

PHASE-2 SCOPE OF WORK	
1.	THE PHASE-2 PLUMBING WORK SHALL CONSIST OF EXTENDING THE PLUMBING UTILITIES FROM AVAILABLE SITE UTILITY SERVICES AND DISTRIBUTING TO THE NEW ADMINISTRATION BUILDING "D". THE UTILITIES SHALL INCLUDE BUT NOT LIMITED TO THE DOMESTIC WATER (CW), FIRE WATER (F), PG&E GAS, SANITARY SEWER AND STORM DRAIN CONNECTIONS.
2.	THE REQUIRED UTILITIES SHALL BE COORDINATED WITH THE PHASE-1A SCOPE OF WORK FOR REQUIRED CAPACITY, INVERTS, PIPE MATERIAL, PIPES SIZE, FLOW CAPACITY REQUIRED AND PRESSURE PRIOR TO THE START OF WORK.
3.	THE PLUMBING CONTRACTOR SHALL COORDINATE THE REQUIRED UTILITY SIZES, POINT-OF-CONNECTIONS, PIPE INVERTS, PIPE ROUTING, PIPE MATERIAL TYPE ETC. WITH THE EXISTING SITE UTILITIES AND AS INDICATED IN THE CIVIL & LANDSCAPE DRAWINGS.
4.	THE SCOPE SHALL INCLUDE MATERIAL AND LABOR, TRENCHING, BACKFILLING, SUPPORTING, CORROSION PROTECTION, PIPE ANCHORAGE, ETC, AND COORDINATED WITH OTHER TRADE WORK AND IN COMPLIANCE WITH APPLICABLE LOCAL & STATE CODES AND STANDARDS.
5.	THE FIRE-PROTECTION WORK SHALL CONSIST OF EXTENDING THE FIRE WATER FROM THE PHASE-1A STUBOUT LOCATIONS AND DISTRIBUTED TO THE FIRE SPRINKLER SYSTEM FOR THE ADMINISTRATION BUILDING "D" AND THE COVERED WALKWAYS. THE DESIGN-BUILD FIRE PROTECTION CONTRACTOR SHALL PREPARE AND SUBMIT PLANS AND SPECIFICATIONS, HYDRAULIC CALCULATIONS AND FIRE PROTECTION SYSTEM LAYOUT INCLUDING HEAD LOCATIONS FOR A FULLY SPRINKLED BUILDING IN ACCORDANCE WITH NFPA-13 AND 14 AND THE CITY OF LIVERMORE FIRE DEPARTMENT REQUIREMENTS. PROVIDE FULL COVERAGE FOR THE BUILDING AND THE COVERED WALKWAYS.

FIRE PROTECTION GENERAL NOTES	
1.	ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LATEST NFPA 13 & 14 WITH AMENDMENTS FROM THE LIVERMORE FIRE DEPARTMENT, CFC, CBC AND THE REQUIREMENTS OF THE CITY AND COUNTY FIRE MARSHAL'S OFFICE.
2.	THE SCOPE OF WORK INCLUDES BUT NOT LIMITED TO PROVIDING FULL SPRINKLER FIRE PROTECTION COVERAGE FOR THE NEW BUILDING "D", AND THE COVERED WALKWAYS AS A DESIGN-BUILD (D-B) WORK. THE D-B FIRE PROTECTION CONTRACTOR SHALL PREPARE AND SUBMIT PLANS AND SPECIFICATIONS, HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM SHOP DRAWINGS TO THE CITY OF LIVERMORE PERMIT CENTER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
3.	THE D-B FIRE PROTECTION CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADE WORK, CIVIL/SITE WORK, ARCHITECTURAL AND STRUCTURAL FOR PROPER INTERFACING, PIPE ROUTING AND SPRINKLER HEAD LOCATIONS AND MAKE NECESSARY ADJUSTMENTS TO HIS WORK AS REQUIRED.
4.	COORDINATE WITH DIVISION-16 FOR MONITORING OF THE FLOW AND TAMPER DEVICES AND ALARM BELL POWER REQUIREMENTS.
5.	D-B CONTRACTOR SHALL CONDUCT TESTS AND DEMONSTRATIONS AS REQUIRED BY THE CITY/COUNTY FIRE DEPARTMENT AND OBTAIN FINAL PERMITS & APPROVALS PRIOR TO OCCUPANCY.
6.	CONTRACTOR SHALL OBTAIN THE NECESSARY FIRE FLOW TESTS AND STREET MAIN STATIC PRESSURE FROM THE LOCAL UTILITY AND FIRE DEPARTMENT AND CONFIRM THE AVAILABLE STATIC PRESSURE PRIOR TO PREPARING AND SUBMITTING THE HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM DESIGN.
7.	ALL FIRE PROTECTION PIPING, INCLUDING TH FIRE SPRINKLER RISER, SHALL BE LOCATED INSIDE AN APPROVED INDOOR LOCATION.

PLUMBING GENERAL NOTES	
1.	PLUMBING CONTRACTOR SHALL PROVIDE PLUMBING WORK PER THE CONTRACT DOCUMENT INCLUDING THE ARCHITECTURAL AND PLUMBING DRAWINGS AND DIVISION-15 SPECIFICATIONS.
2.	ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE FEDERAL, STATE AND CITY OF LIVERMORE PLUMBING CODES, LAWS AND REGULATIONS INCLUDE USGBC LEED REQUIREMENTS FOR WATER EFFICIENCY.
3.	CONTRACTOR SHALL SET PLUMBING FIXTURES AND DRAINS TO ELEVATIONS AND LOCATIONS SHOWN ON ARCHITECTURAL PLANS.
4.	CONTRACTOR SHALL VISIT THE SITE AND CONFIRM ALL EXISTING CONDITIONS AND REVIEW ALL DISCIPLINE DRAWINGS PRIOR TO SUBMITTING THE BIDS. DISCREPANCIES, IF ANY, MUST BE BROUGHT TO THE ATTENTION OF THE OWNERS' PROJECT MANAGER/ARCHITECT IMMEDIATELY FOR CLARIFICATION.
5.	FOR EXACT SCOPE OF WORK AND PHASING REQUIREMENTS, SEE ARCHITECTURAL DRAWINGS.
6.	PLUMBING MATERIALS SHALL BE IN COMPLIANCE WITH 2007 CPC. CONNECTION BETWEEN COPPER AND IRON AND STEEL PIPE SHALL BE MADE WITH DIELECTRIC ISOLATING FITTINGS, DIELECTRIC UNIONS OR DIELECTRIC FLANGES.
7.	PROVIDE INSULATION FOR ALL DOMESTIC HOT WATER PIPING PER TITLE-24. INSULATE ALL HORIZONTAL COLD WATER PIPING AND PIPES SUBJECT TO FREEZING. INSULATION SHALL BE FIBERGLASS, RIGID MOLDED, NON-COMBUSTIBLE. PROTECT OUTDOOR INSULATION WITH HEAVY DUTY ALUMINUM JACKETING.
8.	PENETRATIONS THROUGH THE SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE SLEEVED AND COORDINATED WITH THE STRUCTURAL AND ARCHITECTURAL PLANS.
9.	COORDINATE WITH CIVIL PLANS FOR ROUTING OF THE DOMESTIC WATER, FIRE WATER AND IRRIGATION WATER IN THE JOINT TRENCH.
10.	CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PLUMBING UTILITY CONNECTIONS TO REFRIGERATORS, COFFEE MAKERS, DRINKING FOUNTAIN, ETC.
11.	ON DIRECTION OF ARCHITECT/OWNER, PROVIDE PRODUCTS SAMPLES, MOCK-UPS AS REQUIRED. COORDINATE WITH GENERAL CONTRACTOR AND OTHER TRADE WORK AS NECESSARY TO PROVIDE THE FIELD MOCK-UP AND OBTAIN ARCHITECT/OWNER APPROVALS BEFORE PROCEEDING.
12.	COORDINATE PLUMBING WORK WITH CIVIL/SITE WORK AND UTILITY COMPANY FOR PROPER INTERFACING OF THE UTILITY SIZES, PIPE INVERTS, CAPACITY, FLOW, PRESSURE, POINT-OF-CONNECTIONS, MATERIALS OF CONSTRUCTION, SUPPORTING AND CORROSION PROTECTION, ETC. MAKE ADJUSTMENTS TO PLUMBING WORK TO PROPERLY INTERFACE THE WORK WITH SITE UTILITIES.
13.	ALL WORK SHALL BE WARRANTED FOR 1-YEAR FROM THE PROJECT ACCEPTANCE BY THE ARCHITECT/OWNER. THE PROJECT ACCEPTANCE SHALL BEGIN AFTER OBTAINING ALL THE OCCUPANCY PERMITS FROM THE CITY, UPON RECEIVING ALL THE OPERATING AND MAINTENANCE (O&M) MANUALS, AS-BUILT PLANS, COMPLETION OF ALL THE PUNCLISTED ITEMS AND SUBMITTING THE WRITTEN WARRANTY FOR THE WORK.
14.	PRIOR TO REQUESTING FOR THE SUBSTANTIAL COMPLETION, REMOVE ALL CONSTRUCTION DEBRIS AND DISPOSE OFF, CLEAN ALL THE PLUMBING FIXTURES, SEWER ROD THE DRAINAGE LINES TO UNCLG CONSTRUCTION DEBRIS, STERILIZE THE POTABLE WATER SYSTEM AND OBTAIN CERTIFICATION FROM THE LOCAL HEALTH DEPARTMENT, PRIOR TO THE PROJECT COMPLETION.

PIPING SCHEDULE					
SYSTEM	LOCATION	SIZE	PIPE	FITTINGS	JOINTS
SANITARY WASTE & VENT SYSTEM	BURIED	ALL	CAST IRON, SOIL NO-HUB	CAST IRON SOIL NO-HUB	NO-HUB COUPLING
	ABOVE GROUND	ALL	COPPER PIPING SOIL NO-HUB	CAST IRON SOIL NO-HUB	NO-HUB COUPLING
	OPTION: ABOVE GROUND SANITARY W & V	W & V 2 1/2" & SMALLER	SCHEDULE 40 GALV. STEEL	GALV. CAST IRON DRAINAGE FITTINGS	SCREWED
INDIRECT WASTE (INCLUDING CONDENSATION PIPING)	ALL	1-1/4" & ABOVE	COPPER PIPING	DWV CAST DRAINAGE	50-50 SOLDER
	ALL	3/4" & 1"	COPPER PIPING	COPPER PIPING	SOLDER
DOMESTIC WATER (CW)	ABOVE GROUND	ALL	COPPER PIPING	COPPER PIPING	95-5 SOLDER
NATURAL GAS	BURIED	PG&E SPECS. & LOCAL CODE REQ'NTS.			
	ABOVE GROUND NOTE: ALL PIPING SHALL CONFORM W/LOCAL CODE	3" & LARGER	SCHEDULE 40 BLACK STEEL	BUTT WELDING SEAMLESS STEEL	WELDED
		2 1/2" & SMALLER	SCHEDULE 40 BLACK STEEL	150LB MALLEABLE IRON	SCREWED
	EXPOSED TO WEATHER	ALL GAS PIPING EXPOSED TO WEATHER (ABOVE ROOF, AT METER, ETC) SHALL BE GALVANIZED. PROVIDE APPROVED COATING (GALVALLOY, OR EQUAL) OVER GALV. PIPING WELDS.			

NOTES:

- IF "NO-HUB" IS NOT ACCEPTABLE (BY LANDLORD OR LOCAL CODE) SUBSTITUTE USING TYLER MFGP. CO. TY-SEAL JOINTS.
- PIPING & FITTINGS SHALL BE MANUFACTURED WITHIN U.S.A.
- DO NOT SUBSTITUTE ABOVE PIPING & FITTINGS UNLESS APPROVED BY ARCHITECT. IF LOCAL CODE/AUTHORITIES REQ'NTS. DIFFER &/OR ARE MORE STRINGENT NOTIFY ARCHITECT PRIOR TO COMMENCING WORK.
- COPPER PIPING SHALL USE LEAD-FREE SOLDER MEETING ALL CURRENT LOCAL & STATE REQ'NTS.
- ALL EXPOSED WASTE & VENT PIPING IN FINISHED AREAS SHALL BE DWV COPPER W/ WROUGHT COPPER FITTINGS (ALL W & V (2-1/2" & SMALLER)

ABBREVIATIONS	
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
A.F.F.	ABOVE FINISHED FLOOR
AP	ACCESS PANEL (WALL OR CEILING)
ARCH.	ARCHITECTURAL
AG	AIR GAP
AHU	AIR HANDLING UNIT
BFF	BELOW FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
CD	CONDENSATE DRAIN
CO	CLEAN OUT
COTG	CLEAN OUT TO GRADE
CONT	CONTINUATION
CONN	CONNECTION
CV	CHECK VALVE
CW	COLD WATER
D	SPRINKLER DRAIN
DCDVA	DOUBLE CHECK DETECTOR VALVE ASSEMBLY
DD	DECK DRAIN
DFU	DRAINAGE FIXTURE UNIT
DN	DOWN
DWG	DRAWING
ET	EXPANSION TANK
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FPS	FEET PER SECOND
FT.	FEET
GAL.	GALLONS
GC	GAS COCK
GN	GENERAL NOTE
GPF	GALLONS PER FLUSH
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HB	HOSE BIBB
HP	HORSEPOWER
HR	HOUR
HW	HOT WATER
HWR	HOT WATER RETURN
HZ	HERTZ
ICW	INDUSTRIAL COLD WATER/MAKE-UP WATER
IE	INVERT ELEVATION
IN.	INCHES
IW	INDIRECT WASTE
LV	LAVATORY
LBS	POUNDS
LW	LANDSCAPE WASTE
MAX.	MAXIMUM
MBH	1000 BTU PER HOUR
MECH.	MECHANICAL
MV	MIXING VALVE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
OD	OVERFLOW DRAIN
PCW	PUMPED COLD WATER
PLBG	PLUMBING
P.O.C.	POINT OF CONNECTION
RD	ROOF DRAIN
RR	ROOF RECEPTOR
RBPB	REDUCED PRESSURE BACKFLOW PREVENTER
S	SEE ARCHITECTURAL DRAWINGS
SAD	SEE CIVIL DRAWINGS
SCD	SEE CIVIL DRAWINGS
SCVA	SPRINKLER CONTROL VALVE ASSEMBLY
SE	SEWAGE EJECTOR
SED	SEE ELECTRICAL DRAWINGS
SI	SAND INTERCEPTOR
SLD	SEE LANDSCAPE DRAWING
SMD	SEE MECHANICAL DRAWINGS
SP	SUMP PUMP
SPR	FIRE SPRINKLER PIPING
SS	SANITARY SEWER DRAINAGE
S.S.D.	SEE STRUCTURAL DRAWINGS
SSK	SERVICE SINK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
UR	URINAL
V	VENT OR VOLTS
VB	VACUUM BREAKER
VR	VENT RISER
VTR	VENT THRU ROOF
W	WASTE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WFU	WATER FIXTURE UNIT
WHA	WATER HAMMER ARRESTER
WMB	WASHING MACHINE BOX
WT.	WEIGHT

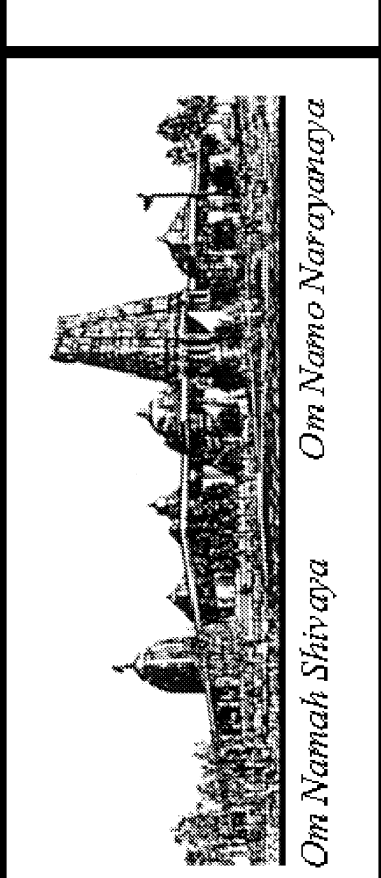
LEGEND		
SYMBOL	ABBR	DESCRIPTION
		RISER IDENTIFICATION
		RISER NUMBER
		DETAIL NUMBER
		DRAWING NUMBER
		EQUIPMENT IDENTIFICATION
		EQUIPMENT NUMBER
	S,W	SANITARY SOIL OR WASTE PIPING ABOVE GROUND
	S,W	SANITARY SOIL OR WASTE PIPING BELOW FLOOR
	SD	STORM DRAIN
	RWL	RAIN WATER LEADER
	V	VENT PIPING
	CW	DOMESTIC COLD WATER PIPING
	HW	DOMESTIC HOT WATER
	HWR	HOT WATER RETURN
	G	NATURAL GAS, LOW PRESSURE, PIPING
	ICW	INDUSTRIAL COLD WATER PIPING
	CA	COMPRESSED AIR
	SOL	SOLAR HAT WATER
	VAC	VACUUM
	F	FIRE PROTECTION PIPING
		SLOPE DOWN
	HB	HOSE BIBB
	CO	CLEAN OUT
	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
	TPRV	TEMPERATURE & PRESSURE RELIEF VALVE
	FD	FLOOR DRAIN
		UNION
		REDUCER
	PG	PRESSURE GAUGE
	TH	THERMOMETER
		LINE CONTINUED
	GV	GATE VALVE
	GC	GAS COCK
	BV	BALL VALVE (2" OR SMALLER)
	GLV	GLOBE VALVE
	CV	CHECK VALVE
		STRAINER
	FCV	FLOW CONTROL VALVE
	PRV	PRESSURE REDUCING VALVE
	SF	SQUARE FEET
	POC	POINT OF CONNECTION

DRAWING LIST	
DWG. NO.	DESCRIPTION
P10.0D	PLUMBING GENERAL NOTES, LEGEND, ABBREVIATIONS
P10.1D	PLUMBING SCHEDULES
P11.1D	PLUMBING RISER DIAGRAMS
P11.2D	PLUMBING SPECIFICATIONS
P12.0D	PLUMBING SITE PLAN (PHASE-2A)
P13.0D	PLUMBING FLOOR PLAN
P14.0D	PLUMBING ROOF PLAN
P15.0D	PLUMBING DETAILS

REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

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PLUMBING LEGEND & GENERAL NOTES
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

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

P-10.0D



FIXTURE CONNECTION SCHEDULE

CODE	DESCRIPTION	MANUFACTURER & MODEL NO.	SOIL/WASTE	TRAP	VENT	CW	HW	REMARKS
WC-1	WATER CLOSET (WALL HUNG)	AMERICAN STANDARD, AFWALL FLOWISE, ELONGATED, 1.28 GPF MODEL 3351.128, WHITE, OPEN FRONT SEAT #5905.100,	4"	-	2"	1 1/4"	-	1.28 GPF,PUBLIC USE FLUSH VALVE SLOAN ROYAL 111-1.28 WITH VACUUM BREAKER FLUSH CONN'N.
WC-2	WATER CLOSET ADA (WALL HUNG)	SAME AS WC-1 MOUNT FOR HANDICAP	4"	-	2"	1 1/4"	-	1.28 GPF,PUBLIC USE FLUSH VALVE SLOAN ROYAL 111-1.28 WITH VACUUM BRKER FLUSH CONN'N, ADA HANDLE.
WC-3	WATER CLOSET ADA (FLOOR MOUNTED)	AMERICAN STANDARD, CADET 3 FLOWISE, ELONGATED, 1.28 GPF MODEL 4021.128, TANK, WHITE, OPEN FRONT SEAT #5905.100,	4"	-	2"	3/4"	-	1.28 GPF,PRVD USE. TANK TYPE.
UR-1	URINAL ADA (WALL HUNG)	AMERICAN STANDARD FLOWISE FLUSH-FREE WATERLESS URINAL MODEL 6150.100	2"	-	2"	-	-	WALL HUNG, INTEGRAL HOUSING AND DRAIN INSERT ODOR BARRIER LIQUID DRAIN INSERT, WHITE, ADA
LV-1	LAVATORY (COUNTER MOUNT)	AMERICAN STANDARD 'OVALYN' UNDERCOUNTER SINK MODEL 0495.221	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	1/2"	FOR PUBLIC USE TOILET ROOMS. UNDER COUNTER MOUNTED, ADA COMPLIANT. SLOAN HANDS FREE FAUCET #SF-2350 SERIES BATTERY POWERED
LV-2	LAVATORY (WALL MOUNT)	AMERICAN STANDARD 'MURRO' WALL HUNG SINK MODEL 0954.000	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	1/2"	WALL HUNG MOUNTED, ADA COMPLIANT. MOEN ADA TWO-HANDLE LAVATORY FAUCET MODEL #8801 FOR 2-1" HOLES 4" ON CENTER.
BT-1	BATHTUB ADA	AMERICAN STANDARD 'CAMBRIDGE 5FT ' BATHING POOL MODEL 2460.102 TEMTROL II TUB AND SHOWER SYSTEM WITH HAND SPRAY MODEL 25-600-B30-V	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	1/2"	BATHING POOL WITH GRAB BAR DRILLING FOR LEFT HAND DRAIN OUTLET. COORDINATE DIMENTIONS WITH ARCHITECT. SHOWER SYSTEM WITH PRESSURE MIXING VALVE, LEVER DIVERTER, CLEAR-FLOW SHOWER HEAD, TUB SPOUT, FLEXIBLE METAL HOSE, IN-LINE VACUUM BREAKER, WALL CONN. AND FLANGE. 30" SLIDE BAR FOR HAQND SHOWER MOUNTING.
SH-1	SHOWER ADA	SYMMONS HYDAPPIPE 1-912RS-FSB	2"	-	1 1/2"	1/2"	1/2"	PRESSURE BALANCING MIXING VALVE WITH SCREW DRIVER SERVICE STOPS AND ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN. FRE-FLO, ALL BRASS, LEVERTROL LEVER DIVERTER WITH VOLUME CONTROL. WALL/HAND SHOWER WITH FLEXIBLE 5 FT. METAL HOSE WITH IN-LINE VACUUM BREAKER, WALL CONNECTION AND FLANGE. 30" SLIDE BAR FOR HAND SHOWER MOUNTING. RECESSED SOAP DISH. STAINLESS STEEL COVERING TO BE 16 GAUGE WITH #4 BRUSH FINISH.
SSK-1	SERVICE SINK	CORNER - FIAT TSBC 1610 SERVICE SINK	3"	3"	2"	3/4"	3/4"	FAUCET - FIAT 830-AA.
DF-1	DRINKING FOUNTAIN	HAWS WALL MOUNTED MODEL 1119	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	-	HI-LOW TYPE WITH DUAL BUBBLER, ADA ACCESSIBLE
HB-1	HOSE BIBB-INTERIOR	WOODFORD MODEL 24P, 1/2" CHROME PLATED WALL FAUCET WITH VACUUM BREAKER & TEE KEY.	-	-	-	3/4"	-	MOUNT ON WALL UNDER LAV'S IN PUBLIC TOILET ROOMS
HB-2	HOSE BIBB-EXTERIOR	WOODFORD MODEL B74 SERIES 3/4" WALL HYDRANT WITH VACUUM BREAKER, LOOSE TEE KEY, AND DOOR.	-	-	-	3/4"	-	FOR EXTERIOR AREAS. SEE NOTE ②
TP-1	TRAP PRIMER	PROVIDE MIFAB MR-500 SERIES WITH MI-DU 1/2" CW CONNECTION	-	-	-	-	-	SEE NOTE ①

NOTES

- ① PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS TO MAINTAIN WATER SEAL AT THE TRAPS.
- ② PROVIDE TWO HOSE BIBBS ON EAST AND WEST ENDS OF THE BUILDING AND TWO HOSE BIBBS ON ROOF ON EACH OF EAST & WEST ENDS FOR PERIODIC WASHING SOLAR PV PANELS.

PLUMBING EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER & MODEL NO.
ET 1	EXPANSION TANK	BELL AND GOSSETT MODEL PTA-12, ASME, 125 PSIG WORKING PRESSURE PROVIDE NORMALLY OPEN VALVE WITH LOCK; WEIGHT WITH WATER = 100 LBS.

NOTES

- ① ---

WATER HEATER SCHEDULE

CODE	MFR	MODEL	SERVICE/LOCATION	GAS INPUT (BTU/HR)	EFF. (%)	GPH	GALS.	TEMP. RISE	WORKING PRESS. (MAX)	OPERATING WEIGHT (LBS.)	REMARKS (SEE NOTES BELOW)
WH 3	RINNAI	TANKLESS RC98HPI-NG	BLDG-D/JAN ROOM	199,000	96	588	-	60	150	100	TANKLESS, ELECTRONIC IGNITION, LOW PRESSURE GAS, 110 F SUPPLY TO PUB. LAVATORIES

NOTES

- ① INSTALL WATER HEATER ON THE ROOM WALL PER MANUFACTURER INSTALLATION GUIDELINES AND MAINTAINING CODE CLEARANCES TO ELECTRICAL PANEL.
- ② PROVIDE DIRECT VENT COMBUSTION AIR INTAKE AND EXHAUST VENTS FROM ROOF PER WATER MANUF. RECOMMENDATIONS.
- ③ TERMINATE WH CONDENSATE DRAIN AND FLUE DRAIN INTO CONDENSATE NEUTRALIZER KIT PRIOR TO TERMINATING INDIRECTLY TO JANITOR SINK.
- ④ 120V/1PH POWER. COORDINATE WITH DIVISION-16 FOR REQUIRED POWER SUPPLY. WATER HEATER SHALL BE CEC TITLE-24 LISTED.
- ⑤ PROVIDE STANDARD DIGITAL CONTROLLER #MC-91-S/W, CEILING/ROOF PENETRATION ASSEMBLY, VENT TERMINATION HEAD, CONDENSATE NEUTRALIZING KIT.
- ⑥ SEISMICALLY ANCHOR THE UNIT TO THE WALL. PROVIDE NECESSARY MOUNTING BRACKETS, HARWARE AND BACKING PLATE SUPPORTS AS REQUIRED.

WATER HAMMER ARRESTOR SCHEDULE

CODE	J.R. SMITH FIG. NUMBER	PIPE SIZE	PDI SIZE	ALLOWABLE FIXTURE UNITS	REMARKS
WHA-A	5005	3/4"	A	1-11	PROVIDE WITH 8" X 8" S/S WALL MOUNTED ACCESS PANEL
WHA-B	5010	1"	B	12-32	PROVIDE WITH 8" X 8" S/S WALL MOUNTED ACCESS PANEL

PUMP SCHEDULE

CODE	GPM	TDH FT	MFR	TYPE & SIZE	V/PH	HP	SERVICE	LOCATION	REMARKS
CP 1	10	20	B&G	NBF-36-1	120V/1	1/3 HP	HOT WATER CIRCULATING	BLDG-C/ JAN ROOM	CIRCULATING PUMP

NOTES

- ① PROVIDE B&G AUTOMATIC TIMER KIT TC-1 7 AQUASTAT MODEL AQS-3/4, 120V/1PH.

DRAIN AND CLEANOUT SCHEDULE

CODE	DESCRIPTION - FLOOR FINISH	J.R. SMITH FIG. NUMBER	CONN.	TOP GR. MATERIAL	GRATE SIZE	REMARKS
FD-1	FLOOR DRAIN - TILE	2005Y-B-P050	2"	NB	5" SQ	①② TOILET ROOMS
FD-2	FLOOR DRAIN - CONCRETE	2005C-B-P050	2"	NB	5" DIA	①② TOILET ROOMS
FCO-1	FLOOR CLEANOUT-TILE/CONC.	4100S-PB	2" - 4"	-	-	POLISHED BRONZE TOP
WCO-1	WALL CLEANOUT	4402	3" & 4"	-	-	STAINLESS STEEL COVER
RD-1	ROOF DRAIN - MAIN	1010Y-C-R-CL	3" & 4"	-	-	

NOTES

- ① PROVIDE P-TRAP WITH TRAP PRIMER CONNECTION
- ② LOCATE THE FLOOR DRAINS AWAY FROM FOOT TRAFFIC.

REVISIONS

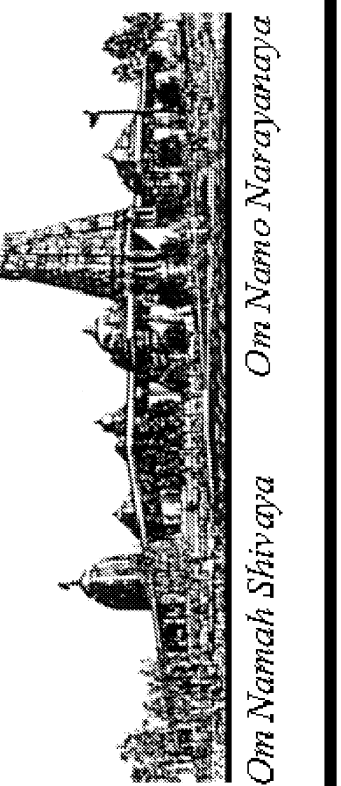
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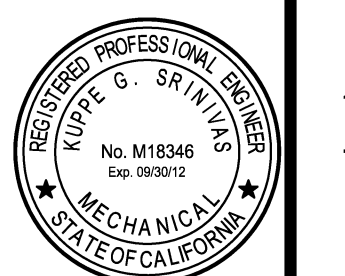


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PLUMBING SCHEDULES
 BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

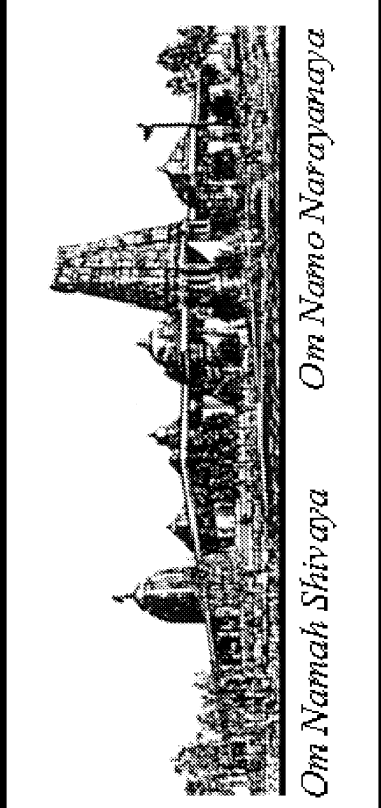
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PROJECT:
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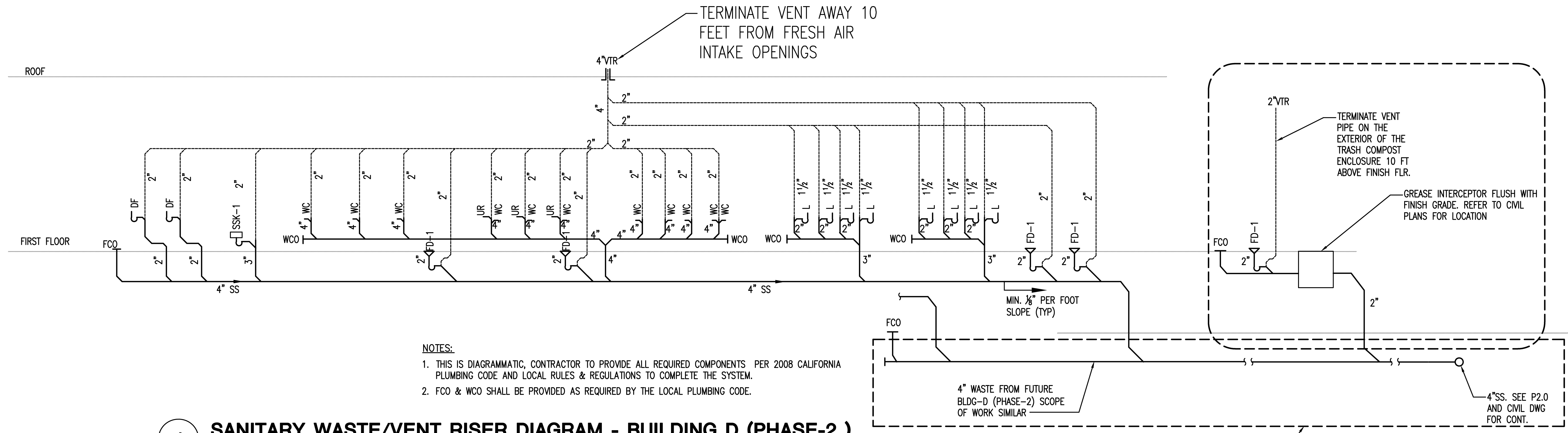
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 101 California St., Suite 2025
 San Francisco, California 94111
 Ph (415) 543-9344 Fax (415) 543-0670
 E-mail: Mail@AjPincSF.com (92410)



PLUMBING RISER DIAGRAMS
BUILDING "D"
HINDU COMMUNITY AND CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

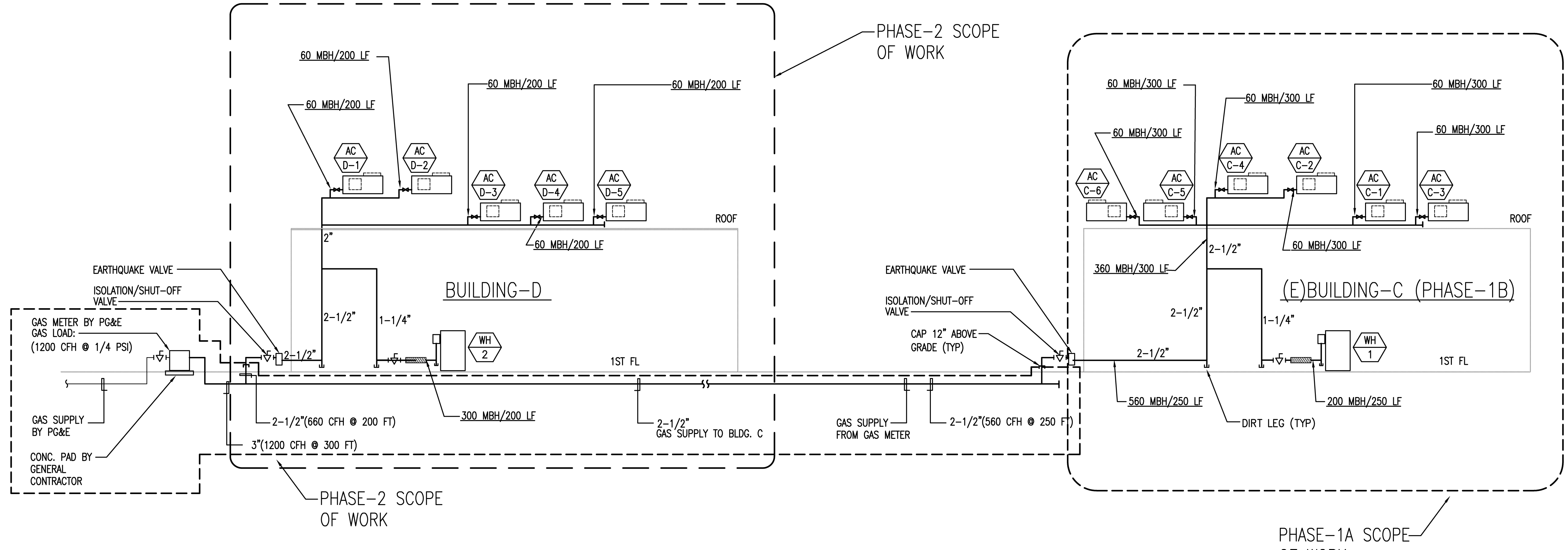
DATE: 10/28/11
 SCALE: NONE
 DRAWN BY: FC
 PROJECT: ARROWHEAD

P-11.1D



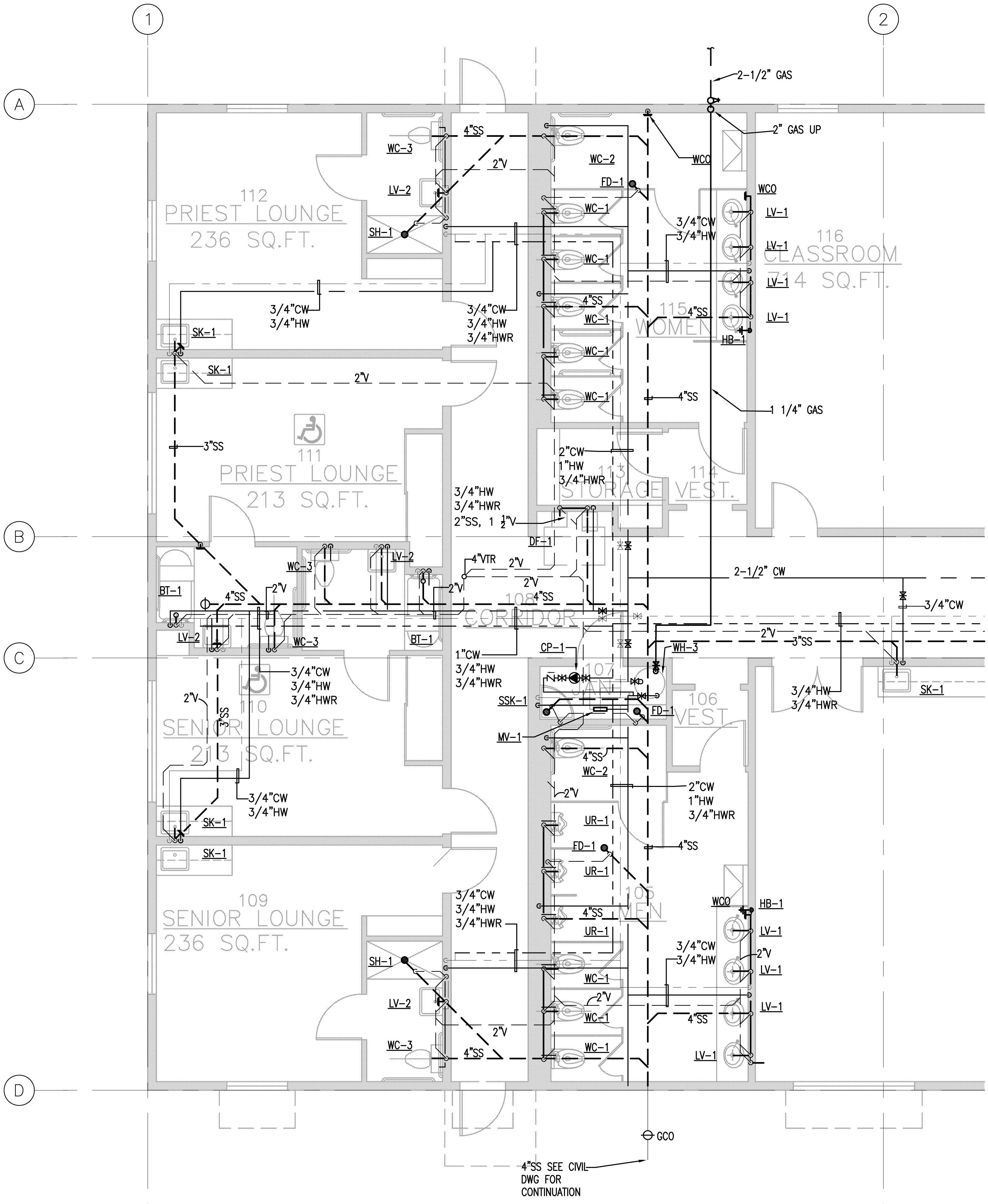
- NOTES:**
1. THIS IS DIAGRAMMATIC, CONTRACTOR TO PROVIDE ALL REQUIRED COMPONENTS PER 2008 CALIFORNIA PLUMBING CODE AND LOCAL RULES & REGULATIONS TO COMPLETE THE SYSTEM.
 2. FCO & WCO SHALL BE PROVIDED AS REQUIRED BY THE LOCAL PLUMBING CODE.

1 SANITARY WASTE/VENT RISER DIAGRAM - BUILDING D (PHASE-2)
 SCALE: N.T.S.



2 NATURAL GAS RISER DIAGRAMS - BUILDING C AND D
 SCALE: N.T.S.





GENERAL NOTES

- A. ALL PLUMBING WORK INCLUDING EQUIPMENT, FIXTURES AND INSTALLATION SHALL COMPLY WITH THE CURRENT BUILDING STANDARDS FOR UNIFORMITY, LEED REQUIREMENTS AND THE APPLICABLE CALIFORNIA BUILDING, FIRE, MECHANICAL AND PLUMBING CODES WITH LOCAL AMMENDMENTS.
- B. REFER TO RISER DIAGRAMS FOR WASTE AND VENT SIZES AND SCHEDULES FOR PLUMBING FIXTURES, FAUCETS, CONNECTION SIZES.
- C. PROVIDE AUTOMATIC TEMPERING VALVES TO GENERATE 110 DEG F TEMPERED HOT WATER SUPPLY AND DISTRIBUTE TO THE LAVATORIES PER T-24.
- D. PROVIDE CW DISTRIBUTION TO ALL THE PLUMBING FIXTURES PER CPC.
- E. PROVIDE CW, GAS, SANITARY WASTE, STORM DRAIN AND FIRE WATER SERVICE CONNECTIONS FROM THE SITE UTILITIES AND EXTEND & DISTRIBUTE TO SERVE THE BUILDING. COORDINATE WITH THE PHASE-2 CIVIL AND LANDSCAPE TRADE WORK FOR EXACT SIZE, LOCATION, INVERT, POINT-OF-CONNECTION, ETC.
- F. PROVIDE WATER EFFICIENT PLUMBING FIXTURES TO SATISFY THE LEED WATER EFFICIENCY REQUIREMENTS (SEE LEED CHECKLIST) AND PER THE PLUMBING FIXTURE REQUIREMENTS. INSTALL PLUMBING FIXTURES IN COMPLIANCE WITH ADA REQUIREMENTS.
- G. CONTRACTOR SHALL PREPARE AND SUBMIT DETAILED SHOP DRAWING FOR PLUMBING AND FIRE PROTECTION WORK FULLY COORDINATED WITH THE CIVIL AND LANDSCAPE WORK FOR REVIEW AND APPROVAL BY THE OWNER'S ENGINEERS. AFTER APPROVAL BY OWNER'S ENGINEERS, SUBMIT THE SAME TO CITY AS A DEFERRED SUBMITTAL AND OBTAIN CITY APPROVALS PRIOR TO START OF CONSTRUCTION. COORDINATE THE ROUTING OF THE UNDERGROUND UTILITIES WITH OTHER TRADEWORK AND UTILITY COMPANIES AND MAKE NECESSARY ADJUSTMENTS TO ROUTING TO AVOID CONFLICTS.

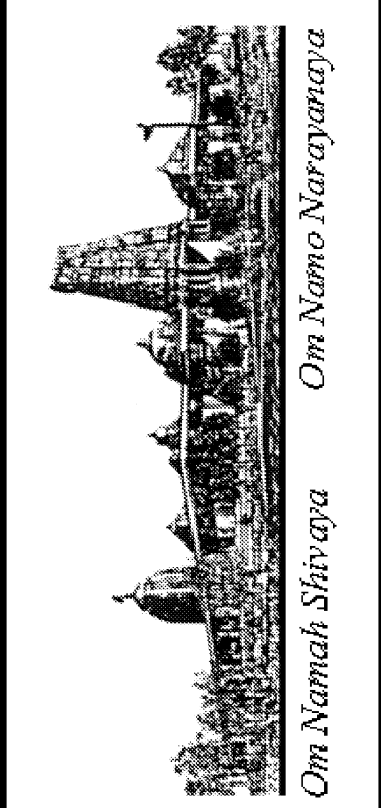
SHEET NOTES

- ① WATER HEATER AIR INTAKE AND FLUE EXHAUST FROM THE ROOF. TERMINATE FLUE EXHAUST MINIMUM 3'-0" ABOVE FINISHED ROOF. COORDINATE WITH SOLAR PV AND THERMAL SYSTEM PROVIDER FOR TERMINATION. PROVIDE FLASHING AND COUNTERFLASHING.
- ② PROVIDE ALL PLUMBING FIXTURES INDICATED WITH COMPLETE UTILITY DISTRIBUTION PER CPC INCLUDING BUT NOT LIMITED TO COLD WATER, HOT WATER, TEMPERED WATER, SANITARY WASTE AND VENT CONNECTIONS.
- ③ PROVIDE FLOOR DRAINS COMPLETE WITH FLOOR DRAINS, WASTE & VENT CONNECTIONS, TRAP PRIMER CONNECTIONS.
- ④ PROVIDE PROPERLY SIZED WATER HAMMER ARRESTORS FOR COLD WATER AND TEMPERED WATER SUPPLIES PIPING TO PLUMBING FIXTURES PER CPC TO PREVENT WATER HAMMER FROM FLUSH VALVES, AUTOMATIC AND QUICK SHUT-OFF TYPE VALVES.
- ⑤ PROVIDE STAINLESS STEEL WALL ACCESS PANELS FOR SERVICE ACCESS TO WATER HAMMER ARRESTORS, TEMPERING VALVES, SHUT-OFF VALVES AND OTHER DEVICES CONCEALED BEHIND WALLS AND CEILING THAT REQUIRES ACCESS. COORDINATE LOCATIONS WITH ARCHITECT.
- ⑥ PROVIDE HEAT TRACING FOR TEMPERED WATER AND HOT WATER PIPING TO THE PLUMBING FIXTURES, COMPLETE WITH POWER SUPPLY, TEMPERATURE REGULATORS, THERMAL INSULATION, ETC. COORDINATE WITH DIVISION-16 FOR POWER SUPPLY.
- ⑦ PROVIDE THERMAL INSULATION FOR ALL THE HOT WATER & TEMPERED WATER SUPPLY AND HORIZONTAL RAIN WATERS LEADERS IN THE CEILING ABOVE. PROVIDE THERMAL INSULATION FOR OUTDOOR WATER PIPING SUBJECT TO FREEZING. INSULATION SHALL MEET TITLE-24, CPC AND CMC REQUIREMENTS.
- ⑧ PROVIDE PIPE IDENTIFICATION LABELS AND VALVE TAGS FOR ALL PLUMBING SYSTEM PIPING INCLUDING CW, HW, TW, GAS, SANITARY WASTE & VENT PIPING.
- ⑨ PROVIDE COMPLETE FIRE SPRINKLER WATER SERVICE EXTENSION FROM THE CITY FIRE WATER SERVICE COMPLETE WITH THE SPRINKLER RISER ASSEMBLY, CONTROL VALVE ASSEMBLIES, FIRE HOSE CONNECTIONS, DISTRIBUTION, QUICK RESPONSE CONCEALED HEADS, INSPECTOR TEST AND DRAIN ASSEMBLY, SPRINKLER ALARM BELL AND FLOW & TAMPER SWITCHES FOR MONITORING BY THE BUILDING FIRE ALARM SYSTEM TO PROVIDE FULL COVERAGE FOR THE BUILDING. SUBMIT COMPLETE DESIGN-BUILD SHOP DRAWINGS AND HYDRAULIC CALCULATIONS. SUBMIT AND OBTAIN ALL NECESSARY APPROVALS FROM THE LOCAL CITY AND COUNTY CODE AUTHORITIES.
- ⑩ PROVIDE ROOF DRAINS, OVERFLOW DRAINS, RAIN WATER LEADERS, AND TERMINATE AT GRADE ON TO THE SPLASH BLOCK FOR SURFACE DRAINAGE TO BIO SWALES PER CIVIL AND LANDSCAPE DRAWINGS. COORDINATE WITH ARCHITECTURAL PLANS FOR ROUTING THE RAIN WATER DRAIN WITH RESPECT TO WINDOWS. PROVIDE DOWNSPOUT NOZZLE J.R.SMITH MODEL #1770 AT EACH DOWNSPOUT DAYLIGHTING THE EXTERIOR WALLS.

REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

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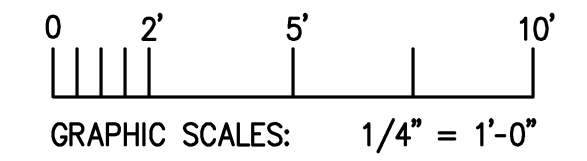
PLUMBING ENLARGED PLAN
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

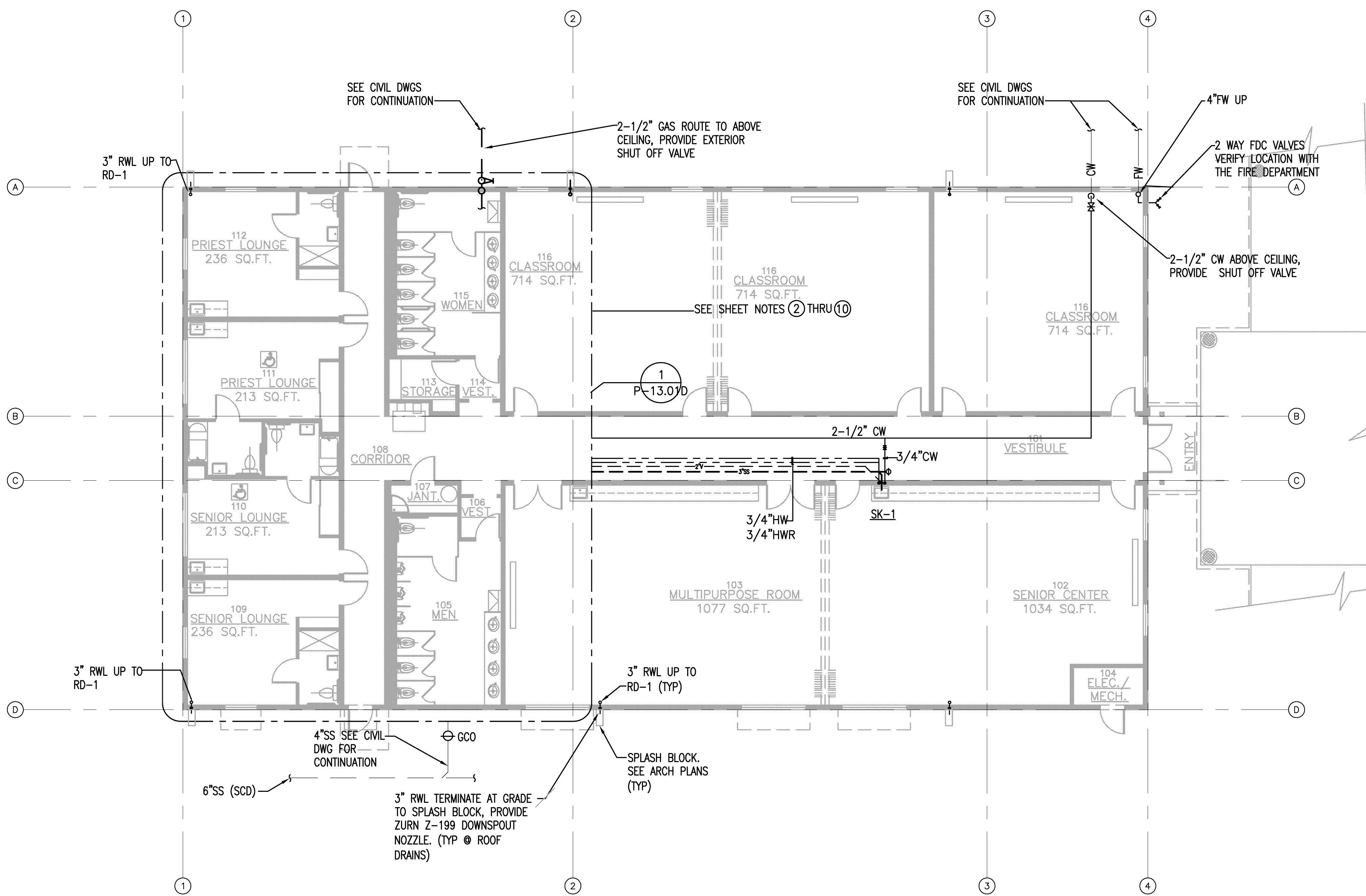
DATE: 10/28/11
 SCALE: AS SHOWN
 DRAWN BY: FC
 PROJECT: ARROWHEAD

P-13.01D

BUILDING D - PHASE 2
PLUMBING ENLARGED PLAN

TOTAL 7800 SQ. FT.
 SCALE: 1/4" = 1'-0"





GENERAL NOTES

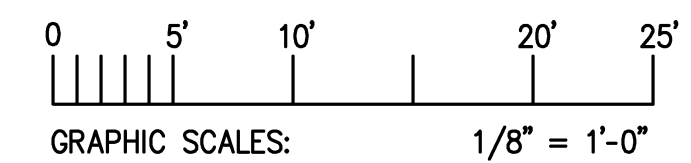
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BUILDING D - PHASE 2
PLUMBING PLAN

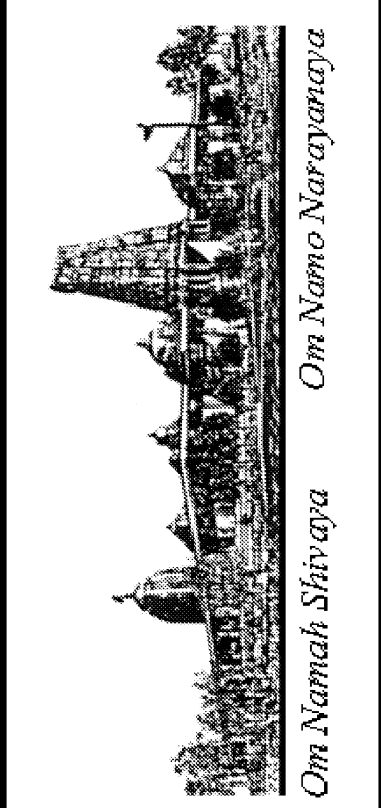
TOTAL 7800 SQ. FT.
SCALE: 1/8" = 1'-0"



REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

IYER & ASSOCIATES
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SAN FRANCISCO, CA 94133
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415 362-8158 (FAX)
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PLUMBING PLAN
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551

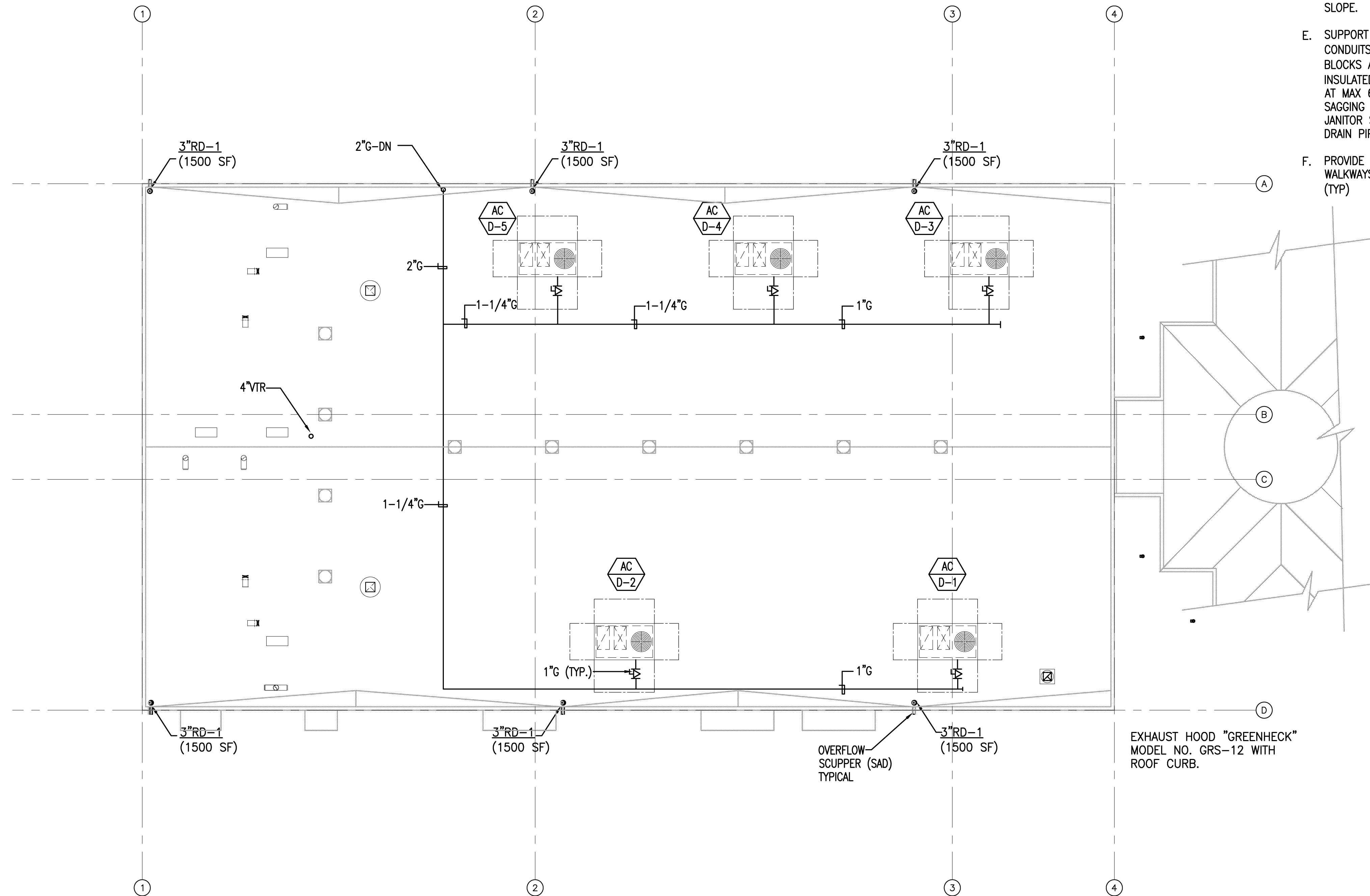
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SCALE: AS SHOWN
DRAWN BY: KS
PROJECT: ARROWHEAD



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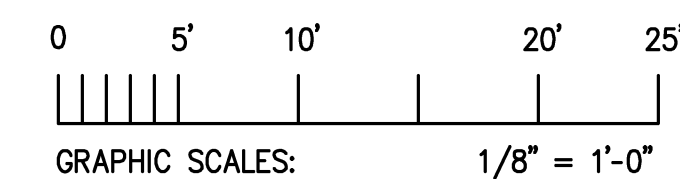
GENERAL NOTES

- A. ALL INSTALLATIONS SHALL COMPLY WITH ALL APPLICABLE CALIFORNIA AND LOCAL CODES.
- B. ALL NEW WORK SHALL COMPLY WITH CURRENT 2007 CMC AND CPC REQUIREMENTS.
- C. PROVIDE GALVANIZED PIPING & FITTINGS FOR EXPOSED GAS PIPING ON ROOF. PROVIDE GAS COCK, DIRT LEG, LISTED GAS CONNECTORS RATED FOR OUTDOOR APPLICATION AT CONNECTIONS TO EACH AC UNIT. PROVIDE GAS REGULATORS IF REQUIRED. REFER TO GAS RISER DIAGRAM P11.1B FOR SIZING.
- D. PROVIDE TRAPPED CONDENSATE DRAIN FROM THE AC UNIT AND TERMINATE TO THE SERVICE SINK IN JANITOR CLOSET. INSTALL CONDENSATE COLLECTOR DRAIN PIPING WITH MINIMUM 2% SLOPE.
- E. SUPPORT ROOFTOP GAS AND CONDENSATE PIPING AND CONDUITS WITH B-LINE "DURA-BLOCK" DB SERIES SUPPORT BLOCKS ANCHORED TO ROOF. USE DURA-BLOCK "BVT" SERIES INSULATED PIPE CLAMPS (TYP). PROVIDE SLEEPER SUPPORTS AT MAX 6 FT ON CENTERS OR AS REQUIRED TO PREVENT PIPE SAGGING AND TO DRAIN THE CONDENSATE TOWARDS THE JANITOR SINK. MAINTAIN 2% SLOPE ON ROOF FOR CONDENSATE DRAIN PIPE.
- F. PROVIDE ROOF GUTTERS AND DOWNSPITS FOR COVERED WALKWAYS AND TERMINATE AT GRADE WITH SPLASHING BLOCKS (TYP)



BUILDING D - ROOF PLAN
PLUMBING PLAN

TOTAL 7800 SQ. FT.
SCALE: 1/8" = 1'-0"

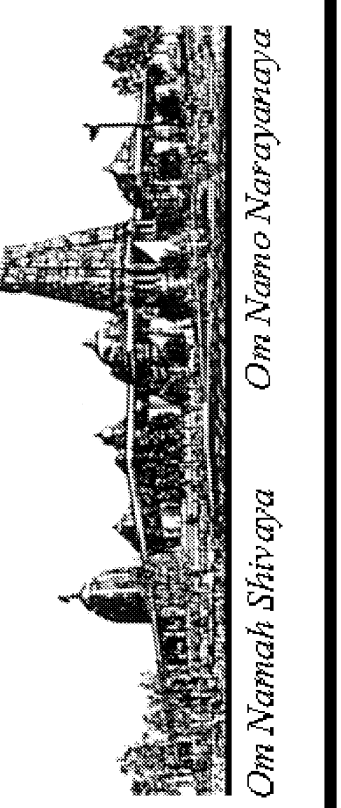


REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

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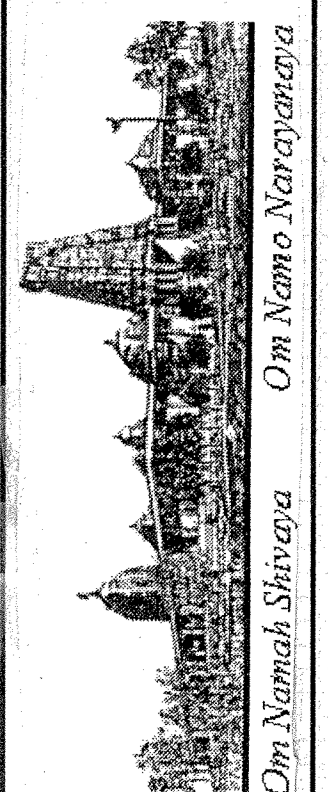
PLUMBING ROOF PLAN
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE: 10/28/11
SCALE: AS NOTED
DRAWN BY: EC
PROJECT: ARROWHEAD



P-14.0D

REVISIONS	BY
ISSUED FOR BUILDING PERMIT	1/1/23 GSM

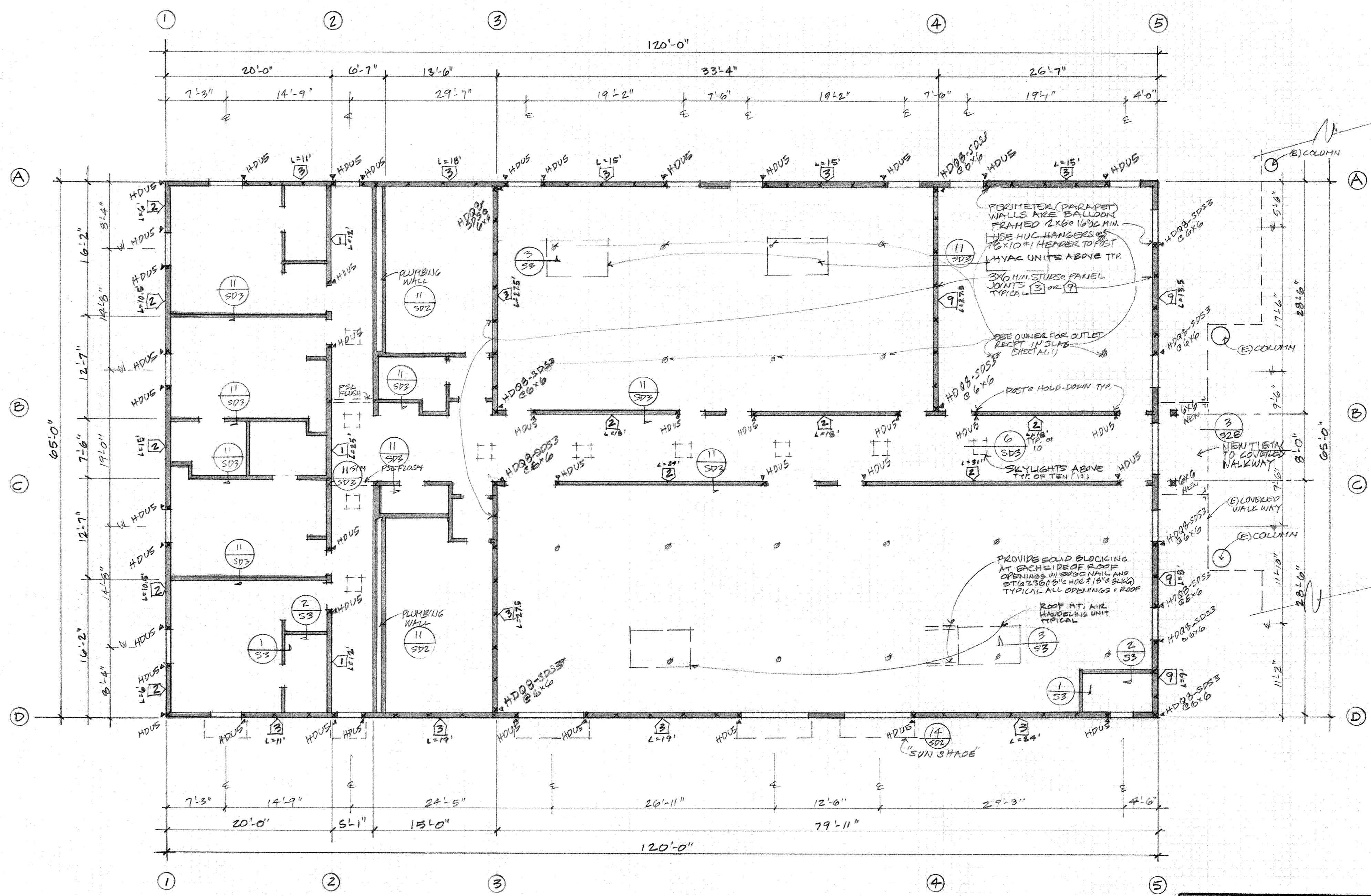


**BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER**

1200 ARROWHEAD AVE. LIVERMORE, CA 94551

SHEARWALL PLAN

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

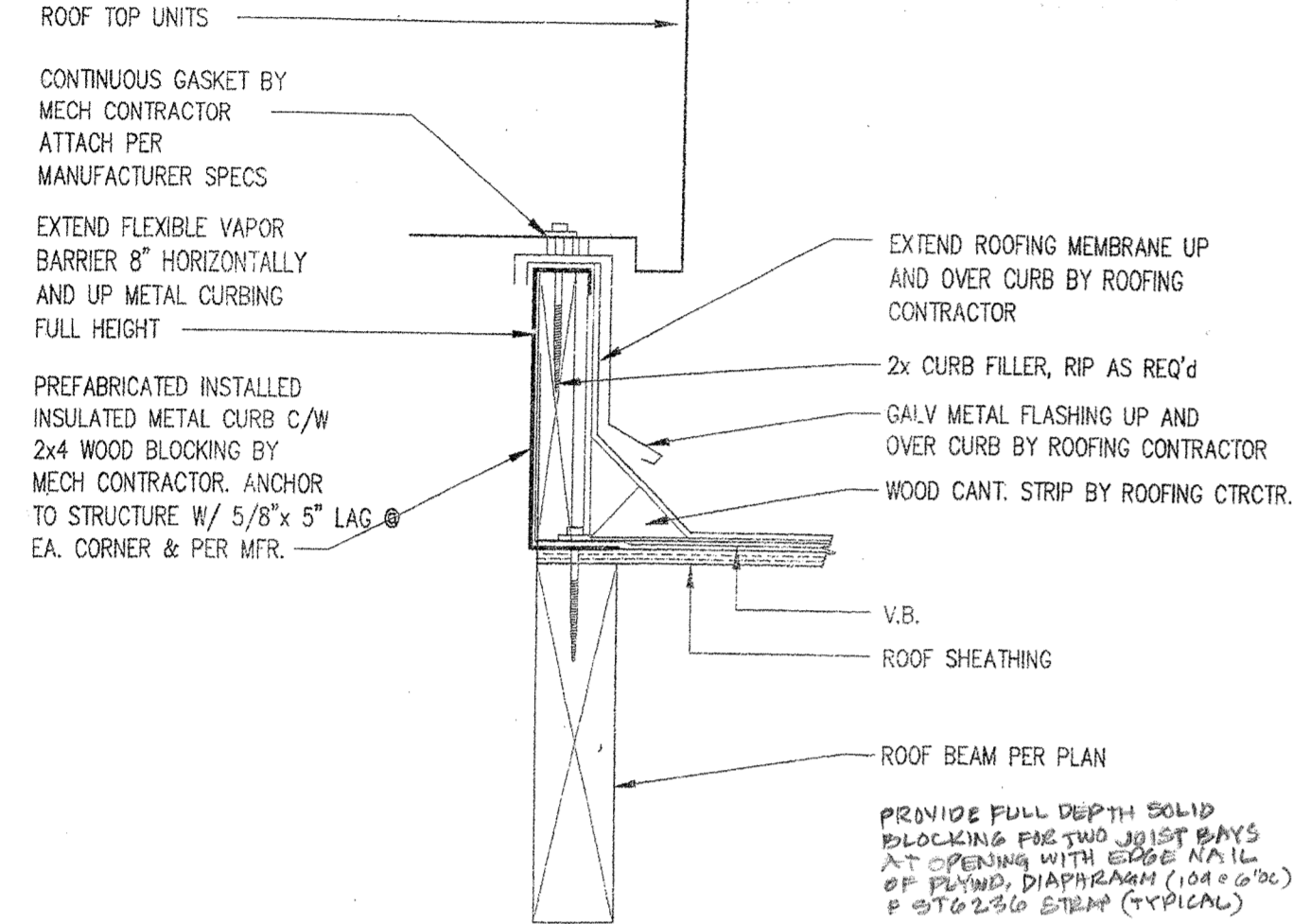
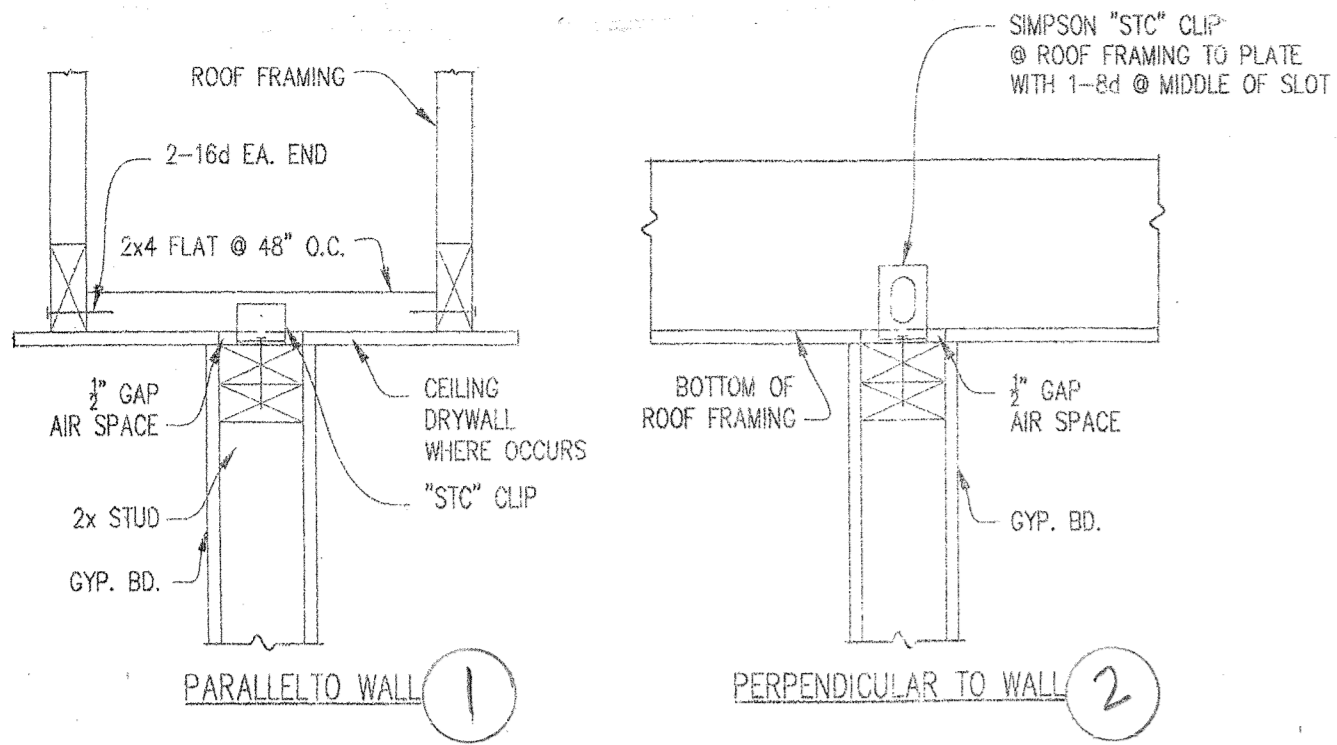


SHEARWALL PLAN
SCALE: 1/8" = 1'-0"

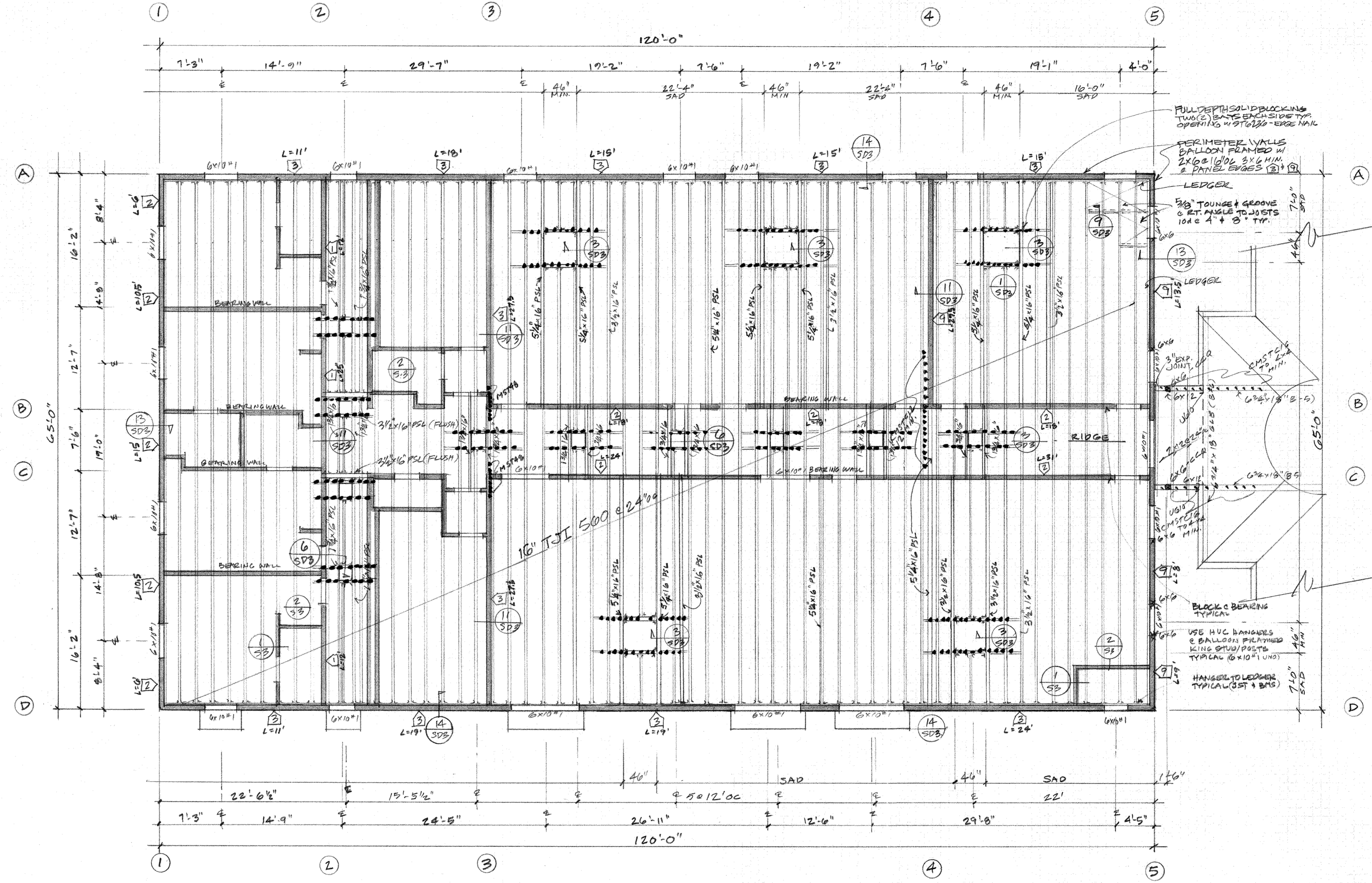
PLYWOOD DIAPHRAGM SCHEDULE						
MARK	PLYWOOD	NAILING, CLIP OR A.B. SPACING - INCHES ON CENTER				
		EDGE NAILS	FIELD NAILS	SILL NAILS	A-B CLIPS	
ROOF TYP	1/2" CDX	10d @ 6	10d @ 12	N/A	24	
FLOOR TYP	5/8" T&G	10d @ 6	10d @ 10	N/A	16	
SHEAR WALL	1	5/8" CDX	8d @ 6	8d @ 12	N/A	24
	2	1/2" CDX	10d @ 4	10d @ 10	N/A	18
	3	1/2" CDX	10d @ 3	8d @ 8	N/A	12
4	1/2" PLYWD	10d @ 2'	10d @ 6'	N/A	6'	

* 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 5/8 INCH DIAMETER ANCHOR BOLTS (A.B.), 48 INCHES LONG WITH 7 INCHES MINIMUM EMBEDMENT, UNLESS NOTED OTHERWISE ON FOUNDATION PLAN. PROVIDE SPACING PER ABOVE SCHEDULE. USE PLATE W/ASER 3"x3"x1/4" AT ALL ANCHOR BOLTS (S&L)



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 16" TJI 500 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 3x6 min. Where nailing 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.

REVISIONS	BY
1. ISSUED FOR PERMIT	10/1/08
2. FULL SHEET	2/2/11

Om Namoh Shivaya
Om Namoh Shivaya

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 RL
Job BL/DG/D
Sheet **S-3**
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.
A4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL VERIFY ALL EXISTING JOB CONDITIONS AND CHECK ALL DIMENSIONS.
A5. COORDINATE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS, SPECIALLY FOR THE SIZE AND LOCATION OF THE OPENINGS.
A6. OBTAIN STRUCTURAL ENGINEER'S APPROVAL BEFORE PROCEEDING WITH THE WORK FOR OPENINGS THAT PENETRATE STRUCTURAL MEMBERS, AND ARE NOT SHOWN AND/OR DETAILED ON STRUCTURAL DRAWINGS.
A7. FRAME OPENINGS AND SUPPORT MISCELLANEOUS EQUIPMENT AS DETAILED ON THE DRAWINGS.
A8. PROVIDE LATERAL BRACING FOR ALL SUSPENDED EQUIPMENT AND SUSPENDED CEILING IN ACCORDANCE WITH THE CBC.
A9. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING, AND FOR THE FABRICATION, ERECTION AND JOB SAFETY.
A10. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE CONDUCT OF WORK, INCLUDING ALL CONSTRUCTION METHODS AND PROCEDURES, SITE SAFETY, AND METHODS OF DESIGN AND MATERIALS FOR PROVIDING TEMPORARY VERTICAL AND LATERAL SUPPORT OF EXISTING AND NEW STRUCTURES.
A11. PROVIDE CONTINUOUS SPECIAL INSPECTION IN ACCORDANCE WITH CBC SECTION 306 FOR DRILLING AND CONCRETE PLACEMENT IN FOUNDATION PIERS.
A12. IF ANY CONSTRUCTION IS NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, THE INSPECTOR SHALL NOTIFY THE STRUCTURAL ENGINEER.

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.
IF BACKFILLING IS NECESSARY BEFORE THE RETAINING WALL REACHES DESIGN STRENGTH OR THE ADJACENT STRUCTURE IS COMPLETE, PROVIDE BRACING AS REQUIRED, TO SUPPORT RETAINING WALL UNTIL THE ADJACENT STRUCTURE IS COMPLETE AND/OR THE RETAINING WALL HAS 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.
CONCRETE SHALL HAVE NOT LESS THAN SIX (6) BAGS OF CEMENT PER CUBIC YARD OF CONCRETE. AT TWENTY-EIGHT (28) DAYS, CONCRETE SHALL DEVELOP COMPRESSIVE STRENGTH (F'c) OF 2,500 PSI. THE SLUMP SHALL NOT EXCEED 4 INCHES WHEN PLACED. THE MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED 3/4 INCH FOR SLAB-ON-GRADE, WALLS AND COLUMNS; AND 1 1/2 INCHES FOR FOOTINGS, PIERS AND GRADE BEAMS.
C2. CONCRETE SHALL BE REGULAR WEIGHT, WITH HARD-ROCK TYPE AGGREGATE (150 LB/CF). AGGREGATE SHALL CONFORM TO AMERICAN SOCIETY FOR MATERIALS AND TESTING (ASTM) C33. CEMENT SHALL CONFORM TO ASTM C150, TYPE 2.
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. JUST PRIOR TO CONCRETE PLACEMENT, DAMPEN SAND WITH WATER.
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. BAR DEFORMATION SHALL BE IN ACCORDANCE WITH ASTM-305.
WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. PROVIDE A MINIMUM 6 INCHES LAP AT JOINTS.
DO NOT WELD REINFORCEMENT.
D2. REINFORCING BARS SHALL BE LAPPED AS INDICATED. PROVIDE MINIMUM LAP EQUAL TO 48 TIMES THE DIAMETER OF REINFORCING BARS AT SPLICES, AND STAGGER SPLICES.
D3. ALL HOOKS SHALL BE STANDARD HOOKS UNLESS NOTED OTHERWISE. ALL COLUMN, BEAM AND PILASTER TIES SHALL HAVE A 135° MINIMUM TURN PLUS 4 INCH EXTENSION TO THE FREE END.
D4. PROVIDE REINFORCING BARS AT MID HEIGHT IN SLABS-ON-GRADE AND AS SHOWN ON THE DRAWINGS.
D5. ANCHOR BOLTS SHALL BE MACHINE BOLTS A 307 WITH AMERICAN STANDARD REGULAR, SEMI-FINISHED, SQUARE OR HEXAGON HEADS. NUTS SHALL BE AMERICAN STANDARD HEAVY, SEMI-FINISHED, HEXAGON-TAPPED, UNC THREADED, CLASS B.
UNLESS OTHERWISE NOTED ON SHEAR WALL SCHEDULE, SILL PLATE BOLTS SHALL BE 5/8 INCH DIAMETER BY 10 INCHES LONG WITH A 2-INCH HOOK AND SPACED 4 FEET ON CENTERS. PROVIDE SILL BOLTS AT A DISTANCE OF 6 INCHES FROM EACH END OF THE SHEAR WALL CORNER AND SPLICE. PROVIDE A MINIMUM OF 2 BOLTS PER SILL PLATE.
D6. CONCRETE ACCESSORIES - ADHESIVE ANCHORS (RE 500 - SD, ESR-2322), EXPANSION BOLTS (HLTI KB-TZ, ESR-1917) AND POWER DRIVEN FASTENERS (HLTI X-U, ESR-2289) SHALL BE AS MANUFACTURED BY HLTI, INC., TULSA, OK OR APPROVED EQUIVALENT. THESE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

E. CONCRETE UNIT MASONRY

- E1. CONCRETE MASONRY UNITS (CMU) SHALL BE HOLLOW CLOSED, SINGLE OR DOUBLE OPEN END TYPE. ALL CMU SHALL CONFORM TO ASTM C-90, GRADE N, TYPE 1, AND HAVE AN ULTIMATE COMPRESSIVE STRENGTH (F'm) = 1,800 PSI. WHEN PLACED, THE CMU SHALL HAVE CURED FOR NOT LESS THAN 28 DAYS. DO NOT USE CHIPPED OR CRACKED CMU. PROMPTLY REMOVE ANY CHIPPED OR CRACKED CMU IF DISCOVERED IN A FINISHED WALL, AND REPLACE THEM WITH NEW CMU TO THE SATISFACTION OF THE STRUCTURAL ENGINEER.
E2. CMU SHALL BE LAID IN RUNNING BOND. PROVIDE FULL INTERSECTING BOND AT CORNERS AND AT WALL INTERSECTIONS. PROVIDE SPECIAL PILASTER UNITS AT PILASTERS, OR BUILD PILASTERS USING FACE SHELLS ONLY; BRACE AS NECESSARY DURING GROUT PLACEMENT.
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. IF TRANSIT-MIX GROUT IS NOT PLACED IN THE FINAL POSITION WITHIN 1 1/2 HOURS AFTER WATER IS FIRST ADDED TO THE BATCH, IT SHALL BE REJECTED.
GROUT SOLID ALL CELLS CONTAINING REINFORCEMENT, ANCHOR BOLTS OR OTHER EMBEDDED ITEMS.
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-S.
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. BARS MAY BE DOWELED AT THE TOP OF FOOTING ONLY, UNLESS OTHERWISE NOTED.
VERTICAL BARS AT CORNERS AND JAMBS AT OPENINGS, ETC., SHALL BE ONE CONTINUOUS LENGTH WITHOUT SPLICE. PROPER VERTICAL ALIGNMENT OF REINFORCING STEEL AND CMU BLOCKS MUST BE MAINTAINED AT ALL TIMES, UNLESS OTHERWISE NOTED.
E12. REINFORCING SHALL BE FULLY EMBEDDED IN THE GROUT. VERTICAL REINFORCING STEEL BARS SHALL IN PLACE PRIOR TO LAYING THE CMU WALL.
E13. WHEN GROUTING IS TO BE STOPPED FOR A PERIOD OF ONE (1) HOUR OR LONGER, CREATE A HORIZONTAL CONSTRUCTION JOINT BY STOPPING THE GROUT POUR ONE AND A HALF (1 1/2) INCHES BELOW THE UPPERMOST CMU COURSE.
E14. ALL MASONRY SHALL BE LAID TO MAINTAIN AN UNINTERRUPTED VERTICAL CONTINUITY OF THE CELLS TO BE FILLED WITH GROUT. THE VERTICAL ALIGNMENT SHALL MAINTAIN A CLEAR, UNOBSTRUCTED VERTICAL FLUE MEASURING NOT LESS THAN 3 INCHES BY 3 INCHES.
E15. EXCEPT AS SHOWN ON THE DRAWINGS, NO PLUMBING PIPE OR CHASE SHALL BE EMBEDDED IN CMU WALLS OR PARTITIONS.
E16. CMU WALLS SHALL BE CURED BY DAMPING FOR FIVE (5) DAYS

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 dimensions in inches.

F. STRUCTURAL STEEL

- F1. MATERIAL FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE 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 = 48 KSI
PIPE: ASTM A53, GRADE B, Fy = 35 KSI
HIGH STRENGTH BOLTS: ASTM A325, Fy = 90 KSI
ANCHOR BOLTS: ASTM A307, Fy = 58 KSI
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. ALL FIELD WELDING SHALL HAVE SPECIAL INSPECTION.
F5. TEN PERCENT (10%) OF ALL FULL PENETRATION WELDS SHALL BE TESTED WITH X-RAY OR ULTRASONICALLY UNDER THE SUPERVISION OF AN INSPECTOR APPROVED BY THE OWNER.

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. SHIMMING OF SILLS, JOISTS, SHORT STUDS, TRIMMERS, HEADERS, OR OTHER FRAMING MEMBERS SHALL NOT BE PERMITTED. ALL WALLS AND PARTITIONS SHALL BE STRAIGHT, PLUMB AND ACCURATELY LOCATED. CAREFULLY SELECT ALL STRUCTURAL MEMBERS. INDIVIDUAL MEMBERS SHALL BE SELECTED SO THAT KNOTS AND VISIBLE MINOR DEFECTS WILL NOT INTERFERE WITH THE INSTALLATION OF BOLTS, OR PROPER NAILING OR THE MAKING OF SOUND CONNECTIONS. LUMBER MAY BE REJECTED BY THE STRUCTURAL ENGINEER FOR EXCESSIVE WARP, TWIST, BOW, OR COOK, OR FOR MILDEW, FUNGUS OR MOLD, AS WELL AS, FOR IMPROPER GRADE MARKING. DEFECTS WHICH RENDER A PIECE INCAPABLE OF SERVING ITS INTENDED FUNCTION SHALL BE DISCARDED.
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.
KEEP ALL UNTREATED WOOD MINIMUM HALF AN INCH (1/2") AWAY FROM CONCRETE OR MASONRY.
G5. SIZING AND SURFACING - EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, ALL LUMBER SHALL BE MILL SIZED AND SURFACED ON ALL FOUR SIDES. LUMBER SHALL BE SINGLE-LENGTH PIECES FROM STRAIGHT STOCK FREE FROM WARP AND CUP. SPLICING SHALL NOT BE PERMITTED EXCEPT WHERE SPECIFICALLY DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.
G6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, FRAMING MEMBERS 3 X AND SMALLER, AND 4 X POSTS SHALL BE DOUGLAS FIR, GRADE NO. 2. FRAMING MEMBERS 4 X AND LARGER SHALL BE DOUGLAS FIR, GRADE NO. 1. EXCEPTION 4 X HEADERS MAY 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. INTERIOR STUDS THAT ARE MORE THAN 14 FEET IN HEIGHT SHALL BE DOUGLAS FIR GRADE NO. 2. STUD SPACING SHALL BE 16 INCHES ON CENTERS, UNLESS OTHERWISE NOTED.
G9. AT WALLS SUPPORTING TRUSSES, PROVIDE A STUD DIRECTLY BELOW EACH TRUSS; PROVIDE ADDITIONAL STUD AS NECESSARY.
PROVIDE STUDS OR POSTS SUPPORTING THE FULL WIDTH OF BEAMS ENTERING WALLS; PROVIDE SOLID POSTS AND BLOCKING DOWN TO THE FOUNDATION.
PROVIDE DOUBLE JOIST OR TRUSS UNDER PARTITIONS PARALLEL TO THE JOISTS.
PROVIDE HALF-INCH (1/2") GAP BETWEEN THE TOP OF NON-BEARING PARTITIONS, AND THE BOTTOM OF TRUSSES; PROVIDE A CONNECTION TO BRACE THE PARTITION WHICH WILL ALLOW HALF INCH (1/2") VERTICAL MOVEMENT BOTH UPWARD AND DOWNWARD.
PROVIDE SOLID BLOCKING BETWEEN JOISTS AT PARTITIONS, GIRDERS, BEARING WALLS, AND ANY OTHER SUPPORT.
G10. SHEAR WALLS - BLOCK AT PLYWOOD JOINTS WITH BLOCKING OF SAME SIZE AS STUDS. EDGE-NAIL SHEATHING TO STUDS AT JOINT-DOWNS.
EXTEND SHEAR WALLS THROUGH FLOOR AND ROOF SYSTEMS WITH BLOCKING THAT IS STRUCTURALLY EQUIVALENT TO SHEAR WALL SHEATHING

- 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. SHEATHING SHALL MEET THE REQUIREMENTS OF THE CURRENT EDITION OF U.S. PRODUCT STANDARD PS-1, OR ONE OF THE APA PERFORMANCE STANDARDS. SHEATHING AT LOCATIONS PERMANENTLY EXPOSED TO WEATHER SHALL BE EXTERIOR CLASS.
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. STAGGER PANELS 4 FEET LENGTHWISE, UNLESS OTHERWISE NOTED. ALLOW 1/8 INCH SPACING AT PANEL ENDS AND 1/4 INCH AT PANEL EDGES. FLOOR SHEATHING SHALL BE 3/4 INCH MINIMUM PLYWOOD, APA RATED STURD-FLOOR WITH A SPAN RATING OF 24; ROOF SHEATHING SHALL BE 1/2 INCH MINIMUM PLYWOOD WITH A MINIMUM PANEL SPAN RATING OF 32/12.

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. THE OUTER LAYER OF SHEATHING SHALL NOT BE FRACTURED BY OVERDRIVING THE NAILS.
G14. ALL FRAMING HARDWARE SHALL BE "STRONG-TIE" AS MANUFACTURED BY SIMPSON COMPANY, OR AN APPROVED EQUAL. AT LOCATIONS EXPOSED TO WEATHER, PROVIDE CORROSION-RESISTANT HARDWARE.
WOOD FRAMING MEMBERS NOT RESTING ON, OR FRAMED OVER THEIR SUPPORTS SHALL BE SUPPORTED BY "SIMPSON STRONG-TIE" JOIST HANGERS.
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. UNLESS OTHERWISE NOTED, BOLT HOLES SHALL BE NOMINAL DIAMETER OF THE BOLT PLUS 1/16 INCH. RETIGHTEN ALL BOLTS BEFORE CLOSING IN.
FASTENERS FOR PRESSURE TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED, GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER

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. CALCULATIONS SHALL INCLUDE ALL STRESSES AND DEFLECTIONS DUE TO DEAD AND LIVE LOADS. SHOP DRAWINGS SHALL INCLUDE THE LAYOUT OF THE TRUSSES, SIZE OF MEMBERS AND CONNECTION DETAILS.
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
100.0 PSF CORRIDOR
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. ADHESIVE SHALL BE SUITABLE FOR WET AREAS. LAMINATIONS SHALL BE COMBINATION FABRICATED IN ACCORDANCE WITH AITC PS 55.73. FOR SINGLE SPAN MEMBERS USE 24F-V4 DF/DF; FOR CONTINUOUS OR CANTILEVERED OVER SUPPORTS USE 24F-V8 DF/DF. USE PRESSURE TREATED LUMBER FOR GLU-LAM MEMBERS CONTINUOUSLY EXPOSED TO WEATHER.
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

- J1. 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. THIS REVIEW DOES NOT CERTIFY THAT THE SHOP DRAWINGS ARE IN COMPLIANCE WITH THE LATEST ARCHITECTURAL AND ENGINEERING 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

- K1. GRADING, DRAINAGE, PAD PREPARATION
a. Henry Justiniano & Associates (Soils Eng.)
2. DRILLED PIERS
a. Henry Justiniano & Associates (Soils Eng.)
3. STRUCTURAL REINFORCING STEEL
a. B.R. Govindarao (Engineer of Record)
4. STRUCTURAL COLUMNS, INCLUDING REINFORCING STEEL
a. B.R. Govindarao (Engineer of Record)
5. EPOXY INSTALLED ANCHOR AND HOLD DOWN BOLTS
a. B.R. Govindarao (Engineer of Record)
6. STRUCTURAL WELDING
a. Fabricator's shop welding inspector
7. MANUFACTURED TRUSSES
a. B.R. Govindarao (Engineer of Record)
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
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.

Vertical sidebar containing project information: REVISIONS BY, NEW BUILDING "D" - PHASE 2, HINDU COMMUNITY and CULTURAL CENTER, 1200 ARROWHEAD AVE., LIVERMORE, CA 94551, STRUCTURAL GENERAL NOTES, GOVINDARAO, DATE: 11-19-11, SCALE, DRAWN BY: JAB ARROWHEAD, SHEET: SD-1 OF 2 SHEETS.

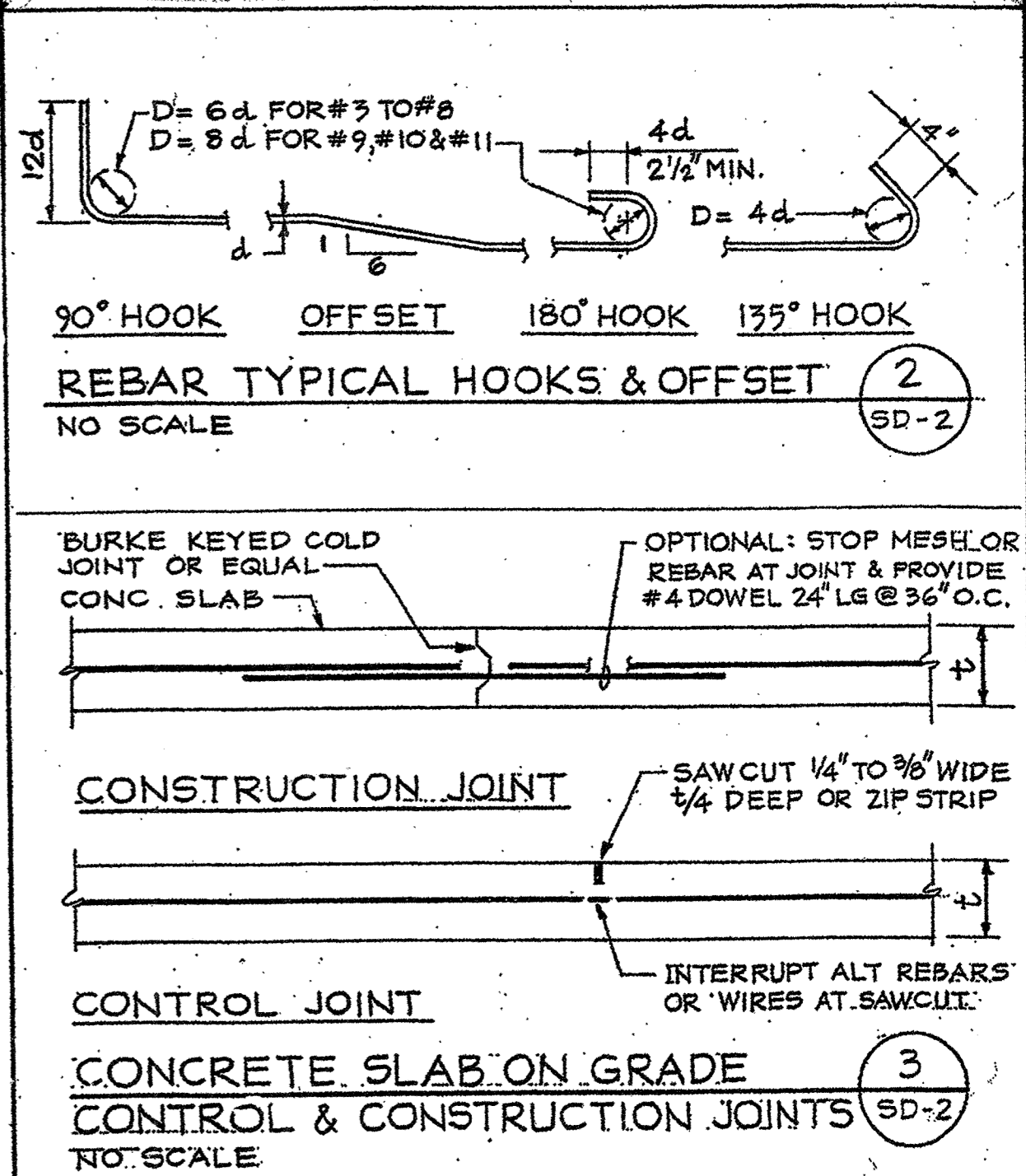
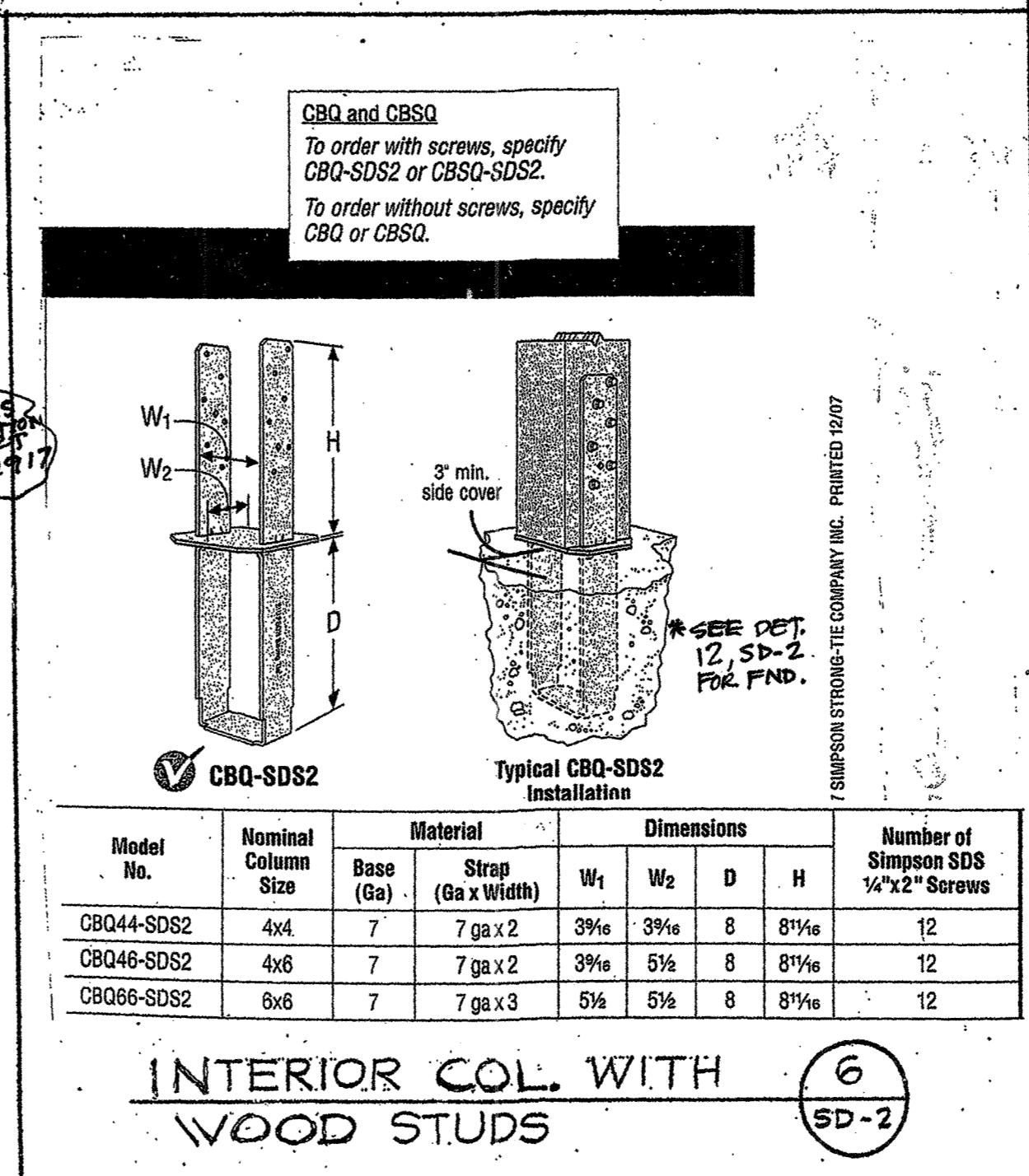
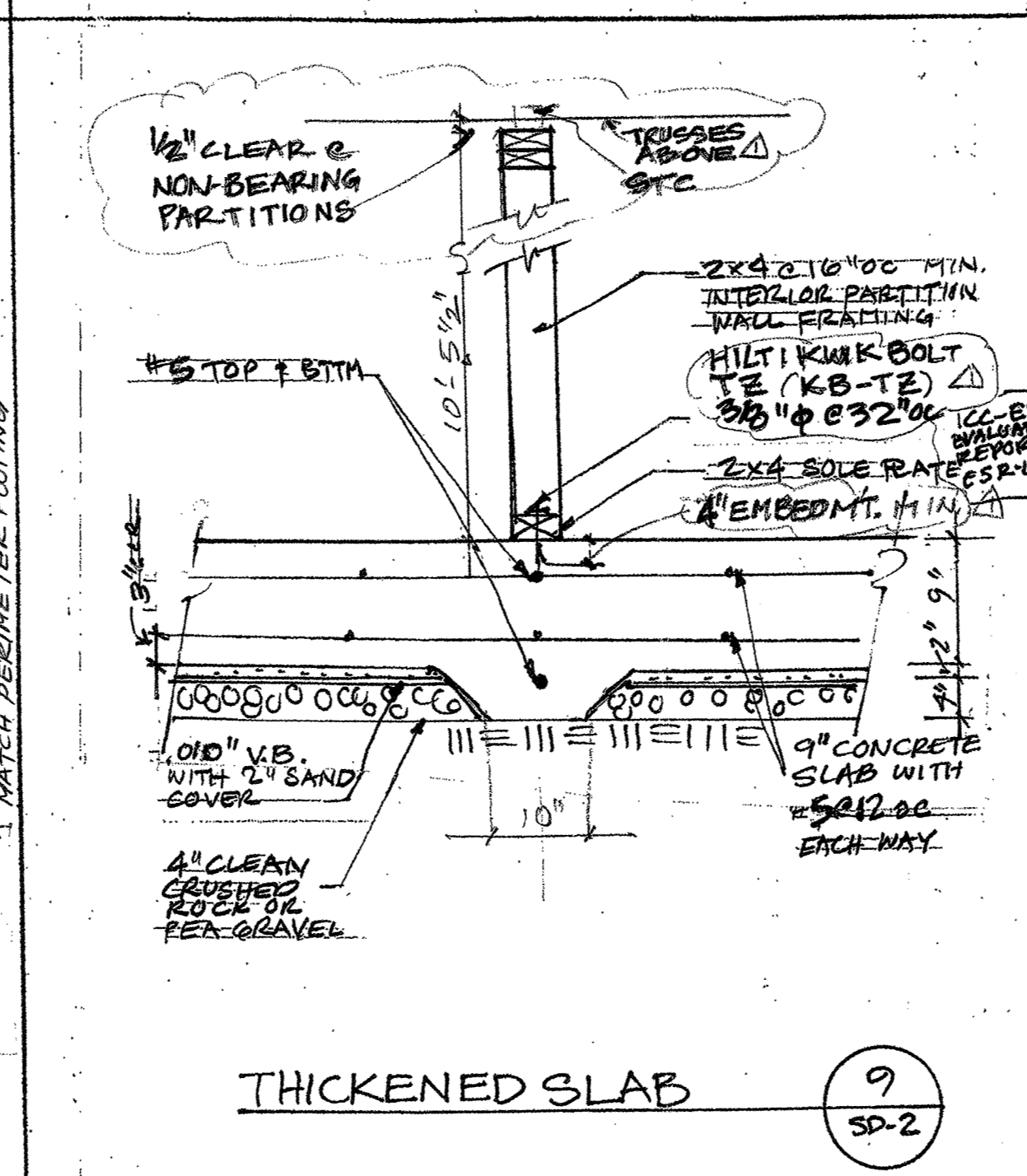
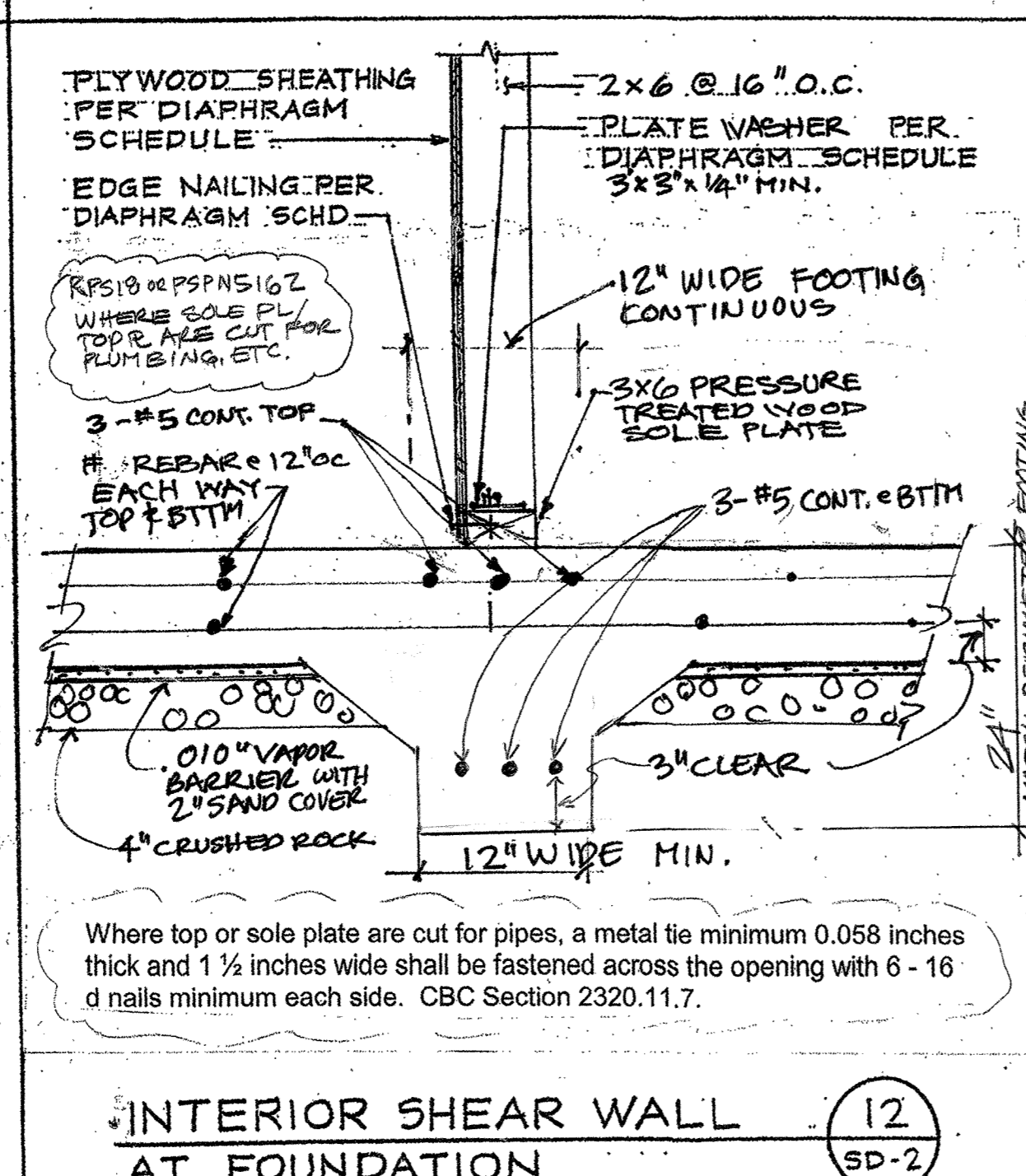
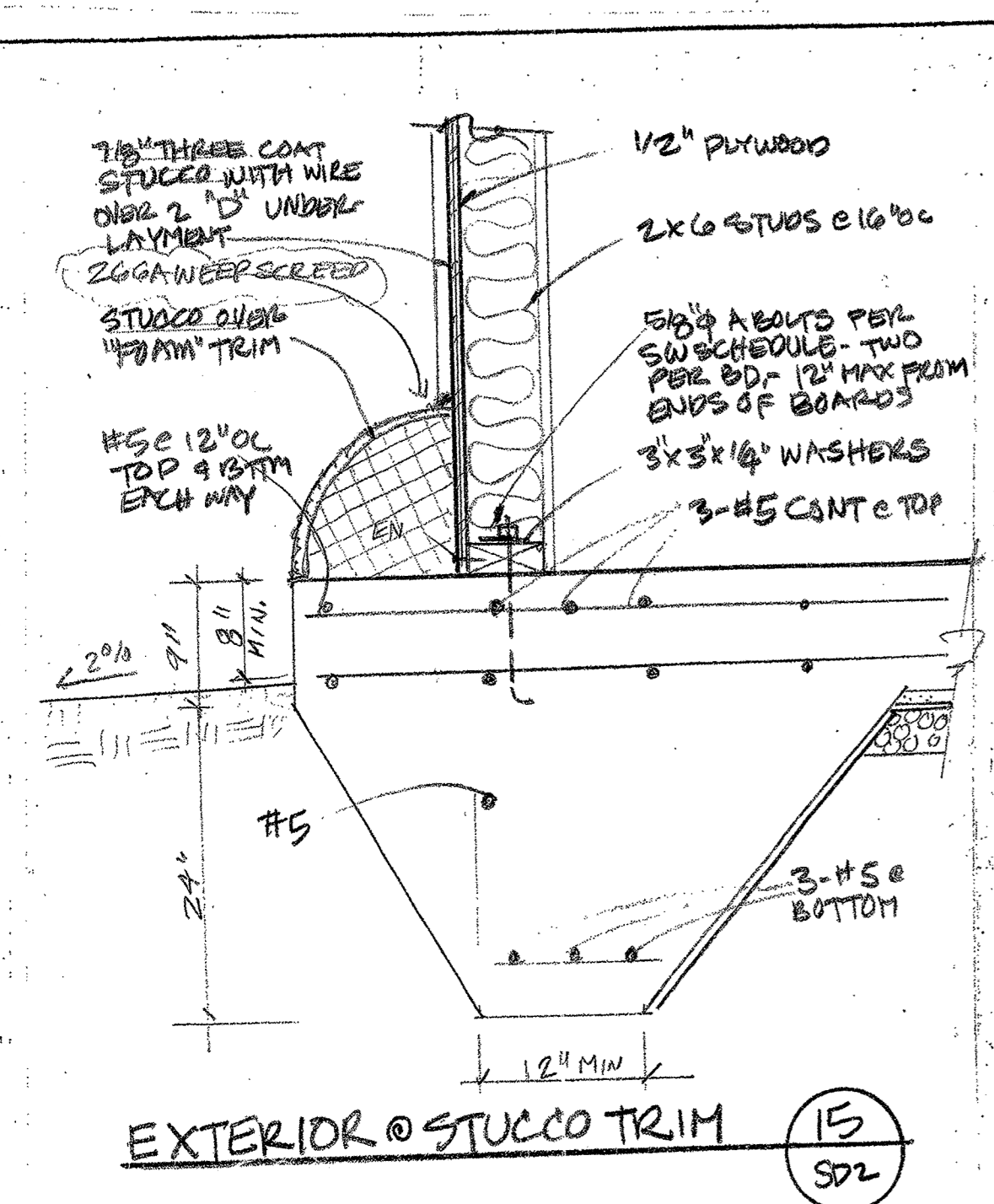
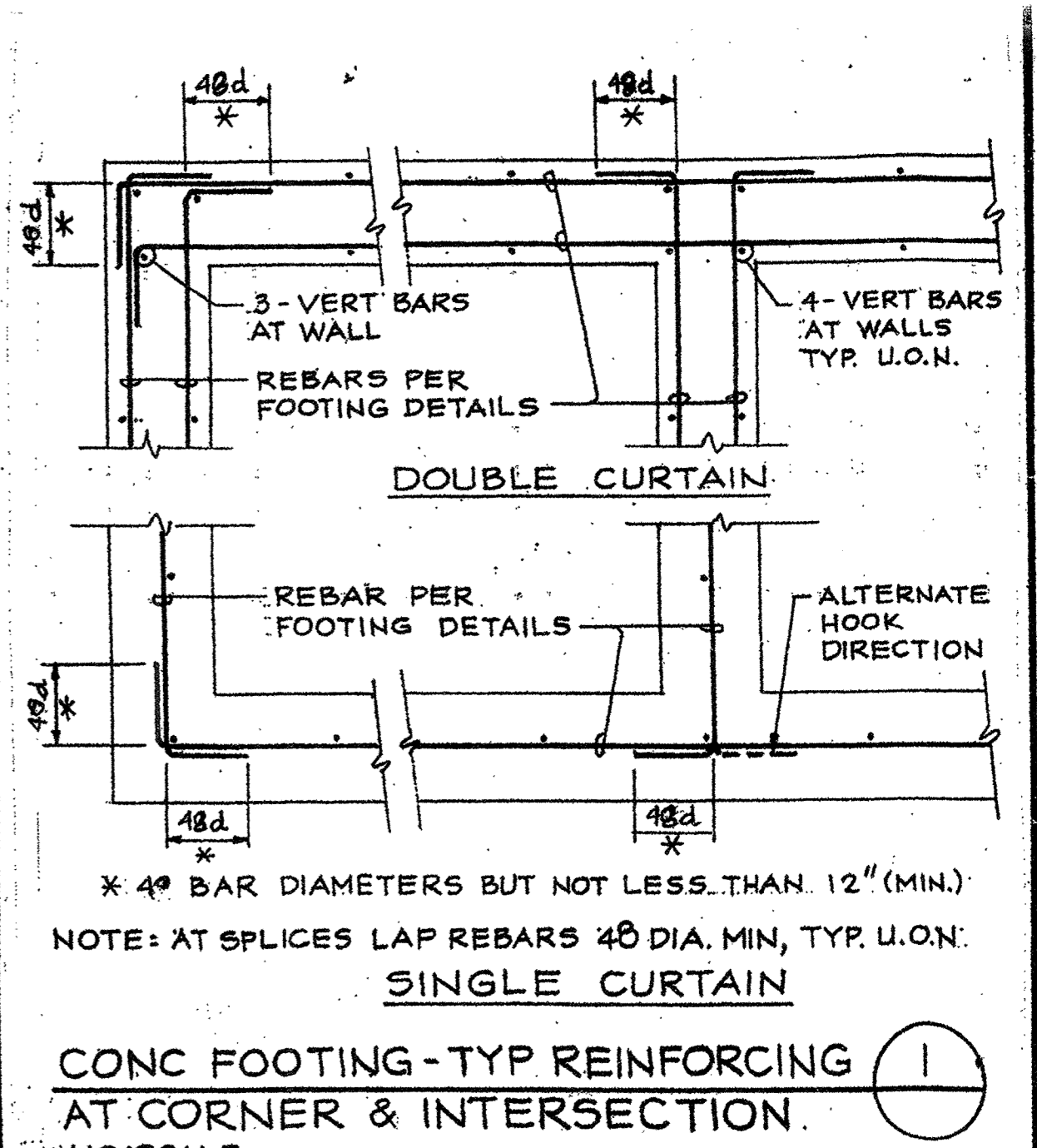
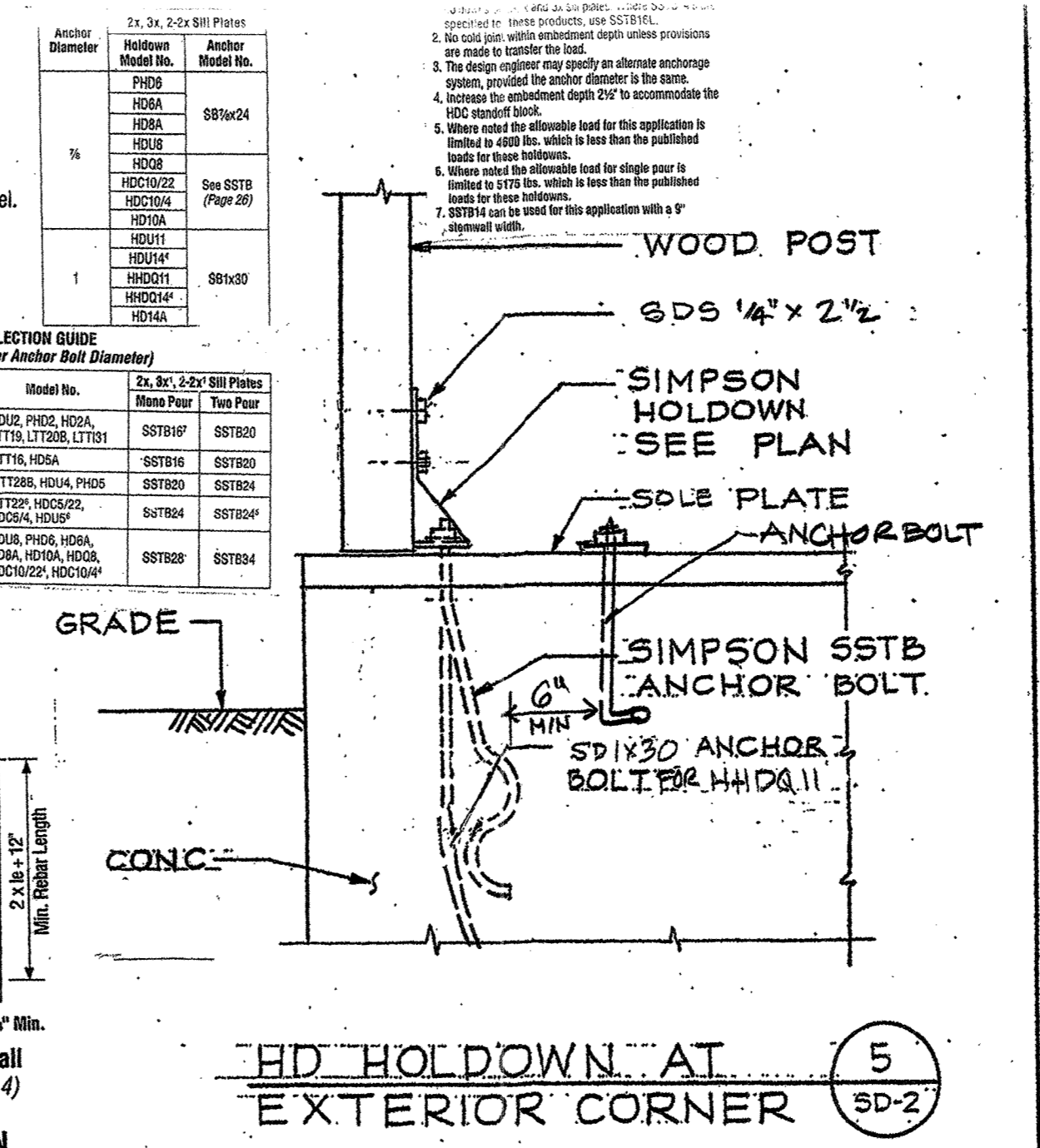
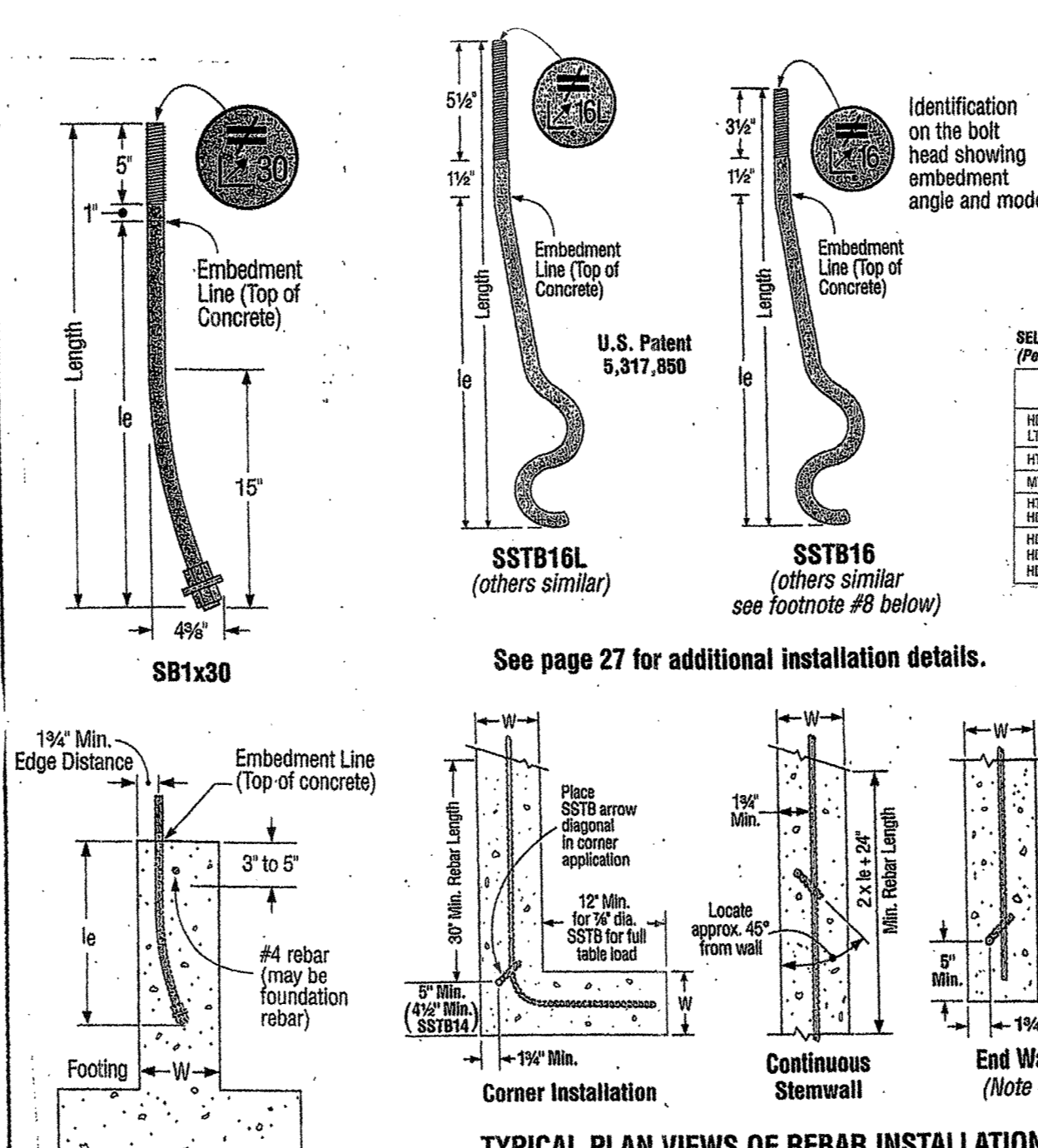
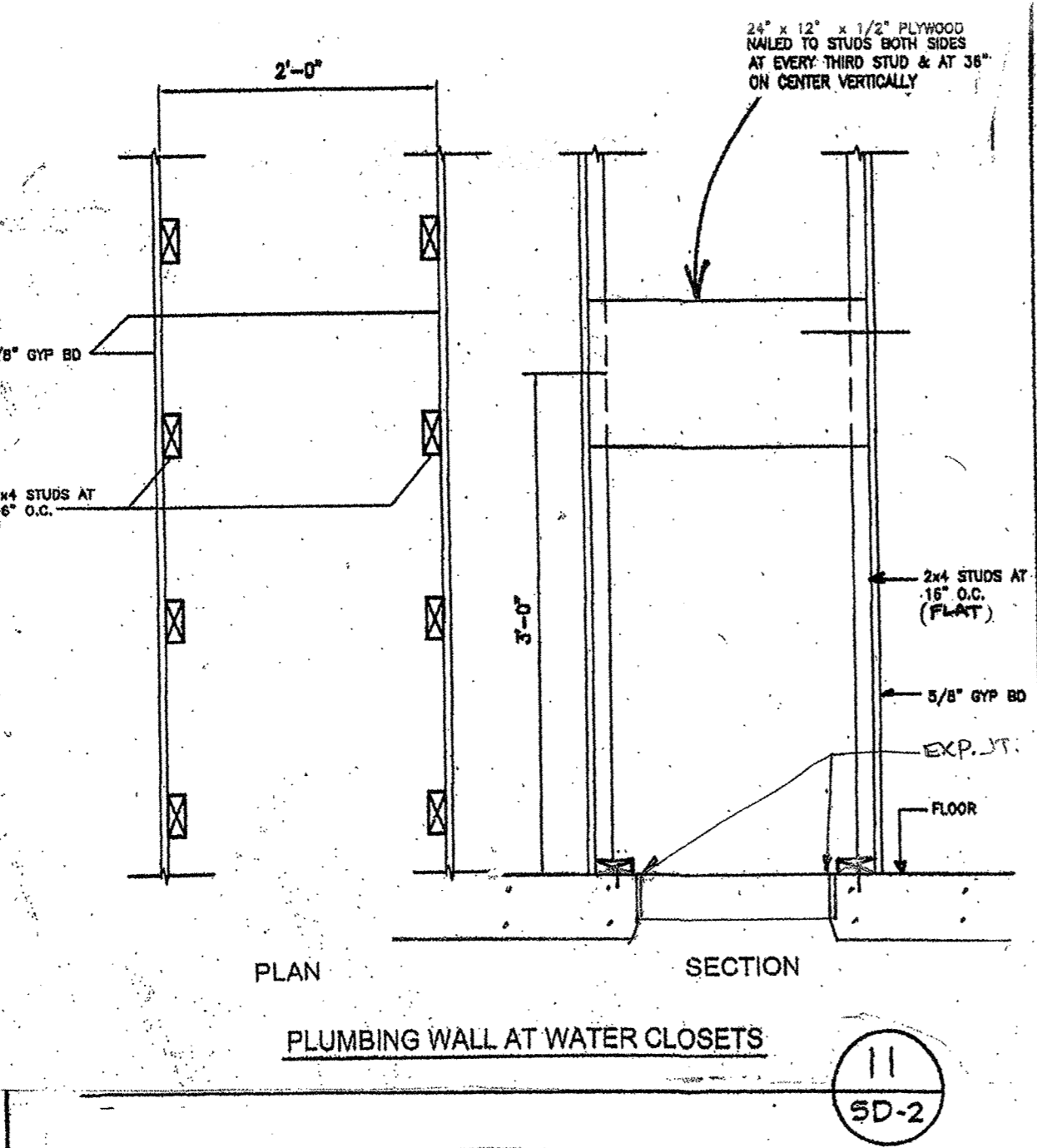
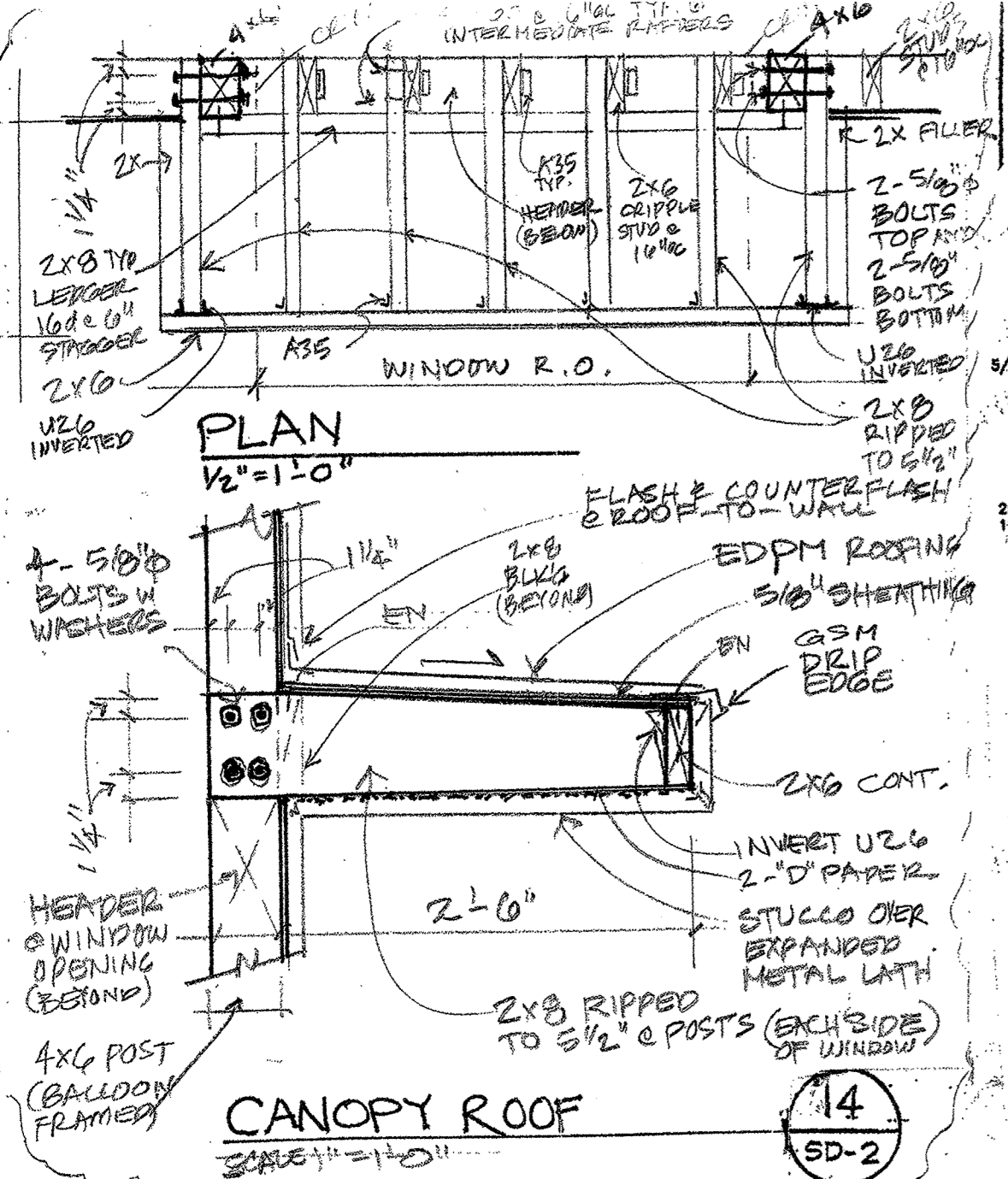


TABLE 2304.5.1 FASTENING SCHEDULE

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	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 and face nail
6. Sole plate to joist or blocking	16d (3 1/2" x 0.135") at 16" o.c. 3" x 0.131" nails at 8" o.c. 3" 14 gage staples at 12" o.c. 3" - 16d common (2 1/2" x 0.131") at 16" 4- 3" x 0.131" nails at 16" 4- 3" 14 gage staples per 16"	typical face nail 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 3- 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 8" 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
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") 3- 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") 3- 3" x 0.131" nails 3- 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 4- 3" 14 gage staples per 16"	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	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") 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 3/8" x 0.113" nail ^d 1 3/8" 16 gage ^e 3/8" to 3/4" 8d ^f or 6d ^f 2 3/8" x 0.113" nail ^d 2" 16 gage ^e 7/8" to 1" 8d ^f 1 1/8" to 1 1/2" 10d ^f or 8d ^f 3/4" and less 6d ^f 1 1/8" to 1 1/2" 10d ^f or 8d ^f 1 1/2" or less 6d ^f 1 1/8" to 1 1/2" 10d ^f or 8d ^f	face nail
32. Panel siding (to framing)	1/2" or less 6d ^f 1 1/8" to 1 1/2" 10d ^f or 8d ^f	face nail
33. Fiberboard sheathing ^g	1/2" No. 11 gage roofing nail ^h 3/4" No. 11 gage roofing nail ^h 1" No. 11 gage roofing nail ^h 1 1/4" No. 11 gage roofing nail ^h 1 1/2" No. 11 gage roofing nail ^h	face nail
34. Interior paneling	1/2" 4d ⁱ 3/4" 6d ⁱ	face nail

Standard Metal Stud & Ceiling Joist Table

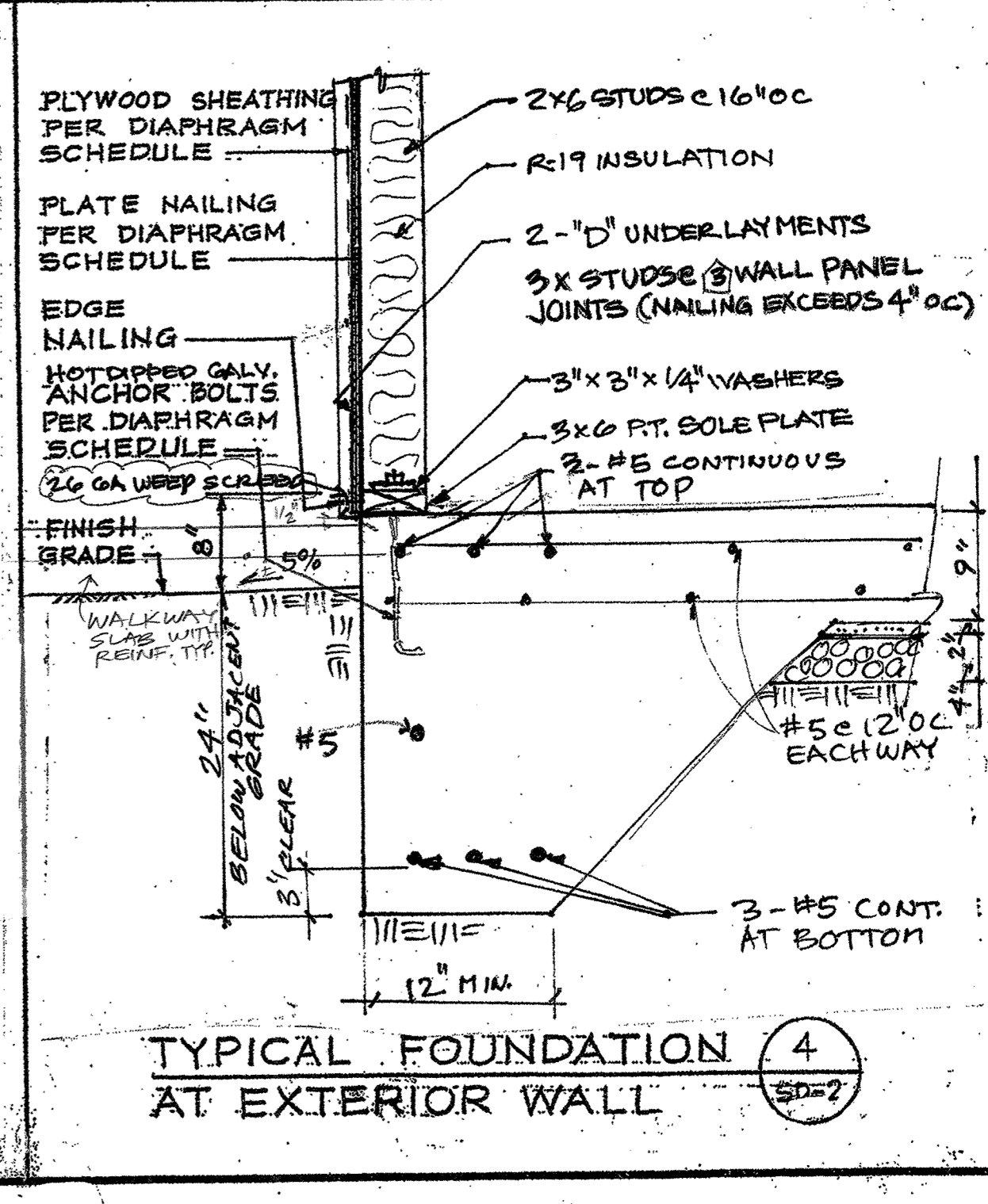
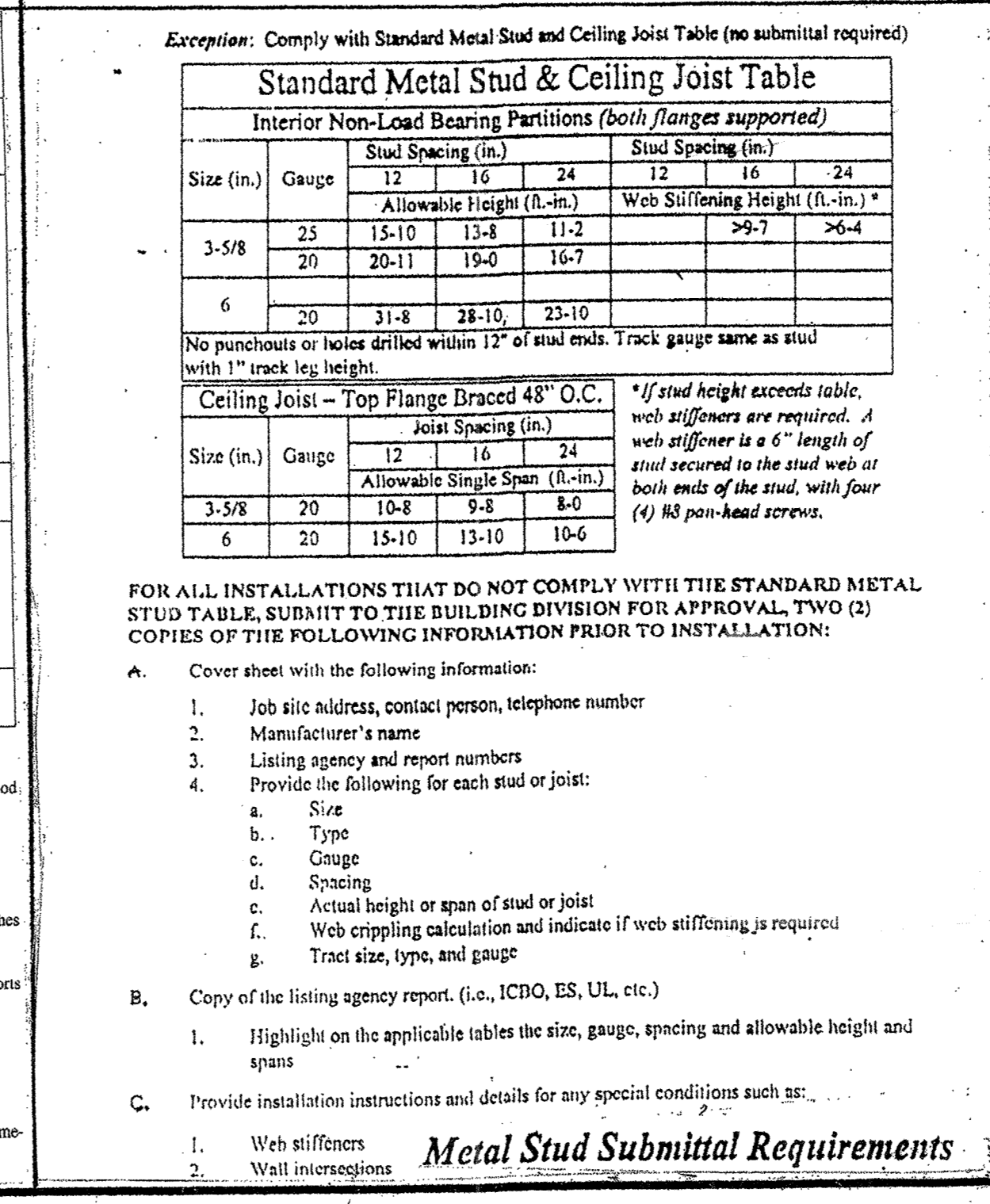
Interior Non-Load Bearing Partitions (both flanges supported)

Size (in.)	Gauge	Stud Spacing (in.)			Web Stiffening Height (ft.-in.) ^a		
		12	16	24	12	16	24
3-5/8	20	15-10	13-8	11-2	>9-7	>6-4	
		20	20-11	19-0	16-7		
		20	31-8	28-10	23-10		

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	Joist Spacing (in.)		
		12	16	24
3-5/8	20	10-8	9-8	8-0
		6-2	15-10	13-10



INSTRUCTIONS:

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

EXAMPLE:

18" TJI joist with Performance Plus web, 8" diameter round hole, 21" hole space (center-to-center of supports).

1. From Table 1, the hole factor is C.

2. From Table 2, the required edge of the hole must be at least 4" from the face of support.

Joist Depth	Hole Factor					
	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"
14"	A	B	C	D	E	F
16"	A	B	C	D	E	F
18"	A	B	C	D	E	F
20"	A	B	C	D	E	F
22"	A	B	C	D	E	F
24"	A	B	C	D	E	F
26"	A	B	C	D	E	F
28"	A	B	C	D	E	F
30"	A	B	C	D	E	F

Hole Factor	Minimum Distance from Edge of Hole to Face of Support					
	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"
A	1 1/2"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	5 1/2"
B	1 1/2"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	5 1/2"
C	1 1/2"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	5 1/2"
D	1 1/2"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	5 1/2"
E	1 1/2"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	5 1/2"
F	1 1/2"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	5 1/2"

ASSUMPTIONS:

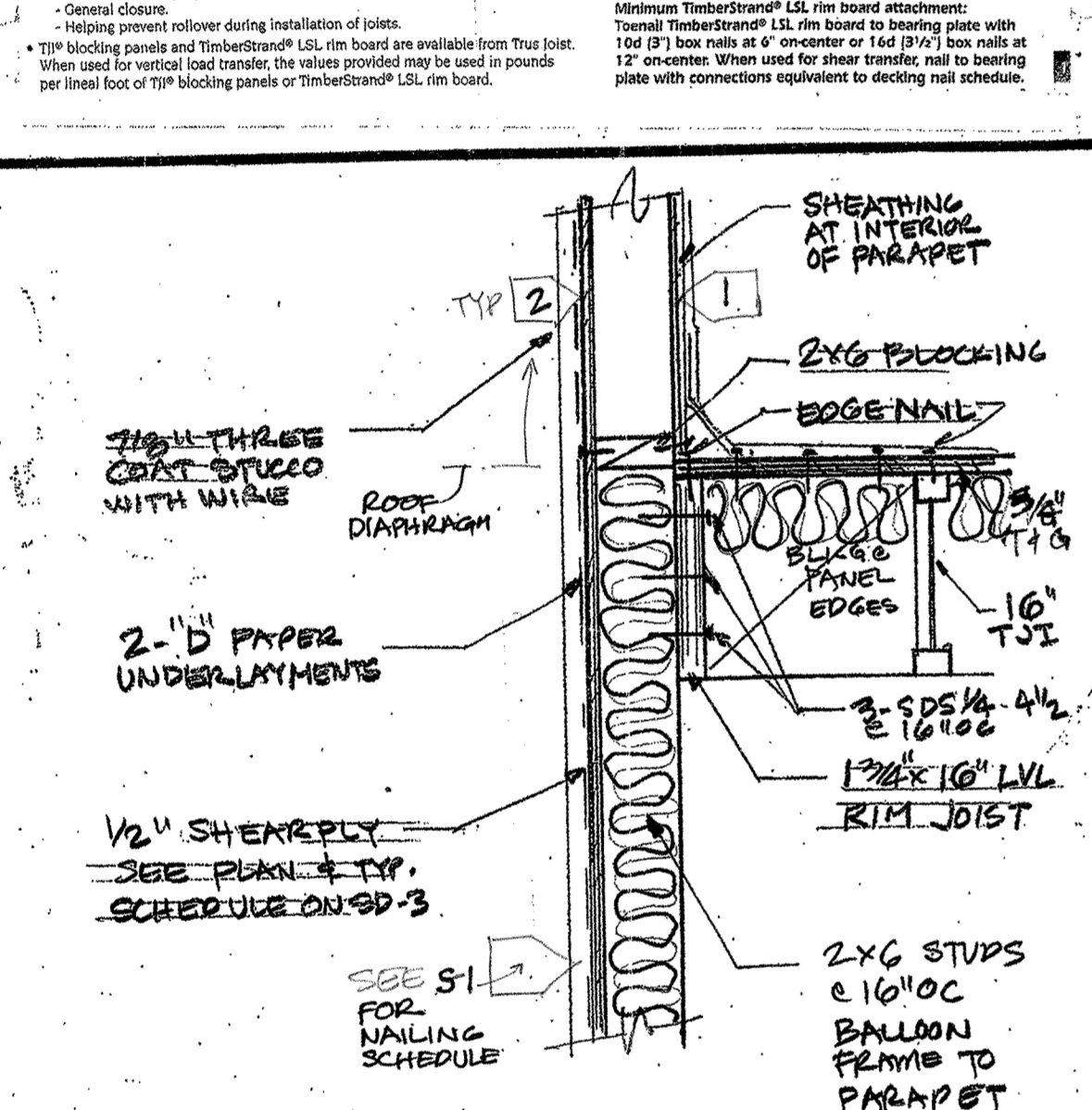
Tables are based on uniformly loaded applications or building code provisions for concentrated loads (2000 lbs over 210 sq ft square with 27 psf dead and 20 psf partition loading). For joists supporting concentrated loads or other conditions or possible exceptions, contact your TJI sales representative.

GENERAL NOTES:

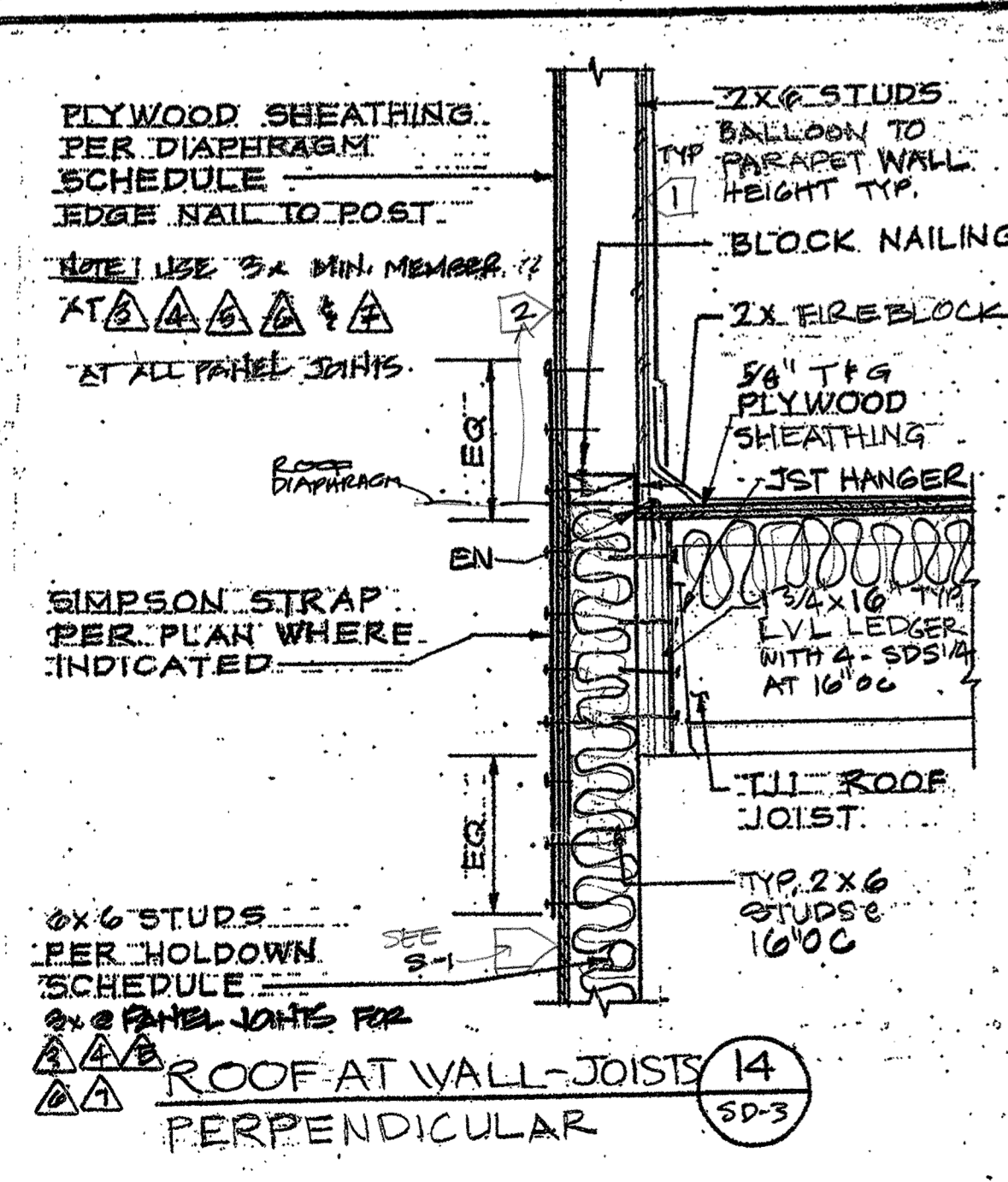
Holes are based on simple span applications. For uniformly loaded cantilever and continuous span applications, the holes must be located one foot further from the support for each foot of over span than the values indicated in the table. Do not cut holes in cantilever area without consulting your TJI sales representative.

TJI® BLOCKING PANELS / TimberStrand® LSL RIM BOARD

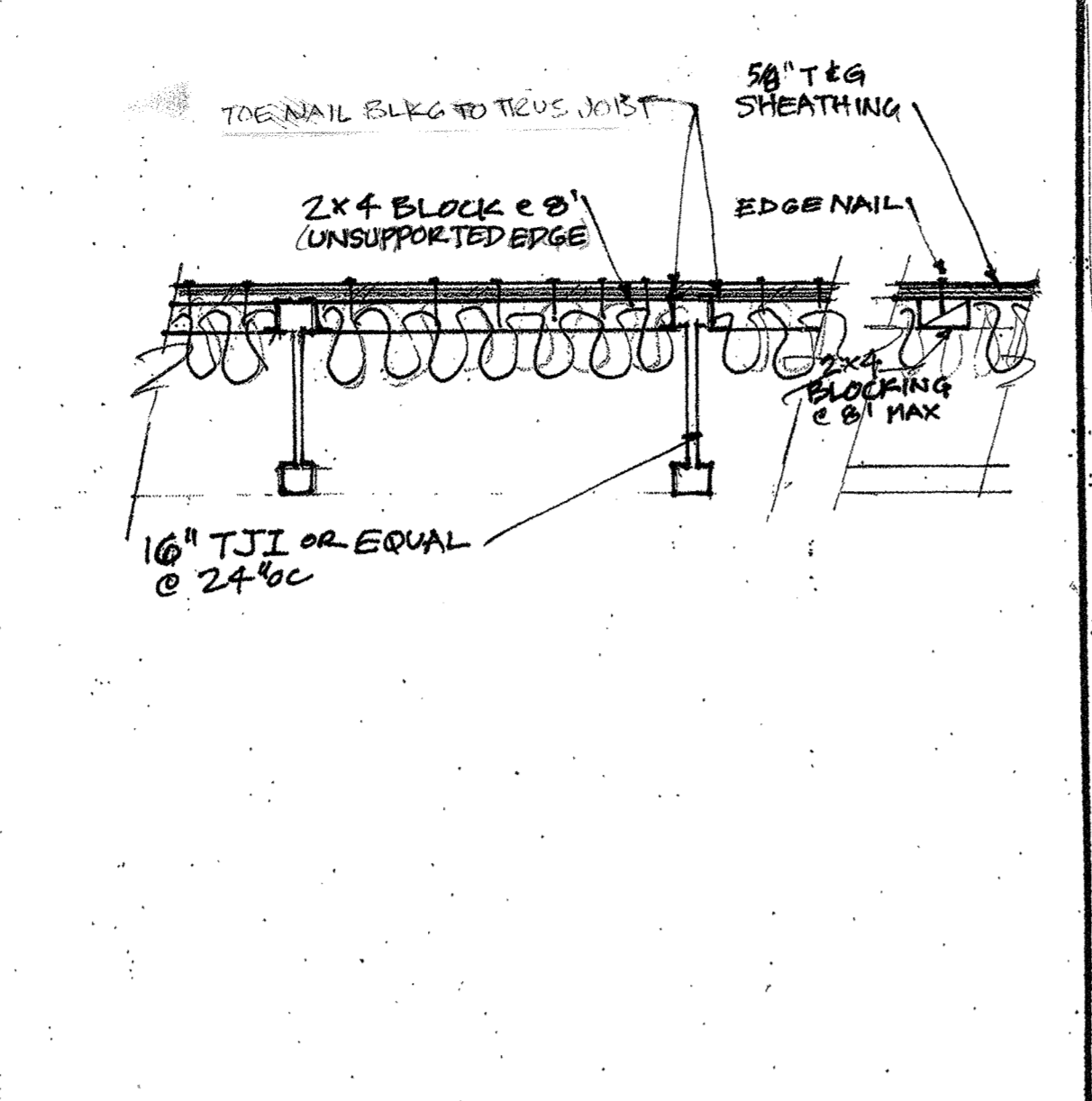
Minimum TJI blocking panel attachment to be 1/4" (D) for walls at 0' oc. Use 1/4" (D) for walls at 8' oc. Use 3/8" (D) for walls at 16' oc. Use 1/2" (D) for walls at 24' oc. Use 5/8" (D) for walls at 32' oc. Use 3/4" (D) for walls at 40' oc. Use 7/8" (D) for walls at 48' oc. Use 1" (D) for walls at 56' oc. Use 1 1/4" (D) for walls at 64' oc. Use 1 1/2" (D) for walls at 72' oc. Use 1 3/4" (D) for walls at 80' oc. Use 2" (D) for walls at 88' oc. Use 2 1/4" (D) for walls at 96' oc. Use 2 1/2" (D) for walls at 104' oc. Use 2 3/4" (D) for walls at 112' oc. Use 3" (D) for walls at 120' oc. Use 3 1/4" (D) for walls at 128' oc. Use 3 1/2" (D) for walls at 136' oc. Use 3 3/4" (D) for walls at 144' oc. Use 4" (D) for walls at 152' oc. Use 4 1/4" (D) for walls at 160' oc. Use 4 1/2" (D) for walls at 168' oc. Use 4 3/4" (D) for walls at 176' oc. Use 5" (D) for walls at 184' oc. Use 5 1/4" (D) for walls at 192' oc. Use 5 1/2" (D) for walls at 200' oc. Use 5 3/4" (D) for walls at 208' oc. Use 6" (D) for walls at 216' oc. Use 6 1/4" (D) for walls at 224' oc. Use 6 1/2" (D) for walls at 232' oc. Use 6 3/4" (D) for walls at 240' oc. Use 7" (D) for walls at 248' oc. Use 7 1/4" (D) for walls at 256' oc. Use 7 1/2" (D) for walls at 264' oc. Use 7 3/4" (D) for walls at 272' oc. Use 8" (D) for walls at 280' oc. Use 8 1/4" (D) for walls at 288' oc. Use 8 1/2" (D) for walls at 296' oc. Use 8 3/4" (D) for walls at 304' oc. Use 9" (D) for walls at 312' oc. Use 9 1/4" (D) for walls at 320' oc. Use 9 1/2" (D) for walls at 328' oc. Use 9 3/4" (D) for walls at 336' oc. Use 10" (D) for walls at 344' oc. Use 10 1/4" (D) for walls at 352' oc. Use 10 1/2" (D) for walls at 360' oc. Use 10 3/4" (D) for walls at 368' oc. Use 11" (D) for walls at 376' oc. Use 11 1/4" (D) for walls at 384' oc. Use 11 1/2" (D) for walls at 392' oc. Use 11 3/4" (D) for walls at 400' oc. Use 12" (D) for walls at 408' oc. Use 12 1/4" (D) for walls at 416' oc. Use 12 1/2" (D) for walls at 424' oc. Use 12 3/4" (D) for walls at 432' oc. Use 13" (D) for walls at 440' oc. Use 13 1/4" (D) for walls at 448' oc. Use 13 1/2" (D) for walls at 456' oc. Use 13 3/4" (D) for walls at 464' oc. Use 14" (D) for walls at 472' oc. Use 14 1/4" (D) for walls at 480' oc. Use 14 1/2" (D) for walls at 488' oc. Use 14 3/4" (D) for walls at 496' oc. Use 15" (D) for walls at 504' oc. Use 15 1/4" (D) for walls at 512' oc. Use 15 1/2" (D) for walls at 520' oc. Use 15 3/4" (D) for walls at 528' oc. Use 16" (D) for walls at 536' oc. Use 16 1/4" (D) for walls at 544' oc. Use 16 1/2" (D) for walls at 552' oc. Use 16 3/4" (D) for walls at 560' oc. Use 17" (D) for walls at 568' oc. Use 17 1/4" (D) for walls at 576' oc. Use 17 1/2" (D) for walls at 584' oc. Use 17 3/4" (D) for walls at 592' oc. Use 18" (D) for walls at 600' oc. Use 18 1/4" (D) for walls at 608' oc. Use 18 1/2" (D) for walls at 616' oc. Use 18 3/4" (D) for walls at 624' oc. Use 19" (D) for walls at 632' oc. Use 19 1/4" (D) for walls at 640' oc. Use 19 1/2" (D) for walls at 648' oc. Use 19 3/4" (D) for walls at 656' oc. Use 20" (D) for walls at 664' oc. Use 20 1/4" (D) for walls at 672' oc. Use 20 1/2" (D) for walls at 680' oc. Use 20 3/4" (D) for walls at 688' oc. Use 21" (D) for walls at 696' oc. Use 21 1/4" (D) for walls at 704' oc. Use 21 1/2" (D) for walls at 712' oc. Use 21 3/4" (D) for walls at 720' oc. Use 22" (D) for walls at 728' oc. Use 22 1/4" (D) for walls at 736' oc. Use 22 1/2" (D) for walls at 744' oc. Use 22 3/4" (D) for walls at 752' oc. Use 23" (D) for walls at 760' oc. Use 23 1/4" (D) for walls at 768' oc. Use 23 1/2" (D) for walls at 776' oc. Use 23 3/4" (D) for walls at 784' oc. Use 24" (D) for walls at 792' oc. Use 24 1/4" (D) for walls at 800' oc. Use 24 1/2" (D) for walls at 808' oc. Use 24 3/4" (D) for walls at 816' oc. Use 25" (D) for walls at 824' oc. Use 25 1/4" (D) for walls at 832' oc. Use 25 1/2" (D) for walls at 840' oc. Use 25 3/4" (D) for walls at 848' oc. Use 26" (D) for walls at 856' oc. Use 26 1/4" (D) for walls at 864' oc. Use 26 1/2" (D) for walls at 872' oc. Use 26 3/4" (D) for walls at 880' oc. Use 27" (D) for walls at 888' oc. Use 27 1/4" (D) for walls at 896' oc. Use 27 1/2" (D) for walls at 904' oc. Use 27 3/4" (D) for walls at 912' oc. Use 28" (D) for walls at 920' oc. Use 28 1/4" (D) for walls at 928' oc. Use 28 1/2" (D) for walls at 936' oc. Use 28 3/4" (D) for walls at 944' oc. Use 29" (D) for walls at 952' oc. Use 29 1/4" (D) for walls at 960' oc. Use 29 1/2" (D) for walls at 968' oc. Use 29 3/4" (D) for walls at 976' oc. Use 30" (D) for walls at 984' oc. Use 30 1/4" (D) for walls at 992' oc. Use 30 1/2" (D) for walls at 1000' oc. Use 30 3/4" (D) for walls at 1008' oc. Use 31" (D) for walls at 1016' oc. Use 31 1/4" (D) for walls at 1024' oc. Use 31 1/2" (D) for walls at 1032' oc. Use 31 3/4" (D) for walls at 1040' oc. Use 32" (D) for walls at 1048' oc. Use 32 1/4" (D) for walls at 1056' oc. Use 32 1/2" (D) for walls at 1064' oc. Use 32 3/4" (D) for walls at 1072' oc. Use 33" (D) for walls at 1080' oc. Use 33 1/4" (D) for walls at 1088' oc. Use 33 1/2" (D) for walls at 1096' oc. Use 33 3/4" (D) for walls at 1104' oc. Use 34" (D) for walls at 1112' oc. Use 34 1/4" (D) for walls at 1120' oc. Use 34 1/2" (D) for walls at 1128' oc. Use 34 3/4" (D) for walls at 1136' oc. Use 35" (D) for walls at 1144' oc. Use 35 1/4" (D) for walls at 1152' oc. Use 35 1/2" (D) for walls at 1160' oc. Use 35 3/4" (D) for walls at 1168' oc. Use 36" (D) for walls at 1176' oc. Use 36 1/4" (D) for walls at 1184' oc. Use 36 1/2" (D) for walls at 1192' oc. Use 36 3/4" (D) for walls at 1200' oc. Use 37" (D) for walls at 1208' oc. Use 37 1/4" (D) for walls at 1216' oc. Use 37 1/2" (D) for walls at 1224' oc. Use 37 3/4" (D) for walls at 1232' oc. Use 38" (D) for walls at 1240' oc. Use 38 1/4" (D) for walls at 1248' oc. Use 38 1/2" (D) for walls at 1256' oc. Use 38 3/4" (D) for walls at 1264' oc. Use 39" (D) for walls at 1272' oc. Use 39 1/4" (D) for walls at 1280' oc. Use 39 1/2" (D) for walls at 1288' oc. Use 39 3/4" (D) for walls at 1296' oc. Use 40" (D) for walls at 1304' oc. Use 40 1/4" (D) for walls at 1312' oc. Use 40 1/2" (D) for walls at 1320' oc. Use 40 3/4" (D) for walls at 1328' oc. Use 41" (D) for walls at 1336' oc. Use 41 1/4" (D) for walls at 1344' oc. Use 41 1/2" (D) for walls at 1352' oc. Use 41 3/4" (D) for walls at 1360' oc. Use 42" (D) for walls at 1368' oc. Use 42 1/4" (D) for walls at 1376' oc. Use 42 1/2" (D) for walls at 1384' oc. Use 42 3/4" (D) for walls at 1392' oc. Use 43" (D) for walls at 1400' oc. Use 43 1/4" (D) for walls at 1408' oc. Use 43 1/2" (D) for walls at 1416' oc. Use 43 3/4" (D) for walls at 1424' oc. Use 44" (D) for walls at 1432' oc. Use 44 1/4" (D) for walls at 1440' oc. Use 44 1/2" (D) for walls at 1448' oc. Use 44 3/4" (D) for walls at 1456' oc. Use 45" (D) for walls at 1464' oc. Use 45 1/4" (D) for walls at 1472' oc. Use 45 1/2" (D) for walls at 1480' oc. Use 45 3/4" (D) for walls at 1488' oc. Use 46" (D) for walls at 1496' oc. Use 46 1/4" (D) for walls at 1504' oc. Use 46 1/2" (D) for walls at 1512' oc. Use 46 3/4" (D) for walls at 1520' oc. Use 47" (D) for walls at 1528' oc. Use 47 1/4" (D) for walls at 1536' oc. Use 47 1/2" (D) for walls at 1544' oc. Use 47 3/4" (D) for walls at 1552' oc. Use 48" (D) for walls at 1560' oc. Use 48 1/4" (D) for walls at 1568' oc. Use 48 1/2" (D) for walls at 1576' oc. Use 48 3/4" (D) for walls at 1584' oc. Use 49" (D) for walls at 1592' oc. Use 49 1/4" (D) for walls at 1600' oc. Use 49 1/2" (D) for walls at 1608' oc. Use 49 3/4" (D) for walls at 1616' oc. Use 50" (D) for walls at 1624' oc. Use 50 1/4" (D) for walls at 1632' oc. Use 50 1/2" (D) for walls at 1640' oc. Use 50 3/4" (D) for walls at 1648' oc. Use 51" (D) for walls at 1656' oc. Use 51 1/4" (D) for walls at 1664' oc. Use 51 1/2" (D) for walls at 1672' oc. Use 51 3/4" (D) for walls at 1680' oc. Use 52" (D) for walls at 1688' oc. Use 52 1/4" (D) for walls at 1696' oc. Use 52 1/2" (D) for walls at 1704' oc. Use 52 3/4" (D) for walls at 1712' oc. Use 53" (D) for walls at 1720' oc. Use 53 1/4" (D) for walls at 1728' oc. Use 53 1/2" (D) for walls at 1736' oc. Use 53 3/4" (D) for walls at 1744' oc. Use 54" (D) for walls at 1752' oc. Use 54 1/4" (D) for walls at 1760' oc. Use 54 1/2" (D) for walls at 1768' oc. Use 54 3/4" (D) for walls at 1776' oc. Use 55" (D) for walls at 1784' oc. Use 55 1/4" (D) for walls at 1792' oc. Use 55 1/2" (D) for walls at 1800' oc. Use 55 3/4" (D) for walls at 1808' oc. Use 56" (D) for walls at 1816' oc. Use 56 1/4" (D) for walls at 1824' oc. Use 56 1/2" (D) for walls at 1832' oc. Use 56 3/4" (D) for walls at 1840' oc. Use 57" (D) for walls at 1848' oc. Use 57 1/4" (D) for walls at 1856' oc. Use 57 1/2" (D) for walls at 1864' oc. Use 57 3/4" (D) for walls at 1872' oc. Use 58" (D) for walls at 1880' oc. Use 58 1/4" (D) for walls at 1888' oc. Use 58 1/2" (D) for walls at 1896' oc. Use 58 3/4" (D) for walls at 1904' oc. Use 59" (D) for walls at 1912' oc. Use 59 1/4" (D) for walls at 1920' oc. Use 59 1/2" (D) for walls at 1928' oc. Use 59 3/4" (D) for walls at 1936' oc. Use 60" (D) for walls at 1944' oc. Use 60 1/4" (D) for walls at 1952' oc. Use 60 1/2" (D) for walls at 1960' oc. Use 60 3/4" (D) for walls at 1968' oc. Use 61" (D) for walls at 1976' oc. Use 61 1/4" (D) for walls at 1984' oc. Use 61 1/2" (D) for walls at 1992' oc. Use 61 3/4" (D) for walls at 2000' oc.



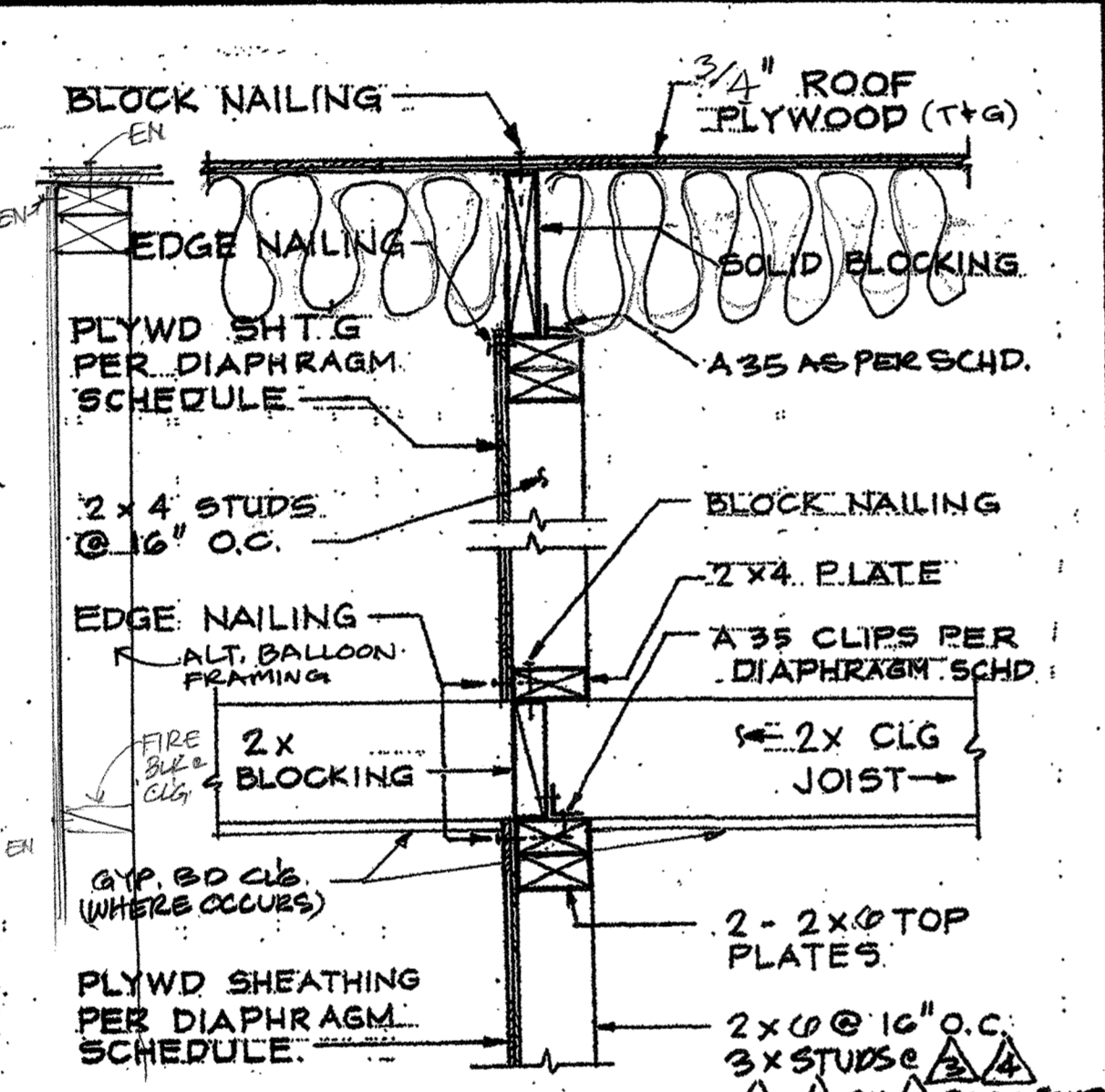
ROOF AT WALL - JOISTS PARALLEL (13) SD-3



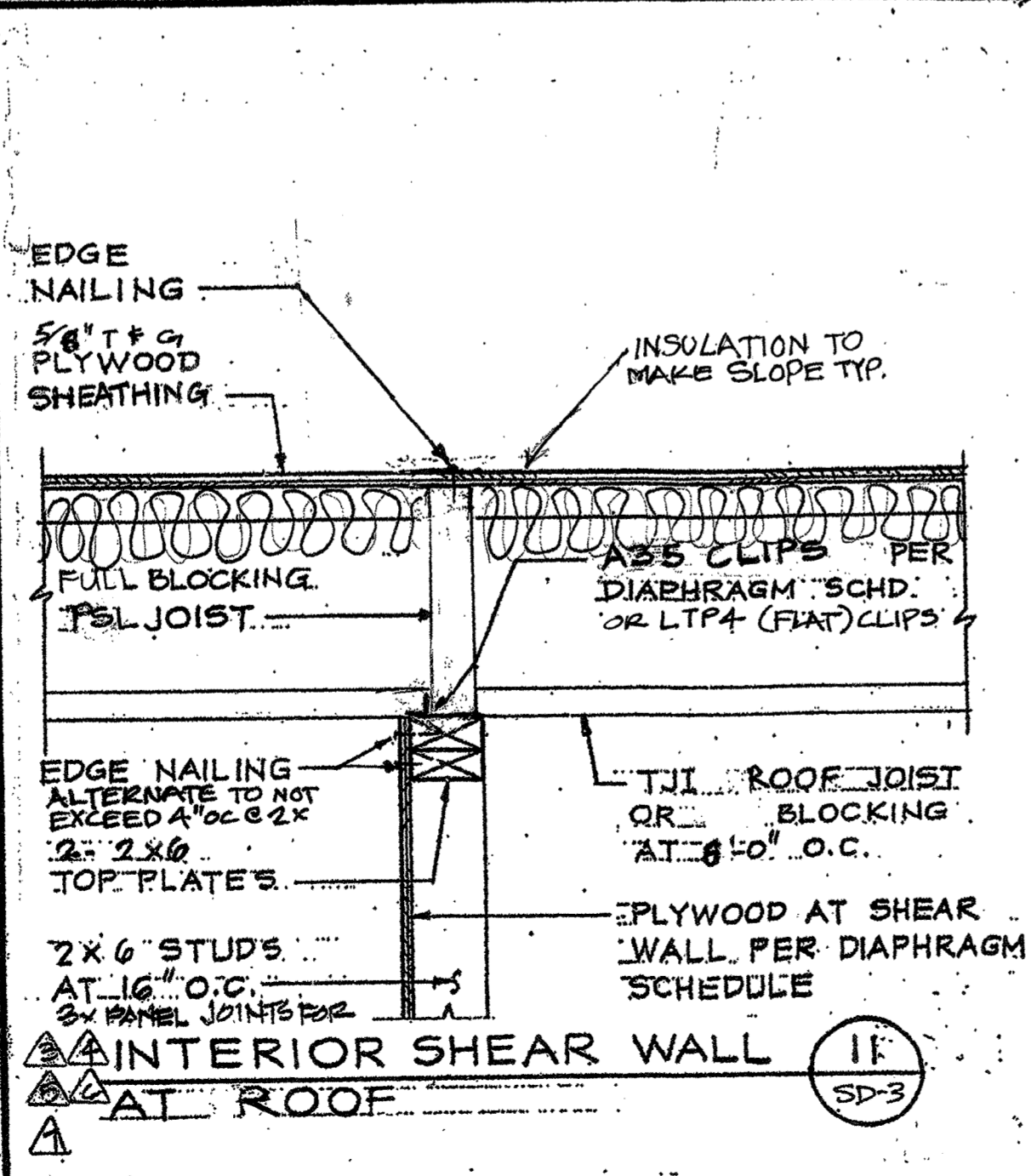
ROOF AT WALL - JOISTS PERPENDICULAR (14) SD-3



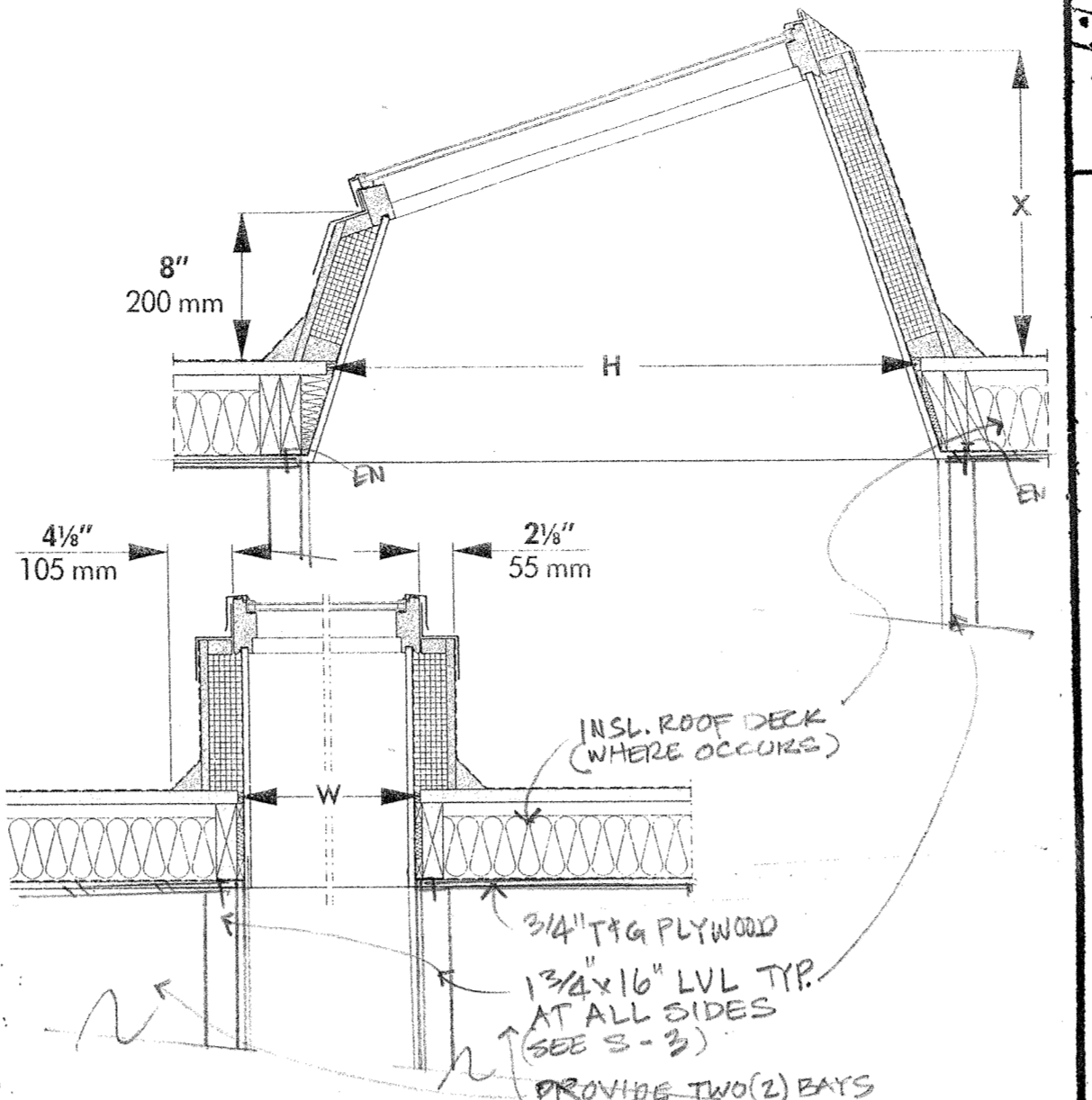
ROOF DIAPHRAGM BLOCKING (9) SD-3



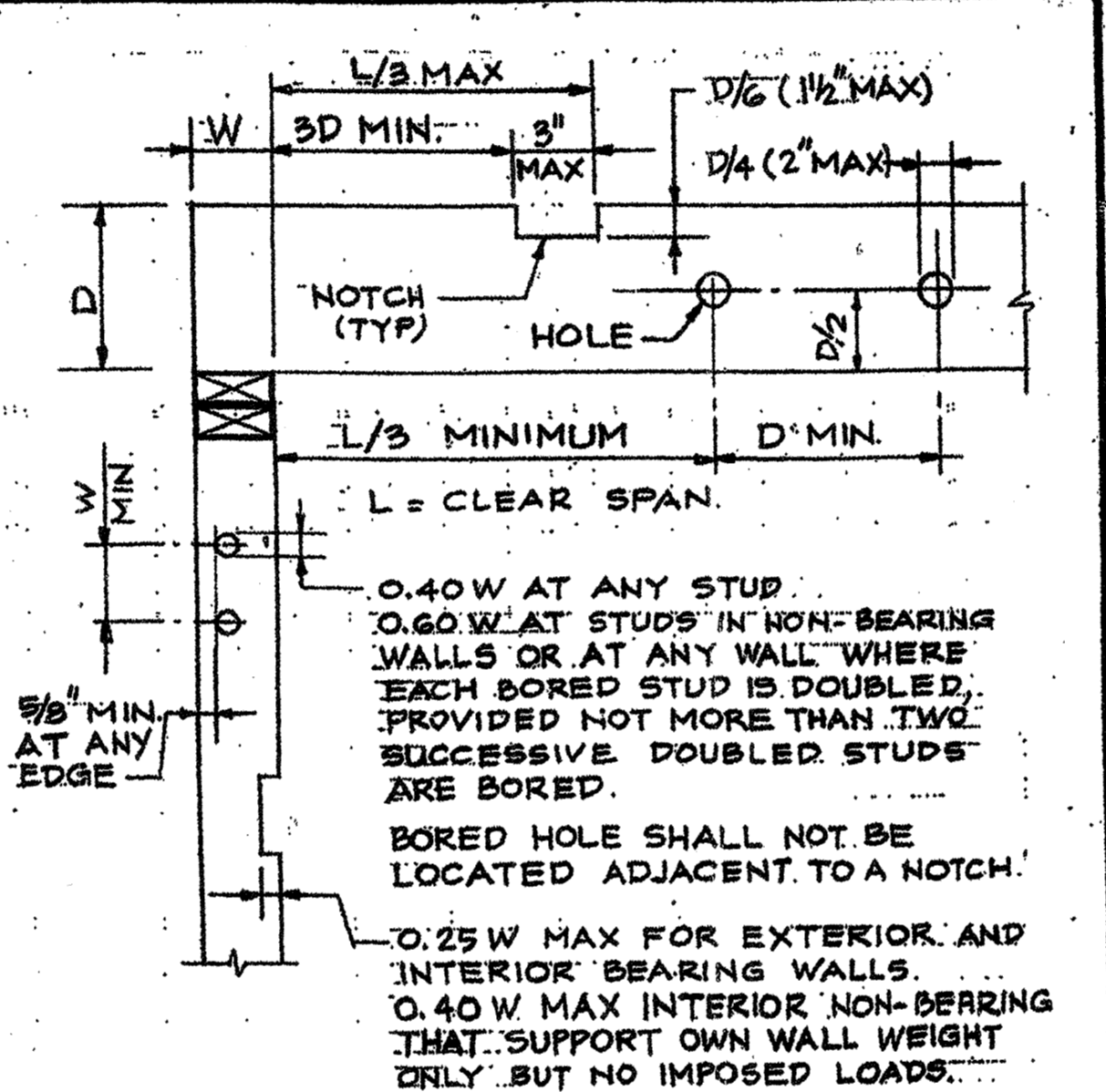
INTERIOR SHEAR WALL AT ROOF (10) SD-3



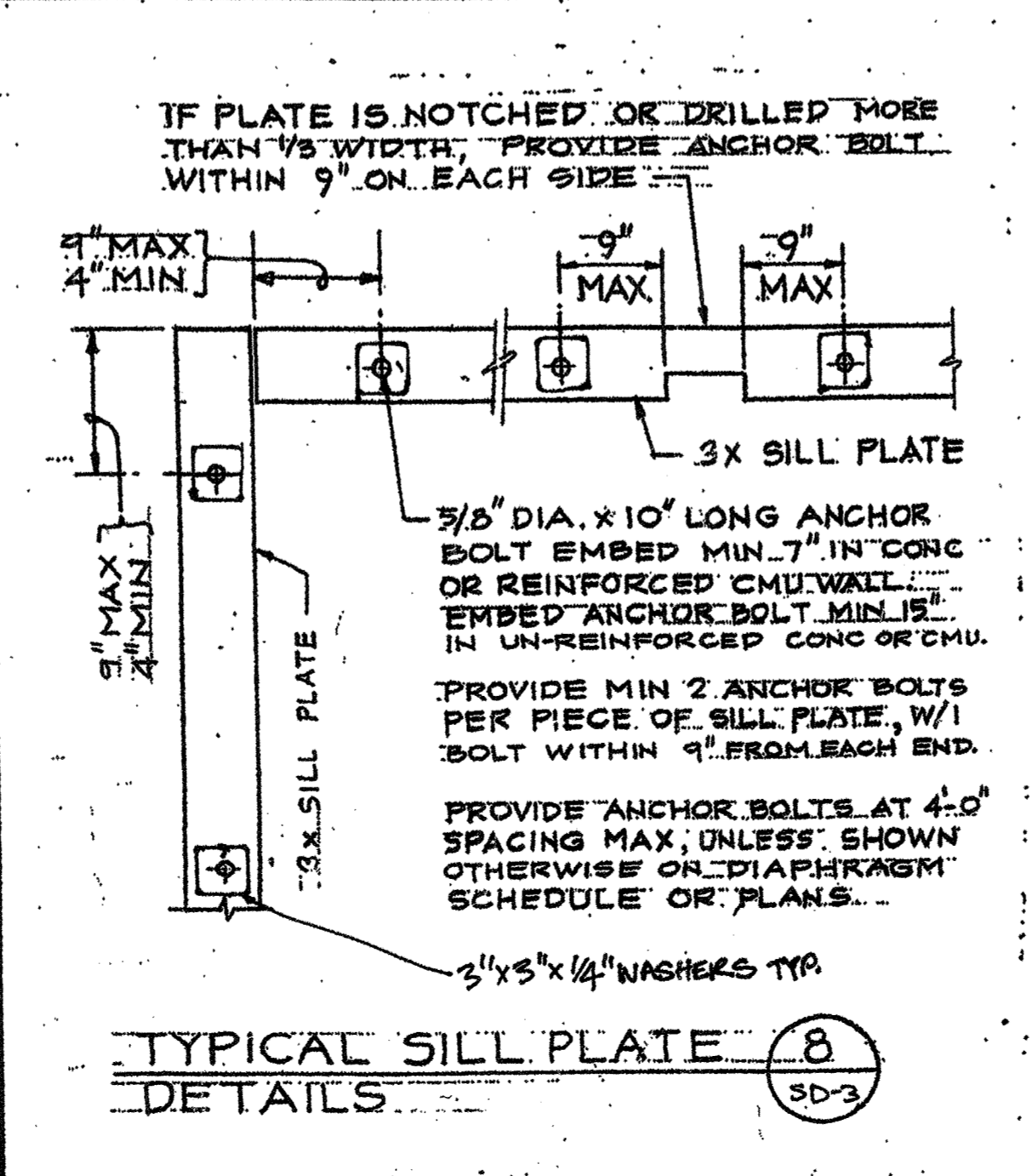
INTERIOR SHEAR WALL AT ROOF (11) SD-3



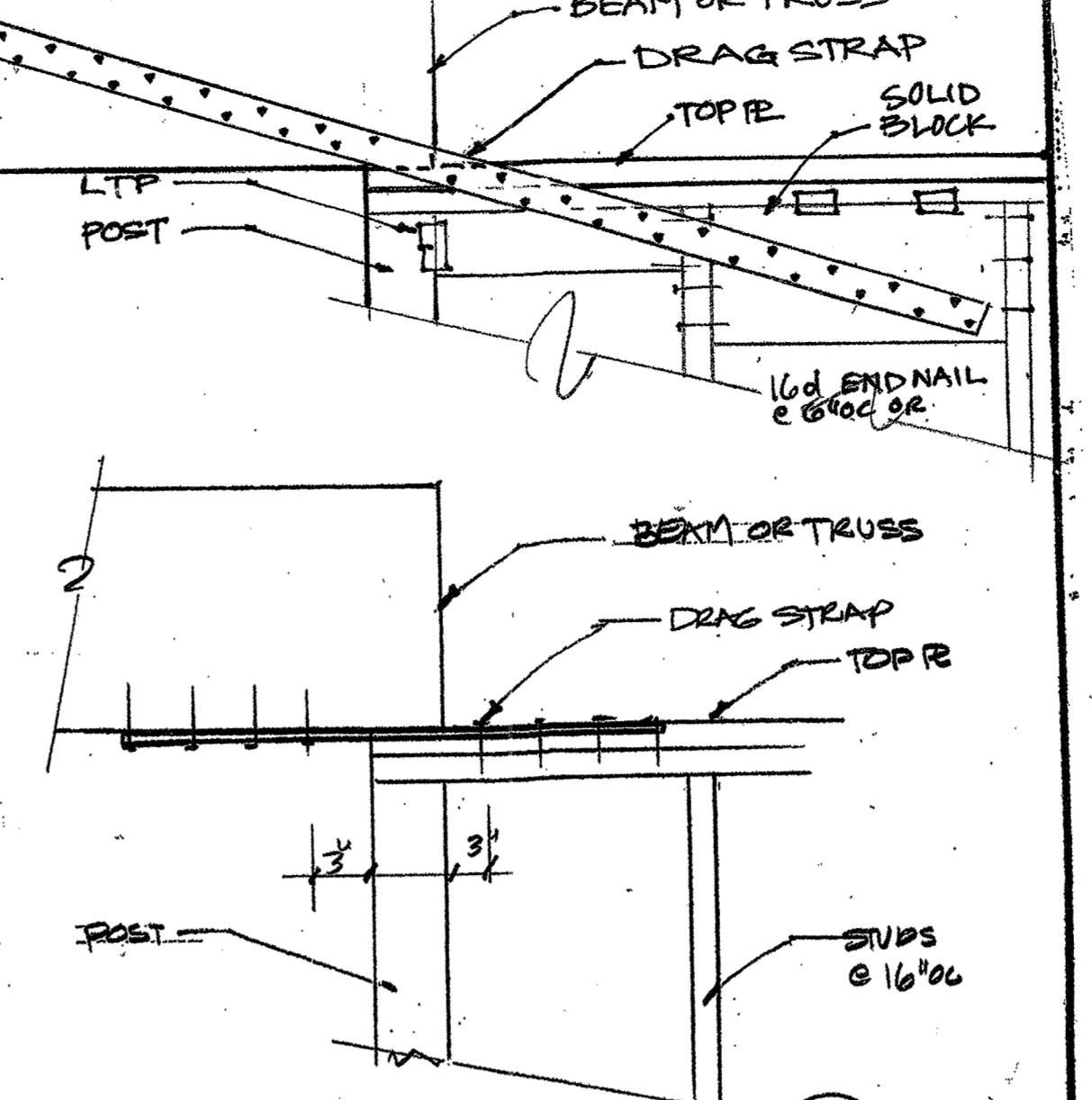
SKYLIGHT (6) SD-3



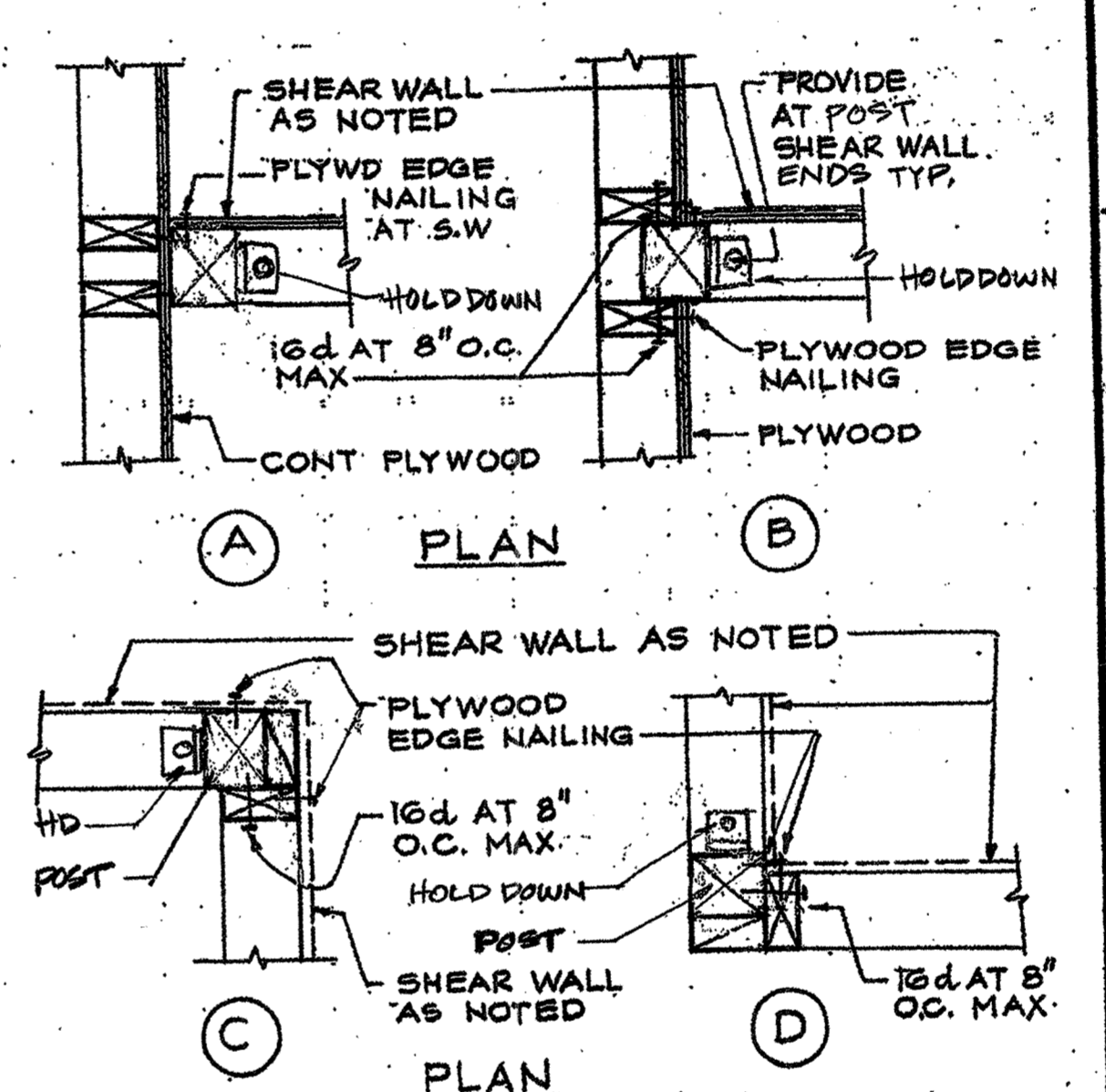
NOTCH AND BORE LIMITS AT TYPICAL FRAMING (7) SD-3



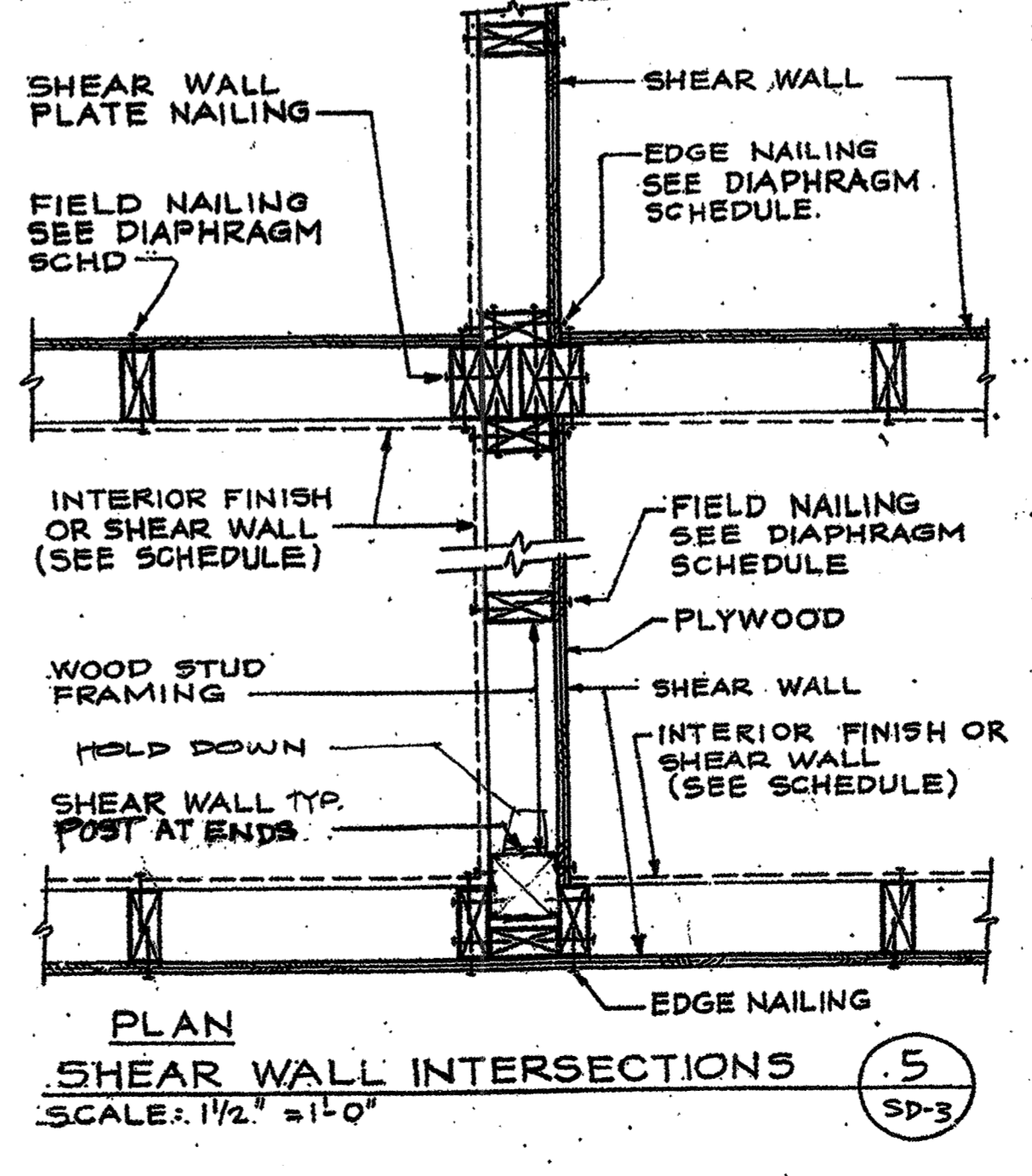
TYPICAL SILL PLATE DETAILS (8) SD-3



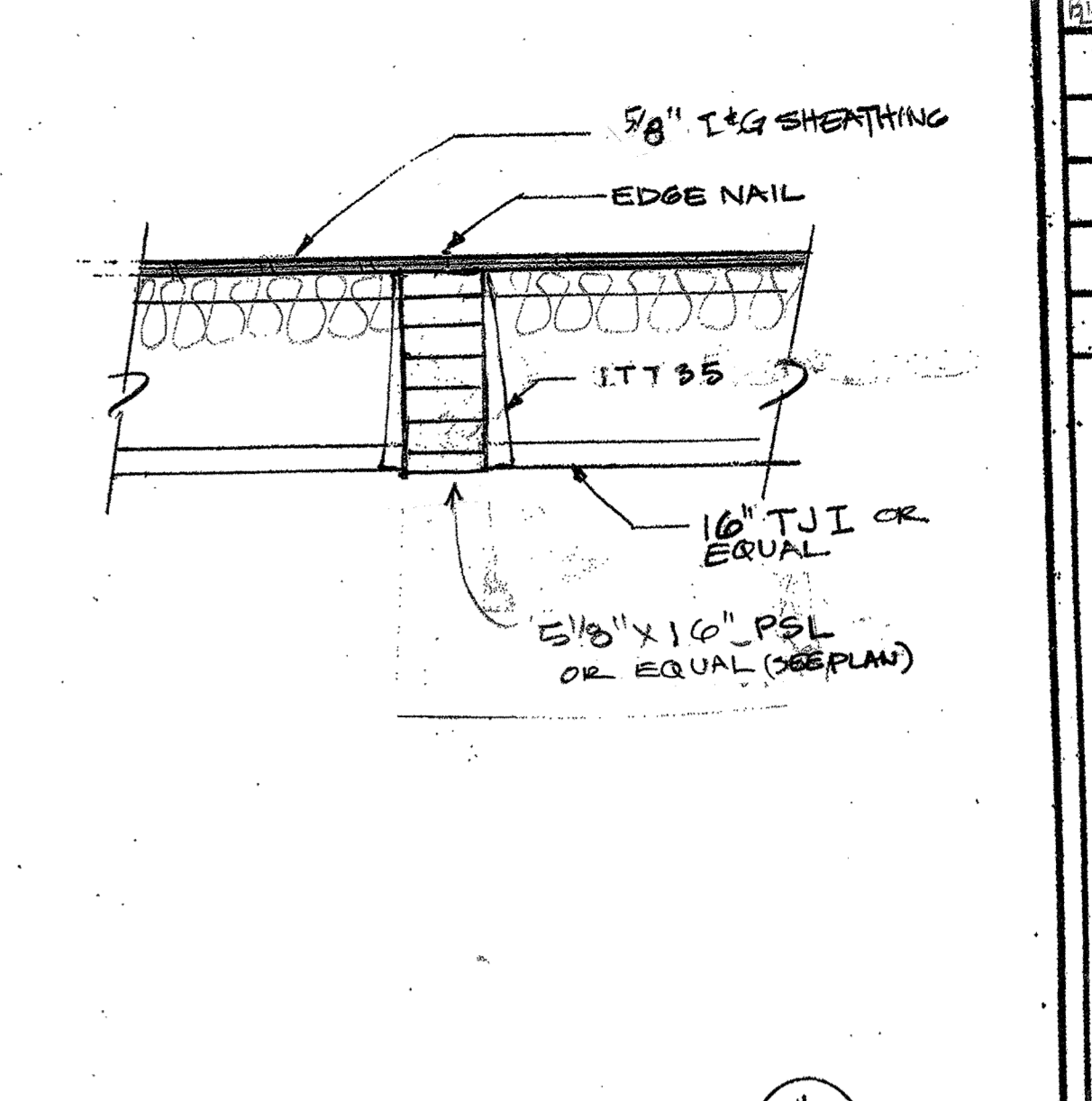
DRAG STRAP (3) SD-3



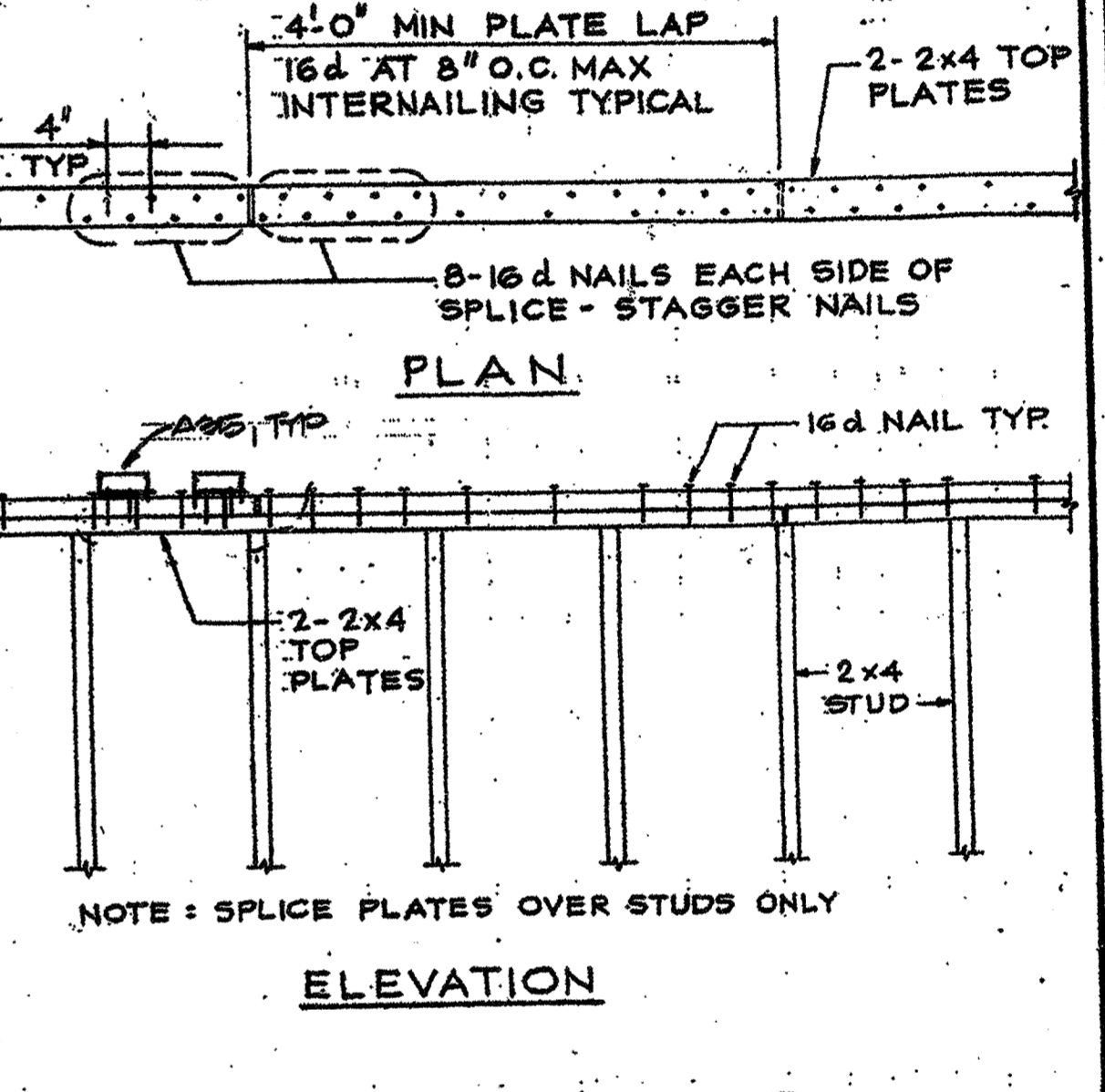
WALL FRAMING @ CORNERS & INTERSECTIONS (4) SD-3



SHEAR WALL INTERSECTIONS (5) SD-3



ROOF BEAM (1) SD-3



MINIMUM TOP PLATE SPLICE (2) SD-3

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 WALL	1	3/8\"/>				
	2	1/2\"/>				
	3	1/2\"/>				
4	1/2\"/>					

NOTE: PROVIDE 5/8" DIAMETER ANCHOR BOLTS (A.B.), 18" LONG WITH 7" MINIMUM EMBEDMENT, UNLESS NOTED OTHERWISE ON FOUNDATION PLAN. PROVIDE SPACING PER ABOVE SCHEDULE. USE PLATE WASHER 3"x3"x1/4" AT ALL ANCHOR BOLTS (A.B.).

NEW BUILDING "D" PHASE 2
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551
STRUCTURAL FRAMING DETAILS
GOVINDARAO
 Date: 11-19-11
 Scale: 1/2" = 1'-0", UOM
 Drawn:
 Job: ARROWHEAD
 Sheet: **SD-3**
 Of: 3 Sheets