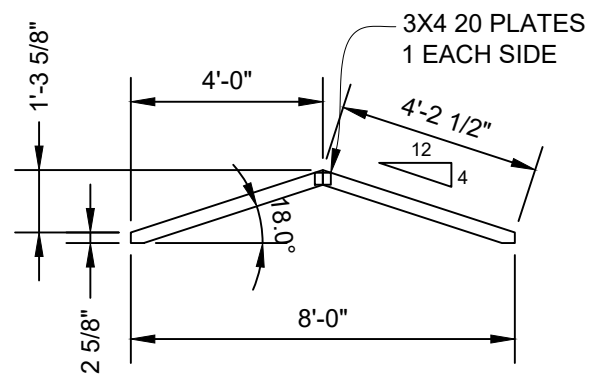
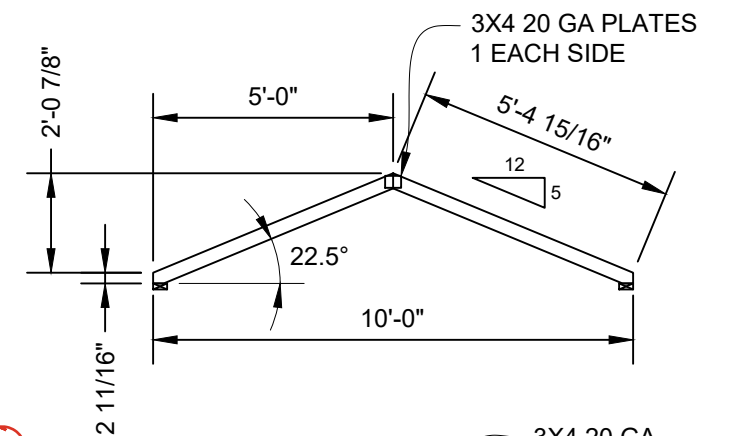
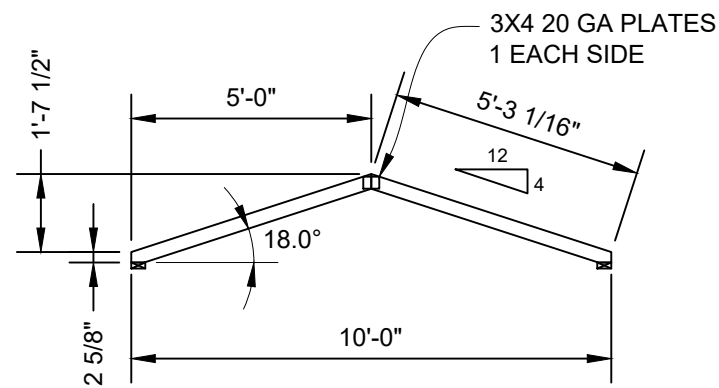
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120 MPH, EXP. C

DRAWING NO. NC-PPTR-TR800-01  
REV. LEVEL 01  
SHEET 3  
PAGE 3 OF 4



DESIGN LOADS:  
 TOP CHORD LIVE LOAD = 20 PSF  
 TOP CHORD DEAD LOAD = 10 PSF  
 COLLAR TIE DEAD LOAD = 5 PSF

NOTES:  
 2015 IBC & IRC, 2018 NCBC  
 ANSI/TPI 1-2014  
 TRUSSES TO BE SPACED @ 24" OC  
 MATERIAL TO BE 2X4 SPRUCE PINE FIR GRADE #2  
 OR BETTER PLATES ARE TO BE PRESSED IN THE  
 WOOD PER TPI.

REP MEMBER INCREASE: YES  
 LUMBER D.O.L.: 1.25

WIND:  
 ASCE 7-10, 120 MPH, Exposure C, D.O.L.=1.60

PLATES ARE MANUFACTURED BY EAGLE METAL  
 PRODUCTS, ICC-ES #ESR-1082.

**8' SPAN**  
 REACTIONS:  
 MAX. VERTICAL: 240 LBS.  
 MAX. UPLIFT: -135 LBS.

NOTE:  
 TRUSS MAY BE USED ON BUILDING LENGTHS  
 UP TO 14FT UNLESS CEILING JOIST OR OTHER  
 TENSION TIE IS PROVIDED.

**10' SPAN**  
 REACTIONS:  
 MAX. VERTICAL: 300 LBS.  
 MAX. UPLIFT: -160 LBS.

NOTE:  
 TRUSS MAY BE USED ON BUILDING LENGTHS  
 UP TO 16FT UNLESS CEILING JOIST OR OTHER  
 TENSION TIE IS PROVIDED.

**12' SPAN**  
 REACTIONS:  
 MAX. VERTICAL: 420 LBS.  
 MAX. UPLIFT: -215 LBS.

NOTE:  
 TRUSS MAY BE USED ON BUILDING LENGTHS  
 UP TO 20FT UNLESS CEILING JOIST OR OTHER  
 TENSION TIE IS PROVIDED.

MAXIMUM DEFLECTION (12 FT. SPAN)  
 VERT LL: 0.06 in.  
 VERT TL: 0.08 in.

ALL PERSONS FABRICATING, HANDLING, ERECTING OR INSTALLING THIS TRUSS ARE TO DO SO IN  
 ACCORDANCE TO THE RECOMMENDATIONS OF THE LATEST VERSION OF THE BCSI.



Order #: \_\_\_\_\_  
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TITLE  
 TRUSS DETAILS  
 AND CALCULATIONS  
 115 MPH, EXP. C

DRAWING NO.  
 NC-PPTR-TR800-01  
 REV. LEVEL 01  
 SHEET 4  
 PAGE 4 OF 4

8 SEPT 2023