9-20-12

SCALE 3/4"=1'-0" DRAWN TMS 12-008C



IF PORCH ROOF IS IN A LOCATION WHERE IT IS SHED UPON BY A ROOF ABOVE, IT MUST CONFORM TO THE FOLLOWING: IF THE EAVE LINE OF THE ROOF ABOVE IS LESS THEN 4 FEET ABOVE THE PORCH ROOF, NO CHANGE NEED BE MADE. IF THE EAVE LINE OF THE ROOF ABOVE IS BETWEEN 4 FEET AND 10 FEET ABOVE THE PORCH ROOF, INCREASE THE NOMINAL DEPTH FOR ALL RAFTERS AND BEAMS BY 2" (I.E. 6x8 BECOMES A 6x10, 2x6 BECOMES A 2x8, ETC.). ALTERNATIVELY, FOR RAFTERS, 24' SPACING (@2x RAFTERS) MAY BE DECREASED TO 16" AND 48" SPACING MAY BE DECREASED TO 32" (@4x RAFTERS) IF THE EAVE LINE OF THE ROOF ABOVE IS MORE THAN 10' ABOVE THE PORCH ROOF, THIS PRESCRIPTIVE DESIGN CANNOT BE USED, AND A LICENSED PROFESSIONAL MUST PROVIDE ENGINEERING FOR THE DESIGN.

HARDWARE SUBSTITUTION

SIMPSON HARDWARE MAY BE

ROOF SHEATHING

MAY BE SUBSTITUTED FOR CC'S

B.N., 6" E.N., 12" F.N., SEE 18

F.N., OVER 2x6 T&G DKG, 19 2-16D/BOAR/BRNG, SEE

AT 4x RFTRS: %" (24 /0) A.P.A. RATED SHEATHING, EXTERIOR PLY,

8d SHORTS @6" B.N., 6" E.N., 12" É.W.

PLANS SHOW CB AND CC HARDWARE,

PINNED CONNECTIONS. ALSO, OTHER

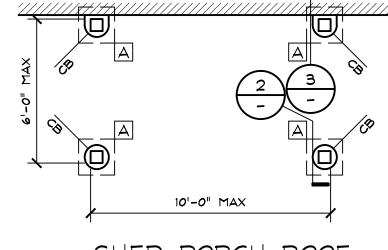
SUBSTITUTED. PB AND CBSQ MAY BE SUBSTITUED FOR CB'S, AND PC AND CCQ

AT 2x RFTRS: %" (40/20) A.P.A. RATED

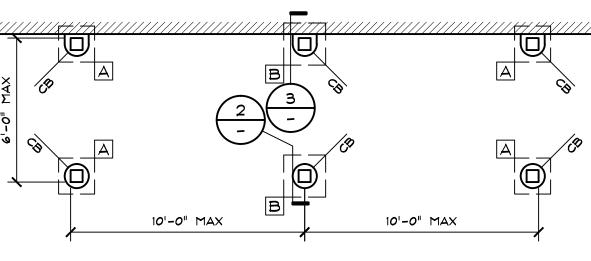
SHEATHING, EXTERIOR PLY, 10d NAILS @6"

BUT DETAILS GIVE ALTERNATIVE USING

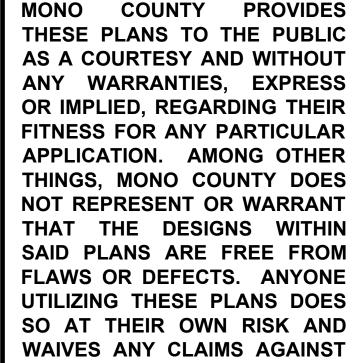




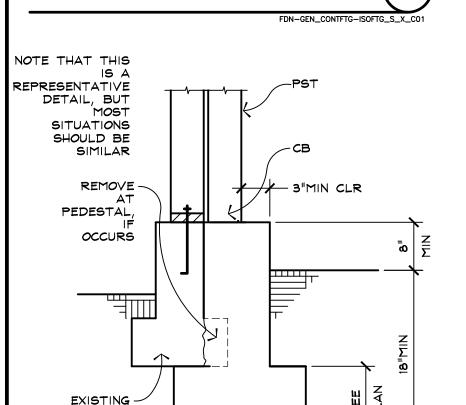
SHED PORCH ROOF FOUNDATION PLAN



MULTI-BAY SHED PORCH ROOF FOUNDATION PLAN



SUCH USE.



SEE PLAN

-4" CONC SLAB

-P.T. 2x, TO COVER

FRAMING

-ATTACH 4x RFTR TO BM

W/ 2-% POWER PRO

CERAMIC COATED LAG

TO ALLOW FOR 6" MIN

OFFSET APPROXIMATELY

AS SHOWN IN PLAN VIEW

EMBEDMENT IN BM,

RF-EAV\_T&G-4xRFTRL-4xCRFTRR-BM\_2LAGS\_P-S-PERP\_U

SCREWS, SELECT LENGTH

ALL EXISTING WOOD

26 GA G.I. FLASHING,

EXISTING

FRAMING

4x RFTR

PLY & DKG OMITTED

FROM PLAN VIEW

PLY 0/ 2x DKG 0/-

4x RFTRS @48"(MAX)

FOR CLARITY

RUN BELOW LOWEST

PIECE OF SIDING

- CONTINUOUS FOOTING

5' MIN CLR TO

DAYLIGHT

-ISOLATED FOOTING

5' MIN CLR TO

DAYLIGHT

-DOWNSLOPING

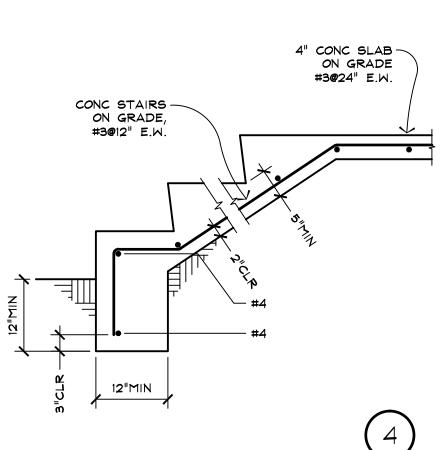
DOWNSLOPING

HILLSIDE

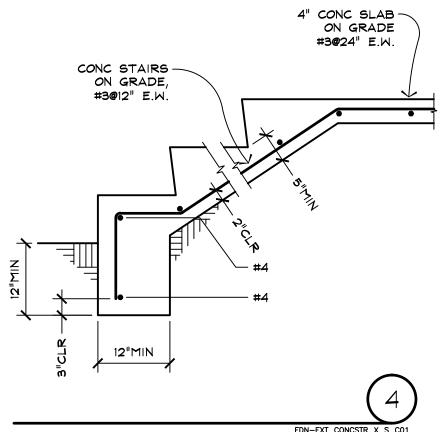
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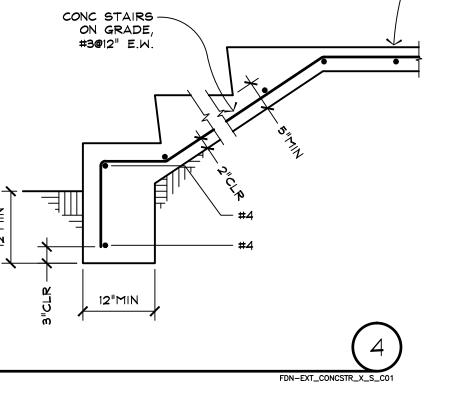
SEE PLAN

HILLSIDE



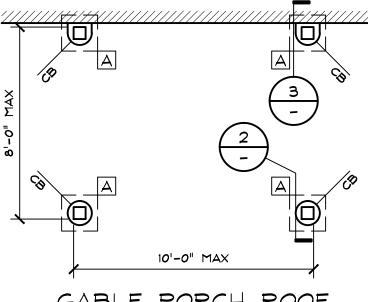
SEE PLAN



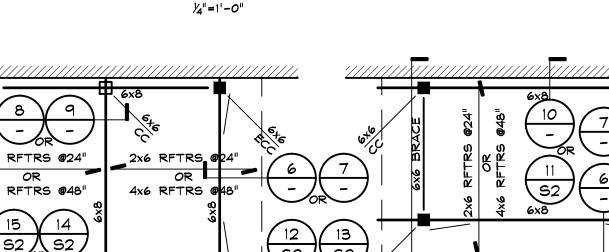


PEDESTAL

SIDE ELEVATION



GABLE PORCH ROOF

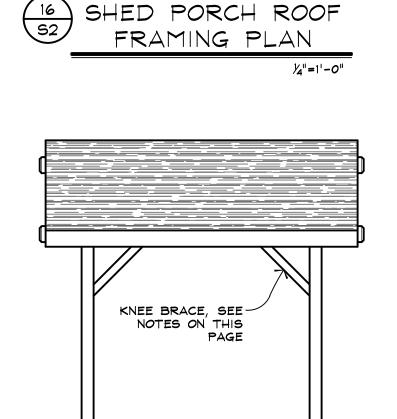


GABLE PORCH ROOF FRAMING PLAN

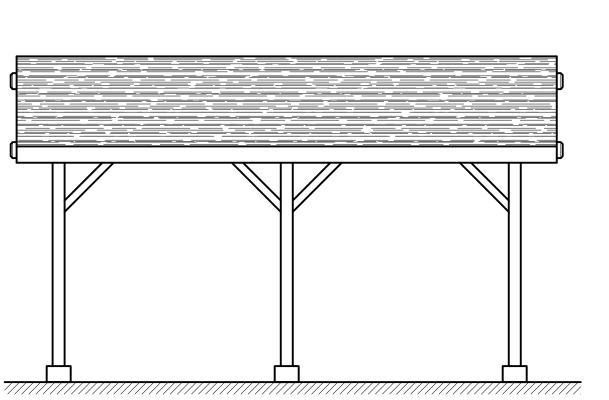
GABLE PORCH ROOF

FRONT ELEVATION

1/4"=1'-0"



SHED PORCH ROOF FRONT ELEVATION



ROOF FRAMING PLAN

<u>\$2</u>

 $\frac{1}{4}$ "=1'-0"

1/<sub>4</sub>"=1'-0"

NOTES TO SUBMITTER

-KNEE BRACE, SEE 52,

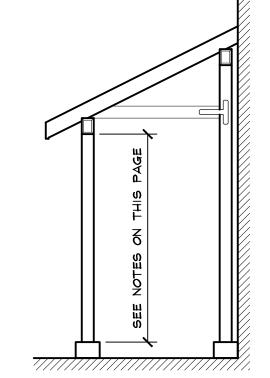
AND NOTES ON THIS

PAGE FOR WHEN

THEY MAY BE

OMITTED

MULTI-BAY SHED PORCH FRONT ELEVATION PLAN



SIDE ELEVATION

THESE PRESCRIPTIVE DESIGNS ARE INTENDED TO APPLY TO THE MOST

THESE PLANS ARE PRIMARILY FOR THE STRUCTURAL REQUIREMENTS OF

ARCHITECTURAL PLAN, SHOWING THE ACTUAL LAYOUT OF THE PORCH AND

ROOF. THE PLAN SHALL ALSO SHOW A STRUCTURAL LAYOUT BASED UPON

REQUIREMENTS, INCLUDING FLOOD PLAIN ZONES, CAL-FIRE WILDLAND URBAN INTERFACE REQUIREMENTS, LAHONTAN EROSION CONTROL REQUIREMENTS

THIS DESIGN IS INTENDED NOT TO CONFLICT WITH AN EXISTING ROOF. IT

DESIGN NEEDS TO BE INSTALLED SUCH THAT IT IS EITHER AN EXTENSION OF AN EXISTING EAVE LINE, OR A GABLE COMING FROM AND EXISTING

PROFESSIONAL (ARCHITECT OR ENGINEER) TO EVALUATE ITS STRUCTURAL

IS INTENDED TO GO ON A GABLE END WALL (A RAKE WALL), OR ON A LOWER STORY OF A 2 STORY STRUCTURE WHERE POSSIBLE. IF THIS

EAVE LINE, ONE OF THE FOLLOWING CONDITIONS MUST BE MET. THE

INTEGRITY AND ABILITY TO HANDLE ADDITIONAL LOADS IMPOSED BY

ALTERNATIVELY, IF THERE ARE EXISTING PLANS FOR THE STRUCTURE

REDUCTIONS FOR PITCH OR DURATION, THEN THE NEW PORCH ROOF

VALLEYS, CHANGES IN PITCH, ETC. THE LICENSED PROFESSIONAL THEM

MUST EITHER CERTIFY THAT THE EXISTING STRUCTURE IS ADEQUATE OR

AVAILABLE, AND THEY CAN DEMONSTRATE (FROM EITHER ORIGINAL PLANS

OR CALCULATIONS) THAT THE EXISTING ROOF STRUCTURE MEETS CURRENT

MONO COUNTY SNOW AND DEAD LOAD REQUIREMENTS FOR ROOFS, WITH NO

SHOULD NOT CAUSE DISTRESS BEYOND DESIGN LIMITS FOR THE EXISTING

IF A ROOF CONFLICT IS ALLOWED AND IS GOING TO OCCUR, SEE DETAIL

EXISTING ROOF STRUCTURE MUST BE EVALUATED BY A LICENSED

PROVIDE A DESIGN TO REINFORCE THE EXISTING STRUCTURE.

20/S2 AT GABLE ROOFS AND 21/S2 AT SHED ROOFS.

PORCH ROOFS. THE SUBMITTER IS RESPONSIBLE FOR PREPARING AN

LASTLY THE SUBMITTER IS RESPONSIBLE FOR ALL SITE SPECIFIC

DETERMINED BY THE BUILDING OFFICIAL MAY WARRANT ADDITIONAL

ARCHITECTURAL OR STRUCTURAL DESIGN REQUIREMENTS.

NEW ROOFS THAT CONFLICT WITH EXISTING ROOFS

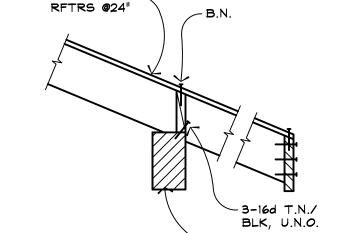
THE REQUIREMENTS OF THESE PLANS.

AND ANY SIMILAR REQUIRÉMENTS.

ROOF STRUCTURE

COMMON SITUATIONS ENCOUNTERED IN MONO COUNTY. HOWEVER, UNIQUE

SITE CONDITIONS OR SUBSTANTIAL DEVIATIONS FROM THESE DESIGNS AS



PLY 0/ 2x -

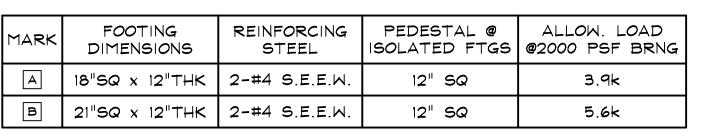
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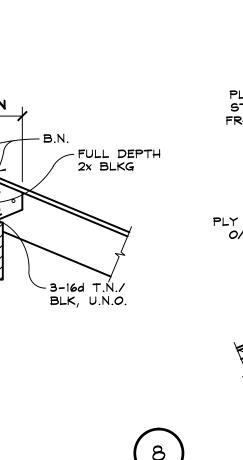
RFTRS @24"



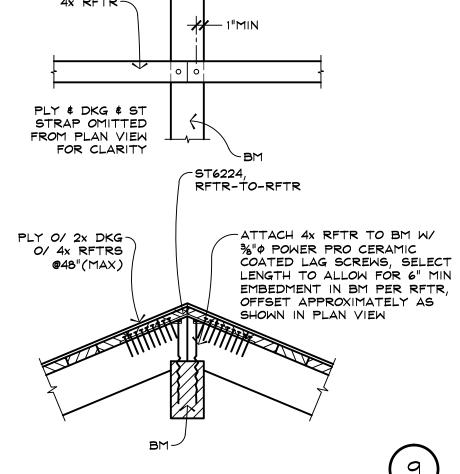
1/<sub>4</sub>"=1'-0"

MARK	FOOTING DIMENSIONS	REINFORCING STEEL	PEDESTAL @ ISOLATED FTGS	ALLOW. LOAD @2000 PSF BRNG
A	18"SQ x 12"THK	2-#4 S.E.E.W.	12" SQ	3.9k
B	21"SQ x 12"THK	2-#4 S.E.E.W.	12" SQ	5.6k

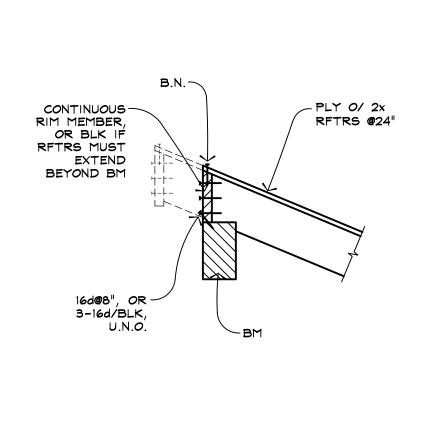




RF-RDG\_RFTRL-RFTRR-BM\_LAP\_S-PERP\_U



RF-RDG\_T&G-4xRFTRL-4xRFTRR-BM\_ST6224-LAG\_P-S-PERP\_U



RF-EXT\_CRFTRL-RFTRR-BM\_X\_S-PER

DEFINITION OF A PORCH ROOF

A PORCH ROOF IS A SMALL STRUCTURE THAT COVERS AN ENTRY OR OTHER SMALL AREA NEEDING PROTECTION. ONE SIDE IS AGAINST AN EXISTING BUILDING AND THE OTHER THREE SIDES ARE OPEN.

(S2)

FLOOR OF THE PORCH

A 4" SLAB ON GRADE MAY BE USED AS THE FLOOR OF THE PORCH. IT SHOULD BE REINFORCED WITH #3@24" S.E.E.W. IF THE DESIRE IF FOR A RAISED PORCH/ENTRY, STILL OF CONCRETE, WITH STAIRS, SEE DETAIL 4/SI AND 5/SI FOR STAIRS AND PROTECTION OF CONCRETE IN CONTACT WITH EXISTING FRAMING. IF A DECK IS DESIRED, THAT IS BEYOND THE SCOPE OF THESE PLANS. HOWEVER, MONO COUNTY BUILDING DIVISION HAS PRESCRIPTIVE DESIGNS FOR DECKS THAT CAN BE COMBINED WITH THIS PORCH ROOF DESIGN.

MAXIMUM HEIGHT OF SUPPORT POSTS (OR LOW POSTS IN THE CASE OF THE SHED PORCH ROOFS) IS 10' AS DRAWN. HOWEVER, IF THERE IS A DECK, AND THE DECK IS TIED IN (NAILING OR SCREWING A DECK JOIST TO A POST IS SUFFICIENT) TO THE POST, THEN THE POST MAY HAVE A MAXIMUM HEIGHT OF 14', BUT THE MAXIMUM UNRESTRAINED HEIGHT OF THE

KNEE BRACING

THE KNEE BRACING IS INCLUDED TO PROVIDE LATERAL SUPPORT TO THESE MINOR STRUCTURES AND ELIMINATE OR MITIGATE ANY LATERAL LOADING THIS STRUCTURE MIGHT IMPOSE ON AN EXISTING STRUCTURE. IF THE OWNER DOES ONE OF TWO THINGS, THE KNEE BRACES MAY BE ELIMINATED. ARCHITECT) TO VERIFY THAT THE EXISTING STRUCTURE HAS ADEQUATE RESISTANCE TO ANY LOADS IMPOSED BY THE NEW ENTRY PORCH. ALTERNATIVELY, IF THE OWNER HAS ACCESS TO EXISTING PLANS THAT DEMONSTRATE THAT THE EXISTING STRUCTURE WAS DESIGNED TO CURRENT CODES FOR SEISMIC RESISTANCE (AS FAR AS LOADING), THEN KNEE BRACES CAN BE ELIMINATED. GENERALLY ANY STRUCTURE PROPERLY DESIGNED FOR THE 1994 U.B.C. OR LATER VERSIONS OF THE U.B.C., C.B.C., OR I.B.C. WILL HAVE ADEQUATE LATERAL RESISTANCE. NOTE TO THAT THIS MUST BE A SYSTEM CONSISTING OF STRUCTURAL SHEAR PANELS IN THE LINE TO WHICH THE PORCH ROOF IS BEING ADDED. OTHER SYSTEMS (MOMENT FRAMES, HARDY FRAMES, SIMPSON STRONG WALLS, OR SIMILAR) MUST BE LOOKED AT BY AND LICENSED PROFESSIONAL OR KNEE BRACES ARE REQUIRED.

> PROJECT SHALL COMPLY WITH THE 2010 CALIFORNIA CODES, WHICH ARE BASED UPON THE 2009 INTERNATIONAL BUILDING CODE, THE 2009 INTERNATIONAL RESIDENTIAL CODE, THE 2009 UNIFORM PLUMBING CODE, THE 2009 UNIFORM MECHANICAL CODE, THE 2008 NATIONAL ELECTRICAL CODE, AND THE 2008 TITLE 24 ENERGY STANDARDS. SOIL BEARING ALLOWABLE ASSUMED TO BE 2000 PSF. ALL EXTERIOR FOOTINGS SHALL HAVE 18" MIN EMBEDMENT ALL FOOTINGS SHALL ALSO BE EMBEDDED DEEP ENOUGH THAT A 5' MIN HORIZONTAL DISTANCE TO DAYLIGHT IS ATTAINED. SEE

WHERE SOLID-FILLED POSTS ARE CALLED OUT, THE SOLID FILL REPRESENTS A POST BELOW.

DETAILS ON ACCOMPANYING DETAIL SHEETS ARE DRAWN TO THE SCALE NOTED IN THE TITLE BLOCK OF THE SHEET, U.N.O. HOWEVER, THE SIZE OF EACH SCALED ELEMENT SHOWN ON THE DETAILS DOES NOT NECESSARILY REPRESENT THE SIZE OF THE MEMBERS CALLED OUT ON THE PLAN, OR EXISTING IN THE STRUCTURE.

PB, CC, ETC ARE SIMPSON STRONG-TIE HARDWARE. REFER TO SIMPSON CATALOG C-2011 FOR INSTALLATION

# 1/4"=1'-0"

HEIGHT OF POSTS

POST (FROM THE DECK TO THE BEAM) IS STILL 10'

IF THE OWNER HIRES A LICENSED PROFESSIONAL (AND ENGINEER OR

# STRUCTURAL NOTES

WHERE OPEN NON-FILLED POSTS ARE CALLED OUT, THE OPEN POST REPRESENTS A POST ABOVE.

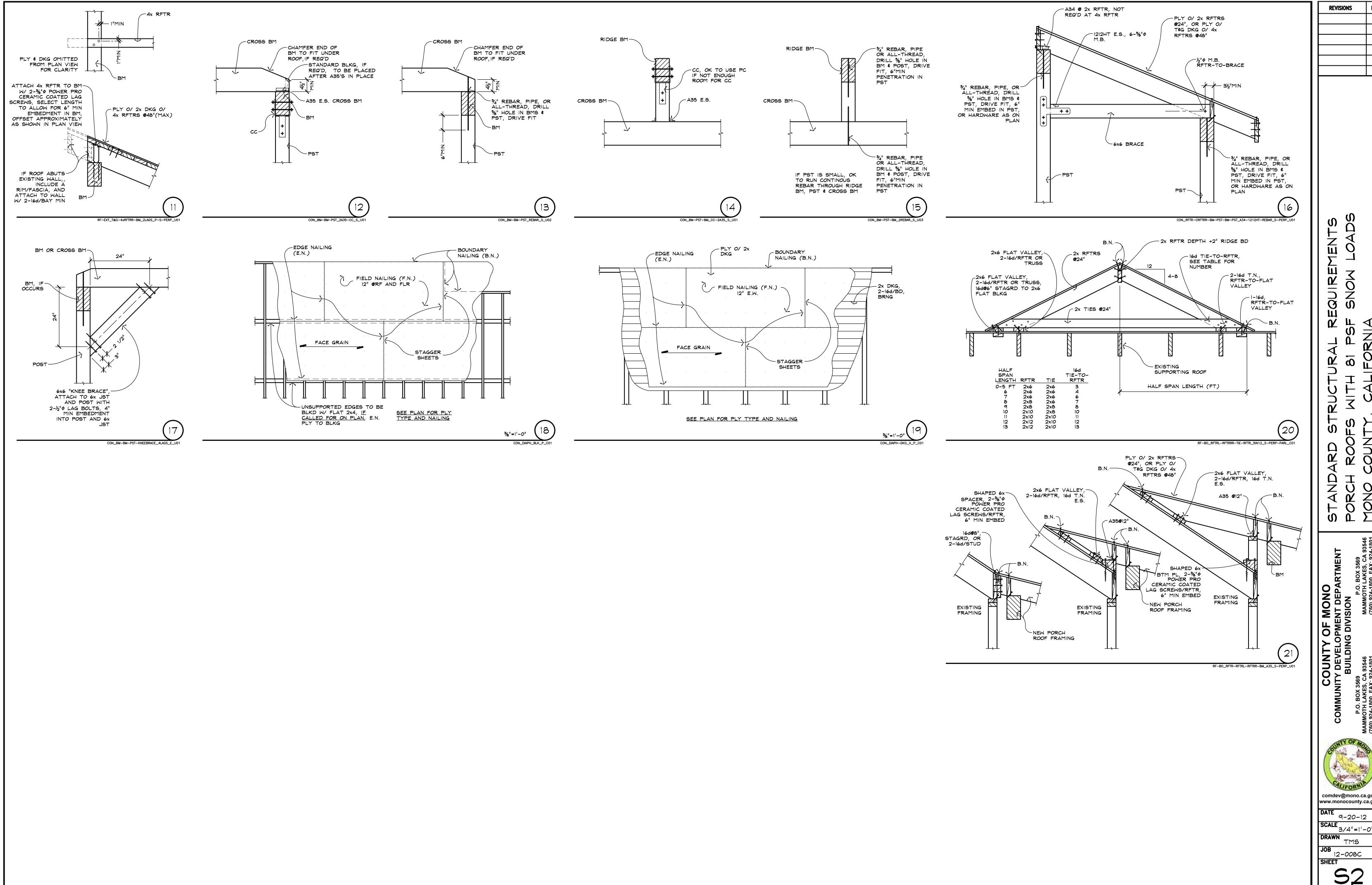
INFORMATION. USE EXACT TYPE, SIZE, AND NUMBER OF FASTENERS SPECIFIED IN CATALOG.

REVISIONS

IONO T DEPARTMENTION

10

comdev@mono.ca.gov www.monocounty.ca.go



O STANDARD PORCH ROO MONO COUN

comdev@mono.ca.gov www.monocounty.ca.gov DATE 9-20-12

SCALE 3/4"=1'-0"

DRAWN TMS

**S2** 

### CODES AND REFERENCES

- A. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 2010 CAL-IFORNIA BUILDING CODE (C.B.C.) BASED UPON THE 2009 INTERNATIONAL BUILDING CODE (I.B.C.)
- B. A THOROUGH PLANCHECK SHALL BE MADE BY A QUALIFIED REPRESENTATIVE OF THE BUILDING DEPARTMENT PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. CORRECTIONS, IS ANY, SHALL BE MADE ONLY BY THE ARCHITECT OR HIS REPRESENTATIVE. ONCE THE BUILDING PERMIT HAS BEEN ISSUED NO CHANGES OR DEVIATIONS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT, LEST AN UNSAFE OF UNLAWFUL CONDITION BE CREATED. CONTRACTOR SHALL COMPLY WITH ANY CODE OR LEGAL VIOLATION WHICH MIGHT BE POINTED OUT BY THE BUILDING INSPECTOR.
- C. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION, AND/OR ADDENDUM. THESE STANDARDS WILL BE REFERRED TO IN ABBREVIATED FROM AS LISTED BELOW:
  - AMERICAN CONCRETE INSTITUTE
  - AMERICAN FOREST AND PAPER ASSOCIATION AMERICAN INSTITUTE OF STEEL CONSTRUCTION
  - AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
  - AMERICAN NATIONAL STANDARDS INSTITUTE AMERICAN PLYWOOD ASSOCIATION
  - AMERICAN SOCIETY OF TESTING MATERIALS
  - AMERICAN WELDING SOCIETY INTERNATIONAL CODE COUNCIL
  - WEST COAST LUMBER INSPECTION BUREAU WWPA WESTERN WOOD PRODUCTS ASSOCIATION
- D. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE AND REPORT ANY ERRORS, OMISSIONS, OR POSSIBLE DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK. SPECIAL CARE SHALL BE GIVEN SITE AND BUILDING LAYOUT THEREUPON.
- E. TYPICAL DETAILS AND NOTES SHALL APPLY UNLESS SHOWN OTHERWISE ON THE PLANS.

#### 2. SPECIAL INSPECTION

WHERE "SPECIAL INSPECTION" IS REQUIRED ON THE PLANS, A REGISTERED DEPUTY INSPECTOR APPROVED BY, AND RESPONSIBLE TO, THE ARCHITECT AND THE BUILDING DEPARTMENT, SHALL BE EMPLOYED BY THE OWNER. SPECIAL INSPECTION IS REQUIRED FOR:

- A. PLACING OF ALL CONCRETE WITH AND f', IN EXCESS OF 2500 PSI.
- B. ALL FIELD WELDING, OR WELDING PERFORMED IN AN UNLICENSED FABRICATING SHOP.
- C. ALL CERTIFIED COMPACTED FILL.
- D. SUCH OTHER ITEMS AS MAY BE REQUIRED BY CHAPTER 17 OF THE C.B.C. OR BY THE ARCHITECT.

#### 3. TEMPORARY BRACING

THE CONTRACTOR SHALL PROVIDE SAFE AND ADEQUATE BRACES AND CONNECTIONS TO SUPPORT THE COMPONENT PARTS OF THE STRUCTURE UNTIL THE STRUCTURE ITSELF (INCLUDING THE FLOOR AND ROOF DIAPHRAGMS) IS COMPLETE ENOUGH TO ADEQUATELY SUPPORT ITSELF. CONCRETE OR MASONRY WALLS ARE NOTED IN PARTICULAR.

### 4. SHOP (OR FABRICATION) DRAWINGS, DESIGNS

A. AS A CONVENIENCE TO THE CONTRACTOR, ARCHITECT SHALL REVIEW REQUIRED SHOP DRAWINGS AS TO THEIR GENERAL CONFORMANCE TO THE DESIGN CONCEPT. CONTRACTOR SHALL BE RESPONSIBLE, NONETHELESS, FOR COMPLIANCE AND DIMENSIONS AND SHALL SUBMIT SHOP DRAWINGS, IF APPLICABLE, FOR THE FOLLOWING: (REBAR PLACING DRAWINGS NOT REQUIRED)

1. GLULAM BEAMS AND PANELIZED ROOF FRAMING.

- 2. STRUCTURAL STEEL AND TAPERED STEEL GIRDERS.
- 3. ERECTION BRACING AND SEQUENCE.
- 4. PRECAST CONCRETE ELEMENTS, INCLUDING PICKUP POINTS, STRONG BACKS AND BRACING, ALL CERTIFIED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER.
- 5. CONCRETE POURING SEQUENCE, SHORING DETAILS AND SPECIAL CONSTRUCTION TECHNIQUES (ARCHITECT OR CIVIL OR STRUCTURAL ENGINEER'S CERTIFICATION MAY
- 6. SUCH OTHER ITEMS AS MAY BE REQUIRED ON PLANS.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND COMPLIANCE CERTIFICATES TO THE BUILDING DEPARTMENT WHEN REVIEWED.
- B. WHERE DESIGN AND DETAILS OF PLATE GIRDERS, TRUSSES, etc. ARE TO BE PROVIDED BY FABRICATOR, CONTRACTOR SHALL SUBMIT CALCULATIONS AND DRAWINGS PREPARED AND CERTIFIED BY AN ARCHITECT, OR A CIVIL OR STRUCTURAL ENGINEER TO THE ARCHITECT AND TO THE BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATION.

# 5. OPTIONS AND SUBSTITUTIONS

- A. OPTIONS, IF PROVIDED HEREIN, ARE BOTH FOR CONTRACTOR'S CONVENIENCE AND THE OWNER'S ADVANTAGE. "SUBSTITUTIONS," IF SUGGESTED BY THE CONTRACTOR, MUST BE APPROVED BY BOTH THE ARCHITECT AND THE OWNER AND SHALL NOT DIMINISH THE DEGREE OF QUALITY INTENDED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY, SHALL COORDINATE ALL DETAILS, AND SHALL OBTAIN ALL REQUIRED APPROVALS.
- B. COSTS OF ADDITIONAL ARCHITECT'S DESIGN OR DETAIL WORK NECESSITATED BY SELECTION OF AN OPTION, AS A RESULT OF A SUBSTITUTION, OR DUE TO ERRORS OR OMISSIONS IN CONSTRUCTION, SHALL BE BORNE BY THE CONTRACTOR.

# 6. PROTECTION BY CONTRACTOR

- A. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE DRAWINGS AND PROTECT THEM FROM DAMAGE.
- B. HE SHALL COMPLY WITH ALL LAWS AND REGULATIONS REGARDING PROTECTION OF THE PUBLIC AND THE WORKMEN DURING CONSTRUCTION.
- C. HE SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT RELATIVE TO THE PROSECUTION OF THIS WORK.

# FOUNDATION (C.B.C. CHAPTER 18):

- 1. SEE FOUNDATION PLAN FOR COMPLETE DATA: DESIGN SOIL PRESSURE, FOUNDATION DEPTH etc, AND REFERENCE TO "SOIL REPORT." WHERE "SOIL REPORT" IS CITED, IT SHALL BE A PART OF THESE PLANS AND ALL OF ITS REQUIREMENTS AND RECOMMENDATIONS SHALL BE PERFORMED BY THE CONTRACTOR WHO SHALL OBTAIN A COPY OF SAID REPORT. IN ABSENCE OF SOIL REPORT AND INSPECTION BY SOIL ENGINEER, CONTRACTOR SHALL NOTIFY ARCHITECT IF HE ENCOUNTERS ANY UNUSUAL SOIL CONDITIONS (SOFT OR UNSTABLE SOIL, WET SOIL, etc).
- 2. SLABS ON GRADE: PROVIDE CONSTRUCTION OR CRACK-CONTROL JOINTS SPACED NO FARTHER THAN 15' APART. SLAB AREAS PLACED SHALL NOT EXCEED 225 SQUARE FEET.

#### CONCRETE AND EMBEDDED ITEMS (C.B.C. CHAPTER 19):

- 1. ALL CONCRETE SHALL BE MIXED, FORMED AND PLACED ACCORDING TO THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318-08.
- 2. CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS. USE 6 SACKS OF CEMENT (MINIMUM) PER YARD OF CONCRETE FOR WEATHER DURABILITY. EXCEPTIONS SHALL BE NOTED HEREIN OR ON PLANS.
- 3. CEMENT FOR CONCRETE SHALL BE A STANDARD BRAND "PORTLAND CEMENT," MEETING THE REQUIREMENTS OF ASTM C150, TYPE I OR II, LOW ALKALI.
- 4. AGGREGATES FOR CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C33.
- 5. CONCRETE SHALL BE MACHINE-MIXED USING A MAXIMUM OF 7½ GALLONS OF WATER PER SACK OF CEMENT. READYMIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE
- 6. CONTRACTOR MAY USE A WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494, PROVIDED ARCHITECT IS NOTIFIED IN WRITING IN ADVANCE OF ITS USE.
- 7. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS EMBEDDED PIPES AND CONDUIT SHALL BE SECURELY FASTENED IN THE FORMS BEFORE CONCRETE IS POURED. ADEQUATE CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM OF THE CONCRETE FORMS FOR PROPER CLEANING AND INSPECTION.
- 8. SLABS POURED ON GRADE SHALL BE LEVEL (OR PLANAR) TO WITHIN 1/2" IN 8'-0" IN ANY DIRECTION EXCEPT AS NOTED OTHERWISE ON PLANS. WALLS SHALL BE SIMILARLY ACCURATE, AS SHALL OTHER SLABS SUPPORTED ON FORMS.
- 9. AT ALL OPENINGS IN CONCRETE PROVIDE TWO #4 BARS, UNLESS NOTED OTHERWISE, AT JAMBS, HEAD AND SILL, EXTENDING 2'-0" BEYOND EDGES OF OPENING.
- 10. MINIMUM EMBEDMENT OF ANCHOR BOLTS (A.B.) SHALL BE 7" IN HORIZONTAL CONCRETE SURFACES (FOOTINGS, etc) AND 4" INTO VERTICAL CONCRETE SURFACES (WALLS, etc). ALL BOLTS SHALL HAVE A 4 DIAMETER, 90° BEND AT EMBEDDED END. ANCHOR BOLTS SHALL BE SPACED 12 DIAMETERS, MINIMUM.
- 11. EXPANSION BOLTS, ITW RAMSET/"RED HEAD," etc, MAY BE USED IN LIEU OF CAST-IN-PLACE BOLTS WHERE SPECIAL CONDITIONS WARRANT THEIR USE, PROVIDED WRITTEN APPROVAL OF THE ARCHITECT IS OBTAINED.
- 12. FOOTING DOWELS SHALL MATCH VERTICAL WALL STEEL. LAP 36 DIAMETERS, MINIMUM.
- 13. CEMENT GROUT AND DRY-PACK GROUT SHALL CONSIST OF 1 PART CEMENT TO 2½ PARTS FINE AGGREGATE BY VOLUME. ADD SUFFICIENT WATER TO MAKE THE MIXTURE FLOW UNDER ITS OWN WEIGHT. FOR USE AS DRY-PACK CONCRETE (HAND-PLACED BELOW METAL OR WOOD PLATES) ADD WATER TO MAKE A STIFF MIXTURE WHICH CAN BE MOLDED INTO A SPHERE. GROUT SHALL ATTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.
- 14. RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL 7 DAYS AFTER PLACEMENT OF CONCRETE.

#### REINFORCING STEEL (C.B.C. CHAPTER 19):

- 1. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF, AND BE PLACED IN ACCORDANCE WITH, THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318-08.
- 2. REINFORCING STEEL SHALL BE INTERMEDIATE GRADE DEFORMED U.N.O. (EXCEPT #2 TIES OR STIRRUPS) BARS CONFORMING TO ASTM A615, GRADE 40 TYPICALLY. LAP BARS A MINIMUM OF 30 DIAMETERS. WHERE GRADE 60 (HARD GRADE) IS REQUIRED ON PLANS, LAP 36 DIAMETERS. STAGGER LAPS WHERE PERMISSIBLE.
- 3. ALL WELDED REBAR TO BE GRADE A706.
- 4. WIRE MESH SHALL CONFORM TO ASTM A185. LAP 8" MINIMUM.
- 5. LOW HYDROGEN, E70 SERIES, WELDING RODS SHALL BE USED FOR ALL WELDING OF REINFORCING BARS COMPLYING WITH AWS D1.4.
- 6. PROVIDE DOWELS IN FOOTINGS AND/OR GRADE BEAMS THE SAME SIZE AND NUMBER AS VERTICAL WALL REINFORCING. PROJECT DOWELS EQUAL TO STANDARD LAP SPLICE AND WIRE TO VERTICAL STEEL.
- 7. #5 OR LARGER REBAR SHALL NOT BE RE-BENT WITHOUT APPROVAL.
- 8. MINIMUM CONCRETE COVER SHALL BE:
  - CONCRETE POURED AGAINST EARTH, BOTTOM AND SIDES.
  - FORMED CONCRETE WHICH WILL REMAIN IN CONTACT WITH EARTH, INCLUDING STEEL IN TOP SURFACES OF FOOTINGS AND WALL SURFACES IN CONTACT WITH FARTH
  - BEAMS, MEASURED TO MAIN STEEL: COLUMNS, MEASURED TO TIES OR SPIRALS: EXPOSED FACES OF WALLS ABOVE GRADE OR THEIR SURFACES NOT IN CONTACT WITH EARTH.
  - TOP SURFACES OF SLABS DIRECTLY EXPOSED TO THE ELEMENTS.
  - INTERIOR SLABS; INSIDE FACES OF WALLS.

# WOOD CONSTRUCTION (C.B.C. CHAPTER 23):

1. STRUCTURAL LUMBER SHALL BE GRADE-MARKED DOUGLAS FIR-LARCH (Df-L) PER STANDARD GRADING RULES NO. 17, WCLIB, AND STANDARD GRADING RULES, WWPA.

JOISTS, BEAMS, PURLINS AND POSTS 4" AND WIDER	<u>GRADE</u> NO. 1
JOISTS AND SUB-PURLINS 2" WIDE, 2x6 OR DEEPER STUDS, TOP PLATES, SILL PLATES AT BEARING WALLS, AND LEDGERS OF ALL WIDTHS	NO. 2
2x4 AND 3x4 STUDS	STUD
BLOCKING, NON-BEARING SILL PLATES AND MISC.	NO. 3

- 2. COMMON NAILS SHALL BE USED. BOX NAILS, IF INCREASED IN NUMBER BY 33%, MAY ALSO BE USED.
- 3. SILLS OR PLATES BEARING ON CONCRETE OR MASONRY WHICH IS WITHIN 48" OF EARTH SHALL BE PRESSURE TREATED (P.T.). SILLS SHALL BE BOLTED TO THE FOUNDATION WITH %" DIAMETER x 10" BOLTS AT 4'-0" O.C., 12" MIN, FROM ENDS, OR 2 BOLTS MIN PER PIECE,
- 4. FIREBLOCKING, 2" THICK, SHALL BE PLACED IN STUD WALLS AT CEILING AND FLOOR LEVELS, AT EACH 10' HEIGHT OF STUDS, AND BETWEEN STAIR STRINGERS AT SUPPORTS.
- 5. JOISTS AND RAFTERS SHALL BE BLOCKED AT SUPPORTS AND BRIDGED OR BLOCKED AT INTERVALS OF 8' WHERE JOISTS ARE 2x12'S OR DEEPER.
- 6. JOISTS UNDER BEARING PARTITIONS (ONE STORY ABOVE) SHALL BE DOUBLED; TRIPLED FOR TWO STORIES ABOVE.
- 7. PLYWOOD SHALL BE PER APA PS 1-07. PROVIDE A  $\frac{1}{2}$ " SPACE BETWEEN ALL JOINTS.

0.	DEPTH AND SCREWED (NOT DRIVEN) INTO PLACE.	STANK BAWETEN TO TOLL	<u> </u>	
9.	CUT WASHERS SHALL BE PLACED UNDER HEADS AND NUTS OF ALL HEADS OF LAGBOLTS. CUT WASHER SHALL BE USED FOR BOLTS LEDGERS TO CONCRETE OR MASONRY WALLS.	BOLTS AND UNDER CONNECTING WOOD	A.B. ALT ARCHL B, BOT	ANCHOR BOLT ALTERNATE(ING) ARCHITECTURAL BOTTOM
10.	WHERE REQUIRED IN ALL CONDITIONS EXCEPT SILL PLATE ANCHOR		B.C. B.N.	BOTTOM CHORD BOUNDARY NAILING
	(M.I.WA.) OR PLATE (PL.WA.) WASHERS SHALL BE SIZED AS FOLLOW BOLT Ø M.I.WA. PL.WA.	5:	BLK BLKD BLKG	BLOCK BLOCKED BLOCKING
	½" ¼"×2½"ø ¾6"×2" SQ		BM	BEAM
	\(\frac{5}{8}''\) \(\frac{5}{16}'' \times \frac{23}{4}''\) \(\frac{7}{4}'' \times 2\frac{7}{2}''\) \(\frac{7}{6}'' \times 3''\) \(\frac{5}{16}'' \times 2\frac{3}{4}''\) \(\frac{7}{16}'' \times 3''\) \(\frac{7}{16}'' \times 2\frac{3}{4}''\)		BRNG C.B.C.	BEARING CALIFORNIA BUILDING CODE
	7/8" 7/6"×3½" 5/6"×3" 1" ½"×3¾" 3/8"×3½"		CLR COL	CLEAR COLUMN
11.	SEE NOTES BELOW SHEAR PANEL SCHEDULE FOR REQUIREMENTS FO	OR WASHERS AT SILL	CONC CONT	CONCRETE CONTINUOUS
	PLATE ANCHOR BOLTS.		CONST	CONSTRUCTION
12.	ALL STRUCTURAL PLYWOOD NAILING (ROOF, FLOOR AND WALLS) SHABUILDING INSPECTOR PRIOR TO COVERING.	ALL BE INSPECTED BY THE	CSK DBL	COUNTERSUNK DOUBLE
13.	STUDS IN BEARING WALLS SHALL NOT BE NOTCHED UNLESS SPECIF ARCHITECT.	TICALLY DETAILED BY	DET DIAM, Ø DIM	DETAIL DIAMETER DIMENSION
14.	FRAMING HARDWARE SHALL BE SIMPSON STRONG-TIE®. REFER TO FOR INSTALLATION INFORMATION. USE EXACT TYPE, SIZE AND NUMBER		DKG do	DECKING DITTO
	SPECIFIED IN CATALOG.	BEIL OF TABLETO	Df-L DWG	DOUGLAS FIR-LARCH DRAWING
15.	REFER TO THE FOLLOWING ICC REPORTS FOR SIMPSON CONNECTOR ER4935— SSTB, HCA, MSTC	S	EA E.F.	EACH EACH FACE
	ER4945- EPOXY TIE ANCHORING SYSTEMS WITH ET, ETF, AND ETR	ANCHORING ADHESIVES	E.N. E.S.	EDGE NAILING EACH SIDE
	ER5090- ANCHOR TIEDOWN SYSTEMS ER5952- CBSQ-SDS2 AND CBQ-SDS2 COLUMN BASE CONNECTORS	S AND ECCQ/CCQ-SDS2 COLUMN	E.W. EMBED	EACH WAY EMBEDMENT
	CAP CONNECTORS NER393— ETA/TSS, MAB, HIT, JB/LB, PF, LU, LUP, LTT/LTTI, HA/H	12/H2.5/H3/H4/H5, AB, EPB,	ETC EQ	ET CETERA EQUAL
	LCB/CB, PA/PAI/PATM/PAR/PARP, MPAI, HPA, HPAT NER432— ABE, CBA, EPB44T, H2.5, H10-2, H15, H15-2, HGT-2,		EX, EXIST EXT	EXISTING EXTERIOR
	LTHJ, LTP4, LTT131, MSC, RSP4, SP, SS, THG2A, TWB	1, 2000, 2111111,	FLG	FLANGE
	ESR-1056- TITEN HD ESR-1267- STRONG-WALL SHEAR PANELS		F.F. F.G.	FINISH FLOOR FINISH GRADE
	ESR-1396- WEDGE-ALL ANCHORS ESR-1472- QUICK DRIVE WSNTL WOOD SCREWS		F.J. F.N.	FLOOR JOIST FIELD NAILING
	ESR-1679- STEEL STRONG-WALL SHEAR PANELS		FLR FT	FLOOR FOOT
	ESR-1771- STRONG-BOLT WEDGE ANCHOR ESR-1772- SET EPOXY		G.I. GA	GALVANIZED IRON GAUGE
	ESR-1886- LBV, B, HB, AND BA SERIES JOIST HANGERS ESR-2105- TIE STRAPS		GLB GLULAM	GLUE-LAMINATED BEAM
			GRD	GLUE—LAMINATED GRADE
	ESR-2236- STRONG-DRIVE SDS SERIES WOOD SCREWS ESR-2320- COUPLING TAKE-UP DEVICE (CTUD) AND TAKE-UP DEV	ICE (TUD AND ATUD)	HDR HGR	HEADER HANGER
	ESR-2508- HOLD-DOWN CONNECTORS ESR-2523- SET-XP EPOXY ADHESIVE ANCHORS FOR CRACKED AND		HT H, HOR	HEIGHT HORIZONTAL
	ESR-2549- FACE-MOUNT HANGERS FOR WOOD FRAMING		I.D. INT	INSIDE DIAMETER INTERIOR
	ESR-2551- ADJUSTABLE HANGERS AND HIP CONNECTORS FOR WOO ESR-2552- FACE-MOUNT HANGERS SUPPORTING STRUCTURAL COMP		JST K.S.	JOIST KING STUD
	PREFABRICATED WOOD I-JOISTS (ENGINEERED WOOD PRESR-2553- TOP-FLANGE HANGERS FOR SAWN LUMBER.	RODUCTS).	1	ANGLE SHAPE
	ESR-2553- TOP-FLANGE HANGERS FOR SAWN LUMBER. ESR-2554- MULTIPLE TRUSS HANGERS. ESR-2555- MASA/MASAP CAST-IN-PLACE FOUNDATION ANCHOR STEER-2604- COLUMN CAPS FOR WOOD CONSTRUCTION. ESR-2605- CONNECTORS FOR METAL PLATE CONNECTED WOOD TRUESR-2606- STRUCTURAL ANGLES, CLIPS, AND PLATES FOR WOOD FESR-2607- CONNECTORS FOR PANELIZED ROOF CONSTRUCTION. ESR-2608- STUD SHOES, PLATE TIES, WALL BRACING, AND JOIST ECONSTRUCTION.	D.D.O.	LAG LAM	LAGBOLT LAMINATED
	ESR-2555- MASA/MASAP CAST-IN-PLACE FOUNDATION ANCHOR STEESR-2604- COLUMN CAPS FOR WOOD CONSTRUCTION.	KAPS.	LDGR LG	LEDGER LONG
	ESR-2605- CONNECTORS FOR METAL PLATE CONNECTED WOOD TRUESR-2606- STRUCTURAL ANGLES, CLIPS, AND PLATES FOR WOOD F	M.B. MAX	MACHINE BOLT MAXIMUM	
	ESR-2607- CONNECTORS FOR PANELIZED ROOF CONSTRUCTION.	MIN MISC	MINIMUM MISCELLANEOUS	
	CONSTRUCTION.	SKIDGING FOR WOOD	N.T.S. O/	NOT TO SCALE OVER
	ESR-2611- STUD SHOES, PLATE TIES, WALL BRACING, AND JOIST E CONSTRUCTION.	o.c.	ON CENTER	
	ESR-2613- SSTB SERIES AND SB SERIES CAST-IN-PLACE ANCHOR ESR-2614- MISCELLANEOUS CONNECTORS.	O.D. OK	OUTSIDE DIAMETER OKAY	
	ESR-2615- TOP-FLANGE HANGERS FOR ENGINEERED WOOD PRODU	OPT PARTN	OPTIONAL PARTITION	
	ESR-2616- CONNECTORS FOR WOOD MEMBERS SUPPORTED BY CO CONSTRUCTION.	NUREIE OR MASONRY	PLAS P.C.	PLASTER PIPE COLUMN OR PORTLAND CEMENT
	ESR-2713- TITEN HD SCREW ANCHOR AND TITEN HD ROD HANGER CONCRETE.	PEN PL	PENETRATION PLATE	
	ESR-2811- GDB AND GDPS GAS-ACTUATED FASTENERS. ESR-2877- WOOD FRAMING CONNECTORS FOR MASONRY CONSTRUC	PLY PSF	PLYWOOD POUNDS PER SQUARE FOOT	
	ESR-2920- CAST-IN-PLACE STRAP STYLE HOLDDOWNS (STHD'S)	PSI P.T.	POUNDS PER SQUARE INCH PRESSURE TREATED	
	ESR-2920- CAST-IN-PLACE STRAP STYLE HOLDDOWNS (STHD'S) ESR-2992- PUNCHING SHEAR RESISTOR RAILS (PSRR) ESR-3006- QUIK DRIVE X SERIES SELF-DRILLING TAPPING SCREWS	R, RAD	RADIUS REQUIRED	
	ESR-3037- STRONG-BOLT 2 WEDGE ANCHORS. ESR-3046- STRONG-DRIVE SD SCREWS FOR STRUCTURAL CONNECT	REQD RFTR	RAFTER	
	ESR-3096- CONNECTORS USING SD-SERIES SCREWS.	REINF RET	REINFORCE(ING) RETAINING	
<u>NAII</u>	ING SCHEDULE, MINIMUM (TABLE 2304.9.1, 2010 C.B.C.):	S.E. S.E.E.W.	SPACED EQUALLY SPACED EQUALLY EACH WAY	
1.	JOIST TO SILL OR GIRDER, TOENAIL	3-8d	S.S. SHT	SELECT STRUCTURAL SHEET
2. 3.	JOIST TO SILL OR GIRDER, TOENAIL BRIDGING TO JOIST, TOENAIL EACH END  1"x6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL WIDER THAT 1"x6" SUBFLOOR TO EACH JOIST, FACE NAIL 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS TOP PLATE TO STUD, END NAIL STUD TO SOLE PLATE  DOUBLED STUDS, FACE NAIL DOUBLED TOP PLATES, FACE NAIL DOUBLED TOP PLATES, LAP SPLICE BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL RIM JOIST TO TOP PLATE, TOENAIL TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-8d 2-8d	SIM SPECS	SIMILAR SPECIFICATIONS
4. 5.	WIDER THAT 1"x6" SUBFLOOR TO EACH JOIST, FACE NAIL 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	3−8d 2−16d	SQ STAGRD	SQUARE
6.	SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	16d AT 16" O.C. 3-16d PER 16"	STD	STAGGERED STANDARD
7. 8.	TOP PLATE TO STUD, END NAIL STUD TO SOLE PLATE	2-16d 4-8d, TOENAIL OR	STL STR	STEEL STRUCTURAL
9.	DOUBLED STUDS, FACE NAIL	2-16d, END NAIL 16d AT 24" O.C.	SYM T	SYMMETRICAL TOP
10.	DOUBLED TOP PLATES, FACE NAIL DOUBLED TOP PLATES, LAP SPLICE	16d AT 16" O.C. 8-16d	T.B. T.C.	TOP OF BEAM TOP CHORD
11. 12	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL RIM JOIST TO TOP PLATE TOFNAIL	3-8d 8d AT 6" 0.0	THK T & B	THICK TOP AND BOTTOM
13. 14.	TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL CONTINUOUS HEADER, TWO PIECES	2-16d 16d AT 16" O.C. ALONG	T & G	TONGUE AND GROOVED STRUCTURAL TURE

**ABBREVIATIONS:** 

8. LAGBOLTS (AND SCREWS) SHALL BE PRE-DRILLED 1/6" LESS THAN SHANK DIAMETER TO FULL

17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL

18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL

20. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL

21. 1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL

22. WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL

1. ALL NAILS TO BE COMMON WIRE NAILS, WHERE BOX NAILS ARE

2. WHERE 2" MEMBER IS DETAILED USE THE NUMBER OF 16d SHOWN:

USED, THERE NUMBER MUST BE INCREASED BY 33%.

15. CEILING JOISTS TO PLATE, TOENAIL

19. RAFTER TO PLATE, TOENAIL

23. BUILT-UP CORNER STUDS

SUPPLEMENTAL NAILING NOTES:

25. 2" PLANKS

24. BUILT-UP GIRDER AND BEAMS

16. CONTINUOUS HEADER TO STUD. TOENAIL

UNLESS NOTED OTHERWISE

STRUCTURAL TUBE

WIDE FLANGE SHAPE

**TYPICAL** 

VERTICAL

WITHOUT

WOOD

WITH

TS

TYP

U.N.O.

W/O

20d AT 32" O.C. AT TOP & BOTTOM AND STAGGERED 2-20d AT ENDS AND AT EACH SPLICE 2-16d

V, VERT

EACH EDGE

16d AT 24" O.C.

AT EACH BEARING

MEANS

3-16d

3 - 8d

4-8d

3-16d

3 - 8d

2 - 8d

2 - 8d

3 - 8d

FOR EXAMPLE:

3 - 16d

MON INT DEF

REVISIONS

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DRAWN TMS 12-008C

SHEETS