

CODE AND STANDARDS

PARTIAL LIST OF CODES AND STANDARDS APPLICABLE TO PROJECT:

1. THE INTERNATIONAL BUILDING CODE, 2003, WITH NORTH CAROLINA SUPPLEMENTS.
2. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318).
3. ASCE 7-05, WIND AND SNOW LOAD CRITERIA.

GENERAL CONSTRUCTION NOTES

1. THE STRUCTURAL INTEGRITY OF THE STRUCTURE IS DESIGNED TO BE ATTAINED IN ITS COMPLETED STATE. WHILE UNDER CONSTRUCTION, ANY TEMPORARY BRACING OR SHORING WHICH MAY BE REQUIRED TO MAINTAIN STABILITY PRIOR TO COMPLETION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. ALL CONSTRUCTION SHALL CONFORM TO STATE AND LOCAL BUILDING CODES, THE LATEST EDITIONS AVAILABLE AT THE TIME OF PERMITTING. THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE MEET OR EXCEED THAT OF PREVIOUS VERSIONS OF THE STANDARD BUILDING CODE. REFERENCED SECTIONS OF THE BUILDING CODE ARE NOT INTENDED TO BE ALL INCLUSIVE; THAT IS, OTHER PERTINENT SECTIONS MAY NOT BE NOTED ON THE DRAWINGS BUT SHALL STILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

3. THE DIMENSIONS, LOCATIONS, AND ELEVATIONS OF ANY EXISTING STRUCTURES WHICH RELATE TO OR INFLUENCE NEW CONSTRUCTION SHALL BE VERIFIED BY FIELD MEASUREMENT BY THE CONTRACTOR PRIOR TO PREPARATION AND SUBMISSION OF CHECKED SHOP DRAWINGS TO THE ENGINEER OF RECORD FOR REVIEW.
4. PROTECTION OF EXISTING STRUCTURES DURING THE COURSE OF THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

DESIGN CRITERIA

1. DEAD LOAD (1606)
 - FRAMING: 4.0 psf
 - METAL ROOFING (29 GA.): 0.75 psf
2. LIVE LOAD (1607.1) 20 psf
3. SNOW LOAD (ASCE 7)
 - GROUND SNOW LOAD: $P_g = 25$ psf
 - SNOW EXPOSURE FACTOR: $C_e = 1.0$
 - IMPORTANCE FACTOR: $I = 1.0$
 - THERMAL FACTOR: $C_t = 1.2$
 - ROOF SNOW LOAD: $P_s = 21.0$ psf
4. WIND LOAD (ASCE 7)
 - WIND SPEED: 120 mph, max.
 - IMPORTANCE FACTOR: 1.0
 - BUILDING CATEGORY: II
 - EXPOSURE CATEGORY: C
 - CLASSIFICATION: PARTIALLY ENCLOSED
5. SEISMIC LOAD (1614)
 - IMPORTANCE FACTOR: 1.0
 - SOIL CLASSIFICATION: D
 - MAPPED ACCELERATIONS:
 - $S_s = 0.50g$
 - $S_1 = 0.15g$
 - $S_{ms} = 0.50g$
 - $S_{m1} = 0.21g$
 - DESIGN SPECTRAL RESPONSE ACCELERATIONS AT 5% DAMPENING:
 - $S_{ds} = 0.33g$
 - $S_{d1} = 0.14g$
 - FUNDAMENTAL PERIOD:
 - E-W, T = 0.15s
 - N-S, T = 0.15s
 - GENERAL DESIGN RESPONSE SPECTRAL ACCELERATION:
 - $S_q = 0.14g$
 - BASIC SEISMIC FORCE RESISTING SYSTEM: LIGHT FRAMED WALLS WITH SHEAR PANELS
 - R = 6-1/2
 - $\Omega = 2-1/2$
 - Cd = 4-1/2

CAST-IN-PLACE CONCRETE

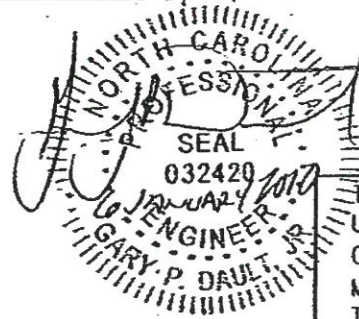
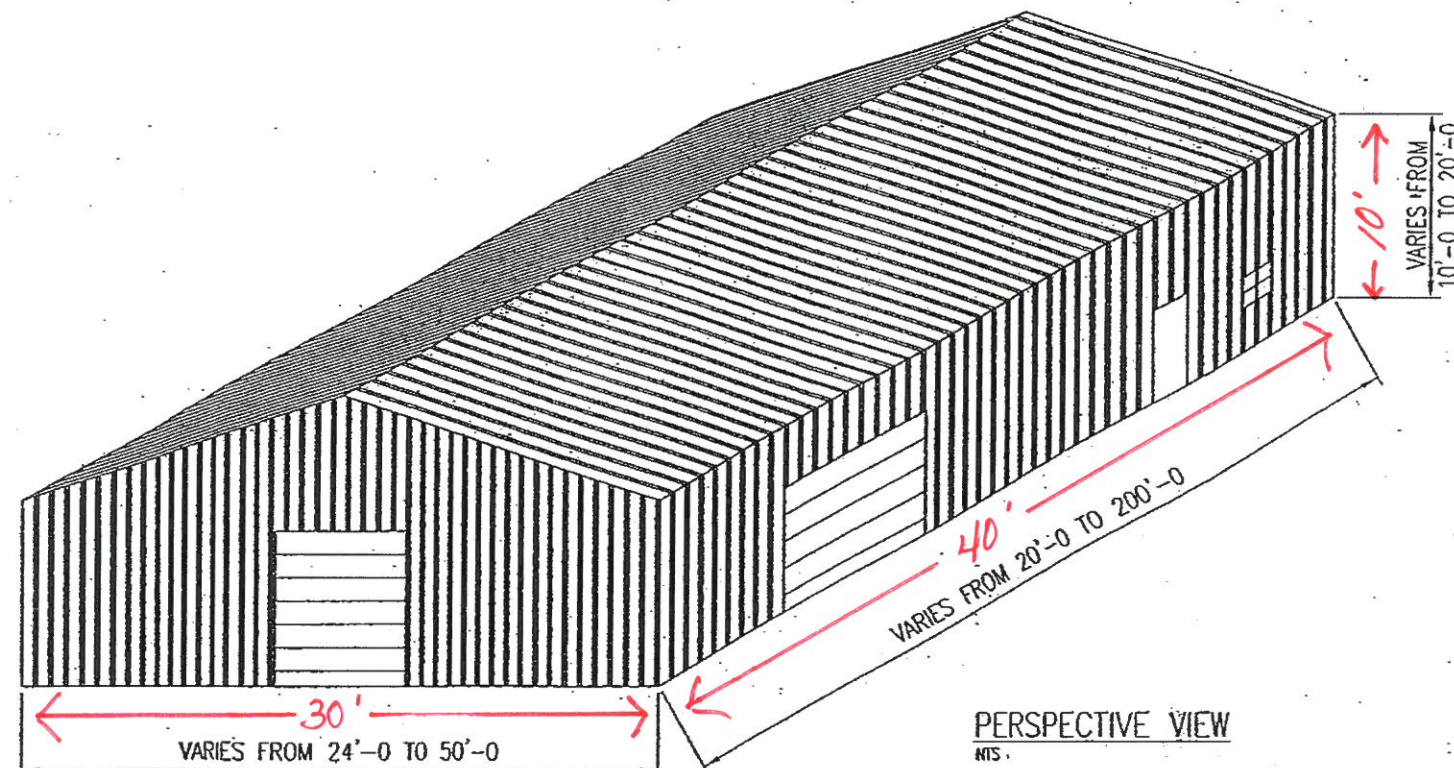
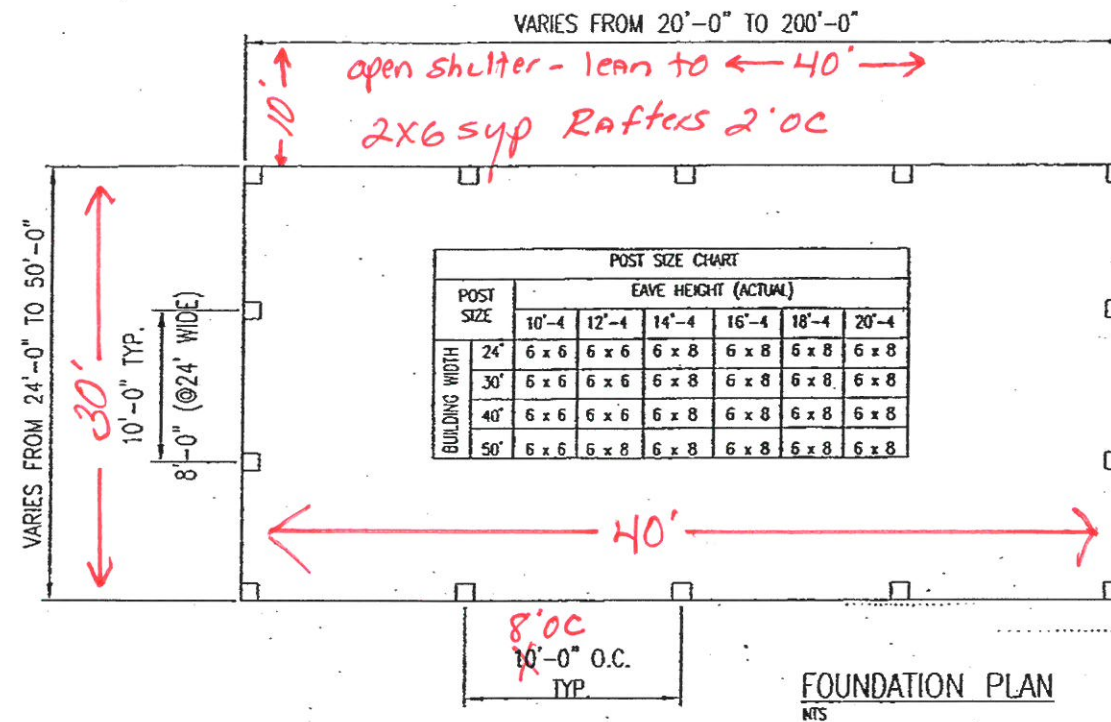
1. ALL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 psi.
2. ALL FOUNDATIONS SHALL BEAR ON UNDISTURBED VIRGIN SOIL WITH NO VEGETATION, OR ON ENGINEERED FILL (95% MODIFIED PROCTOR).
3. SLABS ON GRADE TO INCLUDE 6 MIL POLYETHYLENE VAPOR BARRIER.
4. STRUCTURAL FOUNDATION DESIGN IS BASED UPON AN ALLOWABLE SOIL BEARING PRESSURE OF 2000 psf AND A LATERAL SOIL PRESSURE OF 200 psf. THIS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION BY SUBSURFACE INVESTIGATION.
5. PROPORTION AND DESIGN MIXES TO RESULT IN CONCRETE SLUMP AT POINT OF PLACEMENT BETWEEN 3" AND 5". ADDITION OF WATER TO READY-MIX CONCRETE IN THE FIELD SHALL NOT BE PERMITTED.
6. SLAB POURS SHALL NOT EXCEED 50 FEET IN ANY ONE DIRECTION BETWEEN FORMED CONSTRUCTION JOINTS. CONTROL JOINTS MAY BE SAW CUT 12-24 HOURS AFTER PLACING CONCRETE.

STRUCTURAL TIMBER

1. STRUCTURAL DESIGN IS BASED ON THE USE OF #2 SOUTHERN YELLOW PINE, STRUCTURAL GRADE #2, KD-19, WITH A MINIMUM STRENGTH AS FOLLOWS:
 - POSTS: $F_b = 850$ psi
 - GIRTS/PURLINS: $F_b = 1250$ psi
2. ALL RESIDENTIAL CONSTRUCTION SHALL CONFORM TO SBCCI SSTD 10-97, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER OR ARCHITECT.
3. ALL NAILING REQUIREMENTS SHALL BE AS PER STANDARD BUILDING CODE TABLE 2306.1, OR SBCCI SSTD 10-97, APPENDIX E, UNLESS OTHERWISE NOTED. NAILING REQUIREMENTS ARE IN ADDITION TO THE REQUIREMENTS OF SPECIFIED TIMBERS.
4. ALL NAILING REQUIREMENTS LISTED ARE BASED UPON THE USE OF COMMON WIRE NAILS. ALTERNATE NAIL TYPES OF EQUIVALENT DIAMETERS MAY BE SUBSTITUTED, WITH PRIOR APPROVAL OF THE ENGINEER OF RECORD.
5. TIMBER CONNECTIONS SHALL BE MADE WITH STRUCTURAL HANGERS AS MANUFACTURED BY SIMPSON COMPANY, OR APPROVED EQUAL. ALL INSTALLATION WILL BE WITH NAIL TYPES AND SIZES AS REQUIRED BY THE MANUFACTURER TO DEVELOP FULL STRENGTH OF EACH CONNECTOR SPECIFIED.
6. TIMBER DESIGNATED AS TREATED SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA C2.

PREFABRICATED WOOD ROOF TRUSS

1. TRUSSES TO BE SPACED @ 10'-0" O.C. TYPICAL UNLESS OTHERWISE NOTED. SMALLER SPACING MAY BE USED IF NECESSARY. SEE PLANS FOR TRUSS LOCATIONS AND SPANS.
2. TRUSS DESIGN LOADS:
 - TOP CHORD LIVE: 20 psf
 - TOP CHORD DEAD: 5 psf
 - BOTTOM CHORD DEAD: 1 psf
 - TOTAL LOAD: 26 psf
 - UPLIFT: 10 psf min
3. TOP CHORD DEAD LOAD INCLUDES 3 psf (6 lb/ft) TRUSS SELF-WEIGHT.
4. LOADS INDICATED SHALL BE USED FOR DESIGN OF HIP AND/OR GIRDER TRUSSES AS REQUIRED.
5. MAXIMUM COMBINED DEFLECTION SHALL BE $L/240$.
6. TRUSSES TO BE DESIGNED AND FABRICATED BY MANUFACTURER; SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION, AND SHALL BE SIGNED AND SEALED BY A REGISTERED ENGINEER.
7. TRUSS-TO-TRUSS CONNECTIONS SHALL BE DESIGNED BY TRUSS MANUFACTURER.
8. PERMANENT TRUSS BRIDGING AND TEMPORARY TRUSS BRACING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE IN ACCORDANCE WITH TRUSS MANUFACTURER'S RECOMMENDATIONS.



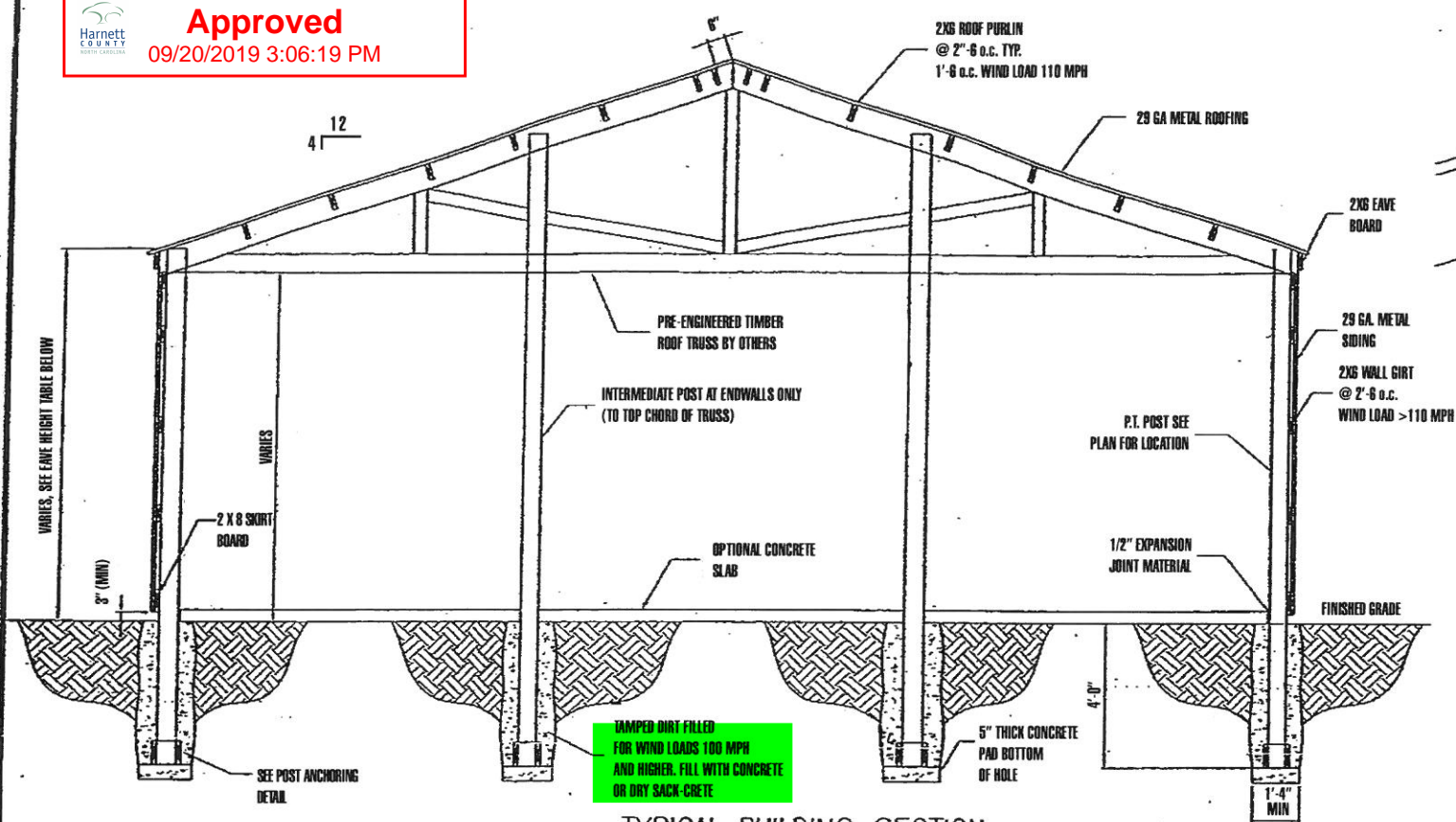
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NORTH CAROLINA
 TYPICAL POST-FRAME BUILDING
 STRUCTURAL FOUNDATION PLAN AND NOTES

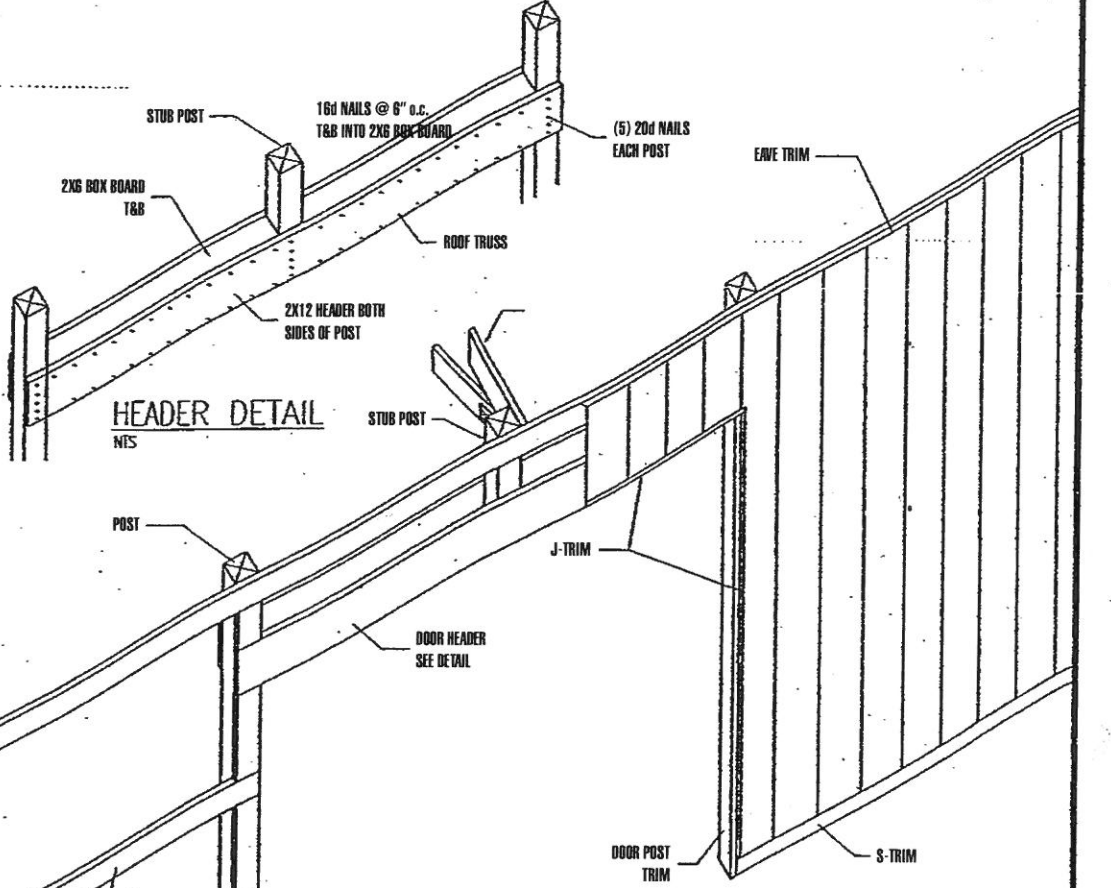
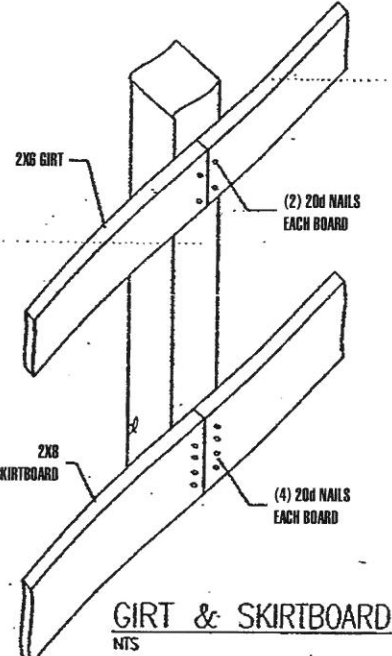
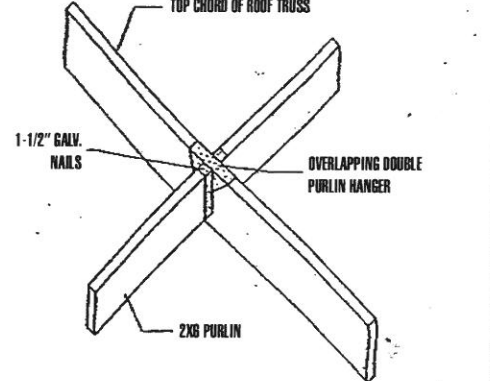
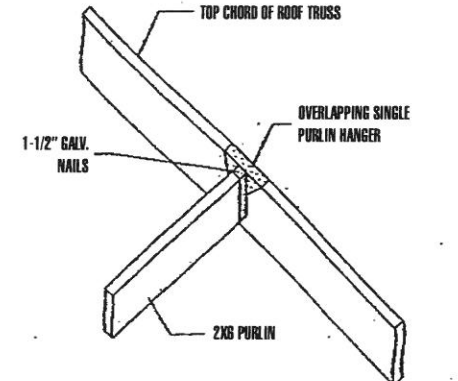
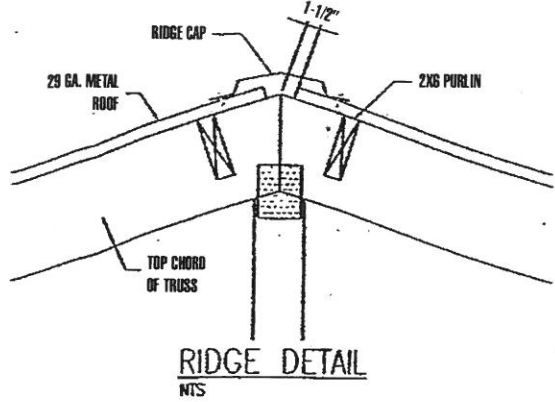
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RAFTER 5074 CORASBORO RD

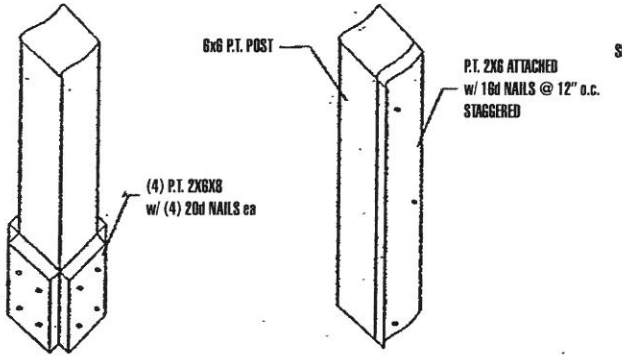


TYPICAL BUILDING SECTION
NTS

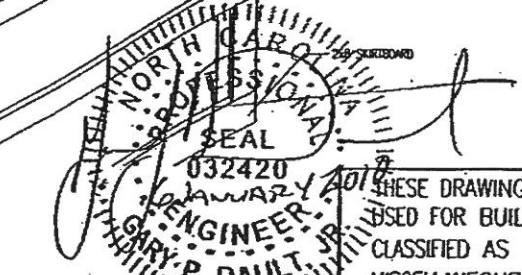
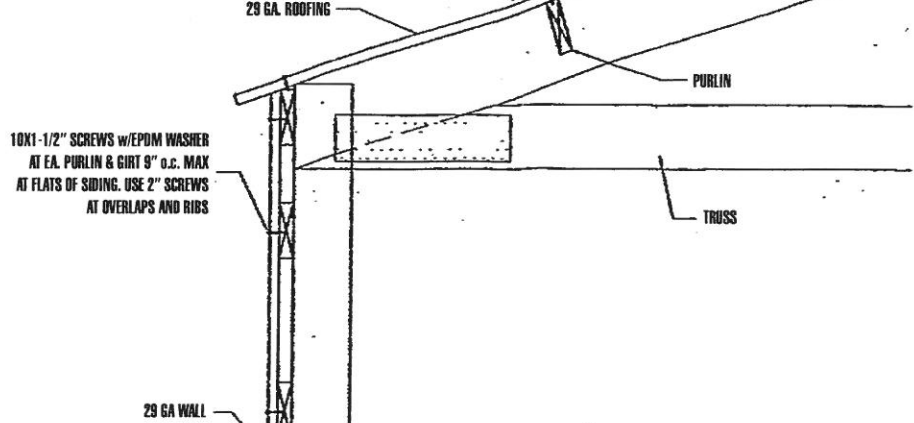
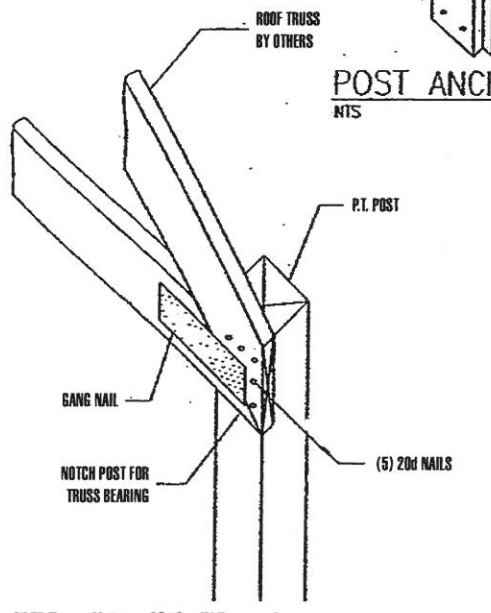
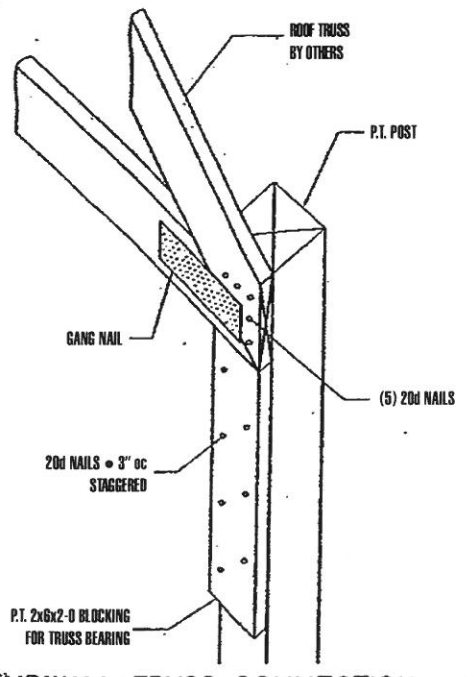
EAVE HEIGHT TABLE						
INSIDE CLEAR HEIGHT	EAVE HEIGHT (ACTUAL)					
	10'-4"	12'-4"	14'-4"	16'-4"	18'-4"	20'-4"
24'	9'-8"	11'-8"	13'-8"	15'-8"	17'-8"	19'-8"
30'	9'-8"	11'-8"	13'-8"	15'-8"	17'-8"	19'-8"
40'	9'-6"	11'-6"	13'-6"	15'-6"	17'-6"	19'-6"
50'	9'-4"	11'-4"	13'-4"	15'-4"	17'-4"	19'-4"



TYPICAL OVERHEAD DOOR FRAMING
NTS



NAIL LAMINATED POST DETAIL
NTS



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NORTH CAROLINA
 TYPICAL POST-FRAME BUILDING
 STRUCTURAL DETAILS