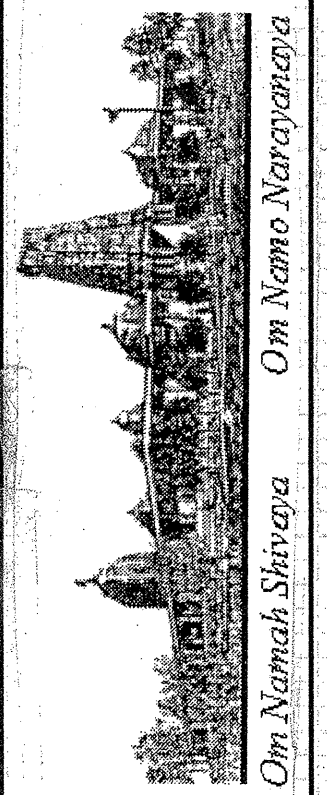
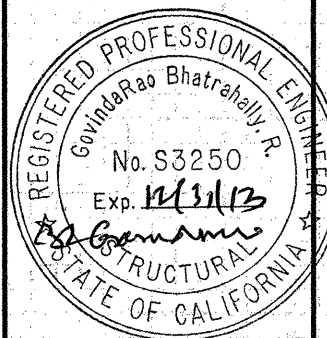


REVISIONS	BY
3/20/10 FOR BUILDING PERMIT PLAN CHECK	RL
12-13-11	RL

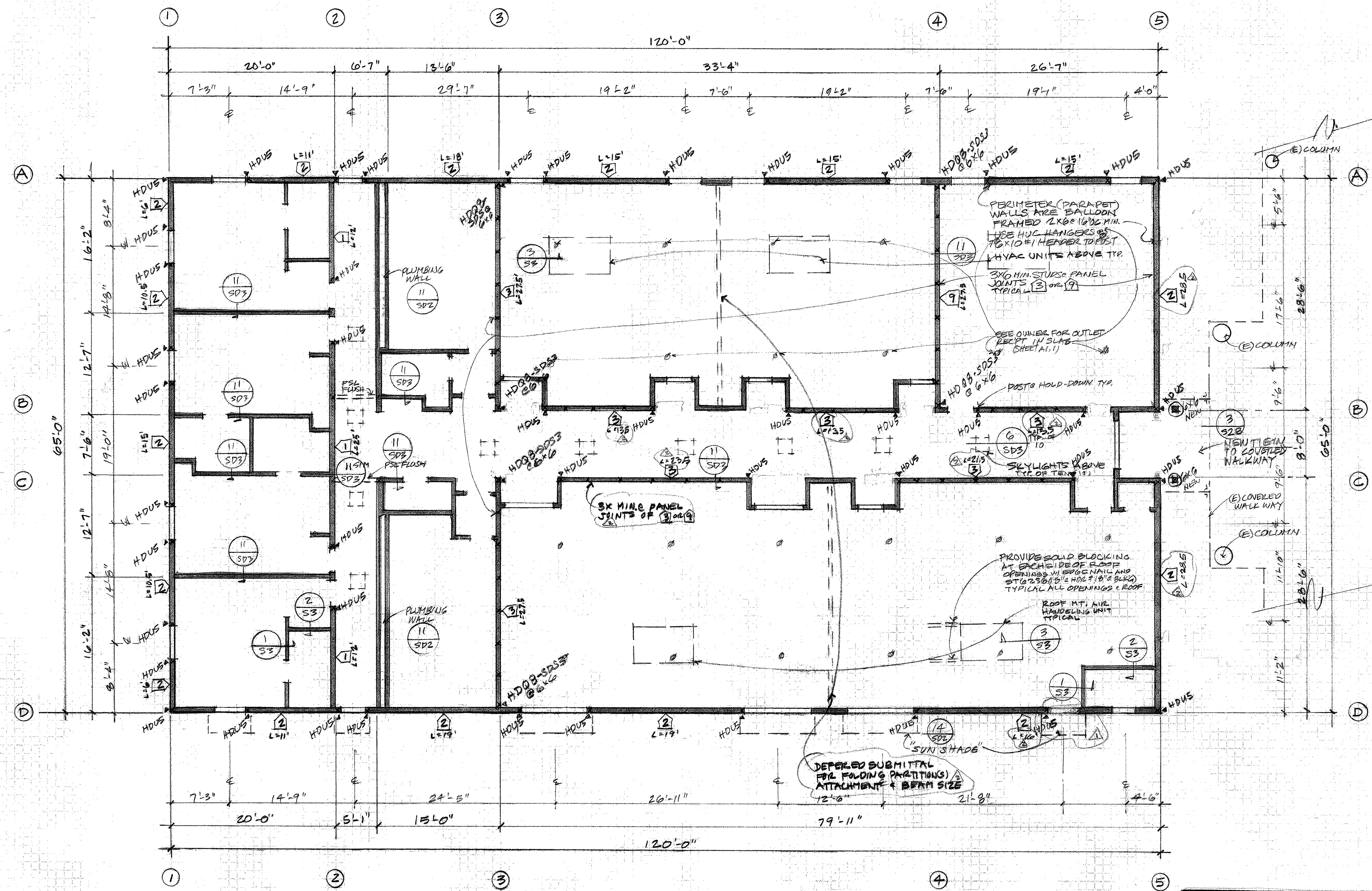


BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551



SHEARWALL PLAN

Date 10-25-11
 Scale 1/8" = 1'-0"
 Drawn RL
 Job BUKA D
 Sheet **S-1**
 Of _____ Sheets



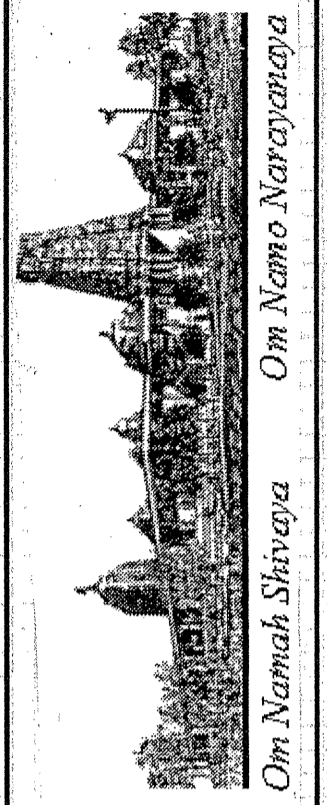
SHEARWALL PLAN
 SCALE: 1/8" = 1'-0"

PLYWOOD DIAPHRAGM SCHEDULE						
MARK	PLYWOOD	NAILING, CLIP OR A.B. SPACING - INCHES ON CENTER				
		EDGE NAILS	FIELD NAILS	SILL NAILS	A.B. CLIPS	8\"/>
ROOF TIP	1/2\"/>					
FLOOR TIP	3/4\"/>					
SHEAR WALL	1	3/8\"/>				
	2	1/2\"/>				
	3	1/2\"/>				
4	1/2\"/>					

* AT SILL PLATE & PLYWOOD PANEL JOINTS, PROVIDE 3x MEMBER MIN.
 Exterior and bearing walls to have 5/8" dia. galv. Anchor bolts at 48" on center with 3"x3"x1/4" washers (u.n.o.)

NOTE: PROVIDE 6/8 INCH DIAMETER ANCHOR BOLTS (A.B.), 18 INCHES LONG WITH 7 INCHES MINIMUM EMBEDMENT, UNLESS NOTED OTHERWISE ON FOUNDATION PLAN. PROVIDE SPACING PER ABOVE SCHEDULE.
 Use PLATE WASHER 3x3x1/4 AT ALL ANCHOR BOLTS (GALV.)

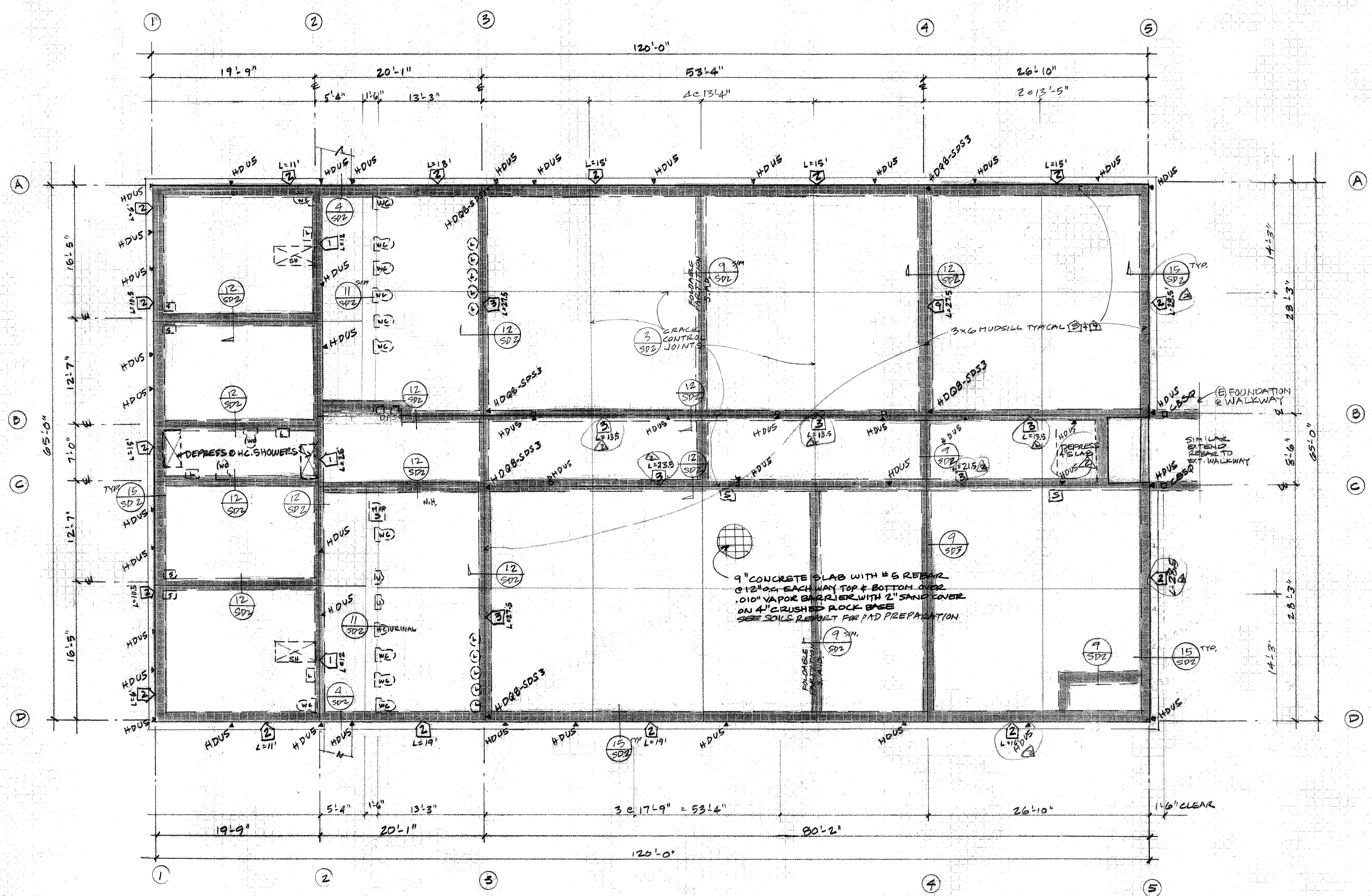
REVISIONS	BY
ISSUED FOR BUILDING PERMITS	RL
APPROVED 12-13-11	RL



REGISTERED PROFESSIONAL ENGINEER
 Om Naman Narayana
 No. S3250
 Exp. 12/31/13
 STATE OF CALIFORNIA

FOUNDATION

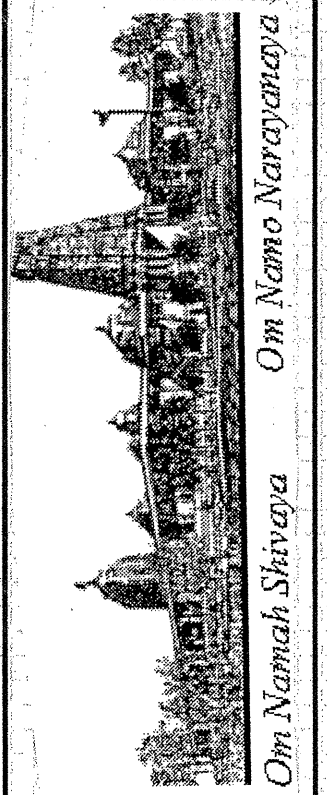
Date 10-25-11
 Scale 1/8" = 1'-0"
 Drawn RL
 Job SUR-D
 Sheet **S-2**
 Of Sheets



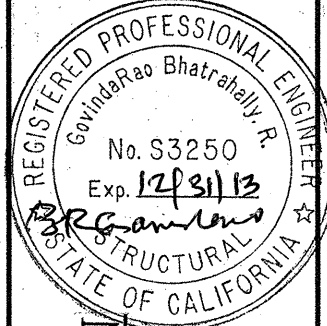
FOUNDATION PLAN
 SCALE: 1/8" = 1'-0"

- FOUNDATION NOTES:**
- Please refer to notes and details on sheets SD-1 to SD-3.
 - All footings to be 12" wide with 3-#5 rebar top & 3-#5 rebar at bottom.
 - Design drawings S-1 take precedent over SD-1 to SD-3.
 - Concrete shall not have less than six sacks of cement per cubic yard of concrete & a slump not to exceed 4" when placed.
 - Soils report No. H-140-01 by Henry Justiniano & Associates, dated August 10, 2009.
 - Soils engineer to be on site during excavations and grading.
 - Coordinate with Civil, HVAC, Mechanical, Architectural and Electrical drawings.
 - Use the following hold-down anchors:
 SSTB24 - for HDUS
 SSTB28 - for HDQS
 - If discrepancies found in plans, notify engineer of record immediately.
 - Where top or sole plate are cut for pipes, a metal tie minimum 0.058 inches thick and 1 1/2 inches wide shall be fastened across the opening with 6 - 16d nails minimum each side. CBC Section 2320.11.7.
 - Prior to requesting a Building Department foundation inspection, the soils engineer shall inspect and approve the foundation excavations.
 - Prior to calling for foundation inspection, final grading and compaction reports shall be submitted to and approved by the Building Department and any revisions from the original soils report incorporated into the plans and specifications.
 - Hold-down hardware must be secured in place prior to foundation inspection.

REVISIONS	BY
ISSUED FOR BUILDING PERMIT	10/28/2011
PLAN CHECK	2011
12-13-11	ZL

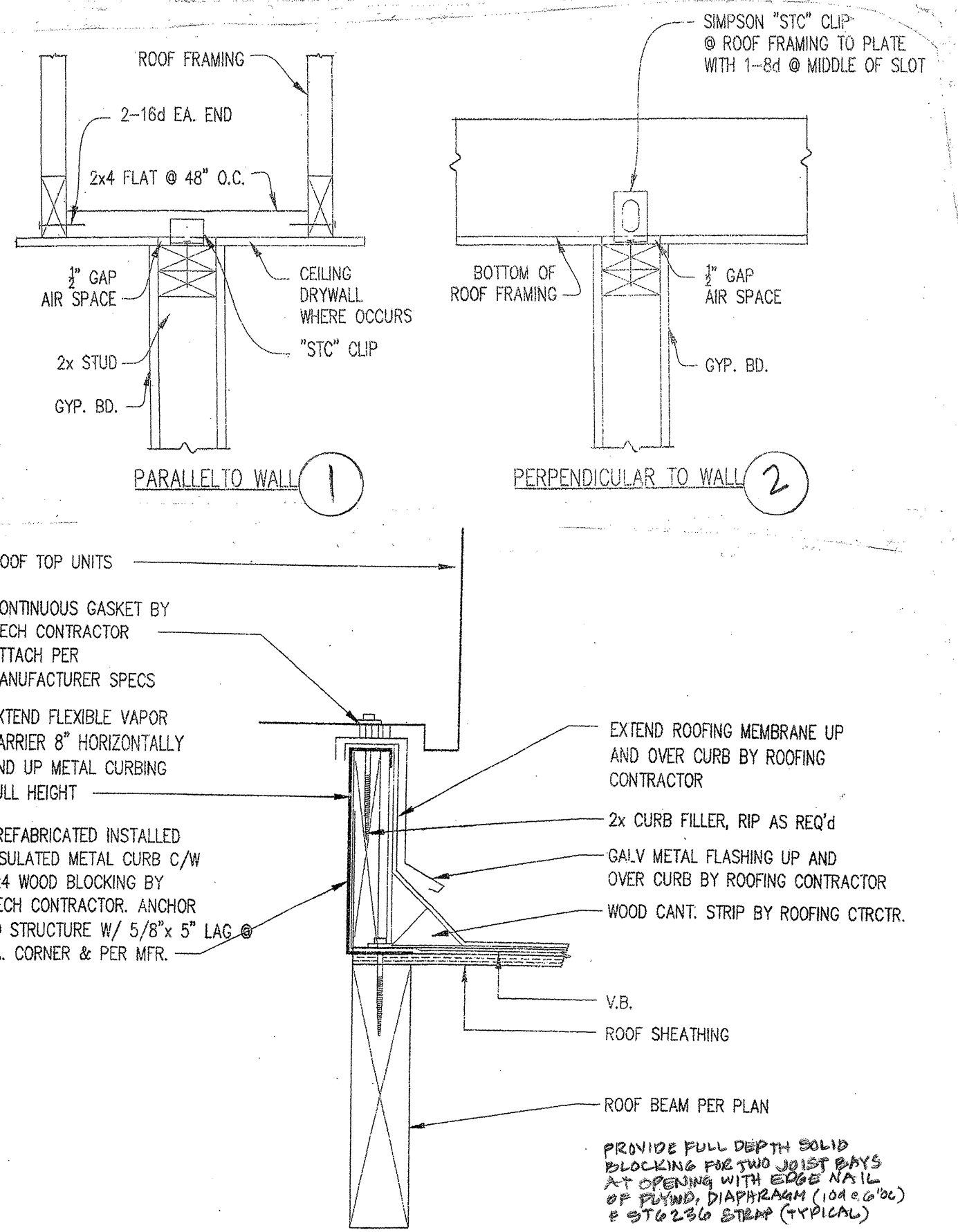


**BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER**
1200 ARROWHEAD AVE. LIVERMORE, CA 94551



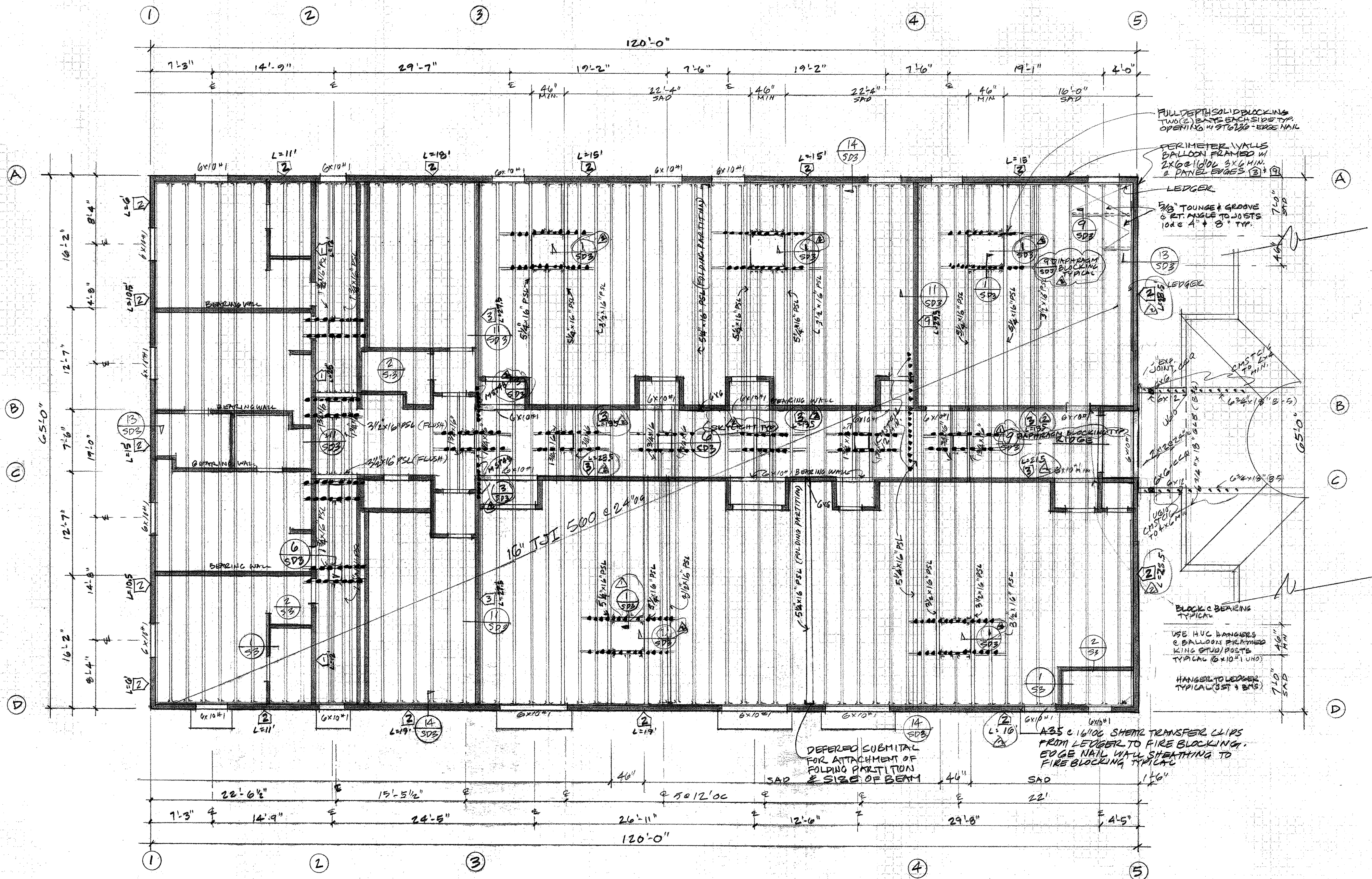
TRUSS/ROOF FRAMING PLAN

Date	10-25-11
Scale	1/8" = 1'-0"
Drawn	KL
Job	BLDG. D
Sheet	S-3
Of	Sheets



HVAC CURB AT ROOF DETAIL

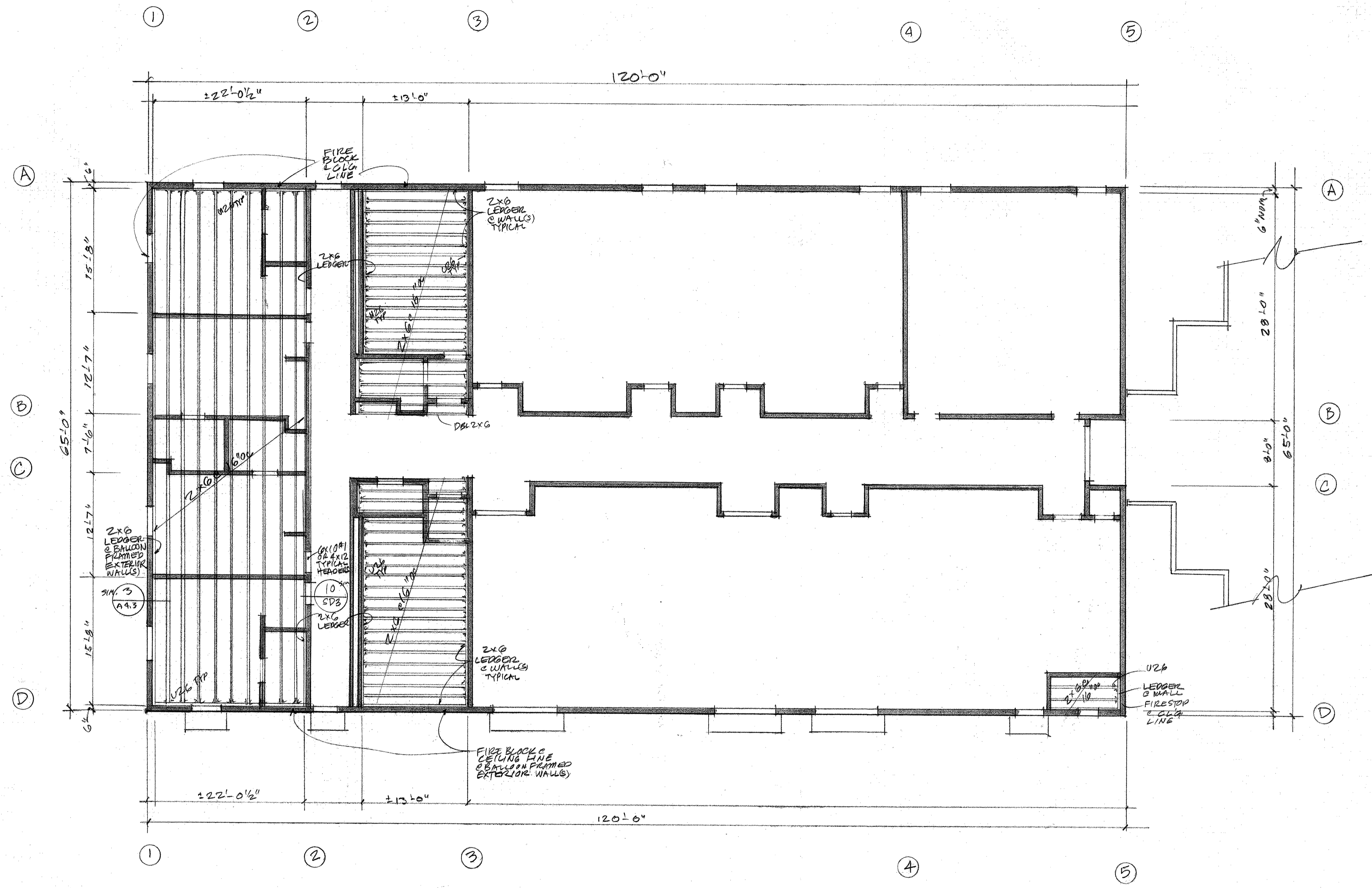
SCALE: 3/4" = 1'-0"



TRUSS/ROOF FRAMING PLAN

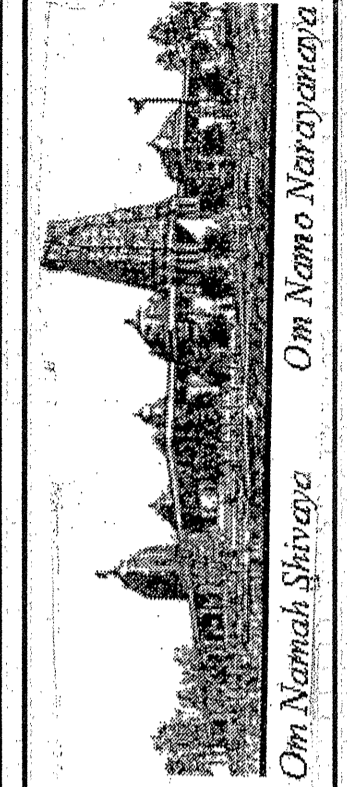
SCALE: 1/8" = 1'-0"

- ROOF FRAMING NOTES:**
1. Please refer to notes and details on sheets SD-1 to SD-3.
 2. Use 15" TJI 560 or equal roof rafters at 24" o.c. U.O.N.
 3. Use 3/8" CDX (32/16) sheathing with 10d @ 4" edge & 8" field.
 4. Solid block at 8" o.c. max. at top chord of joists.
 5. Provide MST48 at top chord splices unless noted otherwise.
 6. Top plates and sole plates to be 3x8 min. Where rafter exceeds 4" o.c. panel joints must have 3x6.
 7. Exterior (parapet) walls are to be balloon framed 2x6 studs at 16" o.c. unless noted otherwise.
 8. Provide double roof joists with curb as required at all skylights or mechanical units.
 9. Coordinate with Civil, HVAC, Mechanical, Architectural and Electrical drawings.
 10. If discrepancies found in plans, notify engineer of record immediately.

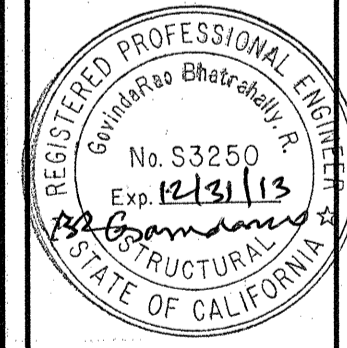


CEILING FRAMING PLAN
 SCALE: 1/8" = 1'-0"
 NORTH

REVISIONS	BY



BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551



CEILING PLAN

Date	12-14-11
Scale	1/8" = 1'-0"
Drawn	RL
Job	BLDG D
Sheet	S-4
Of	Sheets

A. GENERAL

- A1. ALL WORK SHALL CONFORM TO THE PROJECT CONSTRUCTION DOCUMENTS AND THE 2010 EDITION OF THE CALIFORNIA BUILDING CODE (CBC) AND THE APPLICABLE FEDERAL, STATE AND LOCAL CODE REQUIREMENTS, LAWS AND CITY ORDINANCES.
A2. THE INTENT OF THESE DRAWINGS IS TO DELINEATE ALL ITEMS, INCLUDING GENERAL AND TYPICAL DETAILS OF CONSTRUCTION, THAT ARE NECESSARY TO COMPLETE THE STRUCTURE.
A3. FOR CONDITIONS NOT SPECIFICALLY INDICATED ON THE DRAWINGS, DETAILS OF SIMILAR CHARACTER AND CONSISTENT WITH THE TYPE SHOWN FOR SIMILAR CONDITIONS, SHALL BE USED.

B. FOUNDATIONS

- B1. THE RECOMMENDATIONS OF THE FOLLOWING GEOTECHNICAL INVESTIGATION REPORT THAT HAS BEEN PREPARED FOR THIS SITE, SHALL BE CONSIDERED AS A PART OF THE CONSTRUCTION DOCUMENTS:
REPORT BY: HENRY JUSTINIANO & ASSOCIATES
REPORT NO.: H-140-01
DATE: AUGUST 10, 2009

Exterior and bearing walls to have 5/8" dia. galv. Anchor bolts at 48" on center with 3"x3"x1/4" washers (u.n.o.)

- B2. THE BOTTOM OF THE FOUNDATION SHALL BE AT UNDISTURBED NATIVE SOIL OR ENGINEERED FILL.
B3. THE SOILS ENGINEER SHALL INSPECT SLAB AND FOUNDATION SUBGRADE PRIOR TO PLACING CONCRETE.
B4. RETAINING WALLS - DO NOT BACKFILL AGAINST CONCRETE OR MASONRY RETAINING WALLS UNTIL THEY HAVE REACHED DESIGN STRENGTH.

C. CONCRETE

- C1. CONCRETE SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
CONCRETE SHALL BE READY-MIXED TYPE CONFORMING TO the current IBC Code.
C2. CONCRETE SHALL BE REGULAR WEIGHT, WITH HARD-ROCK TYPE AGGREGATE (150 LB/CFT).
C3. CONCRETE SHALL BE MACHINE MIXED AND DELIVERED TO THE SITE IN ACCORDANCE WITH ASTM C-94.
C4. CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
C5. PROVIDE MINIMUM CLEAR COVER OF CONCRETE OVER REINFORCEMENT AS INDICATED BELOW:
AGAINST EARTH FORM: 3 INCHES
EXPOSED TO EARTH BUT POURED AGAINST FORM WORK & BOTTOM OF SLAB-ON-GRADE: 2 INCHES
ALL OTHER CONCRETE: 1 1/2 INCHES

- C6. EXCEPT 6-INCH OR LESS THICK SLAB-ON-GRADE, ALL CONCRETE SHALL BE MECHANICALLY VIBRATED TO ELIMINATE VOIDS AND COMPLETELY FILL THE FORMS WITHOUT CAUSING UNDUE SEPARATION.
C7. DOWELS SHALL MATCH MAIN REINFORCEMENT IN SIZE AND SPACING. PROVIDE MINIMUM 48 BAR DIAMETER LAP, UNLESS OTHERWISE NOTED.
C8. SLAB-ON-GRADE - AT LIVING AREAS, PLACE SLAB ON 2 INCHES OF COMPACTED CLEAN SAND OVER 1 MIL VAPOR BARRIER OVER 4 INCHES OF CLEAN, FREE-DRAINING CRUSHED ROCK.
C9. CURING - WITHIN SEVEN DAYS OF PLACEMENT, CONCRETE SURFACES EXPOSED TO THE ATMOSPHERE SHALL BE PROTECTED AND CURED BY DAMPENING WITH WATER AS NECESSARY, UNTIL THE SPECIFIED DESIGN STRENGTH IS ACHIEVED.
C10. INTERIOR SLABS SHALL HAVE STEEL TROWEL FINISH; EXTERIOR SLABS SHALL HAVE LIGHT BROOM FINISH.
C11. SPECIAL INSPECTION PER CBC SECTION 107 IS NOT REQUIRED.

D. CONCRETE REINFORCEMENT AND ACCESSORIES

- D1. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 40 FOR NO. 5 AND SMALLER DIAMETER BARS AND GRADE 60 FOR LARGER THAN NO. 5 BARS.
D2. WELDED WIRE FABRIC (W/WF) SHALL CONFORM TO ASTM A185. PROVIDE A MINIMUM 6 INCHES LAP AT JOINTS.
D3. DO NOT WELD REINFORCEMENT.
D4. REINFORCING BARS SHALL BE LAPPED AS INDICATED. PROVIDE MINIMUM LAP EQUAL TO 48 TIMES THE DIAMETER OF REINFORCING BARS AT SPLICES, AND STAGGER SPLICES.
D5. ALL HOOKS SHALL BE STANDARD HOOKS UNLESS NOTED OTHERWISE.
D6. ANCHOR BOLTS SHALL BE MACHINE BOLTS A 307 WITH AMERICAN STANDARD REGULAR, SEMI-FINISHED, SQUARE OR HEXAGON HEADS.

E. CONCRETE UNIT MASONRY

- E1. CONCRETE MASONRY UNITS (CMU) SHALL BE HOLLOW CLOSED, SINGLE OR DOUBLE OPEN END TYPE.
E2. CMU SHALL BE LAID IN RUNNING BOND. PROVIDE FULL INTERSECTING BOND AT CORNERS AND AT WALL INTERSECTIONS.
E3. MORTAR SHALL BE TYPE S, THAT WILL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 1,800 PSI IN 28 DAYS.
E4. GROUT SHALL BE PEA GRAVEL MIX, 8 INCHES TO 10 INCHES SLUMP, AND DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS.
E5. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE I OR TYPE II AND SHALL BE ENTIRELY OF ONE MANUFACTURER.
E6. WATER USED FOR GROUT AND MORTAR SHALL BE CLEAN AND FREE FROM DELETERIOUS AMOUNTS OF ACIDS, SALTS, ALKALIES AND ORGANIC MATERIAL.
E7. SAND FOR MORTAR SHALL CONFORM TO ASTM C-404, TABLE 1, COARSE AGGREGATE.
E8. QUICKLIME SHALL CONFORM TO ASTM C-5.
E9. WHERE GROUT POUR EXCEEDS 4 FEET IN HEIGHT, CLEANOUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF ALL CELLS CONTAINING VERTICAL REINFORCEMENT.
E10. ALL HORIZONTAL REINFORCING SHALL BE IN BOND BEAM UNITS AND AGAINST VERTICAL BARS.
E11. VERTICAL BARS SHALL BE ACCURATELY AND POSITIVELY HELD IN PLACE BEFORE SETTING BLOCKS.

E17. CMU REINFORCING LAPS SHALL BE AS INDICATED IN THE TABLE BELOW:

Table with 3 columns: BAR SIZE, CORNER & END WALLS, OTHER PLACES. Rows include NO. 4, NO. 5, NO. 6, NO. 7, NO. 8 with corresponding lengths in inches.

F. STRUCTURAL STEEL

- F1. MATERIAL FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AMERICAN SOCIETY FOR MATERIALS AND TESTING (ASTM) SPECIFICATIONS AS LISTED BELOW:
WIDE FLANGE COLUMNS: ASTM A572, Fy = 50 KSI
OTHER STRUCTURAL STEEL: ASTM A36, Fy = 36 KSI
STEEL TUBING: ASTM A500, GRADE B, Fy = 46 KSI
PIPE: ASTM A53, GRADE B, Fy = 35 KSI
HIGH STRENGTH BOLTS: ASTM A325, Fy = 58 KSI
ANCHOR BOLTS: ASTM A307
F2. FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE CURRENT EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
F3. WELDING SHALL BE BY CERTIFIED WELDERS IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE - STEEL (ANSI/AWS D1.1-86) AND AWS STANDARD QUALIFICATIONS PROCEDURE.
F4. ARC WELDING ELECTRODES SHALL BE E70 SERIES FOR MANUAL WELDING, AND GRADE SA-1 OR SA-2 FOR SUBMERGED ARC WELDING.

G. WOOD FRAMING

- G1. GENERAL - WOOD FRAMING SHALL BE IN ACCORDANCE WITH 2007 EDITION OF THE CBC, AND THE STANDARD PRACTICES RECOMMENDED BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) AND WEST COAST LUMBER ASSOCIATION (WCLA) GRADING.
G2. WORKMANSHIP - ALL ROUGH CARPENTRY SHALL PRODUCE JOINTS TRUE AND TIGHT AND WELL NAILED WITH MEMBERS ASSEMBLED IN ACCORDANCE WITH THE DRAWINGS AND WITH ALL APPLICABLE BUILDING CODES.
G3. THE MAXIMUM MOISTURE CONTENT OF STRUCTURAL WOOD FRAMING MEMBERS SHALL NOT EXCEED NINETEEN PERCENT (19%).
G4. WOOD IN CONTACT WITH MASONRY OR CONCRETE OR PERMANENTLY EXPOSED TO THE WEATHER SHALL BE PRESSURE TREATED AND MARKED WITH THE AMERICAN WOOD PRODUCERS BUREAU (AWBP) MARK OR SHALL BE FOUNDATION GRADE REDWOOD.
G5. SIZING AND SURFACING - EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, ALL LUMBER SHALL BE MILL SIZED AND SURFACED ON ALL FOUR SIDES.
G6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, FRAMING MEMBERS 3 X AND SMALLER, AND 4 X POSTS SHALL BE DOUGLAS FIR, GRADE NO. 2.
G7. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
G8. INTERIOR STUDS THAT ARE 14 FEET OR LESS IN HEIGHT SHALL BE DOUGLAS FIR CONSTRUCTION GRADE AND BETTER.
G9. AT WALLS SUPPORTING TRUSSES, PROVIDE A STUD DIRECTLY BELOW EACH TRUSS; PROVIDE ADDITIONAL STUD AS NECESSARY.
G10. SHEAR WALLS - BLOCK AT PLYWOOD JOINTS WITH BLOCKING OF SAME SIZE AS STUDS.
G11. ALL SHEATHING FOR ROOF, FLOOR AND WALLS, SHALL BE AMERICAN PLYWOOD ASSOCIATION (APA) RATED SHEATHING, EXPOSURE 1, AND SHALL BE IDENTIFIED WITH THE APPROPRIATE TRADEMARK OF THE APA.
G12. FLOOR AND ROOF SHEATHING SHALL BE INSTALLED WITH THE FACE GRAIN PERPENDICULAR TO THE SUPPORTS, AND THE LONG DIMENSION OF THE PANEL CONTINUOUS OVER TWO (2) OR MORE SPANS.

MINIMUM NAILING SHALL CONFORM TO PLYWOOD DIAPHRAGM SCHEDULE.

- GLUE PLYWOOD TO ALL SUPPORTS, INCLUDING BLOCKING, WITH 1/4 INCH MINIMUM BEADS OF APPROVED ADHESIVE MEETING APA SPECIFICATION AFG-01 AND APPLIED PER NER-108.
G13. PLYWOOD FLOOR, ROOF AND WALL SHEATHING NAILS OR OTHER APPROVED SHEATHING CONNECTORS SHALL BE DRIVEN FLUSH.
G14. ALL FRAMING HARDWARE SHALL BE "STRONG-TIE" AS MANUFACTURED BY SIMPSON COMPANY, OR AN APPROVED EQUAL.
G15. BOLTS IN WOOD FRAMING SHALL BE STANDARD MACHINE BOLTS CONFORMING TO ASTM 307. PROVIDE MALLEABLE IRON WASHERS UNDER HEAD AND NUT OF BOLTS AND LAG SCREWS BEARING ON WOOD.

H. PREFABRICATED TRUSSES

- H1. THE FABRICATOR OF THE PREFABRICATED TRUSSES SHALL SUBMIT TRUSS DESIGN CALCULATIONS AND SHOP DRAWINGS FOR ALL TRUSSES, THAT ARE STAMPED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER, TO THE BUILDING DEPARTMENT FOR APPROVAL.
H2. THE MAXIMUM DEFLECTION OF ROOF TRUSSES DUE TO DEAD AND LIVE LOADS SHALL NOT EXCEED L/240, AND THE MAXIMUM DEFLECTION FOR FLOOR TRUSSES DUE TO LIVE LOAD SHALL NOT EXCEED L/360.
H3. THE DISTRIBUTED LOADS SHALL BE:
MEMBER ROOF TRUSS FLOOR TRUSS
TOP CHORD D.L. 6.0 PSF* 10.5 PSF
LL 16.0 PSF 40.0 PSF
BOTTOM CHORD D.L. 7.2 PSF 5.0 PSF
LL 10.0 PSF 10.0 PSF
* USE 16.0 PSF FOR CONCRETE TILE ROOFING
TOP AND BOTTOM CHORD LIVE LOADS MAY NOT BE APPLIED SIMULTANEOUSLY. ONE POINT LOAD OF 250 LBS SHALL BE APPLIED TO EACH TRUSS.

I. GLU-LAMINATED LUMBER

- I1. GLU-LAMINATED (GLU-LAM) LUMBER SHALL BE Fb = 2,400 PSI, Fv = 165 PSI AND E = 1,800,000 PSI.
I2. FABRICATION SHALL BE BY A LICENSED FABRICATOR. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND AITC CERTIFICATION SHALL BE REQUIRED FOR ALL GLU-LAM MEMBERS.
I3. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL PROVIDE A CERTIFICATE OF COMPLIANCE FOR ALL GLU-LAM BEAMS TO THE BUILDING DEPARTMENT AND THE STRUCTURAL ENGINEER FOR APPROVAL.
I4. GLU-LAM BEAMS SHALL NOT BE NOTCHED DRILLED, TAPERED, DAPPED OR CUT IN ANYWAY EXCEPT AS SHOWN ON THE DRAWINGS.

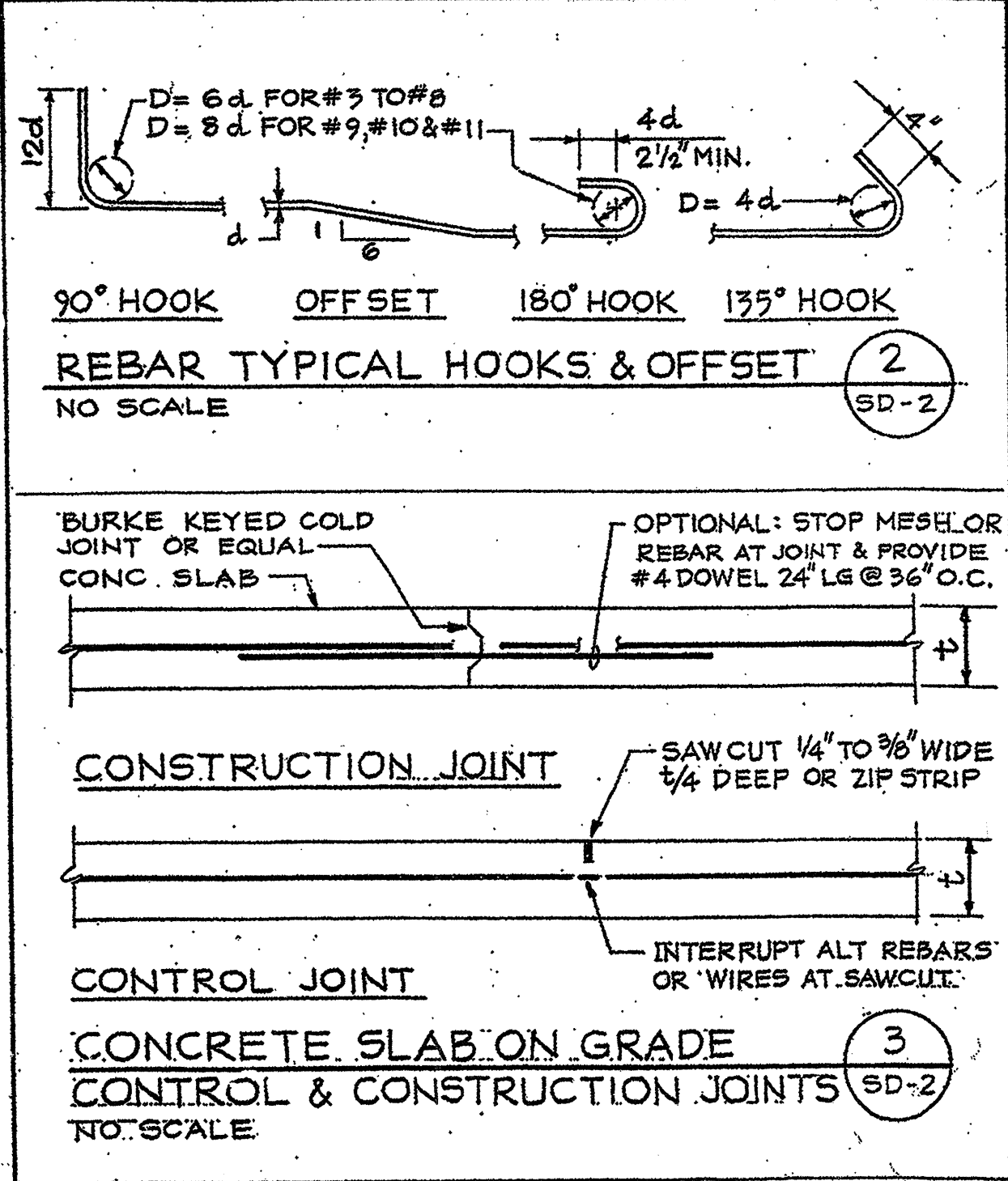
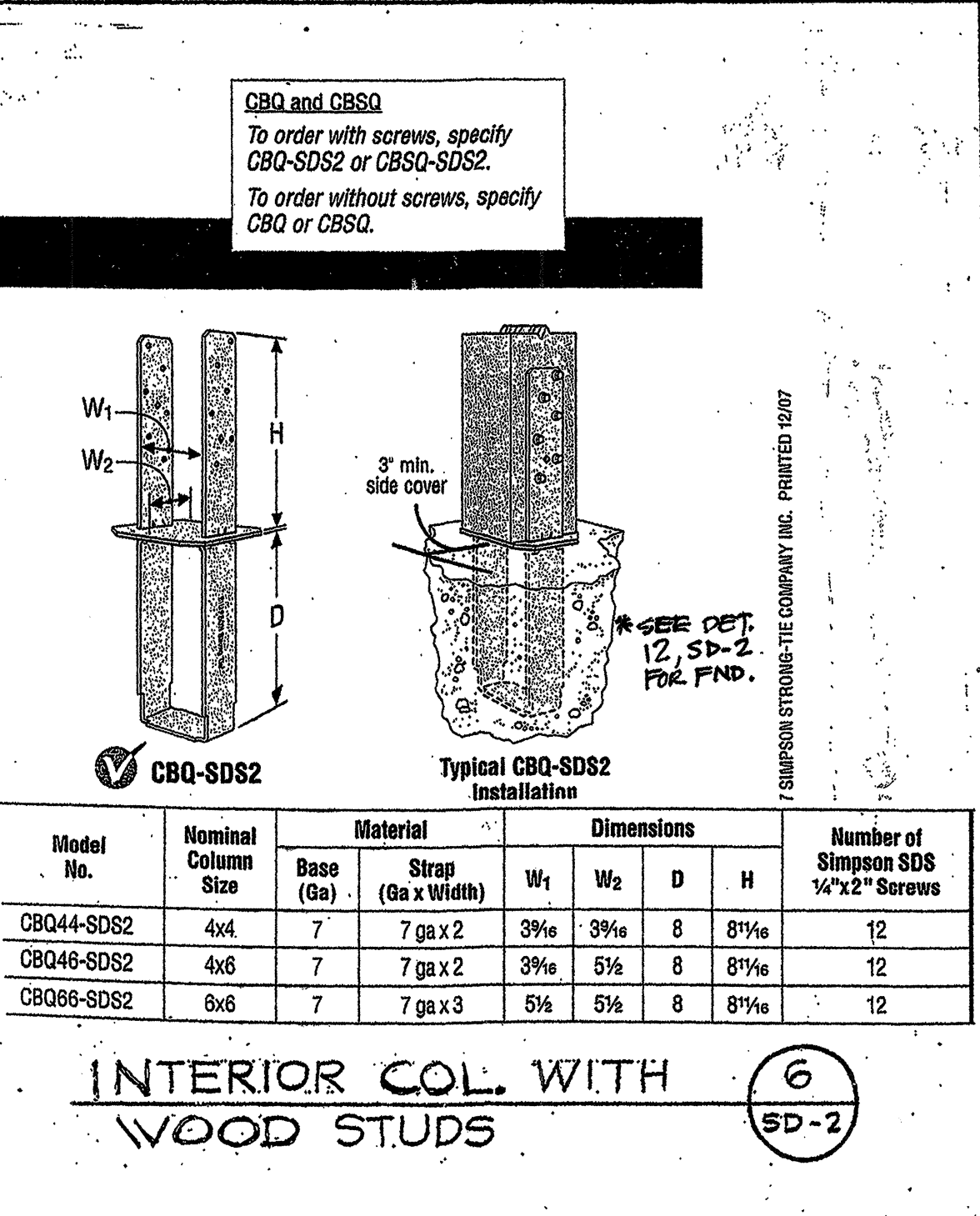
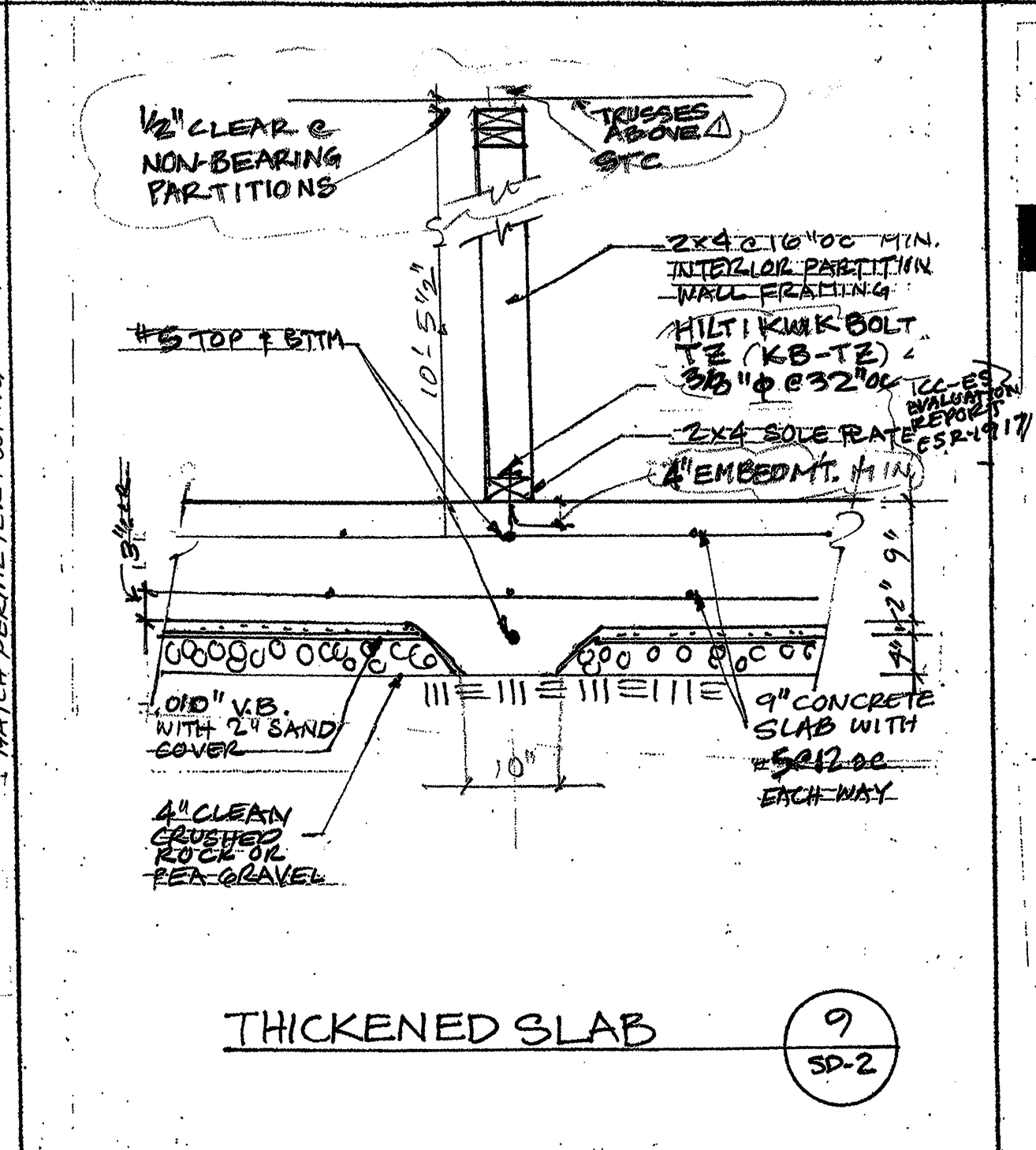
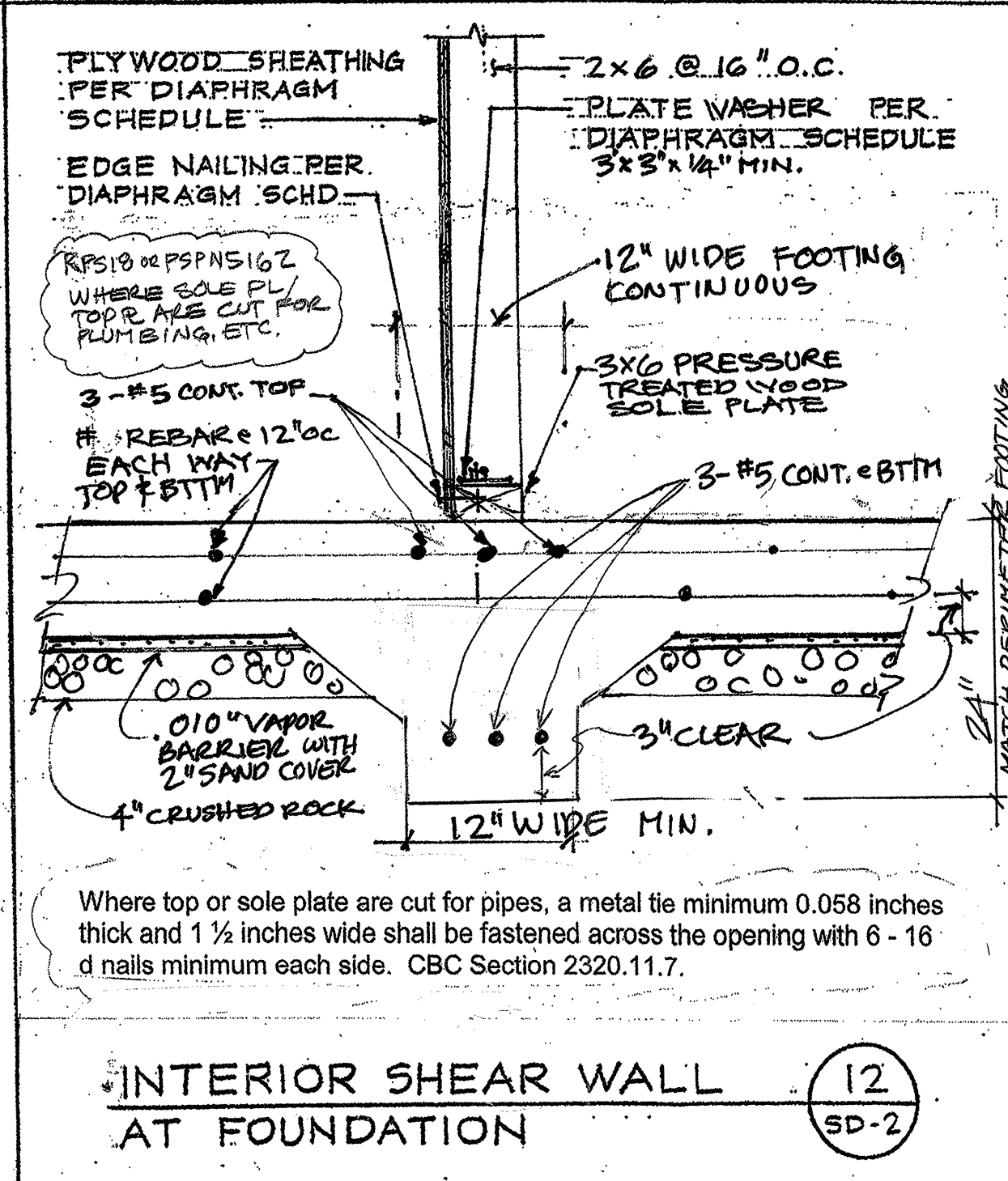
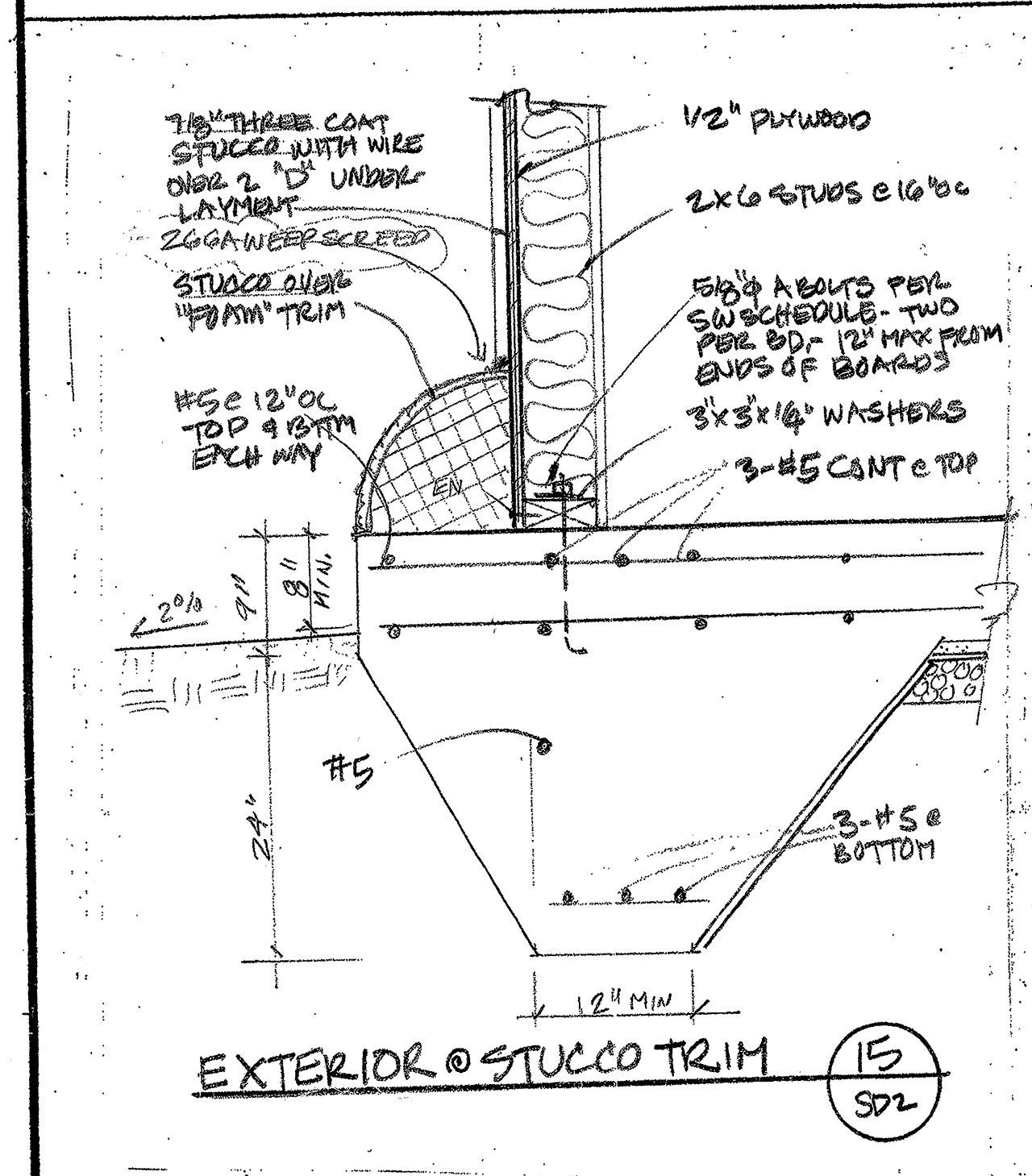
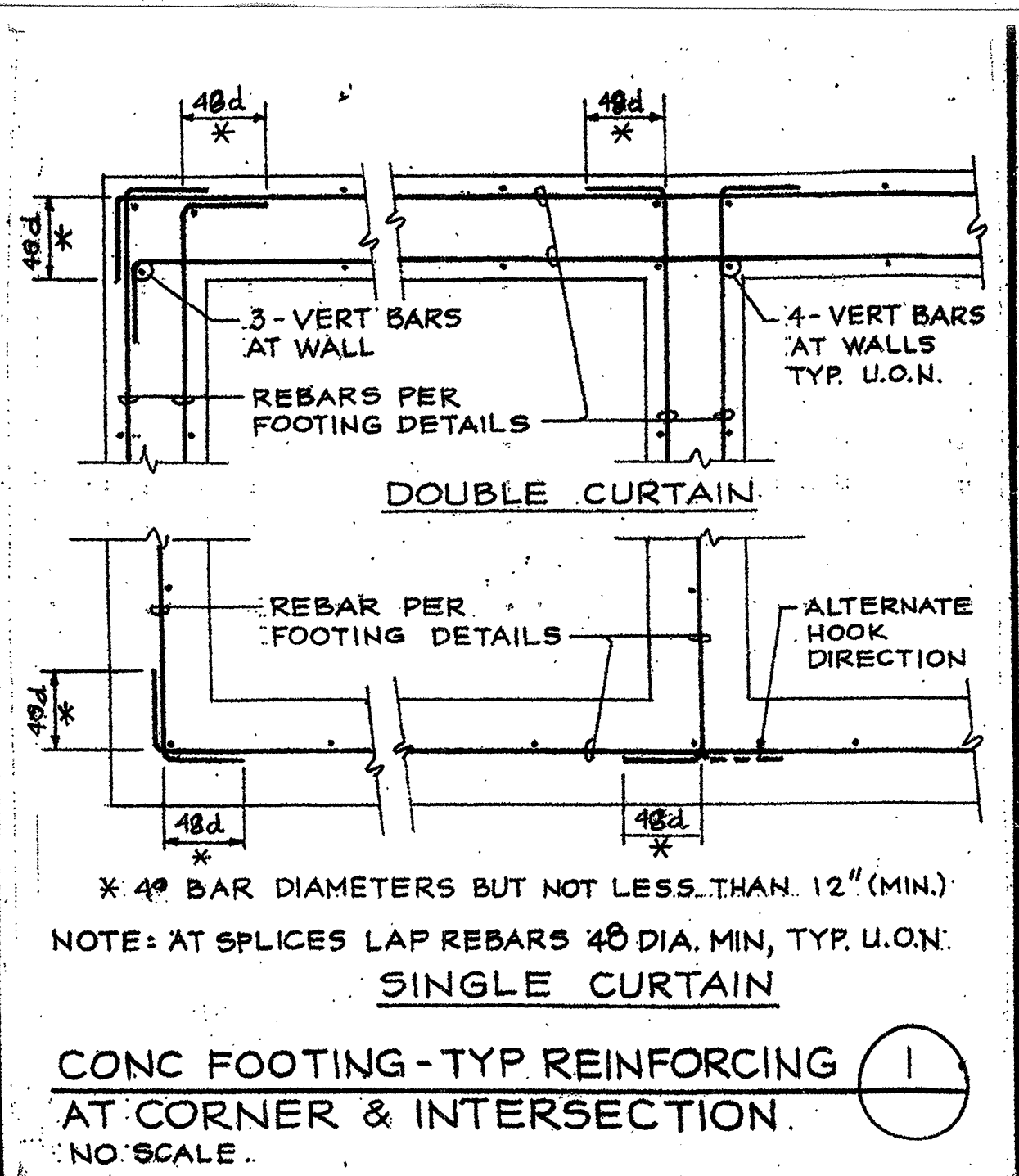
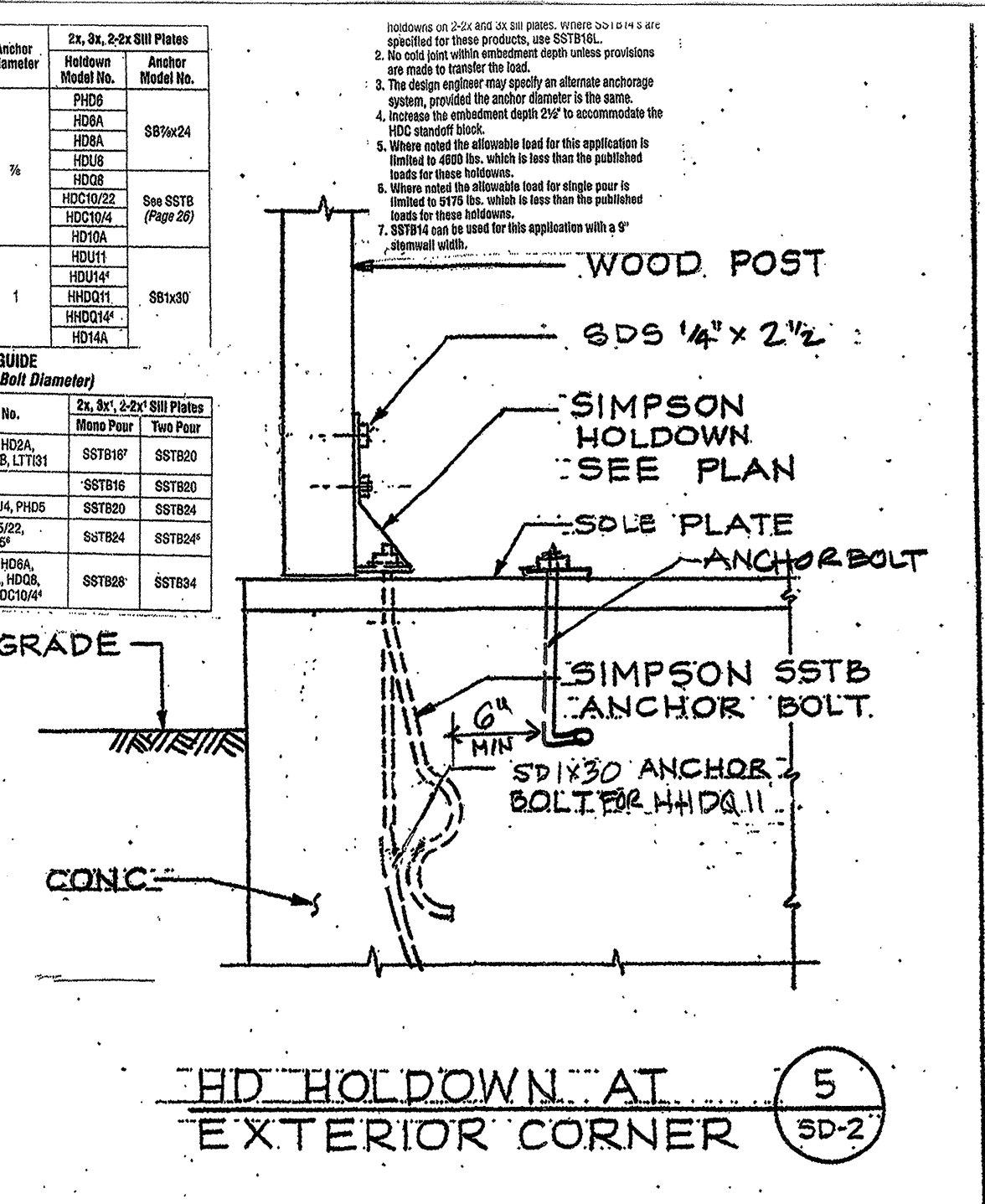
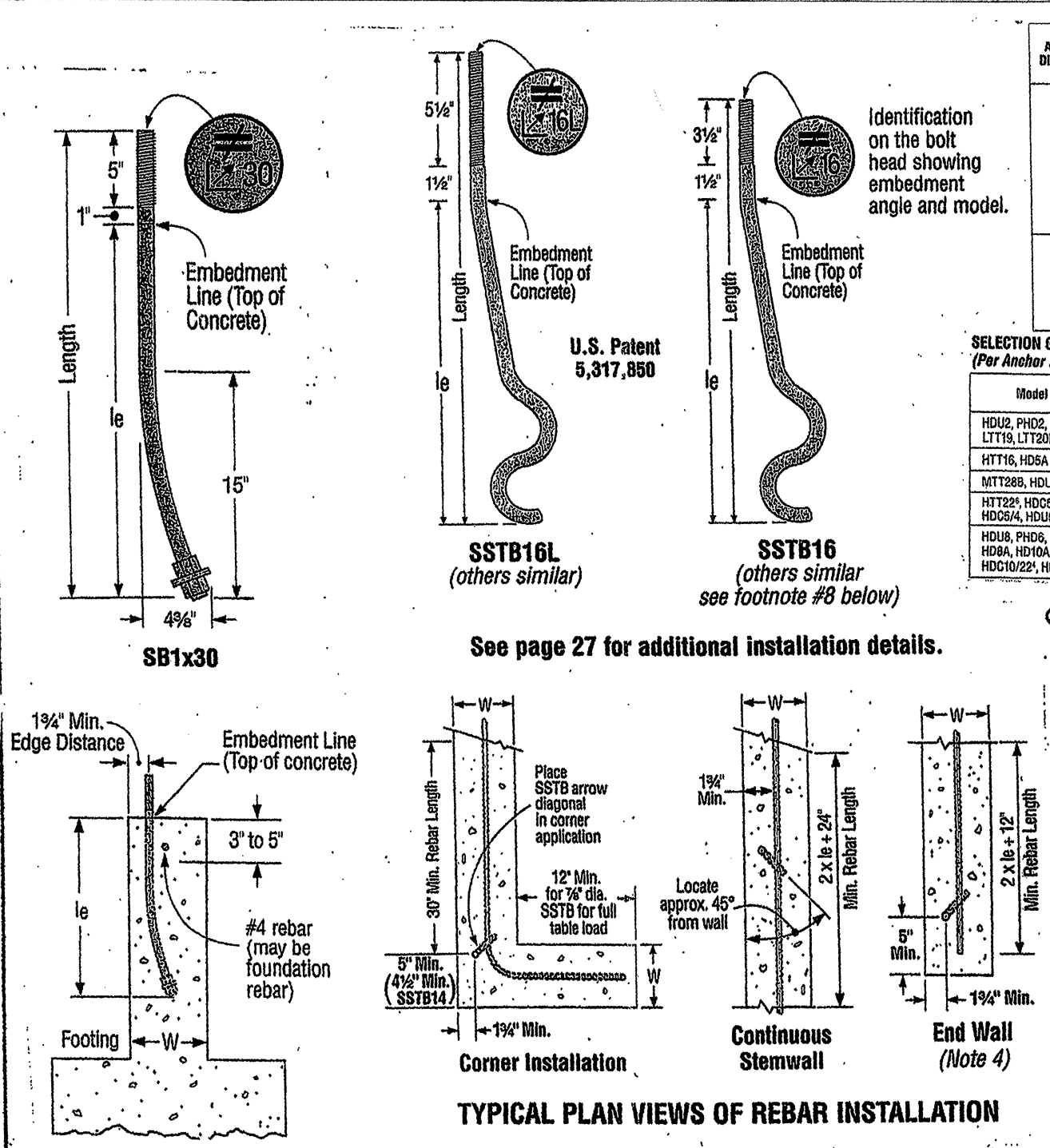
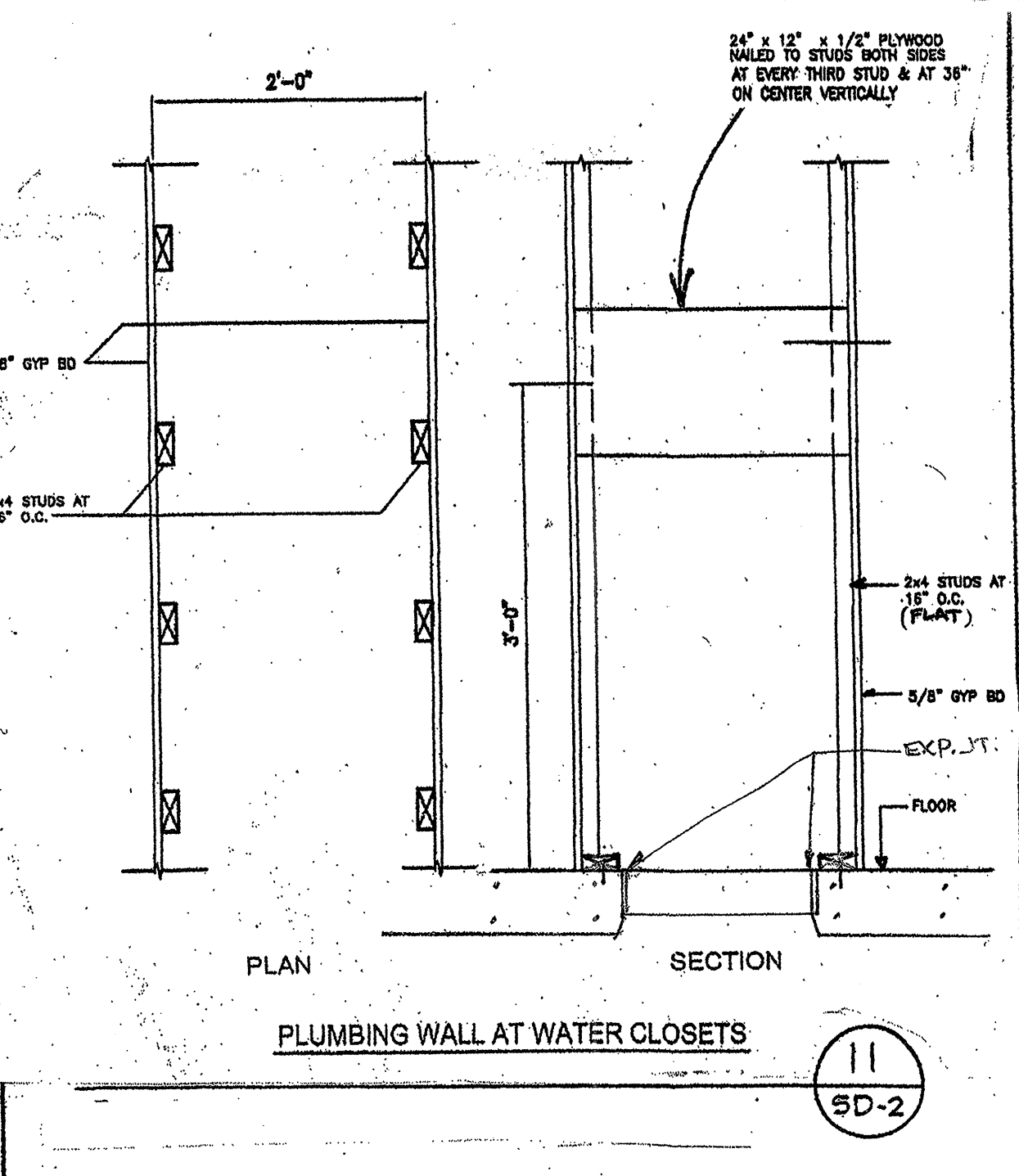
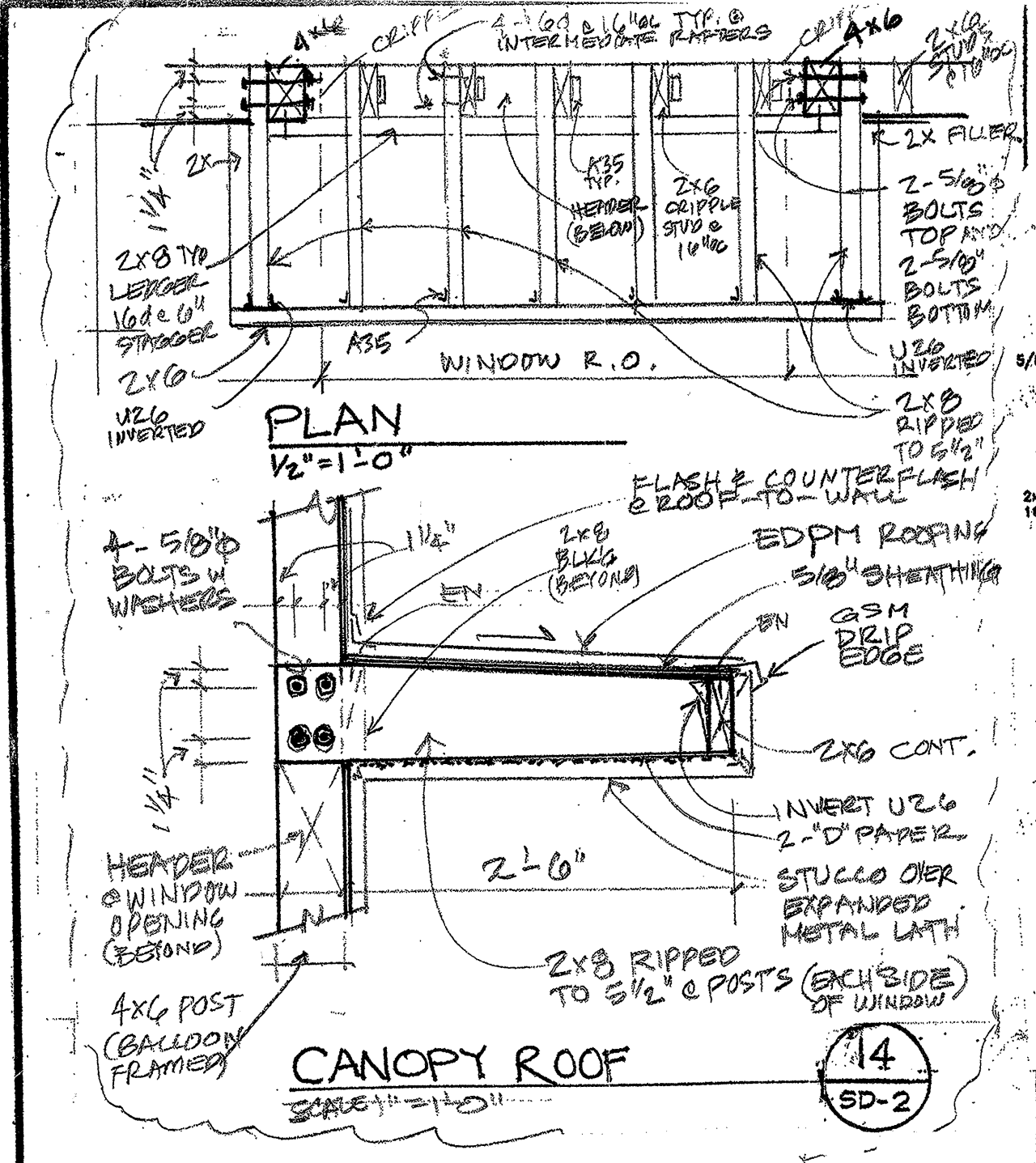
J. SHOP DRAWINGS

- J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE SHOP DRAWINGS AND CONSTRUCTION IS IN CONFORMANCE WITH THE LATEST STRUCTURAL DRAWINGS.
THE CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW TO DETERMINE GENERAL COMPLIANCE WITH THE APPROVED CONSTRUCTION DRAWINGS.
SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW OF THE FOLLOWING STRUCTURAL WORK ITEMS:
REINFORCING STEEL
GLU-LAM BEAMS AND OTHER MEMBERS
STRUCTURAL STEEL WORK
FLOOR AND ROOF TRUSSES
PRE-FABRICATED STAIRS
FABRICATION SHALL NOT PROCEED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED BY THE BUILDING DEPARTMENT AND THE STRUCTURAL ENGINEER.

K. CONSTRUCTION INSPECTION

- 1. GRADING, DRAINAGE, PAD PREPARATION
2. STRUCTURAL REINFORCING STEEL
3. DEFERRED SUBMITTAL FOR FOLDING PARTITIONS & ATTACHMENT & BEAM SIZE
4. EPOXY INSTALLED ANCHOR AND HOLD DOWN BOLTS
5. MANUFACTURED TRUSSES
Contractor in responsible charge to submit a written statement of responsibility to the Owner and Building Official (City of Livermore Permit Center) for:
1. Acknowledgement of awareness of the special requirement contained in the statement of special inspection.
2. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the Building Official.
3. Procedures for exercising control within the Contractor's organization, the method of, and frequency of reporting and the distribution of the reports; and
4. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.
Automatic Sprinkler Systems as specified by Livermore Municipal Ordinance
Plans and Specifications shall be submitted to the City of Livermore Permit Center for Review and Approval prior to installation.
Deferred Submittal: 1. Fire Sprinklers
2. Alarm system
3. Manufactured roof trusses
4. Folding Partitions

Vertical sidebar containing: REVISIONS table, PROJECT TITLE: NEW BUILDING "D" - PHASE 2, HINDU COMMUNITY and CULTURAL CENTER, 1200 ARROWHEAD AVE., LIVERMORE, CA 94551, STRUCTURAL GENERAL NOTES, GOVINDARAO, and a professional engineer's stamp for B.R. Govindarao, No. S3250, Exp. 12/31/13, State of California.



CONNECTION	FASTENING ^a	LOC.
1. Joist to sill or girder	3 - 8d common (2 1/2" x 0.131") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail
2. Bridging to joist	2 - 8d common (2 1/2" x 0.131") 2 - 3" x 0.131" nails 2 - 3" 14 gage staples	toenail each end
3. 1" x 6" subfloor or less to each joist	2 - 8d common (2 1/2" x 0.131")	face nail
4. Wider than 1" x 6" subfloor to each joist	3 - 8d common (2 1/2" x 0.131")	face nail
5. 2" subfloor to joist or girder	2 - 16d common (3 1/2" x 0.162")	blind end face nail
6. Sole plate to joist or blocking	16d (3 1/2" x 0.135") at 24" o.c. 3" x 0.131" nails at 8" o.c. 3" 14 gage staples at 12" o.c.	typical face nail
Sole plate to joist or blocking at braced wall panel	3" - 16d (3 1/2" x 0.135") at 16" 4 - 3" x 0.131" nails at 16" 4 - 3" 14 gage staples per 16"	braced wall panels
7. Top plate to stud	2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	end nail
8. Stud to sole plate	4 - 8d common (2 1/2" x 0.131") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples 2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail end nail
9. Double studs	16d (3 1/2" x 0.135") at 24" o.c. 3" x 0.131" nail at 8" o.c. 3" 14 gage staple at 12" o.c.	face nail
10. Double top plates	16d (3 1/2" x 0.135") at 16" o.c. 3" x 0.131" nail at 12" o.c. 3" 14 gage staple at 12" o.c.	typical face nail
Double top plates	8-16d common (3 1/2" x 0.162") 12-3" x 0.131" nails 12-3" 14 gage staples	lap splice
11. Blocking between joists or rafters to top plate	3 - 8d common (2 1/2" x 0.131") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail
12. Rim joist to top plate	8d (2 1/2" x 0.131") at 6" o.c. 3" x 0.131" nail at 6" o.c. 3" 14 gage staple at 6" o.c.	toenail
13. Top plates, laps and intersections	2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	face nail

14. Continuous header, two pieces	16d common (3 1/2" x 0.162")	16" o.c. along edge
15. Ceiling joists to plate	3 - 8d common (2 1/2" x 0.131") 5 - 3" x 0.131" nails 5 - 3" 14 gage staples	toenail
16. Continuous header to stud	4 - 8d common (2 1/2" x 0.131")	toenail
17. Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
18. Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
19. Rafter to plate (see Section 2308.10.1, Table 2308.10.1)	3 - 8d common (2 1/2" x 0.131") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	toenail
20. 1" diagonal brace to each stud and plate	2 - 8d common (2 1/2" x 0.131") 2 - 3" x 0.131" nails at 16" 4 - 3" 14 gage staples	face nail
21. 1" x 8" sheathing to each bearing	3 - 8d common (2 1/2" x 0.131")	face nail
22. Wider than 1" x 8" sheathing to each bearing	3 - 8d common (2 1/2" x 0.131")	face nail
23. Built-up corner studs	16d common (3 1/2" x 0.162") 3" x 0.131" nails 3" 14 gage staples	24" o.c. 16" o.c. 16" o.c.
24. Built-up girder and beams	20d common (4" x 0.192") 32" o.c. 3" x 0.131" nail at 24" o.c. 3" 14 gage staple at 24" o.c. 2 - 20d common (4" x 0.192") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples 2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	face nail at top and bottom staggered on opposite sides face nail at ends and at each splice
25. 2" planks	16d common (3 1/2" x 0.162")	at each bearing
26. Collar tie to rafter	3 - 10d common (3" x 0.148") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
27. Jack rafter to hip	3 - 10d common (3" x 0.148") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	toenail
28. Roof rafter to 2-by ridge beam	2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	face nail

29. Joist to band joist	3 - 16d common (3 1/2" x 0.162") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
30. Ledger strip	3 - 16d common (3 1/2" x 0.162") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
31. Wood structural panels and particleboard ^b Subfloor, roof and wall sheathing (to framing)	1/2" and less 6d ^c 2 1/2" x 0.113" nail ^d 1 1/2" 16 gage ^e 8d ^f or 6d ^g 2 1/2" x 0.113" nail ^d 2" 16 gage ^e	
Single Floor (combination subfloor-underlayment to framing)	1/2" and less 6d ^c 1 1/2" to 1 1/2" 10d ^f or 8d ^g	
32. Panel siding (to framing)	1/2" or less 6d ^c 8d ^f	
33. Fiberboard sheathing ^h	1/2" No. 11 gage roofing nail ⁱ 6d common nail (2" x 0.113") No. 16 gage staple ^j No. 11 gage roofing nail ⁱ 8d common nail (2 1/2" x 0.131") No. 16 gage staple ^j	
34. Interior paneling	1/4" 4d ^k 6d ^l	

Exception: Comply with Standard Metal Stud and Ceiling Joist Table (no submittal required)

Standard Metal Stud & Ceiling Joist Table							
Size (in.)	Gauge	Stud Spacing (in.)			Joist Spacing (in.)		
		12	16	24	12	16	24
3-5/8	25	15-10	13-8	11-2	9-7	9-4	
	20	20-11	19-0	16-7			
6	20	31-8	28-10	23-10			
	16						

No punctures or holes drilled within 12" of stud ends. Track gauge same as stud with 1" track leg height.

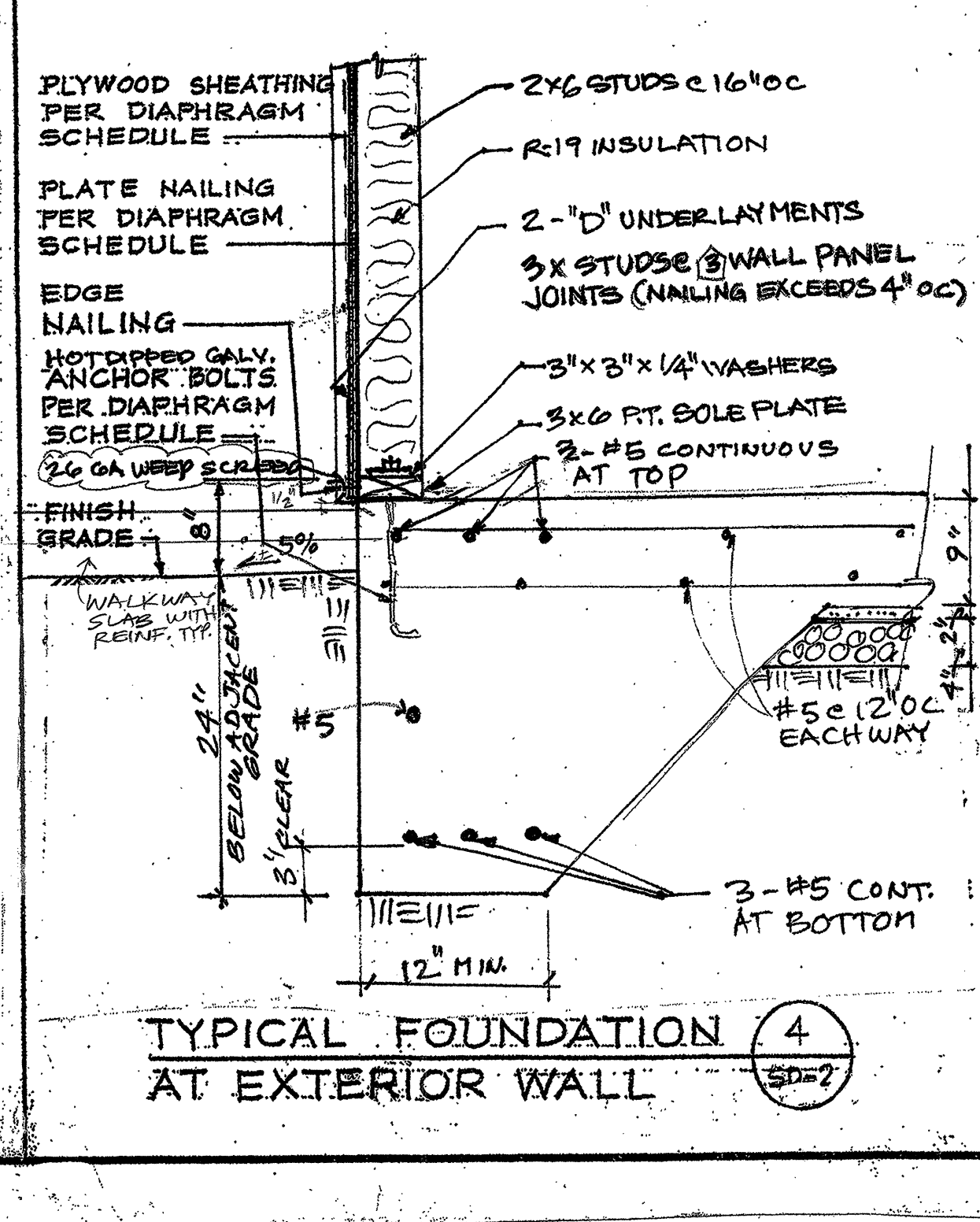
Ceiling Joist - Top Flange Braced 48" O.C.

Size (in.)	Gauge	Stud Spacing (in.)		
		12	16	24
3-5/8	20	10-8	9-8	8-0
	6	20	15-10	13-10

For all installations that do not comply with the standard metal stud table, submit to the building division for approval. TWO (2) COPIES OF THE FOLLOWING INFORMATION PRIOR TO INSTALLATION:

- Cover sheet with the following information:
 - Job site address, contact person, telephone number
 - Manufacturer's name
 - Listing agency and report numbers
 - Provide the following for each stud or joist:
 - Size
 - Type
 - Gauge
 - Spacing
 - Actual height or span of stud or joist
 - Web crippling calculation and indicate if web stiffening is required
 - Track size, type, and gauge
- Copy of the listing agency report. (i.e., ICBO, ES, UL, etc.)
 - Highly on the applicable tables the size, gauge, spacing and allowable height and spans
- Provide installation instructions and details for any special conditions such as:
 - Web stiffeners
 - Wall intersections

Metal Stud Submittal Requirements



INSTRUCTIONS:

- Determine the joist depth and desired hole size and find the hole factor or hole location in Table 1. If the hole spans a hole factor, proceed to step 2.
- Table 2, locate the hole factor and the hole factor. The dimension shown is the required distance from nearest edge of hole to inside face of support.

EXAMPLE: 1" TJI joist with Performance Plus® web, 8" diameter round hole, 21" o.c. joist span (center-to-center of supports).

From Table 1, the hole factor is C.
From Table 2, the nearest edge of the hole must be at least 4" from inside face of support.

TABLE 1 - HOLE FACTORS AND LOCATIONS

JOIST TYPE	HOLE FACTOR			
	A	B	C	D
1" TJI	1/4" A	1/4" B	1/4" C	1/4" D
1 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
2 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
3" TJI	1/4" A	1/4" B	1/4" C	1/4" D
3 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
4" TJI	1/4" A	1/4" B	1/4" C	1/4" D
4 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
5" TJI	1/4" A	1/4" B	1/4" C	1/4" D
5 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
6" TJI	1/4" A	1/4" B	1/4" C	1/4" D
6 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
7" TJI	1/4" A	1/4" B	1/4" C	1/4" D
7 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
8" TJI	1/4" A	1/4" B	1/4" C	1/4" D
8 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
9" TJI	1/4" A	1/4" B	1/4" C	1/4" D
9 1/2" TJI	1/4" A	1/4" B	1/4" C	1/4" D
10" TJI	1/4" A	1/4" B	1/4" C	1/4" D

ASSUMPTIONS:

Tables are based on uniformly loaded applications or building code provisions for concentrated loads (2000 lb over 2'0" feet evenly with 25 psf dead and 20 psf partition loading). For loads supporting concentrated loads or other conditions or possible exceptions, contact your True Joist Representative.

Tables are based on simple span applications. For uniformly loaded cantilever and continuous span applications, the holes must be located one inch from the support for each foot of joist span than the values indicated in the tables. Do not cut holes to cantilever area without consulting your True Joist Representative.

TJI® BLOCKING PANELS / Timberstrand® LSL RIM BOARD

Minimum TJI blocking panel attachment to the TJI (or LVL) joist shall be as follows:

- 1" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
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- 2" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
- 2 1/2" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
- 3" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
- 3 1/2" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
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- 5 1/2" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
- 6" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
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- 9" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
- 9 1/2" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel
- 10" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel

ALLOWABLE UNIFORM LOAD (PLF)

JOIST TYPE	1" TJI	1 1/2" TJI	2" TJI	2 1/2" TJI	3" TJI	3 1/2" TJI	4" TJI	4 1/2" TJI	5" TJI	5 1/2" TJI	6" TJI	6 1/2" TJI	7" TJI	7 1/2" TJI	8" TJI	8 1/2" TJI	9" TJI	9 1/2" TJI	10" TJI
1" TJI	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
1 1/2" TJI	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
2" TJI	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310
2 1/2" TJI	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320
3" TJI	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330
3 1/2" TJI	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340
4" TJI	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350
4 1/2" TJI	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360
5" TJI	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370
5 1/2" TJI	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380
6" TJI	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390
6 1/2" TJI	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400
7" TJI	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410
7 1/2" TJI	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420
8" TJI	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430
8 1/2" TJI	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440
9" TJI	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450
9 1/2" TJI	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460
10" TJI	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470

GENERAL NOTES:

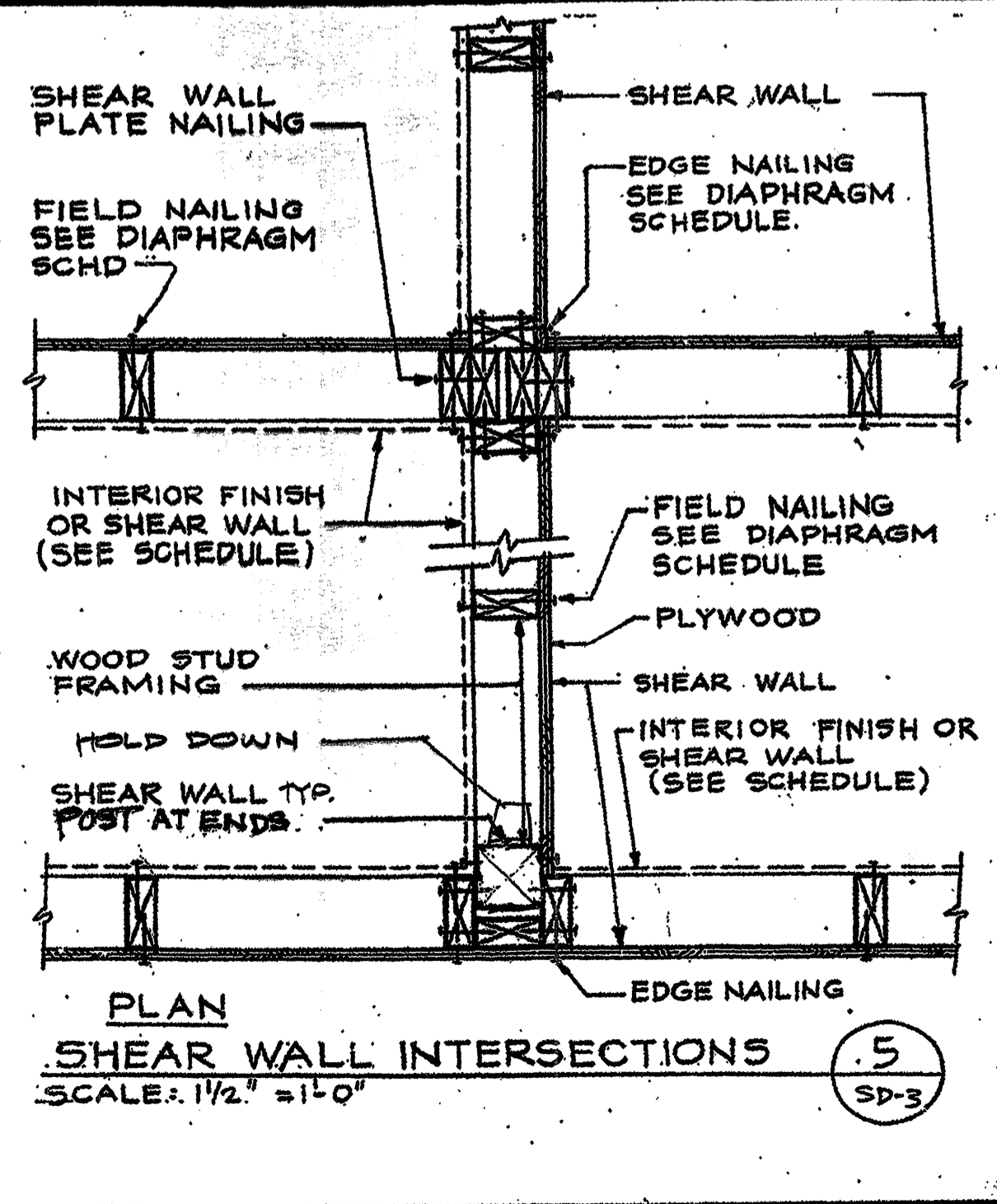
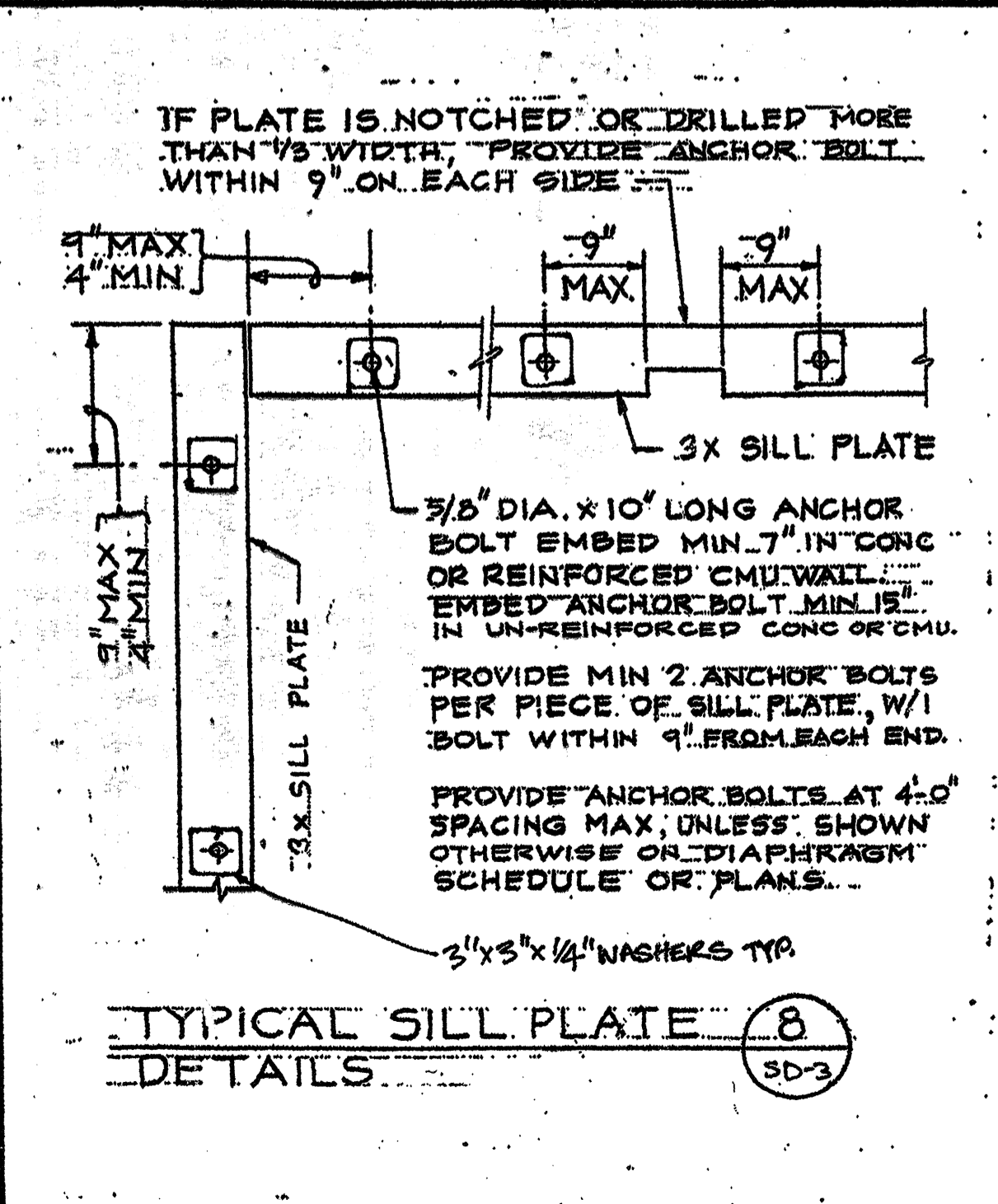
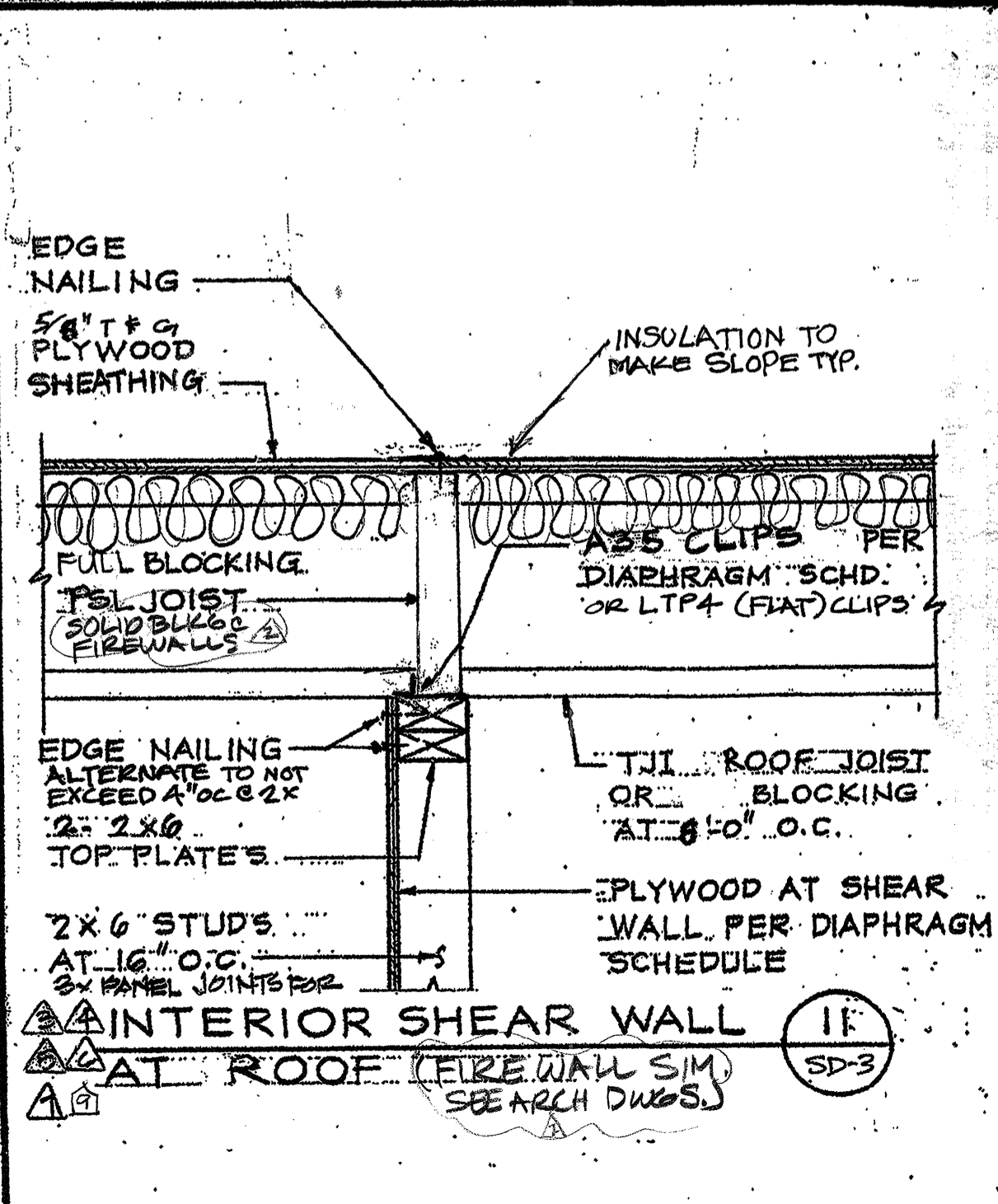
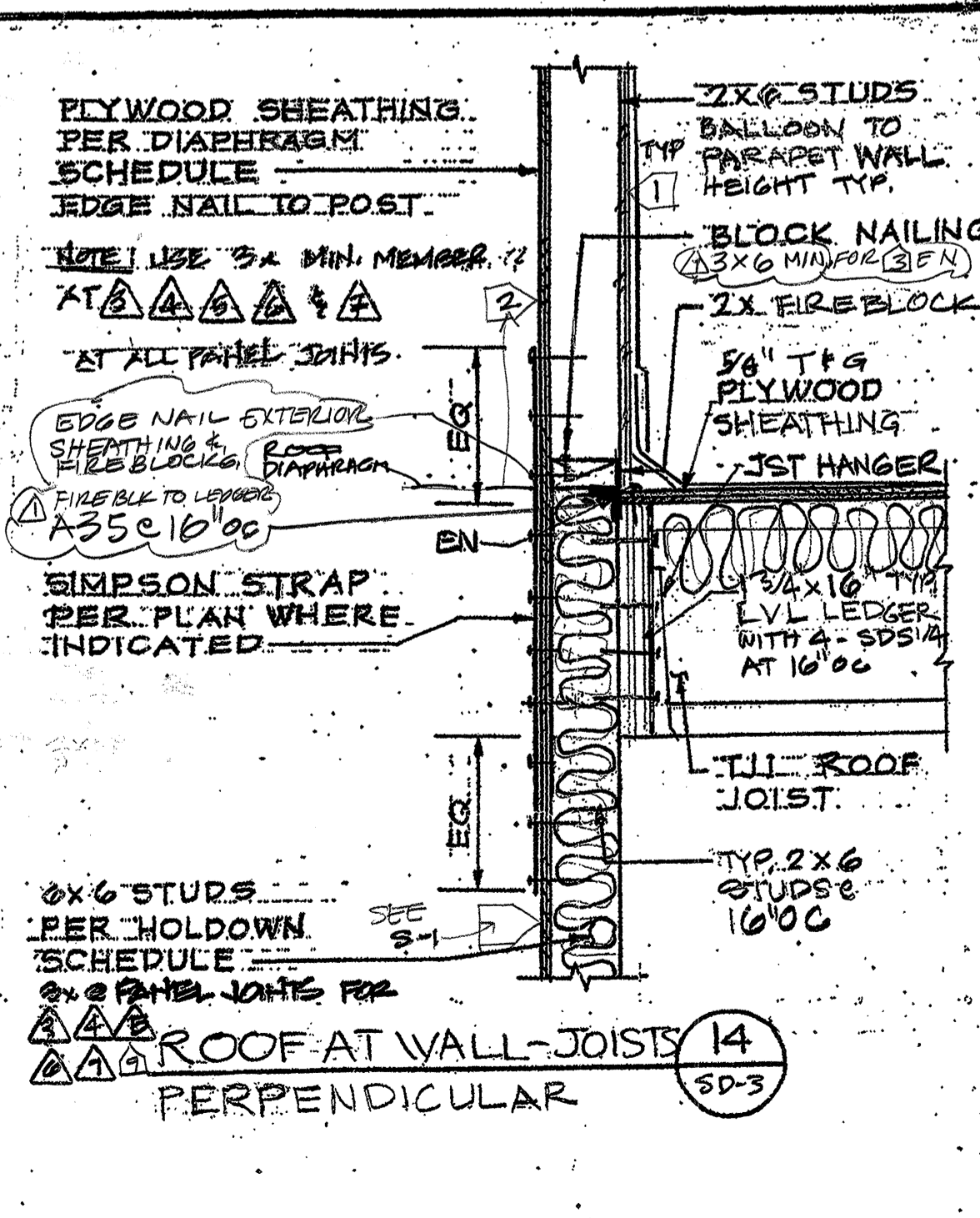
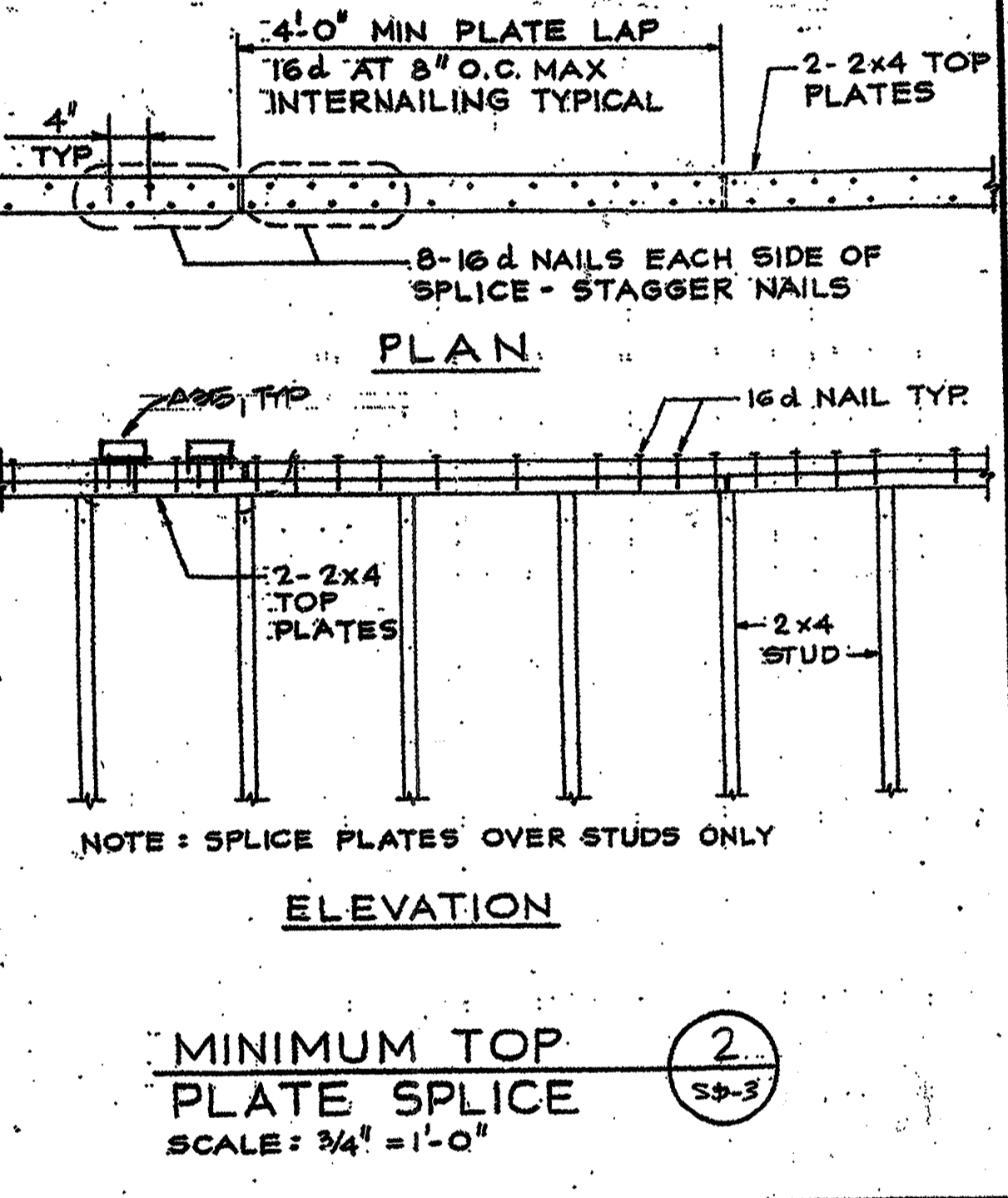
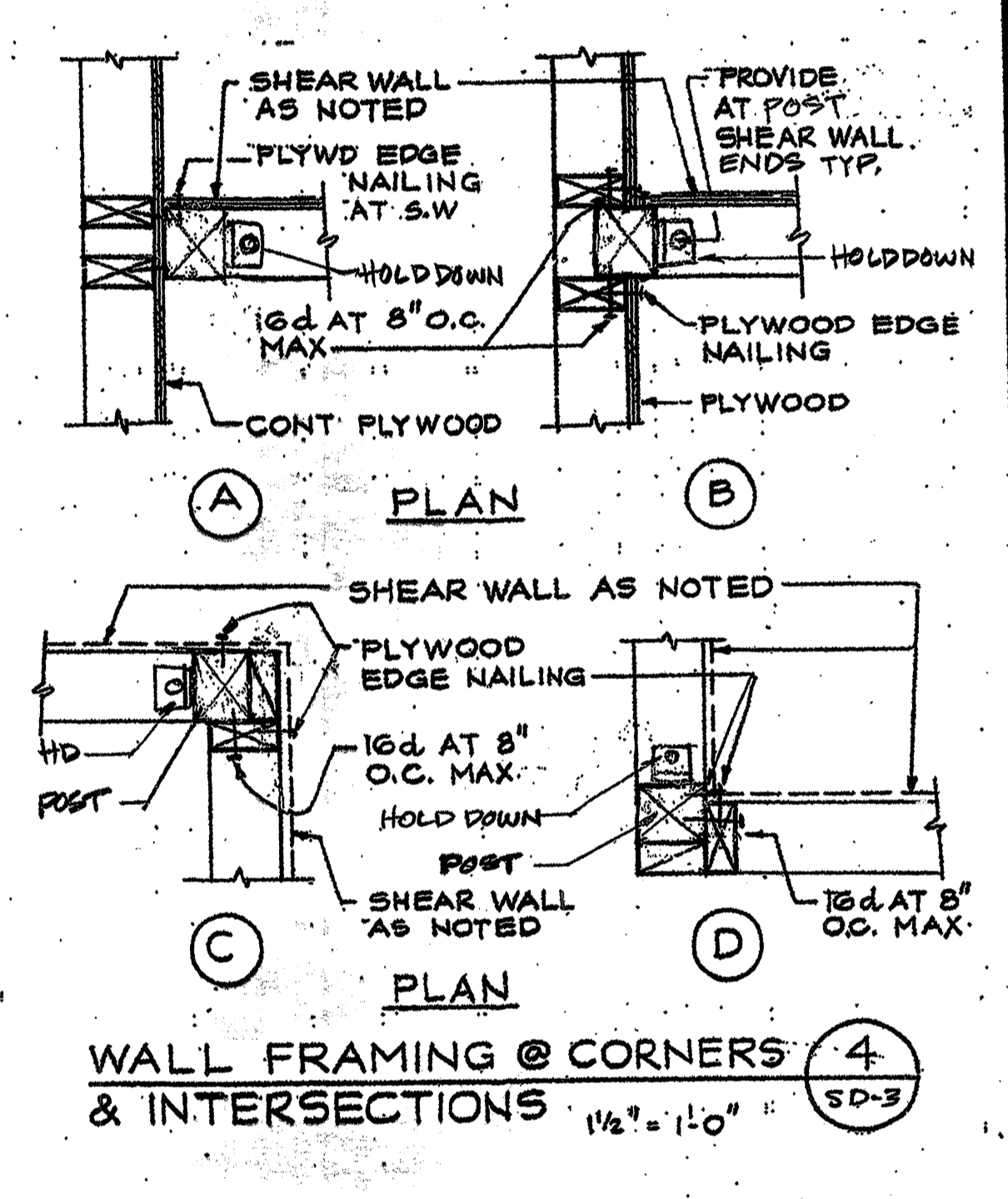
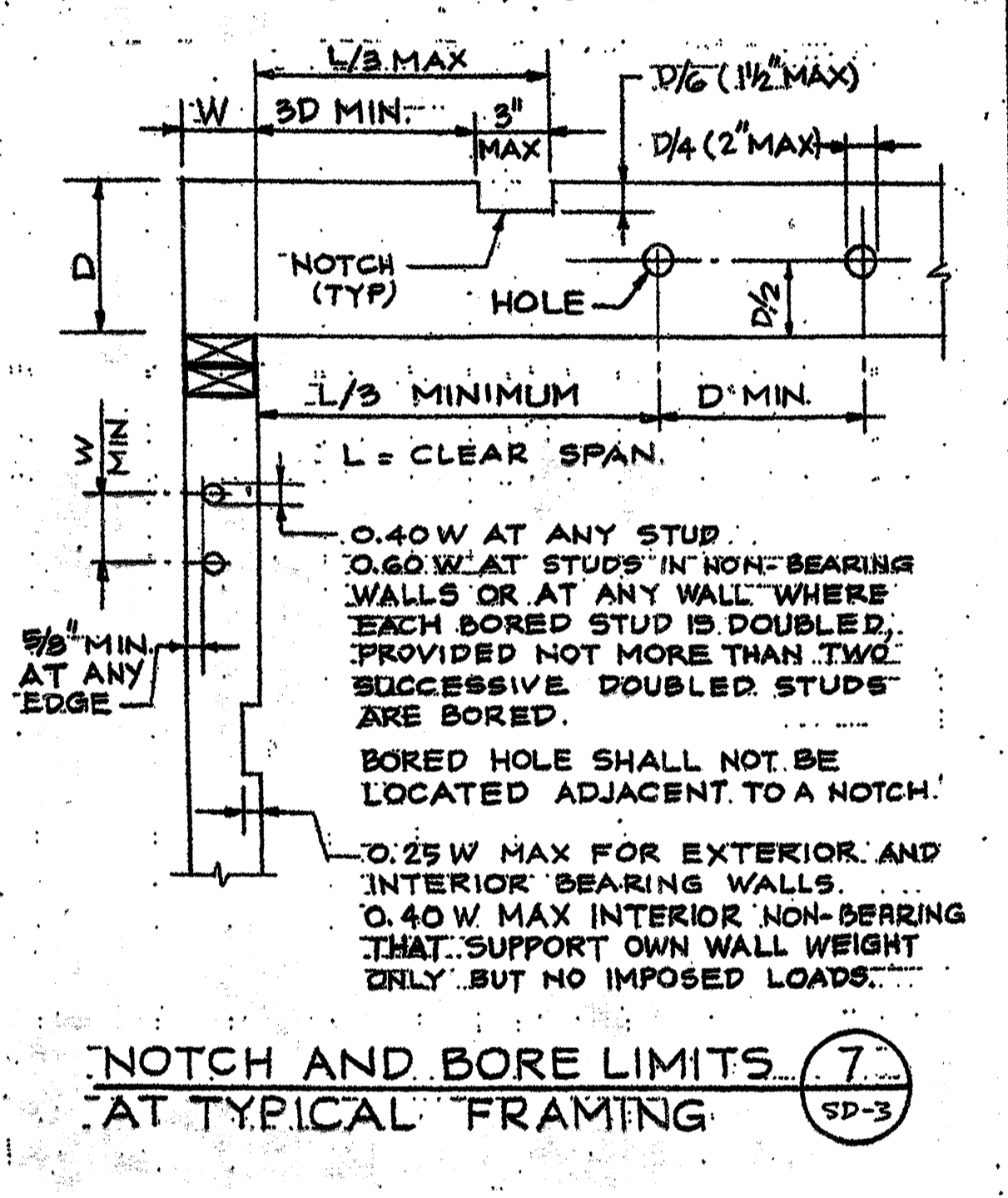
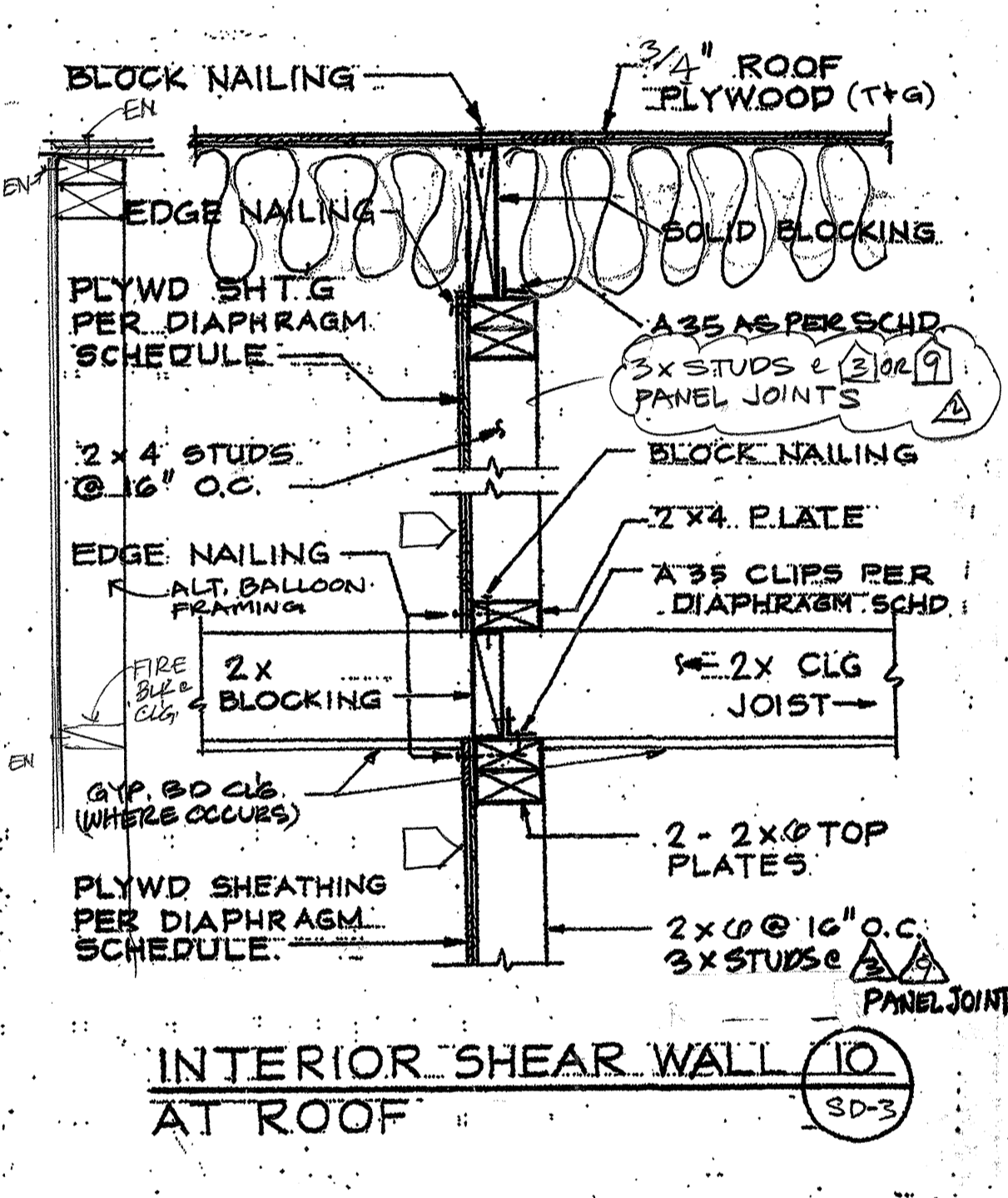
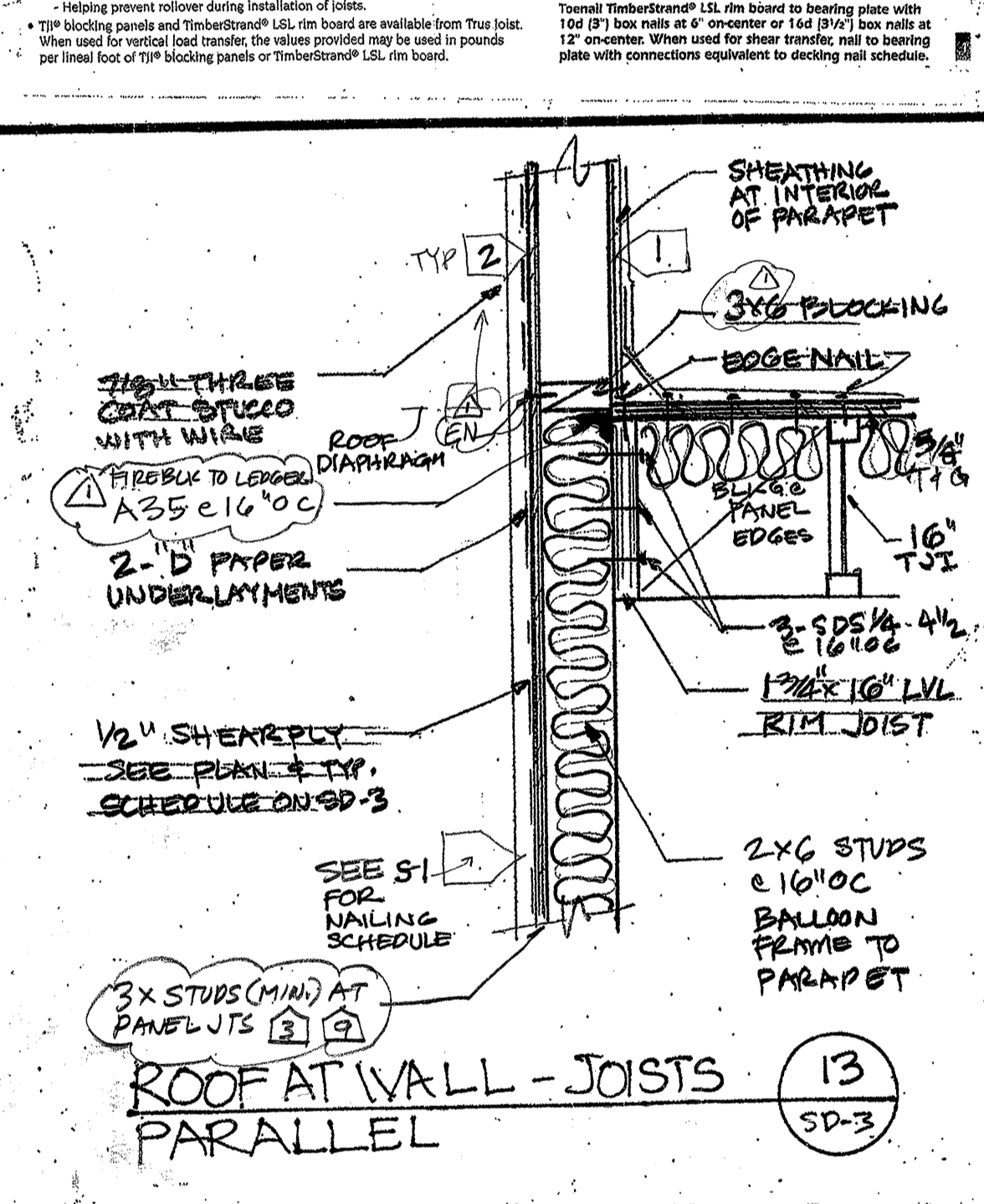
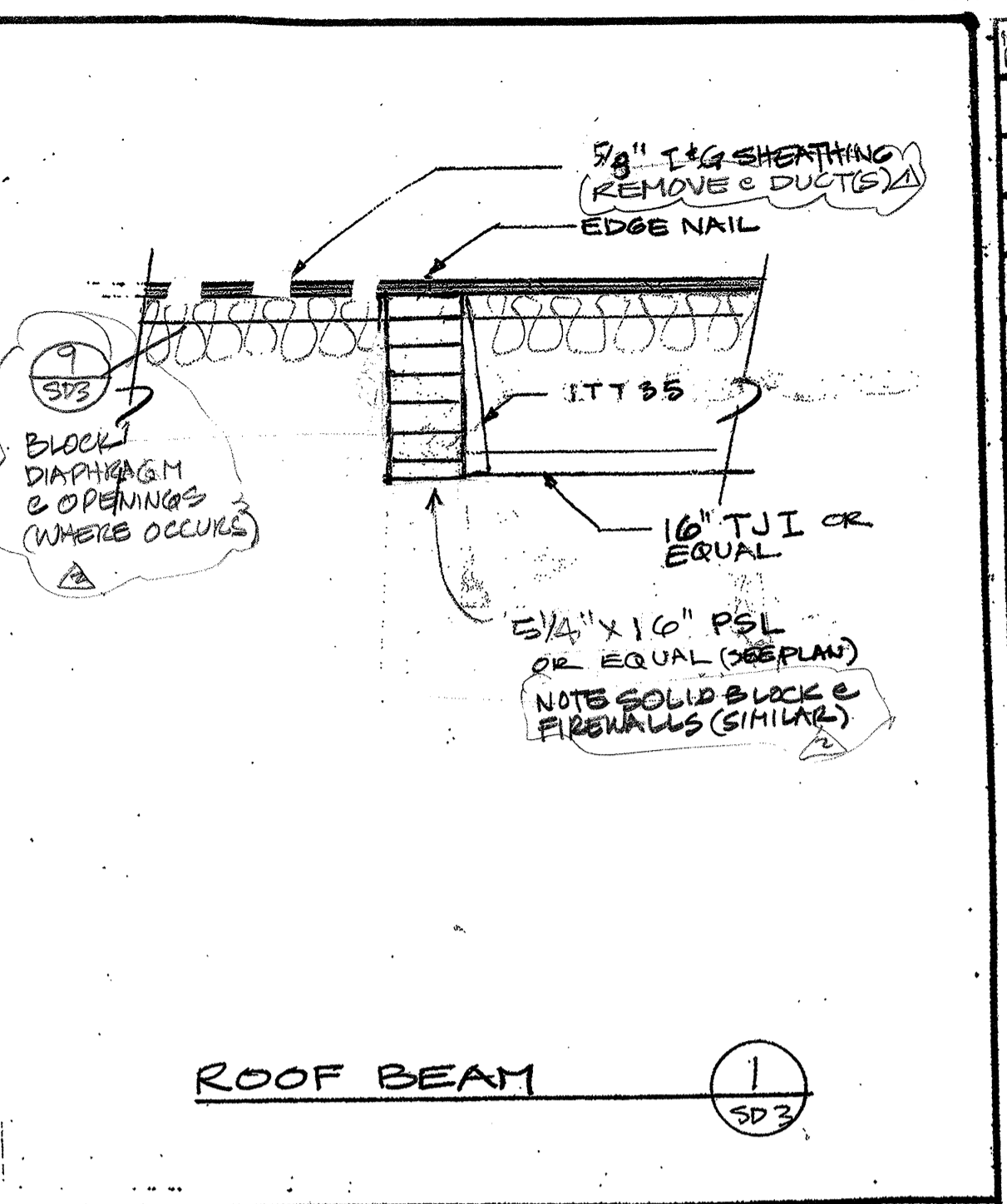
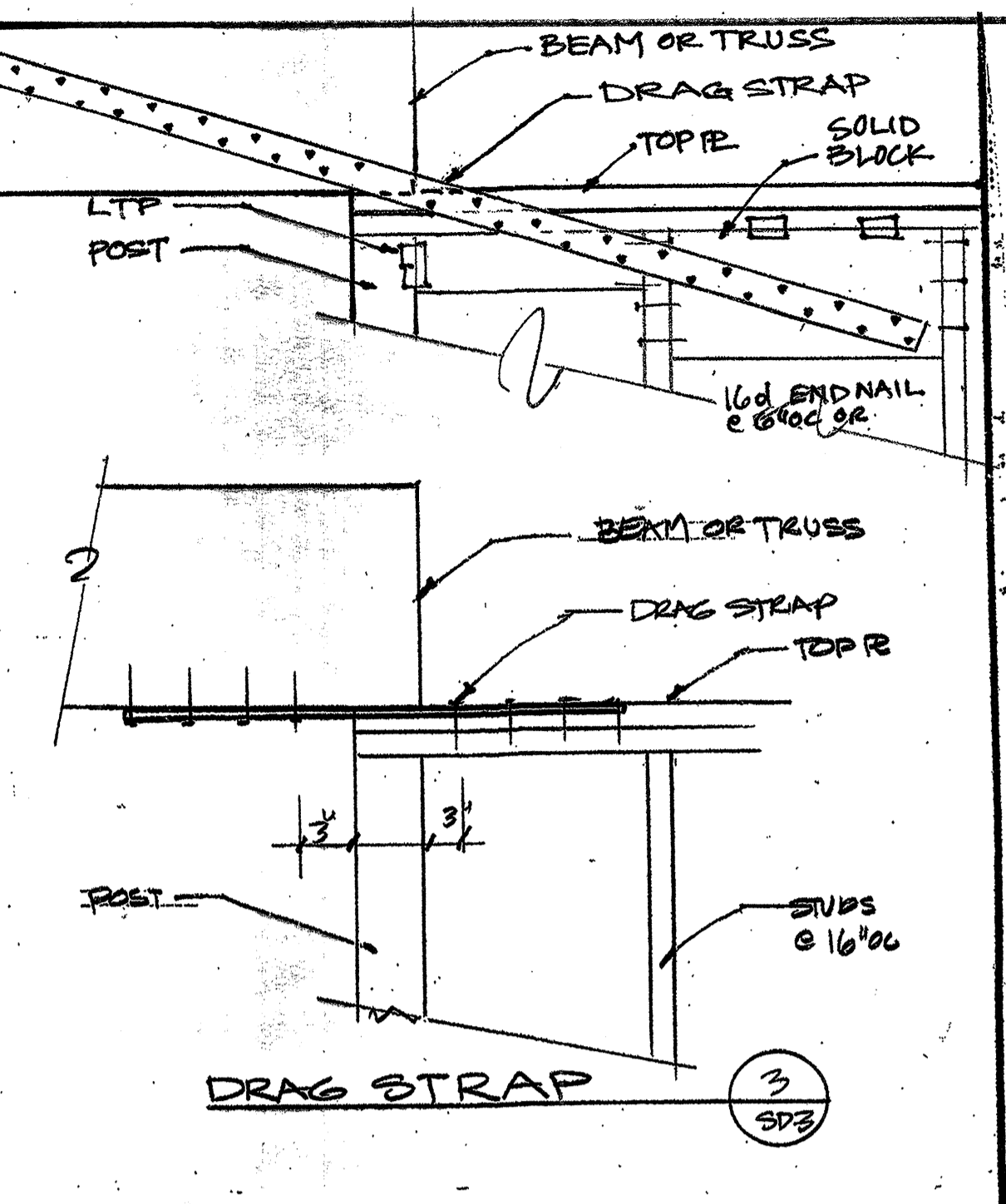
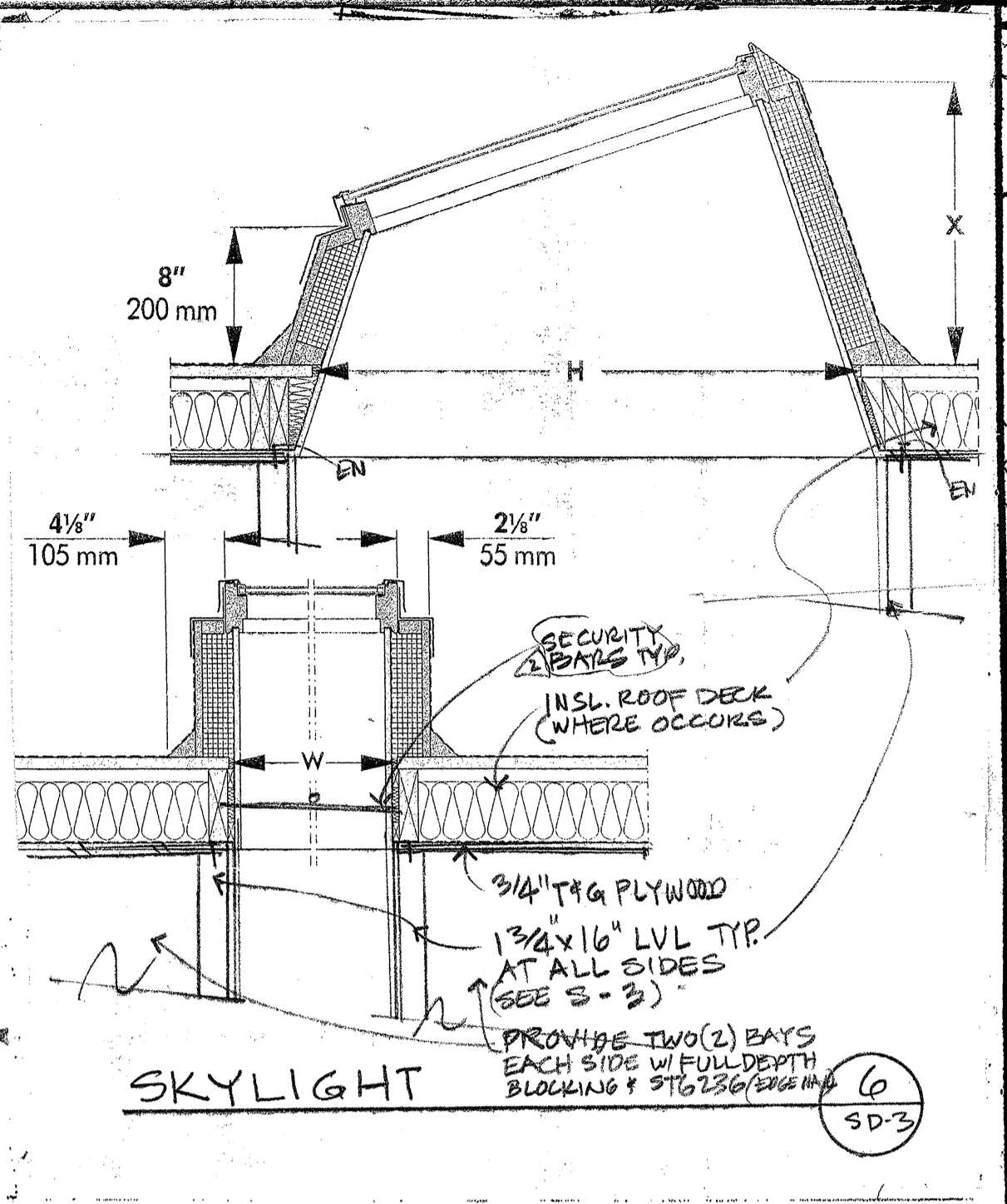
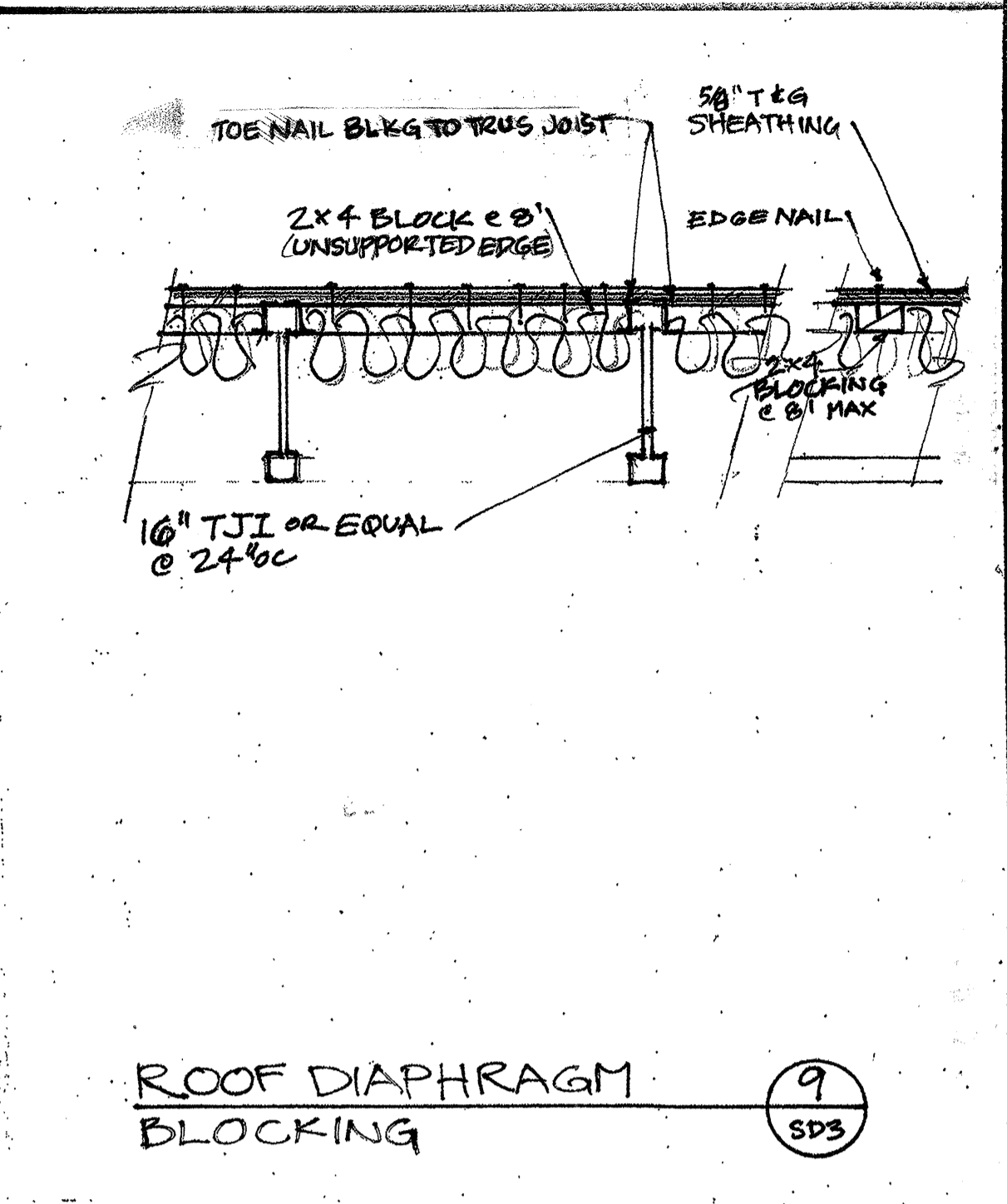
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- 10" TJI: 1/2" x 1/2" x 1/2" LSL or 1/2" x 1/2" x 1/2" TJI blocking panel



PLYWOOD DIAPHRAGM SCHEDULE

MARK	PLYWOOD	NAILING, CLIP OR A.B. SPACING - INCHES ON CENTER				
		EDGE NAILS	FIELD NAILS	SILL NAILS	A-35 CLIPS	5/8\"/>
ROOF TYP	1/2\"/>					
FLOOR TYP	3/4\"/>					
SHEAR WALLS	5/8\"/>					
	1/2\"/>					
	1/2\"/>					
1	1/2\"/>					

NOTE: PROVIDE 5/8\"/>

NEW BUILDING "D" - PHASE 2
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

STRUCTURAL FRAMING DETAILS
 GOVINDARAO

DATE: 11-17-11
 SCALE: 1/2" = 1'-0", UN
 DRAWN: ARROWHEAD
 SHEET: SD-3

APPLICABLE CODES AND EDITIONS: ALL WORK SHALL COMPLY WITH THE 2009 INTERNATIONAL BUILDING CODE, 2010 CALIFORNIA BUILDING CODE, 2010 CALIFORNIA ENERGY CODE, 2010 CALIFORNIA PLUMBING CODE, 2010 CALIFORNIA MECHANICAL CODE, 2010 CALIFORNIA ELECTRICAL CODE, 2010 CALIFORNIA ADMINISTRATIVE CODE, CALIFORNIA FIRE CODE, 2010 CALIFORNIA GREEN BUILDING STANDARDS AND ALL APPLICABLE STATE, COUNTY, AND LOCAL CODES AND STANDARDS.

Scope of Work and General Notes

- The project's base bid involves site development & construction of building "D", as indicated on architectural, civil, plumbing, mechanical, electrical, landscape drawings.
- Contractor and sub-contractors shall visit the site prior to bidding and shall verify all job site conditions and dimensions and report to the engineer-of-record of any discrepancies.
- Contractor to provide emergency telephone on the job site.
- The facilities will remain open during construction. It is the contractor's responsibility to coordinate with the staff of the temple on a daily basis to assure the continuity of operations and to minimize disruption of the temple activities.
- Fire Department truck access shall be properly maintained and in service prior to, during and after construction.
- Contractor and sub-contractors shall include in their bid daily site clean-up as part of their work for modifications to the existing, as well as for new construction areas. The contractors and sub-contractors shall exercise strict control over job cleaning in order to prevent any dirt, debris or dust from affecting, in anyway the finished or existing areas in or outside the jobsite, the local codes and neighbors' concerns shall apply.
- Noise construction activities which occur outdoors shall take place on weekdays between hours 7:30a.m. to 5 p.m. and noisy construction equipment shall be operated between hours 9 a.m. to 4 p.m. Local requirements or neighbors' requests may change these operations. In all cases city ordinance shall be followed.
- These construction bid documents are for general purposes only. They are not exhaustively detailed or fully specified. It is the responsibility of the contractor to verify and resolve any questions with the engineer of record. It is also the responsibility of the contractor to install all materials and equipment. The contractor is solely responsible for quality control and construction standards for this project. The drawings will indicate the existing items, the items that are to be demolished, the items that are to be refurbished and the items that are to remain. In all cases city ordinance shall be strictly adhered to.
- Contractor(s) shall be held responsible for the results of any errors, discrepancies, or omissions in the contract documents.
- The owner (Hindu Cultural Community Center) will not be responsible for any unauthorized changes to or uses of the plans and specifications. All changes must be in writing and must be issued by the engineer-of-record who is the owner's representative.
- Any discrepancies shall be brought to the attention of engineer-of-record immediately prior to construction and resolved.
- Written dimensions take precedence. Do not scale drawings.
- All dimensions to and from are to the face of stud, unless noted otherwise.
- Where discrepancies between the soil report and project drawings occur, contact the engineer-of-record.
- Pad grade under buildings shall have positive slopes. Slopes shall be jute matted prior to landscaping to prevent soil erosion.
- The following items shall be provided to the Building Inspector after verification by the registered professional engineer in the form of a stamped and signed professional report and submitted at the time of inspection.
 - A surveyor must verify building setbacks to property lines and also pad elevation(s) before the time of the foundation inspection.
 - When fill is employed under the buildings, a soils engineer must verify the pad compaction before the foundation inspection.
 - A surveyor must verify finish floor elevations before shear walls and roof inspection.
 - A surveyor must verify the highest elevation of the highest point of the roof before the frame inspection.
 - For other inspection requirements see civil, structural, mechanical, plumbing, electrical and landscape drawings.
- See civil drawings for existing and proposed grading, utilities, additional structures, proposed drainage and erosion control measures.
- See landscape drawings for landscape features.
- In the event of conflicts between pertinent codes and specifications and the drawings, the most stringent requirements shall apply.
- Water and/or dust palliatives shall be applied during construction.
- Contractor shall reimburse Hindu Cultural Community Center (HCCC) for all utility bills used for construction.
- All dimensions noted "verify" are to be checked by the contractor prior to construction and report any variances to the engineer-of-record.
- The General Contractor or his representative shall be at site at all times during construction. The General Contractor or his representative is solely responsible for: (a) coordination of drawings with all trades and professionals and (b) continuous safety for all people and property at all times.
- The Contractor shall defend, indemnify and hold the owner and the design professionals harmless from and any all liability, real or alleged, in connection with the project, including but not limited to attorney fees and costs. The Owner & design professionals shall be named as additional insureds on the contractor's liability insurance.
- The Contractor shall carry a surety bond, the bond amount shall not be less than the total contract amount.
- Contractor to furnish the owner with all warranties and warranty information.
- Contractor shall prepare a construction schedule and shall submit it to the Owner. "Owner" is Hindu Community and Cultural Center, Livermore.
- The Owner and the Contractor will enter into a contract which will specify various terms including a payment schedule along with a finishing schedule. Ten percent of each payment will be retained until the project is completed and will be paid to the Contractor after the Occupancy Permit from City and approval by the Owner.
- The Contractor at all times shall keep an approved stamped wet-signed set of the construction documents on site for reference.
- Always use the latest set of construction documents.

PROJECT DATA & CODE ANALYSIS:

ASSESSORS PARCEL # 099B-5125-005-06

CONDITIONAL USE PERMIT 09-001

ADDRESS 1200 ARROWHEAD AVENUE

SITE AREA 3,32,662 SF

OCCUPANCY CLASSIFICATION PHASE 1-B BUILDING 'D' OCCUPANCY B/A3

CONSTRUCTION TYPE

TYPE VB - (WITH SPRINKLERS)

PROPOSED AREA FOR PHASE 1-B BUILDING 'D' = 7,756 SF

TOTAL ALLOWABLE AREA FOR 'B' = BASIC ALLOWABLE AREA + AREA INCREASE FOR SPRINKLERS OF 300% = 9,000SQ.FT.+(3X9000)SQ.FT. = 36,000SQ.FT.

NO. OF STORIES = 1

HEIGHT = 40' MAX.

TOTAL OCCUPANT LOAD = 212

DEFERRED SUBMITTALS: AUTOMATIC FIRE SPRINKLER SYSTEM, FIRE ALARM SYSTEM, MANUFACTURED ROOF TRUSSES & DETAILED UNDERGROUND FIRE LINE SHOP DRAWINGS AND FOLDING PARTITION SHOP DRAWINGS. DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE DESIGN PROFESSIONAL IN CHARGE WHO SHALL REVIEW THEM & FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING WITHOUT ANY CORRECTIONS. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE BUILDING OFFICIAL HAS APPROVED THEIR DESIGN AND SUBMITTAL DOCUMENTS. CBC APPENDIX CHAPTER 1, SECTION 106.3.4.2. CITY OF LIVERMORE MUNICIPAL CODE, SECTION 15.02.170.

NOTES:

- THE PROJECT STRUCTURAL ENGINEER OF RECORD MUST REVIEW THE SPRINKLER SYSTEM SUBMITTAL PRIOR TO SUBMITTING TO THE CITY. THE EOR MUST PROVIDE A STAMPED AND SIGNED LETTER TO THE CITY APPROVING BOTH THE STRUCTURAL ADEQUACY OF THE BUILDING TO SUPPORT THE SPRINKLER SYSTEM AND SPECIFICALLY APPROVES CONNECTION DETAILS OF THE SPRINKLER SYSTEM TO THE STRUCTURAL ELEMENTS, REFERENCING THE SPECIFIC FIRE PROTECTION DRAWINGS.
- THE PEDESTRIAN WALKWAY MUST BE SPRINKLERED AS WELL AS THE BUILDING, UNLESS SPECIFICALLY EXEMPTED BY THE LIVERMORE PLEASANTON FIRE MARSHAL. PLANS & SPECIFICATIONS SHALL BE SUBMITTED TO THE CITY OF LIVERMORE PERMIT CENTER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ALL FIRE PROTECTION PIPING INCLUDING THE FIRE SPRINKLER RISER, SHALL BE LOCATED INSIDE AT AN APPROVED INDOOR LOCATION.

SPECIAL INSPECTION / STRUCTURAL OBSERVATION:

- GRADING, DRAINAGE, PAD PREPARATION
- STRUCTURAL REINFORCING STEEL
- STRUCTURAL FRAMING & SHEER WALL BY B.R. GOVINDRAO (ENGINEER OF RECORD)
- EPOXY INSTALLED ANCHOR & HOLD DOWN BOLTS BY B.R. GOVINDRAO (ENGINEER OF RECORD)
- STRUCTURAL WELDING BY FABRICATOR'S SHOP WELDING INSPECTOR TO BE APPROVED BY CITY OF LIVERMORE
- CONCRETE TESTING FOR STRUCTURAL COLUMNS, INCL. REINFORCING STEEL BY KORBMACHER ENGINEERING INC. (925-454-9033)
- MANUFACTURED TRUSSES BY B.R.GOVINDRAO (ENGINEER OF RECORD)

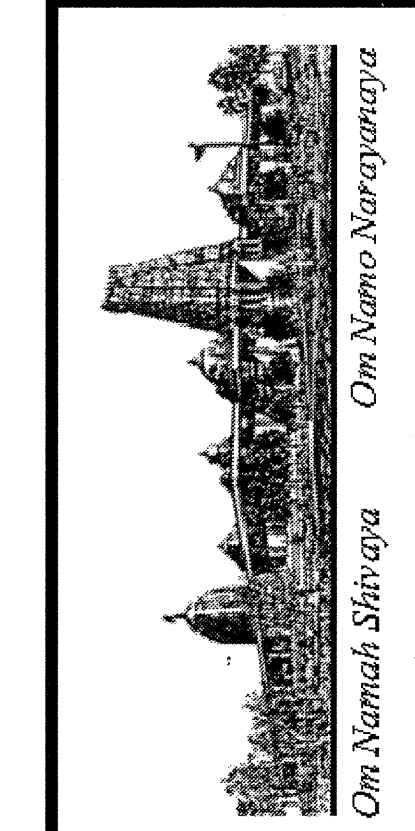
ABBREVIATIONS:

A.B. ANCHOR BOLT	GLU.LAM. GLUE LAMINATED	S.C. SOLID CORE
ACC ACCESSIBLE	GND. GROUND	S.D. SOAP DISPENSER
ACCUS. ACCOUSTICAL	GWB GYPSUM WALL BOARD	S.N.D. SANITARY NAPKIN DISPOSAL
ACT ACCOUSTICAL CEILING TILE	GYP. BD. GYPSUM BOARD	S.S.D. SEE STRUCTURAL DRAWINGS
A.D. AREA DRAIN	H.B. HOSE BIB	SEC. SECURITY
ADJ. ADJUSTABLE	H.C. HOLLOW CORE	SECT. SECTION
AFF ABOVE FINISHED FLOOR	H.D. HOLD DOWN	S.F. SQUARE FEET
AGGR. AGGREGATE	HDWE. HARDWARE	SH. SHELF
ALT. ALTERNATE	HDR. HEADER	SH. SHEET
ALUM. ALUMINUM	HDWD. HARDWOOD	SHTG. SHEATHING
APPROX. APPROXIMATE	HWDR. HARDWARE	SIM. SIMILAR
ARCH. ARCHITECT, ARCHITECTURAL	H.M. HOLLOW METAL	SOL. SOLID
BD. BOARD	HORIZ. HORIZONTAL	SPEC. SPECIFICATION
BET. BETWEEN	HR. HOUR	SQ. SQUARE
BLDG. BUILDING	HT. HEIGHT	SS. STAINLESS STEEL
BLKG. BLOCKING	HVAC HEATING VENTILATING	S/S. STANDARD
BOB BOTTOM OF BEAM	AIR CONDITIONING	STO. STORAGE
BOT. BOTTOM	HW HOT WATER	STL. STEEL
B.O.W. BOTTOM OF WALL	I.D. INSIDE DIMENSION / DIAMETER	STRUCT. STRUCTURAL
B.U.R. BUILT UP ROOF	INSIDE / INTERIOR FACE	SUSP. SUSPENDED
BSMT. BASEMENT	INCH	SYM. SYMMETRICAL
B.W. BOTTOM OF WALL	IF INCL. INCLUDING	T. TREAD
C.A.R. COLD AIR RETURN	INFO. INFORMATION	T.B. TOWEL BAR
CAB. CABINET	INSUL. INSULATION	T.B.D. TO BE DETERMINED
C/C CENTER TO CENTER	JAN. JANITOR	T.D.L. TIGHT DRAIN LINE
CEM. CEMENT	JOB CAPTAIN	TEL. TELEPHONE
CER. CERAMIC	JOIST	TEMP. TEMPERED
C.F.M CUBIC FT. PER MINUTE	JOINT	T & G TONGUE AND GROOVE
CL CENTER LINE	JT. JOINT	T. H. THERMOSTAT
CLG. CEILING	KIT. KITCHEN	THK. THICK
CLR. CLEAR / CLEARANCE	LAM. LAMINATE	T.O.C. TOP OF CURB
C.M.U. CONCRETE MASONRY UNIT	LAV. LAVATORY	T.O.P. TOP OF PLATE
CNTR. CENTER	LANDLORD	T.O.P. TOP OF WALL
COL. COLUMN	M.C. MEDICINE CABINET	T.P. TOILET PAPER DISPENSER
CONC. CONCRETE	MATL. MATERIAL	T. S. TOP OF SLAB
CONSTR. CONSTRUCTION	MAX. MAXIMUM	T.S.C.D. TOILET SEAT COVER DISPENSER
CONT. CONTINUOUS	MC. MECHANICAL CONTRACTOR	TYP. TYPICAL
CT. CERAMIC TILE	MIN. MINIMUM	U. UNDER
CTR. COUNTER	MIR. MIRROR	UNF. UNFINISHED
CW COLD WATER	MISC. MISCELLANEOUS	U.O.N. UNLESS OTHERWISE NOTED
DBL. DOUBLE	MECH. MECHANICAL	VERT. VERTICAL
DEG. DEGREES	MEP MECHANICAL ELECTRICAL	V.I.F. VERIFY IN FIELD
DEPT. DEPARTMENT	AND PLUMBING	W/ WITH
DET. DETAIL	MFR. MANUFACTURER	W.A.R. WARM AIR REGISTER
DIAM. DIAMETER	MLDG. MOULDING	W.C. WATER CLOSET
DIM. DIMENSION	MTL. METAL	WD. WOOD
DISP. DISPOSAL OR DISPENSER	MAT'L MATERIAL	WDW. WINDOW
DN. DOWN	(N) NEW	WH. WATER HEATER
DR. DOOR	NAT. NATURAL	W/O WITHOUT
DS. DOWNSPOUT	NEC. NECESSARY	W.P. WEATHER PROTECTED
DW. DISHWASHER	N.I.C. NOT INCLUDED IN CONTRACT	WT. WEIGHT
DWG(S) DRAWING(S)	NO. # NUMBER	WWM. WELDED WIRE MESH
DWR. DRAWER	N.T.S. NOT TO SCALE	YR. YEAR
(E) EXISTING	O. OVER	& AND
EA. EACH	O.A. OVERALL	@ AT
EC ELECTRICAL CONTRACTOR	OBS. OBSURE	CL CENTERLINE
ELEC. ELECTRICAL	OC. OCCUPANCY	PARALLEL
EL. ELEVATION	O.C. ON CENTER	⊥ PERPENDICULAR
ELEV. ELEVATOR	O.D. OUTSIDE DIAMETER	
ENCL. ENCLOSURE	O.F. OUTSIDE FACE	
EQ. EQUAL	OFF. OFFICE	
EQUIP. EQUIPMENT	OPG. OPENING	
E.W. EACH WAY	OPP. OPPOSITE	
EXIST. EXISTING	OPP. HD. OPPOSITE HAND	
EXP. EXPOSED	P.D.L. PERFORATED DRAIN LINE	
EXTR. EXTERIOR	PC PLUMBING CONTRACTOR	
F.D. FLOOR DRAIN	PERF. PERFORATED	
FDN. FOUNDATION	PLAS. PLASTER	
F.F. FINISH FLOOR	PL. LAM. PLASTIC LAMINATE	
F.G. FINISHED GRADE	PL. PLATE OR PROPERTY LINE	
FIN. FINISH	PLYWD. PLYWOOD	
FLASH. FLASHING	PR. PAIR	
FLR. FLOOR	PRCST. PRECAST	
FLUOR. FLUORESCENT	PT. PAINT	
F.O.C. FACE OF CABINET	P.T.D. PAPER TOWEL DISPENSER	
F.O.G. FACE OF GLAZING	QUAN. QUANTITY	
F.O.S. FACE OF STUD	QT. QUARRY TILE	
FRMG. FRAMING	(R) REMODEL	
FRP FIBERGLASS REINFORCED PANEL	R. RADIUS	
FRPF. FIREPROOF	R.D. ROOF DRAIN	
FT. FOOT / FEET	RAD. RADIUS	
FTG. FOOTING	REC. RECEPTACLE	
FURR. FURRING	REF. REFERENCE	
GA. GAUGE	REFR. REFRIGERATOR	
GALV. GALVANIZED	REQD. REQUIRED	
G.B. GRAB BAR	REV. REVISED / REVISION	
G.C. GENERAL CONTRACTOR	RGTR. REGISTER	
GEN. GENERAL	R.H. ROBE HOOK	
G.F.I. GROUND FAULT INTERRUPTER	RM. ROOM	
GL. GLASS, GLAZING	R.O. ROUGH OPENING	
G.L.B. GLUE LAM BEAM	R/W RETAINING WALL	
	RWD. REDWOOD	
	R.W.L. RAIN WATER LEADER	

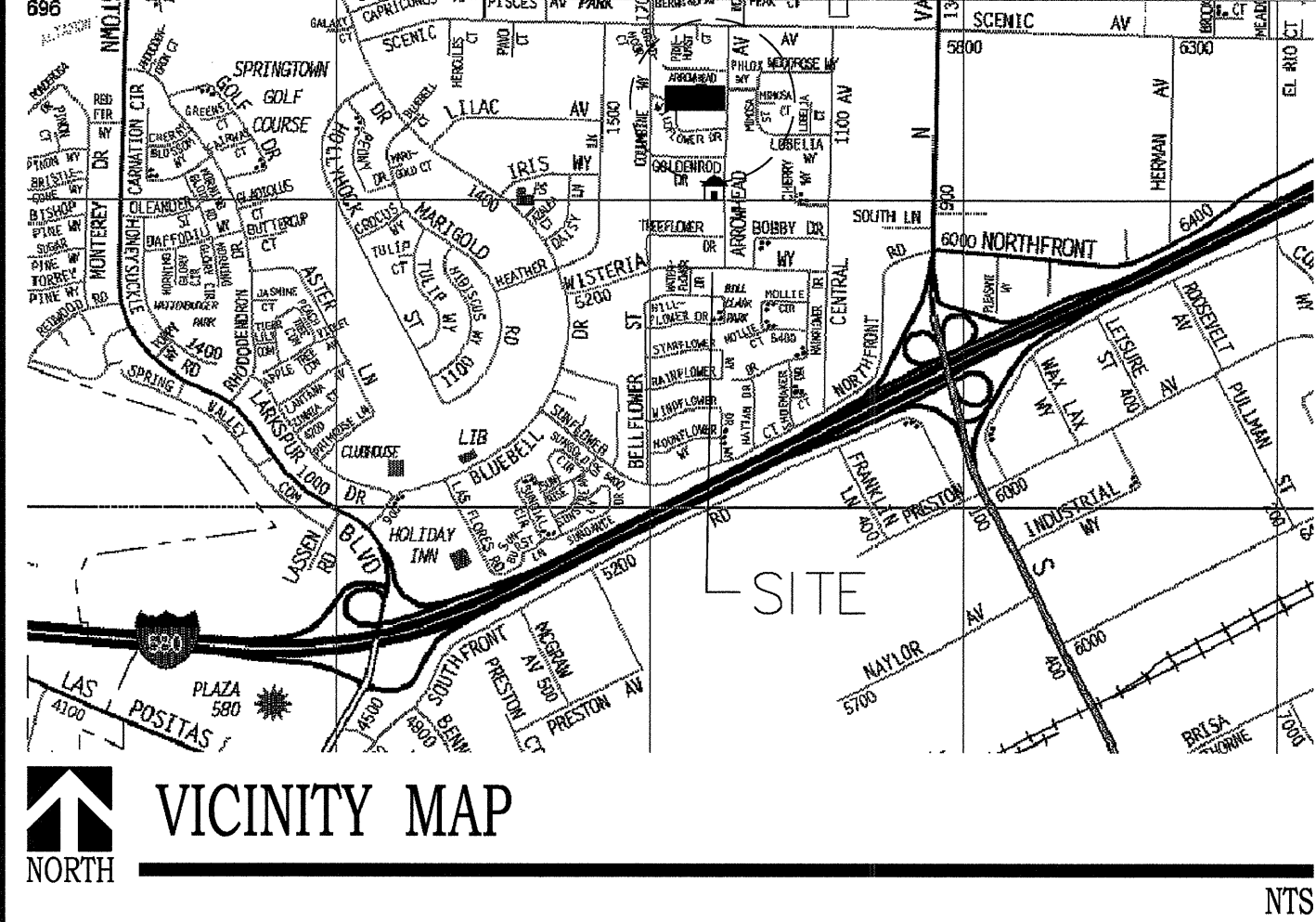
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ARCHITECTURAL DRAWINGS	REVISIONS	FOR
CO COVER SHEET	10-28-11	FOR BUILDING PERMIT
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IYER & ASSOCIATES
Architecture Interiors Planning
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SAN FRANCISCO, CA 94133
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BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551



OBSERVED DEFICIENCIES SHALL BE REPORTED TO THE OWNER, THE SPECIAL INSPECTOR, THE CONTRACTOR AND THE BUILDING OFFICIAL. PRIOR TO FINAL INSPECTION, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL, A WRITTEN STATEMENT THAT SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES THAT HAVE NOT BEEN RESOLVED. CONTRACTOR IS RESPONSIBLE CHARGE TO SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND BUILDING OFFICIAL (CITY OF LIVERMORE PERMIT CENTER) FOR:

- ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENT CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.
- ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
- PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD OF, AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS AND
- IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

AUTOMATIC SPRINKLER SYSTEMS AS SPECIFIED BY LIVERMORE MUNICIPAL ORDINANCE - PLANS AND SPECIFICATIONS SHALL BE SUBMITTED TO THE CITY OF LIVERMORE PERMIT CENTER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

SYMBOLS

☐ FAN	▬ WALL REGISTER
— PROPERTY LINE	▬ FLOOR REGISTER, CEILING REGISTER
▬ BLOCKING	▬ CONTINUOUS FRAMING
▬ SHEAR WALL	⊕ TOP OF SUB FLOOR ELEV.
▬ BATT INSULATION	⚠ ADDENDUM OR REVISION NUMBER
▬ NEW WALL, (SHADED)	⬠ DOOR NUMBER
▬ EXISTING WALL TO BE REMOVED	⬠ WINDOW NUMBER
▬ EXISTING WALL TO REMAIN	Ⓜ DETAIL - TOP: DWG. NUMBER OR LETTER
▬ BEAMS, HEADERS, GLULAMS AS NOTED	Ⓜ CALLOUT BTM: SHEET NUMBER
▬ POST- CONTINUOUS	Ⓜ SECTION - TOP: DWG. LETTER
▬ POST ABOVE FRAMING LEVEL	Ⓜ CALLOUT BTM: SHEET NUMBER
▬ METAL HANGER	Ⓜ ELEVATIONS - TOP: ELEVATION NUMBER
▬ NORTH ARROW	Ⓜ BTM: SHEET NUMBER
	Ⓜ CEILING HEIGHT

DATE 12/14/11
SCALE:
DRAWN BY: LW
PROJECT: ARROWHEAD
T-1

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 1 of 3) PERF-1C

Project Name: HCC Bldg. D Date: 10/27/2011
 Project Address: 1232 Arrowhead Ave. Livermore Climate Zone: CA Climate Zone 12 Total Cond. Floor Area: 7,087 Addition Floor Area: n/a

GENERAL INFORMATION

Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Replicable Public School Bldg. Conditioned Spaces Unconditioned Spaces

Phase of Construction: New Construction Addition Alteration

STATEMENT OF COMPLIANCE

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a building using the performance compliance approach.

Documentation Author

Name: Meghate Suresh Signature: _____ Date: 10/27/2011
 Company: Title 24 Online Date: 10/27/2011
 Address: 531 Mainline Circle Phone: 916-733-2658
 City/State/Zip: Sacramento, CA 95835

The Principal Designer hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the energy efficiency requirements contained in sections 110, 116 through 118, and 140 through 149 of Title 24, Part 6. Please check one:

ENV. LTG. MECH. I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation, and that I am a licensed contractor performing this work.

Principal Envelope Designer

Name: B.R. Gowinda Rao S.E. Signature: _____ Date: 10/26/2011
 Company: B.R. Gowinda Rao S.E. Date: 10/26/2011
 Address: 884 Bantol Way License # 53260
 City/State/Zip: San Ramon, CA 94582 Phone: 925-833-9784

Principal Mechanical Designer

Name: Kuppaswamy P.E. Signature: _____ Date: 10/27/2011
 Company: Ajmani & Pamidi Inc. License # M13346
 Address: 101 California Street Suite 2025 Phone: 415-305-9344
 City/State/Zip: San Francisco, CA 94111

Principal Lighting Designer

Name: Salish Pamidi P.E. Signature: _____ Date: 10/28/2011
 Company: Ajmani & Pamidi Inc. License # E10472
 Address: 101 California Street Suite 2025 Phone: 415-305-9344
 City/State/Zip: San Francisco, CA 94111

INSTRUCTIONS TO APPLICANT COMPLIANCE & WORKSHEETS (check box if worksheets are included)

ENV-1C Certificate of Compliance Required on plans. MECH-1C Certificate of Compliance Required on plans.
 LTG-2C Lighting Controls Credit Worksheet. MECH-3C Air/Water Side-Service Hot Water & Pool Requirements.
 LTG-3C Interior Lighting Power Allowance. MECH-4C Mechanical Ventilation and Exhaust.

EnergyPro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 3 of 59

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 2 of 3) PERF-1C

Project Name: HCC Bldg. D Date: 10/27/2011

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sq-ft-yr)

Energy Component	Standard Design	Proposed Design	Compliance Margin
Space Heating	20.91	7.31	13.58
Space Cooling	108.22	64.00	44.22
Indoor Fans	60.04	66.88	-6.85
Heat Rejection	0.00	0.00	0.00
Pumps & Misc.	0.00	0.00	0.00
Domestic Hot Water	24.28	17.70	6.58
Lighting	65.96	49.95	16.01
Receptacle	44.44	44.44	0.00
Process	0.00	0.00	0.00
Process Lighting	0.00	0.00	0.00
TOTALS	323.85	250.31	73.54

Percent better than Standard: 22.7% (22.7% excluding process)

BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation: (E) 90 deg Conditioned Floor Area: 7,087 sqft.
 Number of Stories: 1 Unconditioned Floor Area: 0 sqft.
 Number of Systems: 9 Conditioned Footprint Area: 6,739 sqft.
 Number of Zones: 15 Natural Gas Available On Site: Yes

Orientation	Gross Area	Glazing Area	Glazing Ratio
Left Elevation	(E) 630 sqft.	150 sqft.	23.8%
Front Elevation	(S) 1,169 sqft.	192 sqft.	16.4%
Rear Elevation	(W) 626 sqft.	168 sqft.	26.8%
Right Elevation	(N) 3,325 sqft.	144 sqft.	4.3%
Total	5,750 sqft.	654 sqft.	11.4%

Prescriptive Lighting Power Density: Standard 1.054 W/sqft. Proposed 0.789 W/sqft. Prescriptive Values for Comparison only. See LTG-1C for allowed LPD.
 Prescriptive Envelope TDV Energy: Standard 198,510 Proposed 146,329

Remarks:

EnergyPro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 4 of 59

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 3 of 3) PERF-1C

Project Name: HCC Bldg. D Date: 10/27/2011

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sqft.)	Ctrl. Credits (W/sqft.)	Allowed LPD (W/sqft.)	Tailored (W/sqft.)	Proc. Loads (W/sqft.)
AC-D-4	Zone-4	Classroom, Lecture, Training	714	0.756				
	Zone-4A	Constor/Restroom/Support	440	0.845	0.085			
CUACC-D-2	Zone-7	Lounge, Recreation	213	0.845				
AC-D-5	Zone-5	Classroom, Lecture, Training	714	0.756				
	Zone-5A	Constor/Restroom/Support	242	0.744	0.130			
AC-D-2	Zone-2	Convention/Conference/Mee	314	1.433				
	Zone-2A	Constor/Restroom/Support	314	1.433				
	Zone-2B	Constor/Restroom/Support	586	0.512	0.105			
AC-D-1	Zone-1	Classroom, Lecture, Training	1,034	0.870				
	Zone-1A	Electrical, Mechanical Room	40	1.500				
AC-D-3	Zone-3	Classroom, Lecture, Training	714	0.756				
CUACC-D-1	Zone 6	Lounge, Recreation	236	0.890				
CUACC-D-3	Zone 6	Lounge, Recreation	213	0.845				
CUACC-D-4	Zone 9	Lounge, Recreation	236	0.890				

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justifications, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The HVAC System AC-D-4 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-4 has a North/East/South Display Perimeter Credit of 52 ft.
 The HVAC System CUACC-D-2 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-7 has a North/East/South Display Perimeter Credit of 52 ft.
 The HVAC System AC-D-5 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-5 has a North/East/South Display Perimeter Credit of 40 ft.
 The HVAC System AC-D-2 includes Demand Control Ventilation per Standards Section 121.
 The HVAC System AC-D-1 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-1 has a North/East/South Display Perimeter Credit of 40 ft.
 The Zone Zone-1A has a North/East/South Display Perimeter Credit of 40 ft.
 The HVAC System AC-D-3 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-3 has a North/East/South Display Perimeter Credit of 52 ft.
 The HVAC System CUACC-D-1 includes Demand Control Ventilation per Standards Section 121.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp: _____
 EnergyPro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 5 of 59

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 3 of 3) PERF-1C

Project Name: HCC Bldg. D Date: 10/27/2011

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sqft.)	Ctrl. Credits (W/sqft.)	Allowed LPD (W/sqft.)	Tailored (W/sqft.)	Proc. Loads (W/sqft.)
AC-D-4	Zone-4	Classroom, Lecture, Training	714	0.756				
	Zone-4A	Constor/Restroom/Support	440	0.845	0.085			
CUACC-D-2	Zone-7	Lounge, Recreation	213	0.845				
AC-D-5	Zone-5	Classroom, Lecture, Training	714	0.756				
	Zone-5A	Constor/Restroom/Support	242	0.744	0.130			
AC-D-2	Zone-2	Convention/Conference/Mee	314	1.433				
	Zone-2A	Constor/Restroom/Support	314	1.433				
	Zone-2B	Constor/Restroom/Support	586	0.512	0.105			
AC-D-1	Zone-1	Classroom, Lecture, Training	1,034	0.870				
	Zone-1A	Electrical, Mechanical Room	40	1.500				
AC-D-3	Zone-3	Classroom, Lecture, Training	714	0.756				
CUACC-D-1	Zone 6	Lounge, Recreation	236	0.890				
CUACC-D-3	Zone 6	Lounge, Recreation	213	0.845				
CUACC-D-4	Zone 9	Lounge, Recreation	236	0.890				

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justifications, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The HVAC System AC-D-4 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-4 has a North/East/South Display Perimeter Credit of 52 ft.
 The HVAC System CUACC-D-2 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-7 has a North/East/South Display Perimeter Credit of 52 ft.
 The HVAC System AC-D-5 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-5 has a North/East/South Display Perimeter Credit of 40 ft.
 The HVAC System AC-D-2 includes Demand Control Ventilation per Standards Section 121.
 The HVAC System AC-D-1 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-1 has a North/East/South Display Perimeter Credit of 40 ft.
 The Zone Zone-1A has a North/East/South Display Perimeter Credit of 40 ft.
 The HVAC System AC-D-3 includes Demand Control Ventilation per Standards Section 121.
 The Zone Zone-3 has a North/East/South Display Perimeter Credit of 52 ft.
 The HVAC System CUACC-D-1 includes Demand Control Ventilation per Standards Section 121.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp: _____
 EnergyPro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 6 of 59

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 3) ENV-1C

Project Name: HCC Bldg. D Date: 10/27/2011
 Project Address: 1232 Arrowhead Ave. Livermore Climate Zone: 12 Total Cond. Floor Area: 7,087 Addition Floor Area: n/a

GENERAL INFORMATION

Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Replicable Public School Bldg. Conditioned Spaces Unconditioned Spaces

Phase of Construction: New Construction Addition Alteration

Approach of Compliance: Component Overall Envelope Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: 90 deg

FIELD INSPECTION ENERGY CHECKLIST

TagID	Assembly Type	Area (ft²)	Orientation N, E, S, W	U-Factor	Emittance	Interior R-Value	Interior Finishing	Joint Appendix 4	Condition Status	Pass	Fail
1	Wall	217	(N)	0.089	R-21	4.3.1-A6	New				
2	Roof	714	(N)	0.025	R-38	4.2.1-A21	New				
3	Slab	714	(N)	0.730	None	4.4.7-A1	New				
4	Wall	26	(E)	0.089	R-21	4.3.1-A6	New				
5	Slab	440	(N)	0.730	None	4.4.7-A1	New				
6	Roof	440	(N)	0.025	R-38	4.2.1-A21	New				
7	Wall	96	(W)	0.089	R-21	4.3.1-A6	New				
8	Roof	213	(N)	0.025	R-38	4.2.1-A21	New				

FENESTRATION SURFACE DETAILS

TagID	Fenestration Type	Area (ft²)	Orientation N, E, S, W	U-Factor	SHGC	Source	Overhang	Conditions Status	Pass	Fail	
1	Window	96	(W)	0.330	NFRC	0.190	NFRC				
2	Window	150	(E)	0.330	NFRC	0.190	NFRC				
3	Window	48	(W)	0.330	NFRC	0.190	NFRC				
4	Window	24	(W)	0.330	NFRC	0.190	NFRC				
5	Window	24	(W)	0.330	NFRC	0.190	NFRC				
6	Window	24	(W)	0.330	NFRC	0.190	NFRC				
7	Window	48	(S)	0.330	NFRC	0.190	NFRC				
8	Window	48	(S)	0.330	NFRC	0.190	NFRC				

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
 2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

EnergyPro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 7 of 59

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 3) ENV-1C

Project Name: HCC Bldg. D Date: 10/27/2011
 Project Address: 1232 Arrowhead Ave. Livermore Climate Zone: 12 Total Cond. Floor Area: 7,087 Addition Floor Area: n/a

GENERAL INFORMATION

Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Replicable Public School Bldg. Conditioned Spaces Unconditioned Spaces

Phase of Construction: New Construction Addition Alteration

Approach of Compliance: Component Overall Envelope Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: 90 deg

FIELD INSPECTION ENERGY CHECKLIST

TagID	Assembly Type	Area (ft²)	Orientation N, E, S, W	U-Factor	Emittance	Interior R-Value	Interior Finishing	Joint Appendix 4	Condition Status	Pass	Fail
9	Slab	213	(N)	0.730	None	4.4.7-A1	New				
10	Wall	217	(N)	0.089	R-21	4.3.1-A6	New				
11	Roof	714	(N)	0.025	R-38	4.2.1-A21	New				
12	Slab	714	(N)	0.730	None	4.4.7-A1	New				
13	Slab	150	(N)	0.730	None	4.4.7-A1	New				
14	Roof	150	(N)	0.025	R-38	4.2.1-A21	New				
15	Wall	30	(W)	0.089	R-21	4.3.1-A6	New				
16	Slab	56	(N)	0.730	None	4.4.7-A1	New				

FENESTRATION SURFACE DETAILS

TagID	Fenestration Type	Area (ft²)	Orientation N, E, S, W	U-Factor	SHGC	Source	Overhang	Conditions Status	Pass	Fail	
9	Skylight	20	(E)	0.490	NFRC	0.330	NFRC				
10	Window	72	(S)	0.330	NFRC	0.190	NFRC				
11	Window	24	(W)	0.330	NFRC	0.190	NFRC				
12	Window	48	(W)	0.330	NFRC	0.190	NFRC				
13	Window	24	(S)	0.330	NFRC	0.190	NFRC				
14	Window	24	(W)	0.330	NFRC	0.190	NFRC				

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
 2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

EnergyPro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 8 of 59

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 3) ENV-1C

Project Name: HCC Bldg. D Date: 10/27/2011
 Project Address: 1232 Arrowhead Ave. Livermore Climate Zone: 12 Total Cond. Floor Area: 7,087 Addition Floor Area: n/a

GENERAL INFORMATION

Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Replicable Public School Bldg. Conditioned Spaces Unconditioned Spaces

Phase of Construction: New Construction Addition Alteration

Approach of Compliance: Component Overall Envelope Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: 90 deg

FIELD INSPECTION ENERGY CHECKLIST

TagID	Assembly Type	Area (ft²)	Orientation N, E, S, W	U-Factor	Emittance	Interior R-Value	Interior Finishing	Joint Appendix 4	Condition Status	Pass	Fail
17	Roof	56	(N)	0.025	R-38	4.2.1-A21	New				
18	Slab	36	(N)	0.730	None	4.4.7-A1	New				
19	Roof	36	(N)	0.025	R-38	4.2.1-A21	New				
20	Wall	140	(N)	0.089	R-21	4.3.1-A6	New				
21	Slab	140	(N)	0.730	None	4.4.7-A1	New				
22	Roof	140	(N)	0.025	R-38	4.2.1-A21	New				
23	Wall	294	(S)	0.089	R-21	4.3.1-A6	New				
24	Roof	1,077	(N)	0.025	R-38	4.2.1-A21	New				

FENESTRATION SURFACE DETAILS

TagID	Fenestration Type	Area (ft²)	Orientation N, E, S, W	U-Factor	SHGC	Source	Overhang	Conditions Status	Pass	Fail	
17	Window	56	(N)	0.330	NFRC	0.190	NFRC				
18	Window	36	(N)	0.330	NFRC	0.190	NFRC				
19	Window	36	(N)	0.330	NFRC	0.190	NFRC				
20	Window	140	(N)	0.330	NFRC	0.190	NFRC				
21	Window	140	(N)	0.330	NFRC	0.190	NFRC				
22	Window	140	(N)	0.330	NFRC	0.190	NFRC				
23	Window	294	(S)	0.330	NFRC	0.190	NFRC				
24	Window	1,077	(N)	0.330	NFRC	0.190	NFRC				

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
 2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

EnergyPro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 9 of 59

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 3) ENV-1C

Project Name: HCC Bldg. D Date: 10/27/2011
 Project Address: 1232 Arrowhead Ave. Livermore Climate Zone: 12 Total Cond. Floor Area: 7,087 Addition Floor Area: n/a

GENERAL INFORMATION

Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Replicable Public School Bldg. Conditioned Spaces Unconditioned Spaces

Phase of Construction: New Construction Addition Alteration

Approach of Compliance: Component Overall Envelope Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: 90 deg

FIELD INSPECTION ENERGY CHECKLIST

TagID	Assembly Type	Area (ft²)	Orientation N, E, S, W	U-Factor	Emittance	Interior R-Value	Interior Finishing	Joint Appendix 4	Condition Status	Pass	Fail
2											

CERTIFICATE OF COMPLIANCE (Part 3 of 3) **LTG-1C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

CONDITIONED AND UNCONDITIONED SPACE LIGHTING MUST NOT BE COMBINED FOR COMPLIANCE

Indoor Lighting Power for Conditioned Spaces	Watts	Indoor Lighting Power for Unconditioned Spaces	Watts
Installed Lighting (from Unconditioned LTG-1C, Page 2)	5,790	Installed Lighting (from Unconditioned LTG-1C, Page 2)	0
Lighting Control Credit (Conditioned Spaces from LTG-2C)	131	Lighting Control Credit (Unconditioned Spaces from LTG-2C)	0
Adjusted Installed Lighting Power	5,660	Adjusted Installed Lighting Power	0
Complies if Installed ≤ Allowed	↑	Complies if Installed ≤ Allowed	↑
Allowed Lighting Power (Conditioned Spaces from LTG-3C or PERF-1)	5,660	Allowed Lighting Power (Unconditioned Spaces from LTG-3C)	0

Required Acceptance Tests
Designer: This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for the lighting system. LTG-2A and LTG-3A. The designer is required to check the acceptance tests and list all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. If all the lighting system or control of a certain type requires a test, list the different lighting and the number of systems. The NAE Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately. Forms can be grouped by type of Luminaire controlled.
Enforcement Agency: Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or when new lighting system with controls is installed in the building or space shall be certified as meeting the Acceptance Requirements. The LTG-2A and LTG-3A forms are not considered complete forms and are not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the LTG-2A and LTG-3A for each different lighting luminaire control(s) must be provided to the owner of the building for their records.

Equipment Requiring Testing	Description	Number of Luminaires controlled	Location	LTG-2A and LTG-3A Controls and Sensors and Automatic Daylighting Controls Acceptance
Occ Sensor - Hallway	2'x2' Recessed Fluorescent Fixture W	5	Corridor # 29/Restroom	<input checked="" type="checkbox"/>
Occ Sensor - Hallway	2'x2' Recessed Fluorescent Fixture W	3	Corridor # 1	<input checked="" type="checkbox"/>
Occ Sensor - Storage	2-75 Lamp Fluorescent Strip	1	Storage Rm # 113	<input checked="" type="checkbox"/>
Occ Sensor - Hallway	2'x2' Recessed Fluorescent Fixture W	7	Corridor # 108	<input checked="" type="checkbox"/>
Occ Sensor - Storage	2-75 Lamp Fluorescent Strip	1	Janitor Rm # 107	<input checked="" type="checkbox"/>

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LIGHTING CONTROLS CREDIT WORKSHEET (Part 1 of 2) **LTG-2C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

POWER ADJUSTMENT FACTORS (PAF) FOR NON-DAYLIGHT CONTROLLED
 1. Separate PAF Worksheet Must Be Filled Out for Conditioned and Unconditioned Spaces. Control Credits listed on this schedule are only for:
 CONDITIONED SPACES UNCONDITIONED SPACES

A	B	C	D	E	F	G
Room # Zone ID Area	Lighting Control Description ¹	Plan Reference	Room Area (ft ²)	Watts of Control Lighting	Power Adjustment Factor ²	Control Credit: Watts (E x F)
Corridor # 29/Restroom	Occ Sensor - Hallway	L2	440	130	0.25	38
Corridor # 1	Occ Sensor - Hallway	L2	150	90	0.25	23
Storage Rm # 113	Occ Sensor - Storage	L7	56	60	0.15	9
Corridor # 108	Occ Sensor - Hallway	L2	520	210	0.25	53
Janitor Rm # 107	Occ Sensor - Storage	L7	30	60	0.15	9

Building total of non-daylight control credit watts for all pages of LTG-2C Page 1 of 2: 0
 Enter building total of all daylight control credit watts from LTG-2C Page 2 of 2: 131
BUILDING TOTAL OF ALL CONTROL CREDIT WATTS (FOR BOTH NON-DAYLIGHT AND DAYLIGHT CONTROL CREDITS) 131
 Enter in LTG-1C, Page 4: Lighting Control Credit as appropriate for CONDITIONED or UNCONDITIONED Spaces

1. Description shall be consistent with Type of Control defined in Table 146-C
 2. Power Adjustment Factor taken from Table 146-C

Equipment Pro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 28 of 59

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) **MECH-1C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

GENERAL INFORMATION
 Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Relocatable Public School Bldg Conditioned Spaces Unconditioned Spaces (affidavit)
 Phase of Construction: New Construction Addition Alteration
 Approach of Compliance: Component Overall Envelope TDV Energy Unconditioned (file affidavit)
 Front Orientation: N, E, S, W or in Degrees: **90 deg**

HVAC SYSTEM DETAILS

Equipment ³	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail - Describe Reason ¹
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	DHW Heater	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ²	Gas Fired DHW Boiler	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	1	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	199,000 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	0.85 EFUE	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	n/a	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	n/a	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	n/a	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	n/a	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	n/a	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	n/a	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	n/a	<input type="checkbox"/>	<input type="checkbox"/>

Equipment Pro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 20 of 59

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) **MECH-1C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

GENERAL INFORMATION
 Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Relocatable Public School Bldg Conditioned Spaces Unconditioned Spaces (affidavit)
 Phase of Construction: New Construction Addition Alteration
 Approach of Compliance: Component Overall Envelope TDV Energy Unconditioned (file affidavit)
 Front Orientation: N, E, S, W or in Degrees: **90 deg**

HVAC SYSTEM DETAILS

Equipment ³	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail - Describe Reason ¹
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	CUACC-D-2	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ²	Split DX	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	1	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	16,000 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	12.00 HSPF	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	12,000 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	0.0 SEER / 14.5 EER	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	Attic, Ceiling Ins, vented / 8.0	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	No	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	No Economizer	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	Setback Required	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	Constant Volume	<input type="checkbox"/>	<input type="checkbox"/>

Equipment Pro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 21 of 59

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) **MECH-1C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

GENERAL INFORMATION
 Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Relocatable Public School Bldg Conditioned Spaces Unconditioned Spaces (affidavit)
 Phase of Construction: New Construction Addition Alteration
 Approach of Compliance: Component Overall Envelope TDV Energy Unconditioned (file affidavit)
 Front Orientation: N, E, S, W or in Degrees: **90 deg**

HVAC SYSTEM DETAILS

Equipment ³	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail - Describe Reason ¹
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	AC-D-2	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ²	Packaged DX	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	1	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	64,000 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	80% AFUE	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	72,500 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	12.7 EER	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	Attic, Ceiling Ins, vented / 8.0	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	No	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	Fixed Temp (Integrated)	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	Setback Required	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	Constant Volume	<input type="checkbox"/>	<input type="checkbox"/>

Equipment Pro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 22 of 59

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) **MECH-1C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

GENERAL INFORMATION
 Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Relocatable Public School Bldg Conditioned Spaces Unconditioned Spaces (affidavit)
 Phase of Construction: New Construction Addition Alteration
 Approach of Compliance: Component Overall Envelope TDV Energy Unconditioned (file affidavit)
 Front Orientation: N, E, S, W or in Degrees: **90 deg**

HVAC SYSTEM DETAILS

Equipment ³	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail - Describe Reason ¹
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	AC-D-3	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ²	Split DX	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	1	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	48,000 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	81% AFUE	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	49,450 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	12.0 SEER / 12.8 EER	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	Attic, Ceiling Ins, vented / 8.0	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	No	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	No Economizer	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	Setback Required	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	Constant Volume	<input type="checkbox"/>	<input type="checkbox"/>

Equipment Pro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 23 of 59

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) **MECH-1C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

GENERAL INFORMATION
 Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Relocatable Public School Bldg Conditioned Spaces Unconditioned Spaces (affidavit)
 Phase of Construction: New Construction Addition Alteration
 Approach of Compliance: Component Overall Envelope TDV Energy Unconditioned (file affidavit)
 Front Orientation: N, E, S, W or in Degrees: **90 deg**

HVAC SYSTEM DETAILS

Equipment ³	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail - Describe Reason ¹
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	CUACC-D-3	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ²	Split DX	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	1	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	16,000 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	12.00 HSPF	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	12,000 Btu/hr	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	0.0 SEER / 14.5 EER	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	Attic, Ceiling Ins, vented / 8.0	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	No	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	No Economizer	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	Setback Required	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	Constant Volume	<input type="checkbox"/>	<input type="checkbox"/>

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CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 2 of 4) **MECH-1C**

Project Name: **HCC Bldg. D** Date: **10/27/2011**

Project Address: **1232 Arrowhead Ave. Livermore** Climate Zone: **12** Total Cond. Floor Area: **7,087** Addition Floor Area: **n/a**

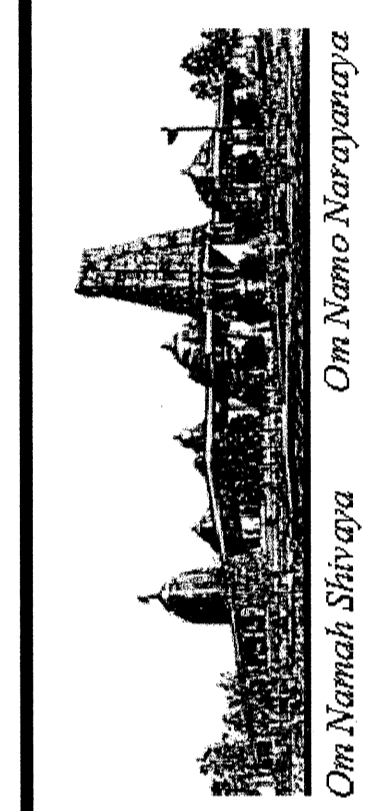
Discrepancies:

Equipment Pro 5.1 by EnergySoft User Number: 2849 RunCode: 2011-10-27T11:45:56 ID: Bld. D Page 25 of 59

REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

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 Architects - Interior Planning
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TITLE-24 COMPLIANCE FORMS
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE: 10/28/11
 SCALE: NONE
 DRAWN BY: PT
 PROJECT: ARROWHEAD



T-24.3

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 3 of 4) MECH-1C										
Project Name HCC Bldg. D										Date 10/27/2011
Required Acceptance Tests										
Designer: This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for mechanical systems. The designer is required to check the applicable boxes by all acceptance tests that apply and listed all equipment that requires an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems. The NA number designates the Section in the Appendix of the Nonresidential Reference Appendices Manual that describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.										
Building Departments: Systems Acceptance: Before occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. Systems Acceptance: Before occupancy permit is granted, all newly installed HVAC equipment must be tested using the Acceptance Requirements.										
The MECH-1C form is not considered a completed form and is not to be accepted by the building department unless the correct boxes are checked. The equipment requiring testing, person performing the test (Example: HVAC installer, TAG contractor, controls contractor, PE in charge of project) and what Acceptance test must be conducted. The following checked off items are required for ALL newly installed equipment. In addition a Certificate of Acceptance form shall be submitted to the building department that certifies plans, specifications, installation, commissioning, and operating and maintenance information meet the requirements of 10-10090 and Title 24 Part 6. The building inspector must receive the properly filled out and signed forms before the building can receive final occupancy.										
TEST DESCRIPTION	MECH-1A	MECH-1B	MECH-1C	MECH-1D	MECH-1E	MECH-1F	MECH-1G	MECH-1H	MECH-1I	MECH-1J
Equipment Requiring Testing or Verification	City	City	City	City	City	City	City	City	City	City
Frame YHC-000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-012	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-048	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-072	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-084	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-096	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-108	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-120	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-132	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-144	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-156	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-168	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-180	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-192	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-204	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-216	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-228	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-240	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-252	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-264	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-276	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-288	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-300	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 4 of 4) MECH-1C										
Project Name HCC Bldg. D										Date 10/27/2011
TEST DESCRIPTION										
MECH-1A	MECH-1B	MECH-1C	MECH-1D	MECH-1E	MECH-1F	MECH-1G	MECH-1H	MECH-1I	MECH-1J	MECH-1K
Equipment Requiring Testing or Verification	City	City	City	City	City	City	City	City	City	City
Frame YHC-000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-012	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-048	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-072	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-084	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-096	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-108	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-120	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-132	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-144	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-156	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-168	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-180	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-192	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-204	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-216	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-228	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-240	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-252	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-264	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-276	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-288	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frame YHC-300	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C				
Project Name HCC Bldg. D				Date 10/27/2011
Item or System Tags (i.e. AC-1, RTU-1, HP-1)				
Number of Systems				
Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)				
	AC-D-1	AC-D-2	AC-D-3	AC-D-4
	1	1	1	1
Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)				
MANDATORY MEASURES				
T-24 Sections				
Heating Equipment Efficiency	112(a)	80% AFUE	12.00 HSPF	80% AFUE
Cooling Equipment Efficiency	112(a)	12.0 SEER / 12.7 EER	0.0 SEER / 14.5 EER	12.0 SEER / 12.7 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	Yes	n/a
Furnace Controls/Thermostat	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Mechanical Ventilation	121(b)	595 cfm	32 cfm	595 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	Yes	Yes
Time Control	122(a)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(a)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(b)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/R-value	124	Attic, Ceiling Ins, vented / 8.0	Attic, Roof Ins / 8.0	Attic, Ceiling Ins, vented / 8.0
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	48,000 Btu/hr	8,919 Btu/hr	48,000 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	51,148 Btu/hr	10,624 Btu/hr	40,207 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)	Yes	Yes	Yes
Supply Pressure Reset (DDC only)	144(d)	No	No	No
Simultaneous Heat/Cool	144(e)	No Economizer	No Economizer	No Economizer
Economizer	144(f)	Fixed Temp (Integrated)	No Economizer	No Economizer
Heat Air Supply Reset	144(g)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(h)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating	144(i)			
Air Cooled Chiller Limitation	144(j)			
Duct Leakage Sealing	144(k)	No	No	No
1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.				
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AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C				
Project Name HCC Bldg. D				Date 10/27/2011
Item or System Tags (i.e. AC-1, RTU-1, HP-1)				
Number of Systems				
Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)				
	AC-D-1	AC-D-2	AC-D-3	AC-D-4
	1	1	1	1
Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)				
MANDATORY MEASURES				
T-24 Sections				
Heating Equipment Efficiency	112(a)	80% AFUE	80% AFUE	81% AFUE
Cooling Equipment Efficiency	112(a)	12.7 EER	12.0 SEER / 12.7 EER	12.0 SEER / 12.6 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Mechanical Ventilation	121(b)	478 cfm	328 cfm	595 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	Yes	Yes
Time Control	122(a)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(a)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(b)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/R-value	124	Attic, Ceiling Ins, vented / 8.0	Attic, Ceiling Ins, vented / 8.0	Attic, Ceiling Ins, vented / 8.0
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	64,000 Btu/hr	48,000 Btu/hr	48,000 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	50,432 Btu/hr	42,068 Btu/hr	45,958 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)	Yes	Yes	Yes
Supply Pressure Reset (DDC only)	144(d)	No	No	No
Simultaneous Heat/Cool	144(e)	No Economizer	No Economizer	No Economizer
Economizer	144(f)	Fixed Temp (Integrated)	No Economizer	No Economizer
Heat Air Supply Reset	144(g)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(h)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating	144(i)			
Air Cooled Chiller Limitation	144(j)			
Duct Leakage Sealing	144(k)	No	No	No
1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.				
EnergyPro 5.1 by EnergySoft	User Number: 2849	RunCode: 2011-10-27T11:45:56	ID: Bld D	Page 30 of 59

AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C				
Project Name HCC Bldg. D				Date 10/27/2011
Item or System Tags (i.e. AC-1, RTU-1, HP-1)				
Number of Systems				
Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)				
	AC-D-1	AC-D-2	AC-D-3	AC-D-4
	1	1	1	1
Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)				
MANDATORY MEASURES				
T-24 Sections				
Heating Equipment Efficiency	112(a)	12.00 HSPF	12.00 HSPF	12.00 HSPF
Cooling Equipment Efficiency	112(a)	0.0 SEER / 14.5 EER	0.0 SEER / 14.5 EER	0.0 SEER / 14.5 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	Yes	Yes	Yes
Furnace Controls/Thermostat	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	No	No	No
Mechanical Ventilation	121(b)	30 cfm	32 cfm	35 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	Yes	Yes
Time Control	122(a)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(a)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(b)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/R-value	124	Attic, Ceiling Ins, vented / 8.0	Attic, Ceiling Ins, vented / 8.0	Attic, Ceiling Ins, vented / 8.0
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	8,919 Btu/hr	8,919 Btu/hr	8,919 Btu/hr
Calculated Design				

