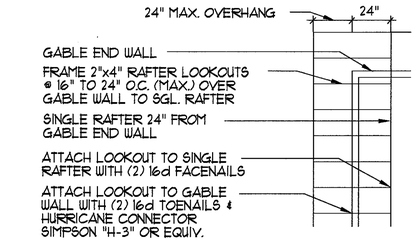
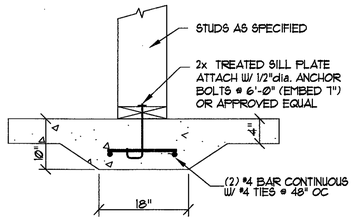


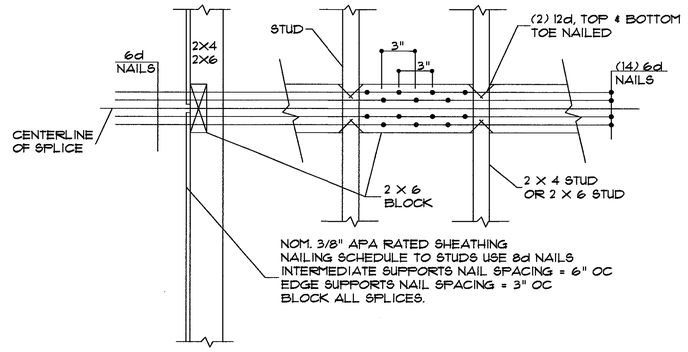
(C) TYPICAL OVERHANG FRAMING AT GABLE END

(NTS.)



(B) TYPICAL THICKENED SLAB

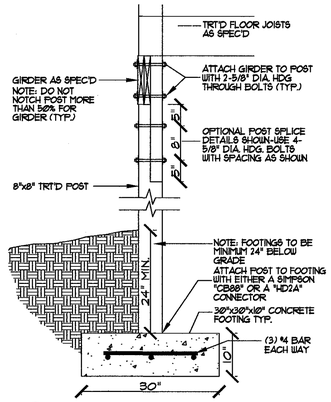
NTS



(D) BLOCKING DETAIL

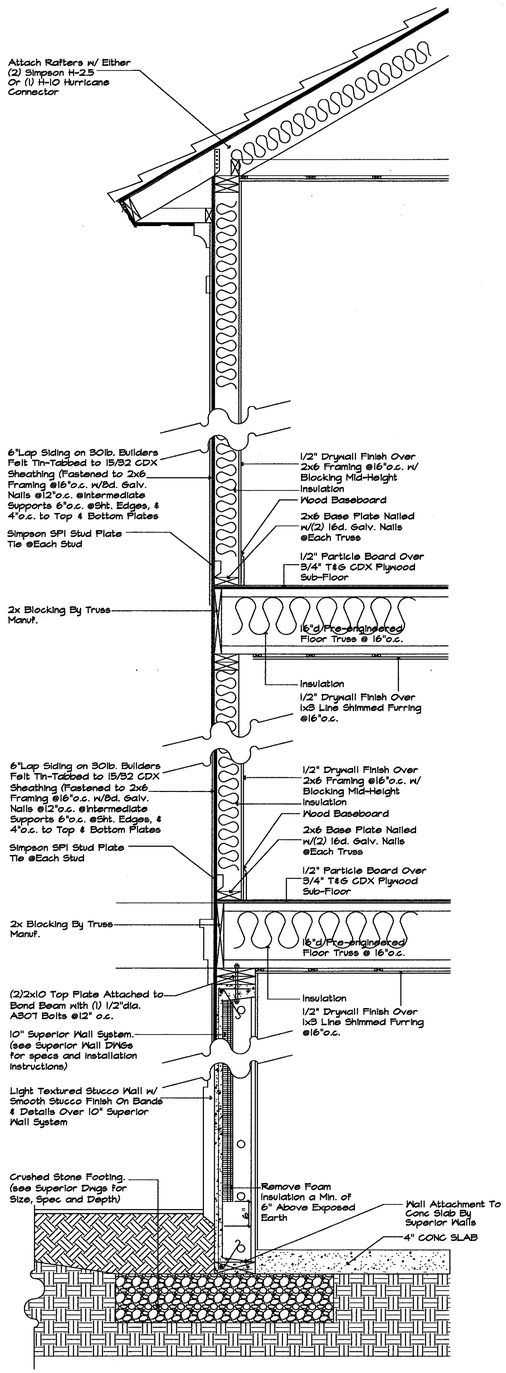
N.T.S.

BLOCKING DETAIL FOR HORIZONTAL OR VERTICAL ORIENTATION OF APA RATED SHEATHING



(E) TYP. POST/FTG. @ PORCH

SCALE: 1"=1'-0"



(A) WALL SECTION

SUPERIOR WALL ON TURN DOWN SLAB

STRUCTURAL NOTES

1) ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL. SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL COMPONENTS AS SPECIFICALLY STATED.

2) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2006 EDITION WITH SPECIAL CONSIDERATION TO CHAPTERS 44 & 45 PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

3) DESIGN LOADS (R301.4)

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
ROOMS OTHER THAN SLEEPING ROOMS	40	10	L/360
SLEEPING ROOMS	30	10	L/360
ATTIC WITH PERMANENT STAIR	40	10	L/360
ATTIC WITH OUT PERMANENT STAIR	20	10	L/360
ATTIC WITH OUT STORAGE	10	10	L/240
STAIRS	40	--	L/360
EXTERIOR BALCONIES	60	10	L/360
DECKS	40	10	L/360
GUARDRAILS AND HANDRAILS	200	--	----
PASSENGER VEHICLE GARAGES	50	10	L/360
FIRE ESCAPES	40	10	L/360
SNOW	20	--	----
WIND LOAD	(BASED ON 130 MPH WIND VELOCITY)		

4) WALL BRACING: BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO SECTION R602.10.3.
THE AMOUNT AND LOCATION OF BRACING SHALL COMPLY WITH TABLE R602.10.3.
THE LENGTH OF BRACED PANELS SHALL BE DETERMINED BY SECTION R602.10.4.
LATERAL BRACING SHALL BE SATISFIED PER METHOD 3 BY CONTINUOUSLY SHEATHING WALLS WITH STRUCTURAL SHEATHING PER TABLE R602.3.
NOTE THAT ANY SPECIFIC BRACED WALL DETAIL SHALL BE INSTALLED AS SPECIFIED.

5) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINED PER TABLE 4022. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP.

6) ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTUAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

7) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2 (Fb=975 PSI).

8) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2x4 STUD COLUMN FOR 6'-0" MAX. BEAM SPAN, (2) STUDS FOR BEAM SPAN GREATER THAN 6'-0" (UNO). ALL BEARING HEADERS AND HEADERS OVER 6'-0" IN LENGTH SHALL BE (2) 2x10's (UNO).

9) L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9x10^6 PSI.
P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2300 PSI, Fv=290 PSI, E=2.0x10^6 PSI.
L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=1700 PSI, Fv=400 PSI, E=1.55x10^6 PSI.
INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.

10) ALL TRUSS DRAWINGS, I-JOIST LAYOUTS, OR ANY OTHER SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY SOUTHERN ENGINEERS, P.A. PRIOR TO THE START OF CONSTRUCTION.

11) ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. .
ALL STEEL TUBING SHALL BE ASTM A500.

12) REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60.

13) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED TOP AND AT BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.

14) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0" (UNO).

15) PILES SHALL BE SYP #2 TREATED (PER CODE SECTION R323). PILES SHALL BE DRIVEN TO MINIMUM DEPTH OF 8'-0" BELOW GRADE OR AS NATURAL GRADE OR SOIL CONDITIONS REQUIRE PER CODE SECTION R403.1.4. ALL PILES TO HAVE A CAPACITY OF 8 KIPS. CAPACITY OF PILES THAT EXCEED 8 KIPS SHALL BE NOTED ON PLANS.

16) CROSS BRACING BETWEEN PILES IS NOTED WITH AN "X" ON THE PLANS. USE 2"x 10" BRACING AND CONNECT EACH BRACE TO PILE WITH (2) 3/4" DIA. GALVANIZED BOLTS.

17) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED 6" FROM EACH END.

18) ALL RAFTERS SHALL BE SECURED AT WALL PLATE WITH METAL TIE AND AT RIDGE WITH 2 X 6 COLLAR TIES WITH (4) 10D NAILS PER CONNECTION.

NORTH CAROLINA PROFESSIONAL SEAL 16073 ENGINEER JAMES H. HERMAN

PROJECT # 8-1460

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* Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineer's liability.
* Seal is valid for projects permitted one year from date of seal.

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SD