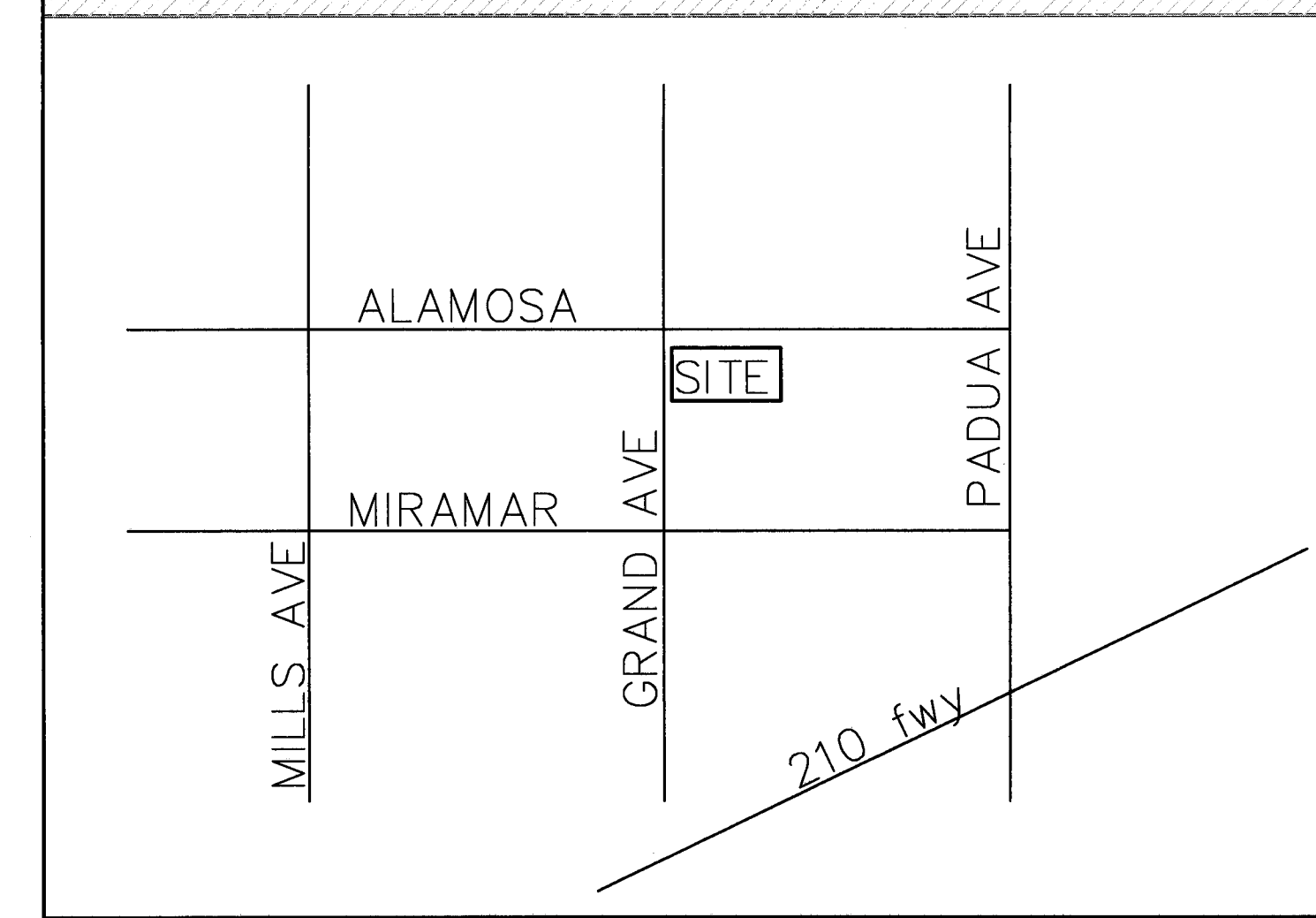


# NEW RESIDENCE FOR GOLD ESTATE INTERNATIONAL GROUP

<p>APN 8671-009-028</p> <p>LOT AREA 43,983 SF ZONE RR 35,000</p> <p><b>LIVING AREA DATA</b></p> <ul style="list-style-type: none"> <li>- 1ST FLOOR LIVING AREA = 5015 SF</li> <li>- 2ND FLOOR LIVING AREA = 3015 SF</li> <li>- TOTAL LIVING AREA = 8030 SF</li> </ul> <p>(TOTAL LIVING AREA INCLUDES STAIRS ONCE, EXCLUDES 2ND FLR OPEN TO BELOW)</p> <p><b>FAR DATA</b></p> <ul style="list-style-type: none"> <li>2ND FLOOR 40% OF MAX PERMITTED FLR AREA .4 X 8597 SF = 3438 SF</li> <li>1ST FLOOR GROSS AREA 5261 SF</li> <li>2ND FLOOR GROSS AREA = 3310 SF</li> <li>INCLUDES OPEN TO BELOW +16 FT</li> <li>TOTAL = 8571 SF</li> <li>MAXIMUM FLOOR AREA 2000 +15% OF LOT AREA (NET)=2000+</li> <li>15% X 43,983= 8,582 SF</li> </ul> <p>ACCESSORY STRUCTURE 40% MAX OF MAIN STRCT MAIN STRUCTURE 8568 SF X .4=3427 SF DETACHED GARAGE AND 2ND DWL 1694 SF DETACHED GAME ROOM 574 SF</p> <p><b>FOOTPRINT DATA</b></p> <ul style="list-style-type: none"> <li>FOOTPRINT = 7526 SF</li> <li>MAX LOT COVERAGE ALLOWED 20% 8796 SF</li> <li>- LOT COVERAGE= 17.1%</li> </ul> <p>LOT AREA 43,983 SF</p> <p>- BEDROOM X 400 SF USABLE OPEN SPACE</p> <p>LANDSCAPING AREA 25,000 SF+ LANDSCAPING IS SUBJECT TO WELO</p> <p>LANDSCAPE AND IRRIGATION PLANS SHALL BE SUBMITTED PRIOR TO APPROVAL</p> <p>SIDE YARDS REQUIRED TOTAL OF 30% OF LOT WIDTH 196 X .3= 15 FT MINIMUM 58.8 FT 70 FT SHOWN FOR MAIN STRUCTURE</p>	<p><b>PROJECT INFORMATION</b></p> <p>OWNER REP STEVE LI PH 626 227-4433</p> <p>730 W DUARTE RD SUITE 420 ARCADIA, CA 91703</p> <p>THIS PROJECT SHALL COMPLY WITH: CALIFORNIA RESIDENTIAL CODE, 2013 EDITION; CALIFORNIA PLUMBING CODE, 2013 EDITION; CALIFORNIA MECHANICAL CODE, 2013 EDITION; THE CALIFORNIA FIRE CODE (CFC), 2013 EDITION; CALIFORNIA ELECTRICAL CODE, 2013 EDITION; CALIFORNIA ENERGY CODE, 2013 EDITION.</p> <p><b>DESIGN LOADS</b></p> <ul style="list-style-type: none"> <li>ROOF LIVE 20 PSF</li> <li>ROOF DEAD 19 PSF</li> <li>FLOOR LIVE 40 PSF</li> <li>FLOOR DEAD 18 PSF(15 MIN PER CODE)</li> <li>SEISMIC Cs 0.25</li> <li>WIND LOAD 17 PSF</li> <li>BASE SHEAR 0.166W</li> <li>SOIL BEARING 1500 PSF</li> </ul> <p>OCCUPANCY CLASSIFICATION: R3/U TYPE OF CONSTRUCTION: VB</p> <p><b>SCOPE OF WORK</b></p> <p>NEW TWO STORY HOME ON A VACAN LOT. SEE AREA TABULATION FOR AREA CALCULATIONS.</p> <p><b>SHEET INDEX</b></p> <ul style="list-style-type: none"> <li>CVR. COVER SHEET</li> <li>SCH-1. SCHEDULE SHEET</li> <li>GRN. GREEN NOTE SHEET</li> <li>S. SITE PLAN</li> <li>G. GRADING PLAN</li> <li>T. TENNIS COURT DETAIL SHEET</li> <li>A-1.1 NOTES</li> <li>A-1. 1ST FLOOR PLAN</li> <li>A-2. 2ND FLOOR PLAN</li> <li>A-3. ROOF PLAN</li> <li>A-4. ELEVATIONS</li> <li>A-5. ELEVATIONS</li> <li>A-6. SECTIONS</li> <li>E-1. 1ST FLOOR ELECTRICAL PLAN</li> <li>E-2. 2ND FLOOR ELECTRICAL PLAN</li> <li>S-1. FOUNDATION PLAN</li> <li>S-2. 1ST FLOOR FRAMING PLAN</li> <li>S-3. 2ND FLOOR FRAMING PLAN</li> <li>S-4. STRUCTURAL NOTES</li> <li>D DETAILS ARCHITECTURAL</li> <li>D-1. DETAIL SHEET</li> <li>D-2. DETAIL SHEET</li> <li>T-24. T24 ENERGY CALCULATIONS</li> </ul>
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SCALE 3/16" = 1 FT - 0 IN

**PETE VOLBEDA Architecture Planning**  
 180 N BENSON AVE. D. UPLAND, CA. 91786  
 TEL 909 373 1150 FAX 909 373 1152

DATE	8/13/2015	PLAN CHECK		APPROVED		REVISION	
DESIGN		DRAWN BY:		CHECKED		OWNER APPROVAL	

COVER SHEET / RDR 15-R01  
 RES FOR G.E.I.G.  
 3429 GRAND AVE., CLAREMONT  
 CVR

OF SHEET

ROOM FINISH SCHEDULE

ROOM	FLOOR	BASE	WALL	CEILING
ENTRY				
LIVING RM				
DINING RM				
KITCHEN				
WOK BUTLER PNTRY				
LNDRY				
GYM./MAID'S				
BREAKFAST				
LIBRARY				
THEATRE				
BATHRM				
FAMILY ROOM				
GUEST CLO				
CLO/SAUNA				
MASTER 2				
M BATHRM				
CLOSET				
PWDR				
WINE CLR				
2ND DWELLING UNIT				
GARAGE				
BEDROOM				
KITCHEN				
REC RM.				
CLO				
GAME ROOM/ POOL BTRM				
CLO				
2ND FLOOR				
MASTER BDRM SITTING RM CLOSET				
M BATHROOM				
BEDROOM 3				
BEDROOM 4 CLOSET				
BATHRM				
BEDROOM 5 CLOSET				
LAUNDRY				

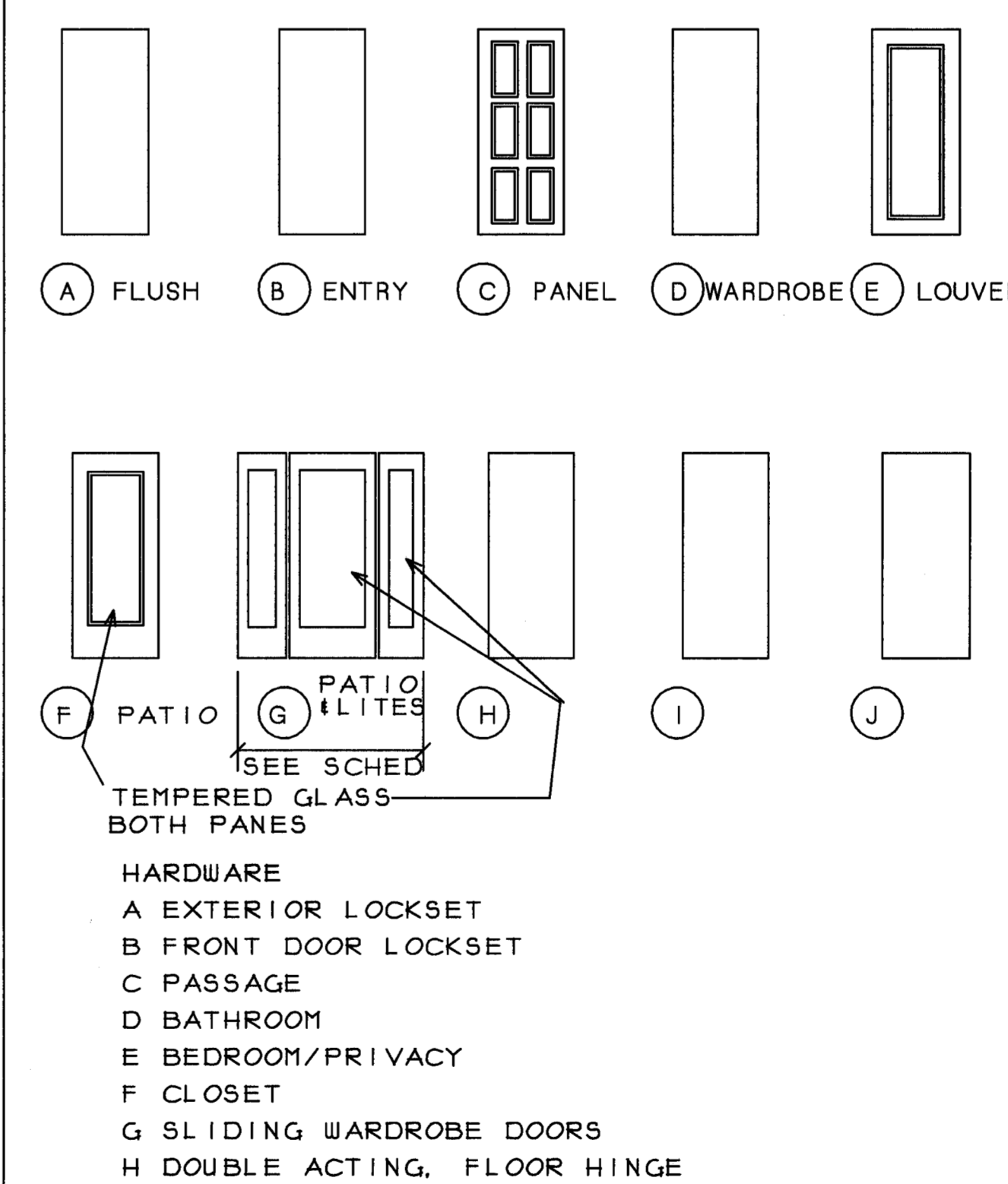
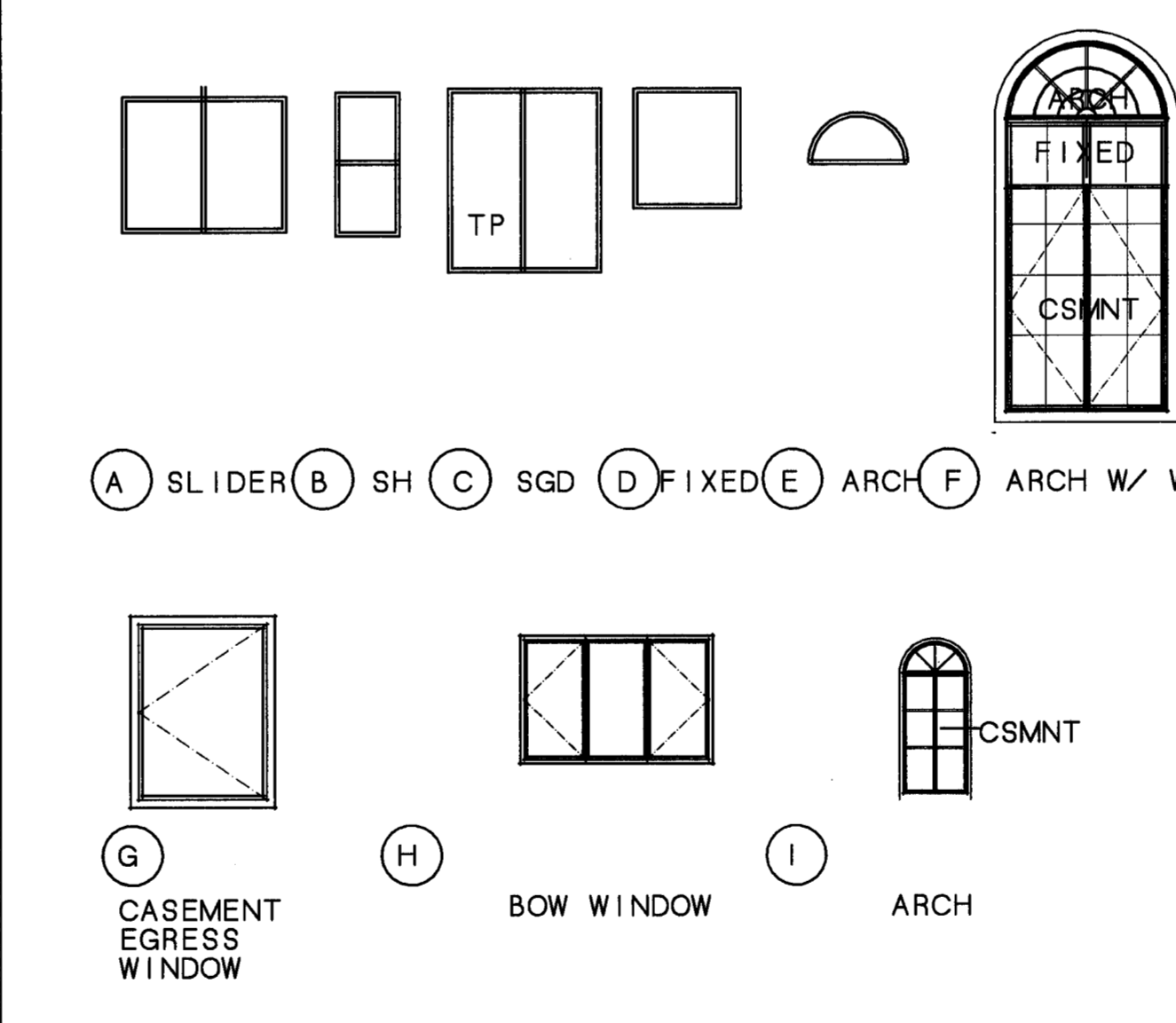
WINDOW SCHEDULE

WINDOW LETTER	SIZE	WINDO TYPE	FRAME MATERIAL	GLASS	THICKNESS	DETAILS
A	4'-6" x 12'-0"	F	WD	DG		
B	4'-0" x 6'-0"	G				
C	5'-0" x 5'-6"	G				
D	3'-6" x 4'-0"	G				
E	6'-0" x 4'-6"	G				
F	5'-0" x 4'-6"	G				
G	3'-0" x 4'-6"	G				
H	3'-6" x 6'-0"	G				
I	1'-6" x 4'-6"	G				
J	5'-0" x 5'-0"	G				
K	5'-0" x 6'-0"	G				
L	2'-6" x 6'-0"	G				
M	2'-0" x 6'-0"	G				
N	4'-0" x 4'-6"	G				
O	2'-6" x 4'-0"	G				
P	4'-0" x 5'-0"	G				
Q	2'-0" x 5'-0"	G				
R	4'-0" x 2'-0"	A				
S	6'-0" x 4'-6"	H				
T	10'-0" x 4'-6"	G				
U	2'-0" x 4'-6"	G				
V	2'-0" x 5'-0"	F				
W	1'-0"	*				
X	3'-0" x 6'-0"	I				
Y	4'-0" x 5'-0"	G				
Z	10'-0" x 4'-0"	G				

DOOR SCHEDULE

DOOR NUMBER	SIZE	THICKNESS	DOOR TYPE	DOOR MATERIAL	FRAME MATERIAL	HARDWARE	LABEL IN MINUTES	DETAILS
1	2'-4"-0" x 8'-0"	3/4"	B	WD	WD	B		
2	3'-0"		C			A		ADJACENT TO DWELLING SELF CLOSING 20 MIN
3	2'-8"		C			D		PAIR
4	2'-6"		C			D		
5	3'-0"		C			E		
6	2'-6"		D			F		
7	2'-3'-0"		J			F		
8	3'-0"		C			C		
9	2'-8"		J			D		
10	2'-3'-0"		J			E		
11	3'-0"		J			A		
12	3'-0"		C			E		

WINDOW TYPES: NOTE ALL WDO'S W/1 40" OF LOCKING DEVICE SHALL BE TEMPERED.  
 PL PLATE TP TEMPERED OBS OBSCURE AL ALUMINUM  
 WD WOOD DG DUAL GLASS SG SINGLE GLASS V VINYL



ALL EXTERIOR OPENINGS SHALL CONFORM TO CITY REQUIREMENTS

THIS PROJECT SHALL CONSTRUCTED PER THE 2010 EDITION OF THE CALIFORNIA BUILDING CODE TITLE 24 WHICH ADOPTS THE  
 -2010 CALIF BC  
 -2010 CALIF ELECTRICAL CODE  
 -2010 CALIF MECH CODE  
 -2010 CALIF PLUMB CODE  
 -2008 CALIFORNIA ENERGY CODE

DESIGN LOADS ROOF LIVE 20 PSF  
 ROOF DEAD 19 PSF  
 FLOOR LIVE 40 PSF  
 FLOOR DEAD 18 PSF(15 MIN PER CODE)  
 SEISMIC Cs 0.25  
 WIND LOAD 17 PSF  
 BASE SHEAR 0.166W  
 SOIL BEARING 1500 PSF

DATE	REVISION
9/10/2015	
	PLAN CHECK
	APPROVED
	BID SET
	REVISION
	OWNER APPROVAL
	DATE

SCHEDULE  
 RES FOR G.E.I.G.  
 3429 GRAND AVE., CLAREMONT  
 SHEET  
 SCH1

PETE VOLBEDA Architecture Planning  
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# FIRE DEPARTMENT NOTES

21. Provide an approved fire sprinkler system. Submit plans for approval prior to installation. TITLE 24, SECTION 904.2.1. Reason Required in all Group R Occupancy

22. Every sleeping room below the fourth story shall have at least one exterior emergency escape and rescue opening. Required openings shall have a minimum net clear opening of 5.7 square feet with a minimum clear height of 24 inches and clear width of 20 inches. Residential Code 310.

23. Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit Residential Code R314.5.

24. An approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units within which fuel-burning appliances are installed and in dwelling units that have attached garages. Required carbon monoxide alarms shall be equipped with a battery back-up. Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within sleeping unit the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit. Residential Code R315.1.2, Building Code 420.4.1.

25. Remove all non-applicable verbatim notes from Sheet #2 as indicated and provide all Current Code Section on all required verbatim notes.

16. Open roof eaves shall meet one of the following:  
 a. Noncombustible material OR  
 b. Ignition-resistant material OR  
 c. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering  
 d. 1-hour wall assembly applied to the underside of the roof deck (Residential Code R327.7.4 and Building Code 707A.4)  
 ACTION REQUIRED : Provide construction detail.

SEE DETAIL 12 SHEET D1

17. Enclosed roof eaves and roof eave soffits shall meet one of the following:  
 a. Noncombustible material OR  
 b. Ignition-resistant material OR  
 c. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering  
 d. 1 -hour wall assembly applied to the underside of the roof deck  
 e. Conform to performance standard SFM 12-7A-3 (Residential Code R327.7.5 and building Code 707A.5)

SEE DETAIL 12 SHEET D1

18. Exterior windows, window walls, glazed doors, and glazed openings within exterior doors shall meet one of the following:  
 a. Multi-pane glazing units with a minimum of one tempered pane OR  
 b. Glass block units OR  
 c. Have a fire-resistance rating of not less than 20 minutes, when tested according to NFPA 257 OR  
 d. Meet the performance standards of SFM 12-7A-2 (Residential Code R327.8.2.1 and Building Code 708A.2.1)

19. Exterior door assemblies shall meet one of the following:  
 a. The exterior surface or cladding shall be of noncombustible or ignition-resistant material OR  
 b. Solid core wood having stiles and rails not less than 1-3/8-inch thick with raised panels thickness not less than 1-1/4-inch thick OR  
 c. Minimum 20 minute fire resistance rating when tested according to NFPA 252 OR  
 d. Conform to performance standard SFM 12-7A-1 (Residential Code R327.8.3 and Building Code 708A.3)

20. Clearance of brush and vegetative growth shall be maintained per Fire Code 325 ACTION REQUIRED : Provide note

8. Provide the Building Code occupancy classification (s) for all separate and distinct uses of the structure(s) in accordance with Building Code Chapter 3. Building Code 302.1 ACTION REQUIRED : Indicate on the site plan  
 9. Provide Building Code type of construction in accordance with Building Code Section 602.1 and Table 601 ACTION REQUIRED : Indicate type of construction on the site plan and provide construction details for the structural elements as required in Table 601  
 10. Provide a 1 -hour fire barrier between the R-3\_ occupancy and the U\_ occupancy as required by Section 508 and Table 508.4. Building Code 508.4.4 ACTION REQUIRED : Show on floor plan and provide a construction detail.

GARAGE IS DETACHED FROM RESIDENCE

11. Egress doors shall be readily openable from the egress side without the use of a key or any special knowledge or effort. Building Code 1008.1.9 ACTION REQUIRED : Provide note on site plan and indicate in door schedule.  
 12. All roof coverings shall be Class "A" as specified in Building Code 1505.1.1 (Residential Code R327.5.2 & R902) ACTION REQUIRED : Provide note on site plan and indicate the roof covering on roof plan/elevation views.  
 13. Roof valley flashings shall be not less than 0.019-inch (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch wide underlayment consisting of one layer of No. 72 ASTM cap sheet meeting running the full length of the valley. (Residential Code R327.5.3 and Building Code 705A.3) ACTION REQUIRED : Provide note on site plan.  
 14. Roof gutters shall be provided with a means to prevent the accumulation of leaves and debris in the gutter. (Residential Code R327.534 and building Code 705A.4)

15. Vents shall resist the intrusion of flame and embers and flame through the ventilation openings. Vent openings shall be protected by corrosion-resistant, noncombustible wire mesh with a minimum 1/16 inch openings and shall not exceed 1/8th inch. Vents shall NOT be installed in eaves or cornices. (Residential Code R327.6.1 and Building Code 706A.1)

1. Provide a minimum unobstructed width of 20 feet, exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior building walls. Fire Code 503.2.1 ACTION REQUIRED : Cross-hatch the Fire Department vehicle access on the site plan, and clearly show the required width.  
 2. Fire Department vehicular access roads must be installed and maintained in a serviceable manner prior to and during the time of construction. Fire Code 501.4 ACTION REQUIRED : Provide note on site plan  
 3. A minimum 5 foot wide approved firefighter access walkway leading from the fire apparatus access road to the building's exterior openings shall be provided for fire fighting and rescue purposes. Fire Code 504.1 ACTION REQUIRED : Indicate firefighter walkway access routes on the site plan, and clearly show the required width.  
 4. Approved building address numbers, building numbers or approved building identification shall be provided and maintained so as to be plainly visible and legible from the street fronting the property. The numbers shall contrast with their background, be Arabic numerals or alphabet letters, and be a minimum of 4 inches high with a minimum stroke width of 0.5 inch. Fire Code 505.1 ACTION REQUIRED : Provide note on site plan  
 5. The required fire flow for fire hydrants at this location is - 2000\_gpm, at 20 psi residual pressure, for a duration of 2 hours over and above maximum daily domestic demand. Fire Code 507.3, County of Los Angeles Fire Department Regulation 8.

ACTION REQUIRED : Provide calculation on site plan.  
 6. Show all existing public fire hydrants within 600 feet of the lot frontage on both sides of the street. Specify size of fire hydrant(s) and dimension(s) to property lines. Additional fire hydrant requirements may be necessary after this information is provided. Fire Code C105.2.2 ACTION REQUIRED : Indicate size and locations of all existing fire hydrants on site plan.  
 7. Complete and return the attached "Fire Flow Availability" Form 195 / 196, with fire flow information from the closest fire hydrant along the lot frontage. Fire Code 507.1.1 ACTION REQUIRED : Provide attached form completed by the water purveyor.

# ADDITIONAL FIRE DEPARTMENT NOTES

1. Provide a minimum unobstructed width of 20 feet, exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior building walls. Fire Code 503.2.1 ACTION REQUIRED -. Cross-hatch the Fire Department vehicle access on the site plan, and clearly show the required width.  
 2. When security gates are provided, maintain a minimum access width of feet. The security gate shall be provided with an approved means of emergency operation, and shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F220. Fire Code 503.6 ACTION REQUIRED : Indicate the access width of the security gate on the site plan. Also indicate the means for emergency operation, and the requirement that it be maintained operational at all times  
 Fire Department vehicular access roads shall be provided with a 32 foot centerline turning radius. Fire Code 503.2.4 ACTION REQUIRED : Indicate the centerline, inside and outside turning radii for each change in direction on the site plan  
 4. The gradient of Fire Department vehicle access roads shall not exceed 15 percent unless approved by the fire code official. Fire Code 503.2.7 ACTION REQUIRED : Indicate the percent grade of the Fire Department access roadway on the site plan

5. Provide approved signs or other approved notices or markings that include the words NO PARKING -FIRE LANE. Signs shall be provided for fire apparatus access roads, to clearly indicate the entrance to such road, or prohibit the obstruction thereof, as required by the Fire Inspector. Fire Code 503.3 ACTION REQUIRED : Provide note on site plan  
 6. Fire Department vehicular access roads shall be hard scape all weather access in accordance with the Department's All Weather Access Requirements. Fire Code 503.2.3 ACTION REQUIRED : Provide note on site plan. Also, state the surface type for the access road on the site plan  
 7. Grade breaks shall not exceed the maximum angle of approach or departure for Fire Department apparatus, which should not exceed a maximum 10 percent in 10 feet. Fire Code 503.2.8 ACTION REQUIRED : Provide roadway profile and indicate angle of approach and departure at changes in grade.  
 8. Fire Department vehicular access roads must be installed and maintained in a serviceable manner prior to and during the time of construction. Fire Code 501.4 ACTION REQUIRED : Provide note on site plan

9. Approved building address numbers, building numbers or approved building identification shall be provided and maintained so as to be plainly visible and legible from the street fronting the property. The numbers shall contrast with their background, be Arabic numerals or alphabet letters, and be a minimum of 4 inches high with a minimum stroke width of 0.5 inch. Fire Code 505.1 ACTION REQUIRED : Provide note on site plan  
 10. Fire apparatus access roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs. Fire Code 505.2 ACTION REQUIRED : Provide note on site plan  
 11. The required fire flow for fire hydrants at this location is 750 gpm, at 20 psi residual pressure, for a duration of 2 hours over and above maximum daily domestic demand. Fire Code 507.3, County of Los Angeles Fire Department Regulation 8. ACTION REQUIRED : Provide calculation on site plan. The required fire flow is based on the following calculation: Type of construction per the Building Code: TypeVB  
 Fire flow based on the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of the building. 750 gpm  
 Reduction for fire sprinklers (maximum 50%)-. 0 gpm Total fire flow required: 750 gpm  
 12. Plans showing underground piping, fire department connection, or private on-site fire hydrants shall be submitted to the Sprinkler Plan Check Unit for review and approval prior to installation. Fire Code 901.2, County of Los Angeles Fire Department Regulation 7 ACTION REQUIRED : Provide note on site plan

13. The inspection, hydrostatic test and flushing of the underground fire protection piping shall be witnessed by an authorized Fire Department representative. No underground piping or thrust blocks shall be covered with earth or hidden from view until the Fire Department representative has been notified and given not less than 48 hours in which to inspect such installations. Fire Code 901.5, County of Los Angeles Fire Department Regulation 7 ACTION REQUIRED : Provide note on site plan.  
 14. Submit area site plan drawing which shows access from Valley Blvd. to project site, including turnaround.

PETE VOLBEDA Architecture Planning

180 N BENSON AVE. D. UPLAND, CA. 91786

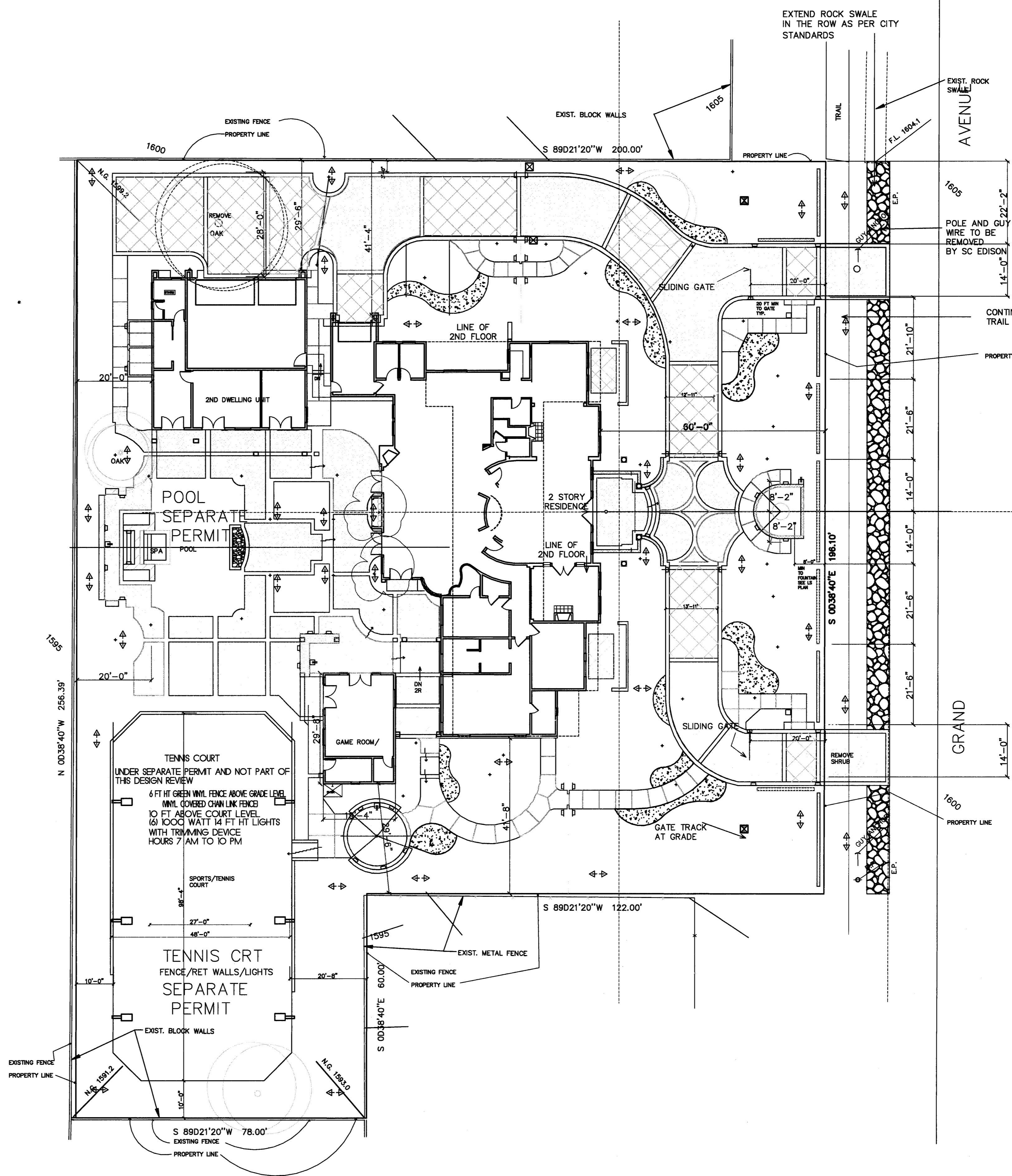
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DESIGN	DATE	9/10/2015
DRAWN BY:	PLAN CHECK	
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OWNER APPROVAL	BID SET	
	REVISION	
	DATE	

RES FOR G.E.I.G.	
3429 GRAND AVE., CLAREMONT	
SHEET	
9	7

APN 8671-009-028	
LOT AREA	43,983 SF
ZONE	RR 35,000
LIVING AREA DATA	- 1ST FLOOR LIVING AREA = 5015 SF - 2ND FLOOR LIVING AREA = 3015 SF - TOTAL LIVING AREA = 8030 SF (TOTAL LIVING AREA INCLUDES STAIRS ONCE, EXCLUDES 2ND FLR OPEN TO BELOW)
FAR DATA	2ND FLOOR 40% OF MAX PERMITTED FLR AREA .4 X 8597 SF = 3438 SF 1ST FLOOR GROSS AREA = 5261 SF 2ND FLOOR GROSS AREA = 3310 SF INCLUDES OPEN TO BELOW +16 FT TOTAL = 8571 SF MAXIMUM FLOOR AREA 2000 + 15% OF LOT AREA (NET)=2000+ 15% X 43,983= 8,582 SF
ACCESSORY STRUCTURE 40% MAX OF MAIN STRCT	
MAIN STRUCTURE	8568 SF X .4=3427 SF
DETACHED GARAGE AND 2ND DWL	1694 SF
DETACHED GAME ROOM	574 SF
FOOTPRINT DATA	FOOTPRINT = 7526 SF MAX LOT COVERAGE ALLOWED 20% 8796 SF - LOT COVERAGE= 17.1%
LOT AREA	43,983 SF
- BEDROOM X 400 SF USABLE OPEN SPACE	
LANDSCAPING AREA 25,000 SF+ LANDSCAPING IS SUBJECT TO WELO LANDSCAPE AND IRRIGATION PLANS SHALL BE SUBMITTED PRIOR TO APPROVAL SIDE YARDS REQUIRED TOTAL OF 30% OF LOT WIDTH 196 X .3= 58.8 FT 70 FT SHOWN FOR MAIN STRUCTURE	



SCOPE OF WORK, 2 STORY RESIDENCE WITH ATTACHED GARAGE, POOL AND TENNIS COURT  
 OWNER: GOLD ESTATE INTERNATIONAL GROUP  
 735 West Duarte Road #420  
 Arcadia, CA 91007  
 PH 626 333 4567

INDEX

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  - 6 FRONT & COURT ELEVATIONS
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  - 9 DETAIL
  - 9 1ST FLOOR AREA CALC
  - 10 2ND FLOOR AREA CALC
- LANDSCAPE PLANS BY TOM SEGURA

QUANTITIES OF EARTHWORK  
 CUT 845 CU YDS  
 FILL 140 CU YDS  
 EXPORT 705 CU YD

LOT 9, TRACT 34473

SITE PLAN

SCALE 1 INCH = 16 FT - 0 IN

PETE VOLBEDA Architecture Planning  
 180 N BENSON AVE. D. UPLAND, CA. 91786  
 TEL. 909.373.1150 Fax 909.303.852

DATE	DESIGN	DATE	DESIGN
9/10/2005	DATE		
	PLAN CHECK		
	APPROVED		
	ISS SET		
	REVISION		

SITE PLAN  
 RES. FOR GOLD ESTATE INTERNATIONAL GROUP  
 3429 GRAND AVE., CLAREMONT

14. Provide Building Address Numbers per CBC 501. (Large enough to be seen from street).

FIRE CBC CHAPTER 7A NOTES

15. The following are Chapter 7A requirements for new dwellings in the Fire Hazard Severity Zone:
- 15a. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be one of the following: (701A.3.2.2)
  - 15i. Constructed to prevent intrusion of flames.
  - 15ii. Firestopped with approved materials.
  - 15iii. Have one layer of 1/2 lb. ASTM Cap Sheet over combustible sheathing
  - 15b. Valley Flashings, when provided, shall be 26 gauge, over 1 layer of 3/4" wide 12 lb. felt. (704A.1.3)
  - 15c. Gutters shall provide a means to prevent accumulation of leaves and debris. (704A.1.5)
  - 15d. Eave or cornice vents shall resist the intrusion of flames, or have 1/4" mesh. (704A.2.2)
  - 15e. Exterior glazing (windows and doors) shall be insulation glass units with at least one tempered pane or glass block or rated 20-min. (704A.3.2.2)
  - 15f. Exterior door assemblies shall be 1-3/8" solid core with 1-1/4" field panels or 20-min. (704A.3.2.3)
  - 15g. Garage doors may be noncombustible or exterior fire-retardant treated wood in lieu of fire-rated (704A.3.2.3)
  - 16. Through penetrations shall be protected by an approved penetration firestop system per 712.3.1.2. (Reference is to possible PVC vacuum lines through garage/house separation).
  - 17. Hard wired smoke alarms SHALL be provided for new construction per CBC Section 907.10.2.
  - 18. Landings shall be level per CBC Section 1008.1.5
  - 18a. Landings shall be no lower than 1/2" below the top of threshold where exterior doors open out over the landing. (3/4" for sliding doors) Landing shall be minimum 36" by door width per CBC Section 1008.1.5
  - 19. 1 hour construction at usable space adj. to dwelling per CBC 1009.5.3.
  - 20. Specify shower walls, including tubs, are to be finished with a smooth non absorbent surface to a minimum of 10" above drain inlet per CBC Section 1210.3.
  - 21. Provide 2" sheet metal drip edge for roof per CBC 1507.2.9.3.
  - 22. Provide two layers of 30 lb. underlayment on tile roofs with pitches between 2:12 and 4:12 per CBC 1507.3.3.
  - 23. Provide a Statement of Special Inspections prepared by the Registered design professional in responsible charge, CBC 1704.1.1. This statement shall be in accordance with Section 1705.
  - 24. Provide approval certification for steel fabricator, if one is used on
  - 25. Note: Anchor bolts and all foundation hardware to be installed prior to the concrete placement unless documentation from the manufacturer allowing "wet set" anchors is provided. CBC 1907.5 & ACI 318, App. D.
  - 26. For all fireplaces provide:
    - a. Metal chimneys shall be strapped at each floor and roof with two 1/2" x 1/8" metal straps with no less than six 8d nails per strap per appliance listing.
    - b. Provide height of chimney termination above roof per CBC 2113.9.1.
    - c. Provide spark arrester for chimney per CBC 2113.9.1.
    - d. Provide closable metal or glass doors covering the entire firebox per Building Energy Efficiency Standards 150 (e).
  - 27. Provide Simpson A35 hardware or approval equal for rafters to plate connections 8" O.C. Note D. (Table 2304.9(1) and 2308.10(1))
  - 28. Note on plans: Fasteners for preservative treated wood shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper per CBC Section 2304.9.5.
  - 29. Wood, including wood sheathing (shear panel) must be 8" from earth or treated per CBC 2304.11.2.2 (see 5 on D1).

- 30. Provide two layers of Grade D paper behind stucco over plywood CBC 2510.6.
  - 31. Provide a mechanical plan showing location of propose FAU, and air distribution with balancing.
  - 32. Provide Indoor Air Quality Mechanical Ventilation Energy Code 4-4; ASHRAE 62.1; CMC 402.3
    - a. Continuous building flow rate per 2008 Energy Standards Table 4-1.
    - b. Local exhaust in kitchen per 2008 Energy Standards 4.4.4.
      - i. Continuous 5 air changes /hr.
      - ii. Range hood with this capacity OK.
  - 33. Provide make-up air for the dryer per CMC Sections 504.3.2.
  - 34. Provide outside combustion air for the fireplace per the CMC Section 701.1/CBC 2111.3.1. Combustion air shall be provided per listed fireplace and installed per manufacturers written instructions. SEE 1ST FLOOR PLAN
  - 35. Show location of FAU. If located in the attic, show the following per CMC Section 904.11:
    - a. A permanently wired electrical outlet for the FAU.
    - b. FAU to be hard wired with a switch disconnect.
    - c. An unobstructed passageway at least 30" x 30" and no longer than 20' in length.
    - d. A min. 30" x 30" level working space in front of the service side of the appliance.
    - e. Provide disconnect for A/C unit per CEC Section 440.11
  - 36. Domestic open-top broiler units must be provided with a fan with a minimum capacity of 100 CFM per square foot of hood intake area. Where the duct penetrates the ceiling, it must be enclosed in a fire resistive shaft per the CMC Section 920.0.
  - 37. Coordinate clearance from cook top to hood and cabinets (combustible construction) based on the listing of proposed appliances.
- PLUMBING
- 38. PROVIDE A Minimum 12" x 12" tub trap access panels per the CPC Section 404.2. (or specify glued traps).
  - 39. Provide minimum 30" clear water closet access per CPC 407.6.
  - 40. Provide pressure relief valve (for water heater) discharging to outside the building per the CPC Section 505.4 & 608.5.
  - 41. SEE PI FOR proposed water supply piping material consistent with CPC Chapter 4.
  - 42. SEE PI FOR proposed waste piping material consistent with CPC Section 101.1.
  - 43. Minimum slope of the drainage piping per the CPC Section 108.
    - a. 1/4" per ft. jobsite.
    - b. Provide an electrical plan showing required receptacles lights and switches per 2010 CEC and the 2008 California Building Energy Standards. Include CF-4R-LTG - OI for kitchens.
    - c. Provide high efficacy (e.g., fluorescent) in all permanent lighting or controls; high efficacy in kitchens; high efficacy or manual on/vacancy sensor off switching in bathrooms, utility rooms, garages, laundry rooms; high efficacy or dimmer in other lighting per 2008 Building Energy Efficiency Standards.
    - d. Note: Luminaires that are recessed into insulated ceilings must be approved for zero clearance insulation cover (IC) and certified airtight to ASTM E283 and labeled as air tight (AT) per 2008 Building Energy Standards.
    - e. Show location(s) of electrical panels. Provide minimum 30" wide and 3' deep access clearance for electrical panel(s) per CEC 110.24, Table 110.24(A) (1).
    - f. Provide a minimum of two 20 Amp small appliance circuits serving the counters in the kitchen per CEC 210.11 (C) (1).
    - g. Provide a dedicated 20 Amp circuit for the laundry room(s) per CEC 210.11 (C) (2).
    - h. Provide a dedicated 20 Amp circuit for the bathroom(s) per CEC 210.11 (C) (3).
    - i. Wall outlets SHALL CONFORM TO following areas per CEC 210.52:
      - a. So that at no point along the floor line in any wall space is more than 6' from an outlet (includes fixed panels for sliding glass doors).
      - b. Each wall space 2' or more in width.
      - c. Service outlet adjacent to heating, air-conditioning and refrigeration equipment.
      - d. Wall counter space in kitchens exceeding 12" and so that no point is more than 24" from an outlet.
      - e. Outlets must be located not more than 18" above or more than 12" below the countertop.
  - 44. Bond all above ground gas piping per CEC 250.104 (B).
  - 45. Provide listed fixture boxes or support for the ceiling fan(s) or per CEC Section 314.21 (D)
  - 46. Specify recessed lighting within tub and shower zones (3') are to be approved for damp/wet locations per CEC 410.4(D).

SPECIAL INSPECTION REQUIREMENTS IN COMPLIANCE WITH THE 2010 CBC  
 CBC 1705, Responsibilities of the Registered Design Professional in Responsible Charge:

Per 2010 California Building Code (CBC) Section 1705, where special inspection or testing is required by CBC Section 1704 (Special Inspections), 1707 (Special Inspections for Seismic Resistance) or 1708 (Structural Testing for Seismic Resistance), the registered design professional in responsible charge shall prepare a statement of special inspections for submittal by the permit applicant. The Town of Truckee requires the Statement of Special Inspections be included on the drawings and shall identify the following:

- The materials, systems, components and work required to have special inspection or testing
- The type and extent of each special inspection
- The type and extent of each test
- For each type of special inspection, identification as to whether it will be continuous or periodic inspection.
- The seismic-force-resisting systems that are subject to special inspection
- The designated seismic systems (where required by Chapter 13 of ASCE 07-05)
- The main wind force-resisting system (where required by 1705.4)

Additional requirements for structural testing for seismic resistance (1708)

CBC 1704, Responsibilities of the Owner:

The owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more special inspectors to provide inspections during construction on the types of work listed under Section 1704.

CBC 1706, Responsibility of the Contractor:

Each contractor responsible for the construction of a main wind- or seismic-force-resisting system, designated seismic system or a wind- or seismic-resisting component listed in the statement of special inspections shall submit a written statement of responsibility to the building official and the owner prior to permit issuance. The contractor's statement of responsibility shall contain the following:

- Acknowledgment of awareness of the special requirements contained in the statement of special inspection;
  - Acknowledgment 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 methods 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.
- Section(s) A, B and/or C, as applicable to this project, shall be completed and signed as noted by Registered Design Professional in Responsible Charge, Special Inspector(s), Owner and Contractor.

A) To be completed, as applicable, by Design Professional in Responsible Charge and Owner:

Special inspection(s) for this project as required by CBC 1704 are:

- Reinforced Concrete (Table 1704.4) . Fill placement 12" in depth (Section and Table 1704.7)
- Structural Welding (Per 1704.3.1) . Concrete strength 2500 psi (Section and Table 1704.4)
- High Strength Bolting (Per 1704.3.3) . Fabricator's shop (pre-fab. structural members, per 1704.2)
- Moment frames

The Statement of Special Inspections is provided on sheet(s) 1,2 of drawings. The statement describes all work requiring special inspection as specified above and identifies "periodic" or "continuous" inspection requirements as applicable.

Special Inspector(s)/Special Inspection Firm/Mailing and e-mail address/Certificate Type and number/Contact number(s)  
 PETE VOLBEDA  
 180 N BENSON NO D  
 UPLAND CA 91784  
 909 373 1150 PETEARCHIT@AOL.COM

B) To be completed by Design Professional in Responsible Charge, Owner and Special Inspector(s) as noted.  
 (Design Professional to complete this section)  
 Special Inspection(s) of the Seismic Resisting System for this project shall be provided or exempted based on the following:  
 Shall be performed by: PETE VOLBEDA. The requirements and specific scheduling for the inspection of the lateral resisting system have been included in the statement of special inspections.

I have provided clear and concise documentation as required by CBC 1704, 1705, 1701 and 1708.  
 Signature of the Registered Design Professional in Responsible Charge Date \_\_\_\_\_  
 I understand I am responsible to hire special inspector(s) for my project.

Signature of the Owner Date \_\_\_\_\_  
 I understand I am responsible to schedule special inspections of the lateral resisting system with my design professional in responsible charge.

Signature of the Owner Date \_\_\_\_\_  
 The Statement of Special Inspections and detailing for work requiring my special expertise is complete and provides the information I require to perform the work. I will provide appropriate records/reports of my inspections in a timely fashion.

The specific detailing for this work is provided on sheet(s) SHEET 2.1  
 Signature and contact number(s)/address of the Special Inspector(s) Date \_\_\_\_\_

Signature and contact number(s)/address of the Special Inspector(s) Date \_\_\_\_\_

Project Name RESIDENCE FOR MR AND MRS DEMIN  
 Project APN Assessor's ID No. 8636-042-003  
 Project Address 920 GLENCOE HTS, GLENDORA  
 Project Permit Number \_\_\_\_\_

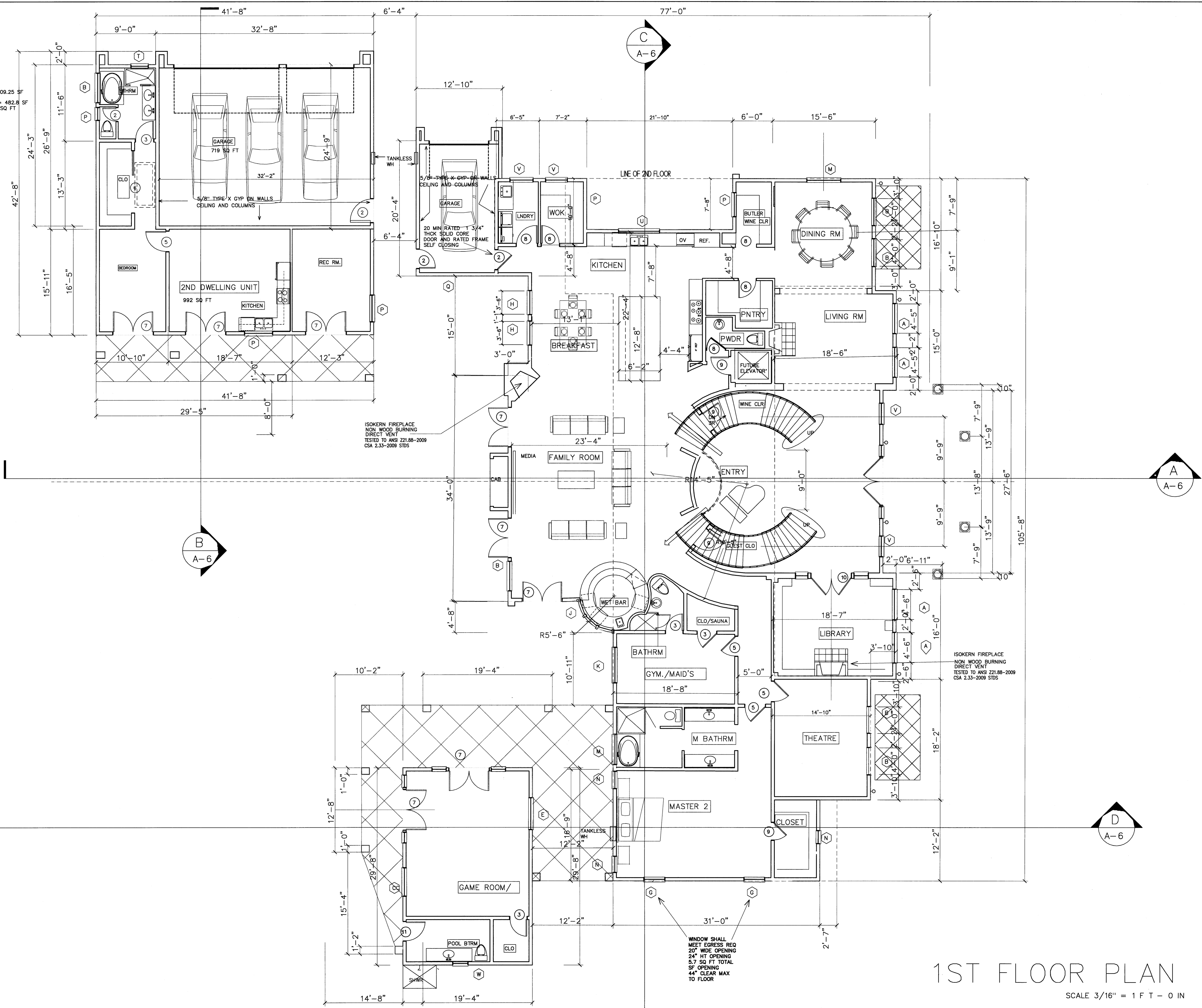
PETE VOLBEDA Architecture Planning  
 180 N BENSON AVE. D, UPLAND, CA. 91786  
 TEL 909 373 1150 FAX 909 373 1152

DATE	9/10/2015
DESIGN	
DRAWN BY:	
CHECKED	
OWNER APPROVAL	
PLAN CHECK	
APPROVED	
BID SET	
REVISION	
DATE	

RES FOR G.E.I.G.  
 3429 GRAND AVE., CLAREMONT

SHEET  
 A1.1

9 FT X 23'-3"=209.25 SF  
 29'-5" X 16'-5"= 482.8 SF  
 TOTAL = 692.05 SQ FT



# 1ST FLOOR PLAN

SCALE 3/16" = 1 FT - 0 IN

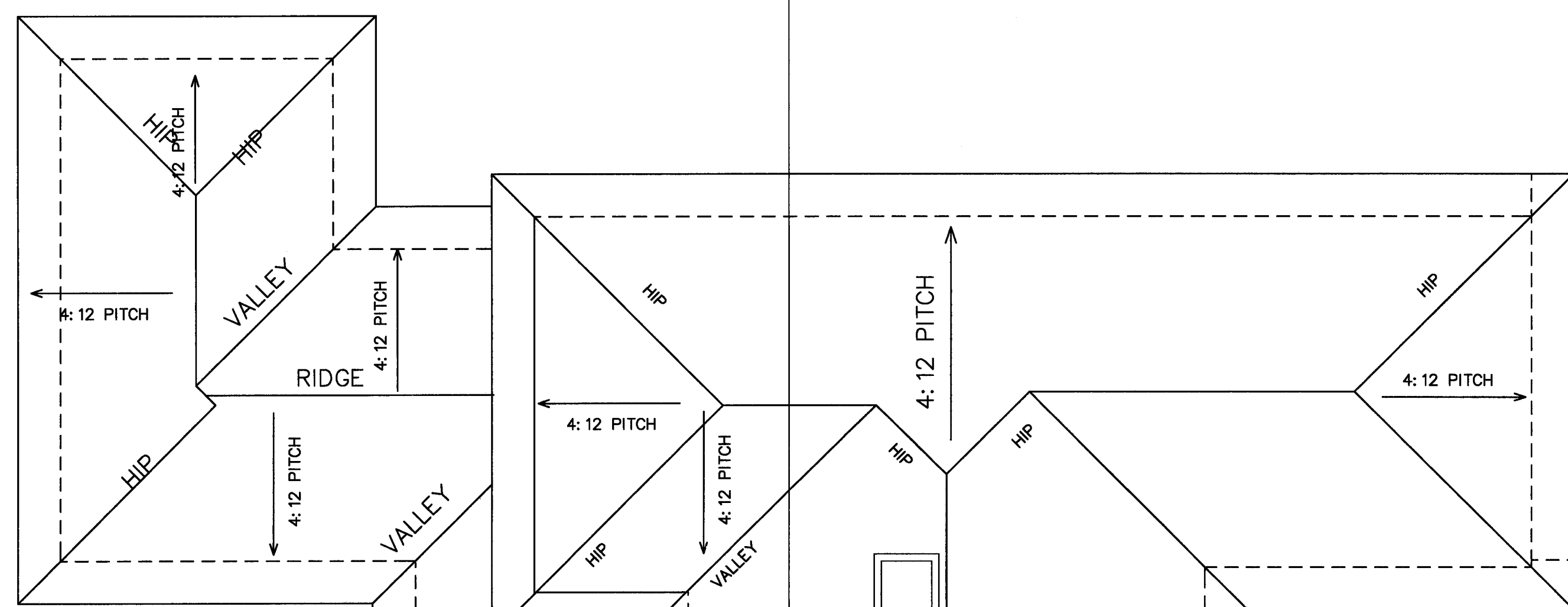
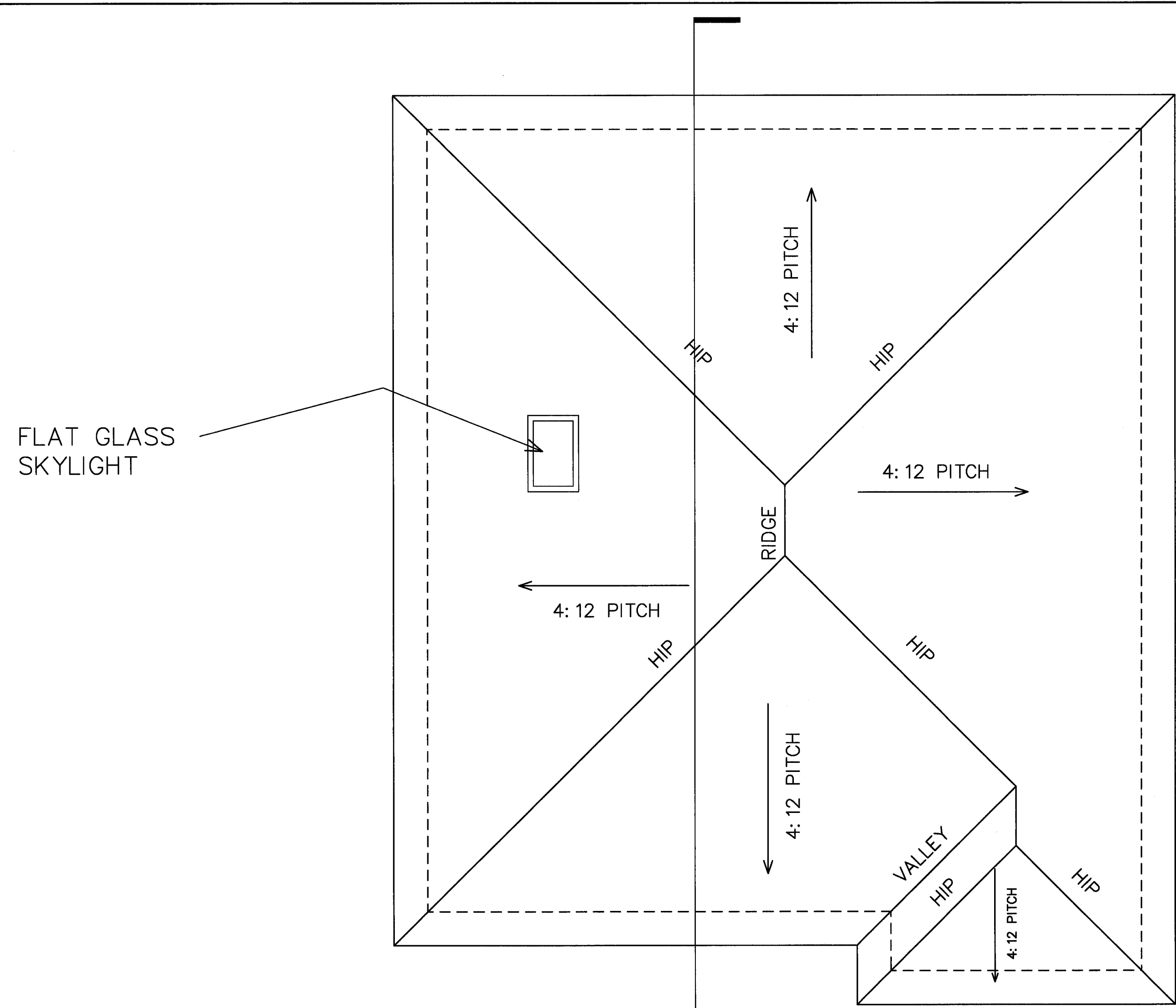
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OWNER APPROVAL	BID SET	
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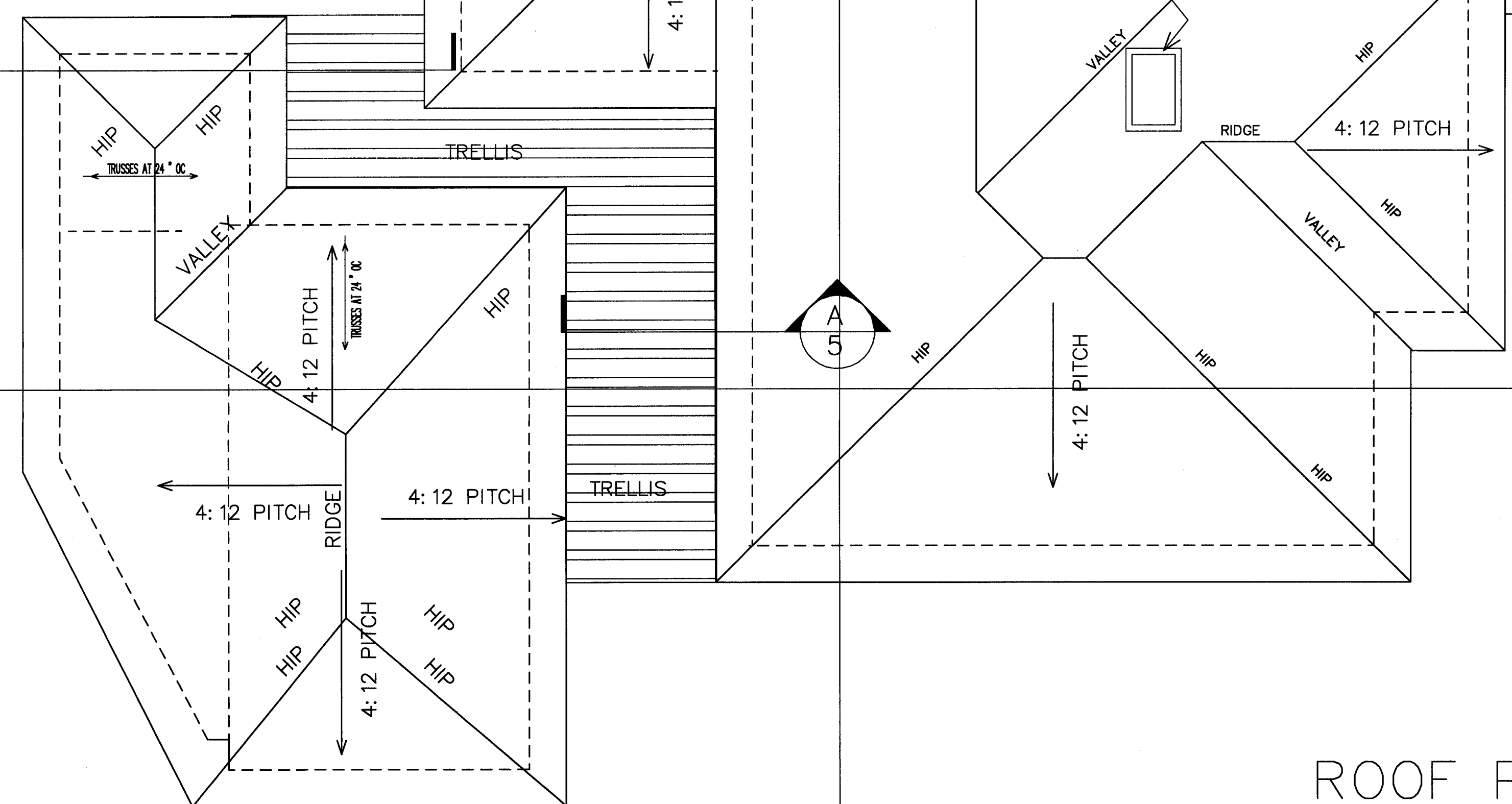
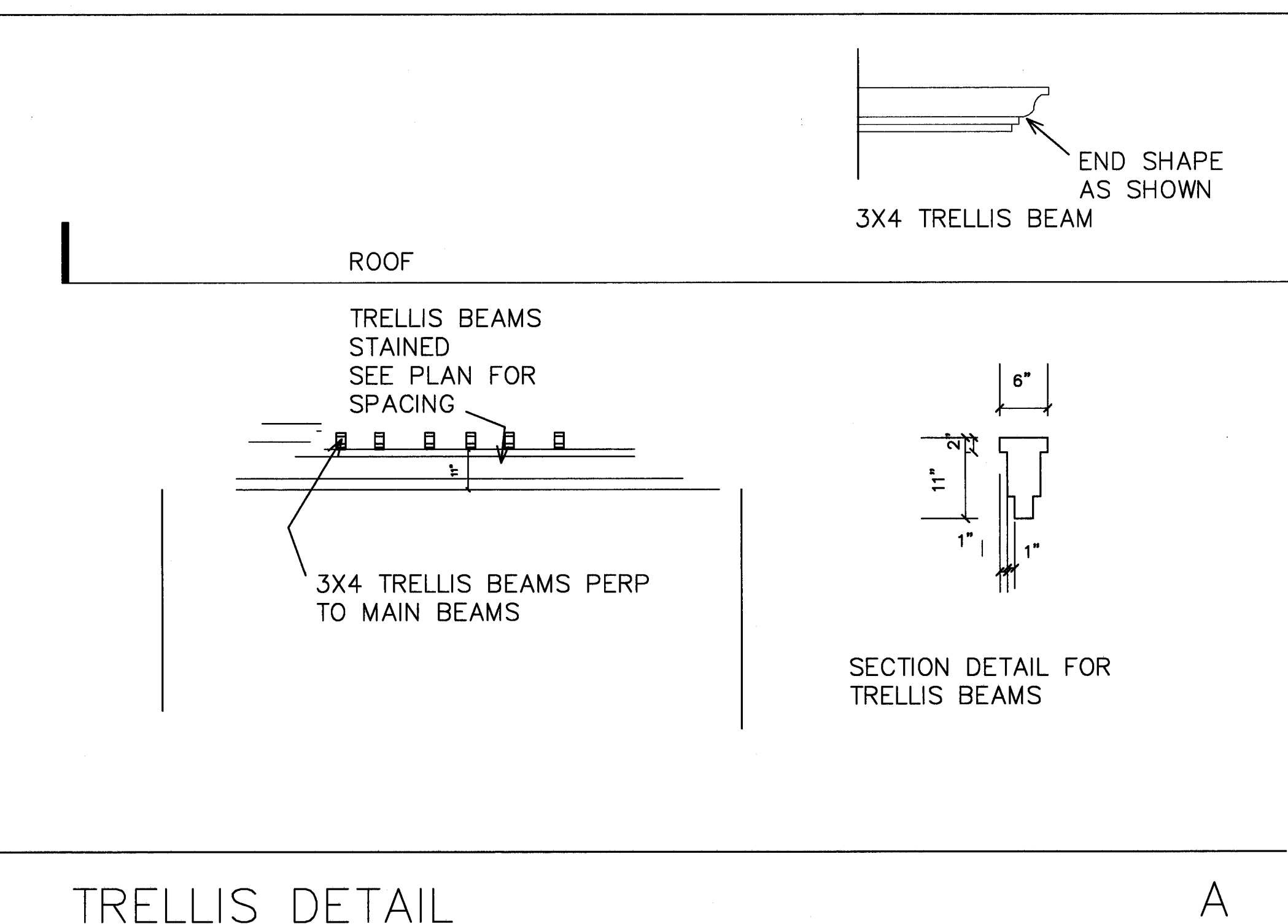
1ST FLOOR PLAN  
 RES FOR G.E.I.G.  
 3429 GRAND AVE., CLAREMONT

SHEET  
 A-1

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- ROOF PLAN NOTES
- 1 ROOFING SHALL BE CONCRETE ROOF TILE TILE ICBO 2656
  - 2 ROOF PITCH SHALL BE 4:12
  - 3 ROOF SHEATHING SHALL BE 1/2 CDX PLYWOOD 32/16 NAIL W/ 8d OC 6" OC EDGE AND BOUND AND 12" OC FIELD
  - 4 ROOF OVERHANG 2'-4" SEE SHEET D3
  - 5 ROOF rafters 2x8 @ 16" oc



1ST FLR ROOF AREA CALCULATION  
 PROVIDE ATTIC VENTILATION PER 2013 CBC.  
 WITH GABLE VENTS AND PROVIDE ADDITIONAL VENTILATION AS MAY BE REQUIRED FOR ATTIC FURNACES.  
 ROOF CALCULATION: ROOF AREA: 1951 SF. /150 FOR VENTS IN UPPER HALF= (A) 13.00 SQ. FT.  
 1 ATTIC FAU'S AT 60,000 BTUH/1000X2= SQ. IN. 120 VENTS/144= (B) .83 SQ. FT. OF VENTS. (A) 13.00 + (B) .83 SQ. FT. = 13.83 SQ. FT. VENTS. PROVIDE 17 VENTS OF .83 SQ. FT. VENTILATION AREA EACH.

13.38 SQ.FT.= 1926.72 SQ. IN. / 120 SQ. IN.= 16.056  
 PROVIDE 17 -24" DORMER VENTS WITH A NET AREA OF 120 SQ. IN. PER SIMPSON PRODUCT CATALOG

OPENINGS SHALL HAVE 1/4 INCH CORROSION RESISTANT METAL MESH COVERING. 704A.2 ATTIC VENTS SHALL MEET R327.6  
 THE MATERIAL USED SHALL BE NON COMBUSTIBLE.

THE DIMENSIONS OF THE OPENINGS THEREIN SHALL BE A MIN. OF 1/16TH INCH AND SHALL NOT EXCEED 1/8TH INCH.

2ND FLR ROOF AREA CALCULATION  
 PROVIDE ATTIC VENTILATION PER 2013 CBC.  
 WITH GABLE VENTS AND PROVIDE ADDITIONAL VENTILATION AS MAY BE REQUIRED FOR ATTIC FURNACES.  
 ROOF CALCULATION: ROOF AREA: 3310 SF. /150 FOR VENTS IN UPPER HALF= (A) 22.07 SQ. FT.  
 1 ATTIC FAU'S AT 60,000 BTUH/1000X2= SQ. IN. 120 VENTS/144= (B) .83 SQ. FT. OF VENTS. (A) 22.07 + (B) .83 SQ. FT. = 22.90 SQ. FT. VENTS. PROVIDE 28 VENTS OF .83 SQ. FT. VENTILATION AREA EACH.

22.90 SQ.FT.= 3297.60 SQ. IN. / 120 SQ. IN.= 27.48  
 PROVIDE 28 -24" DORMER VENTS WITH A NET AREA OF 120 SQ. IN. PER SIMPSON PRODUCT CATALOG

OPENINGS SHALL HAVE 1/4 INCH CORROSION RESISTANT METAL MESH COVERING. 704A.2 ATTIC VENTS SHALL MEET R327.6  
 THE MATERIAL USED SHALL BE NON COMBUSTIBLE.

THE DIMENSIONS OF THE OPENINGS THEREIN SHALL BE A MIN. OF 1/16TH INCH AND SHALL NOT EXCEED 1/8TH INCH.

16 FT MAX ROOF HEIGHT  
 W/ 60 FT FRONT SETBACK

9/10/2015

DATE	PLAN CHECK	APPROVED	BID SET	REVISION	DATE

DESIGN BY: CHECKED: OWNER APPROVAL:

ROOF PLAN

RES FOR G.E.I.G.  
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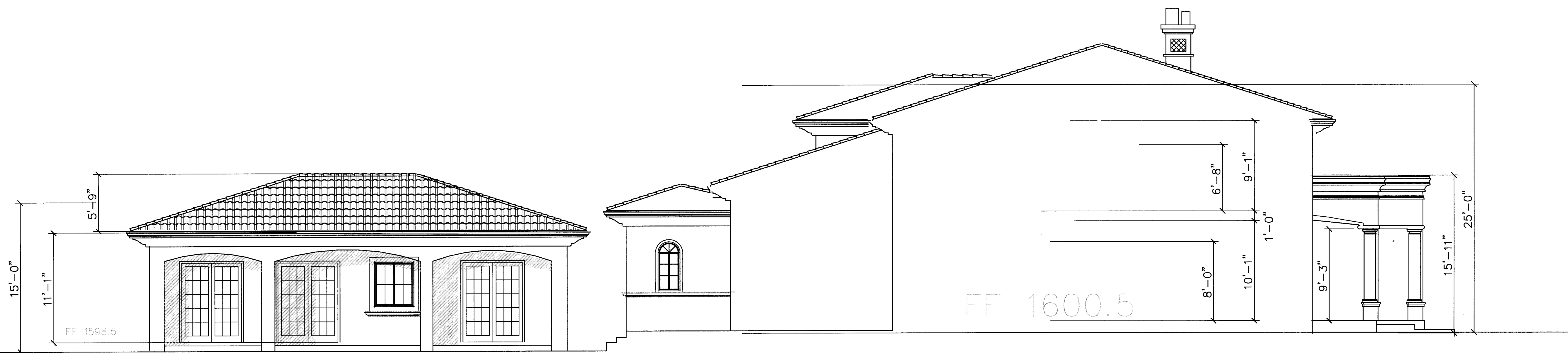
SCALE 3/16" = 1 FT - 0 IN

SCALE 3/16" = 1 FT - 0 IN

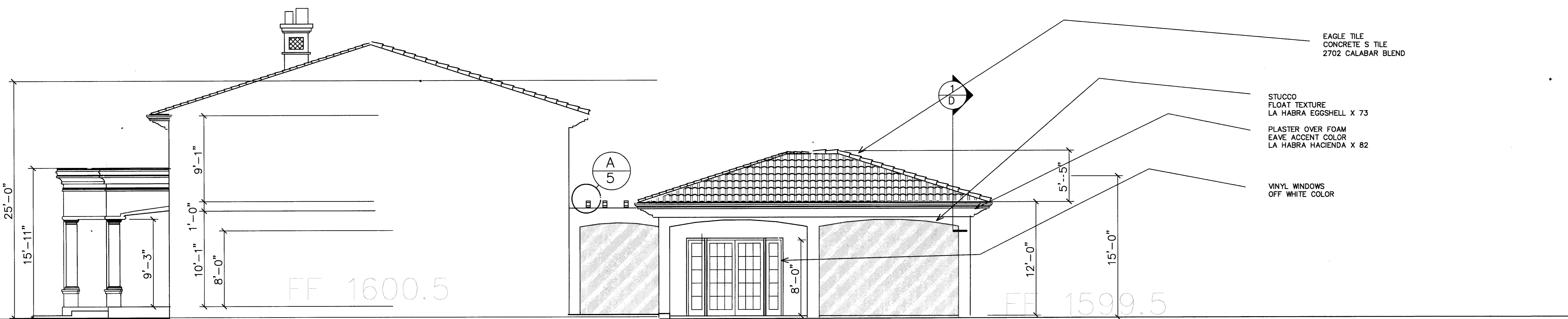
SHEET A-3

9

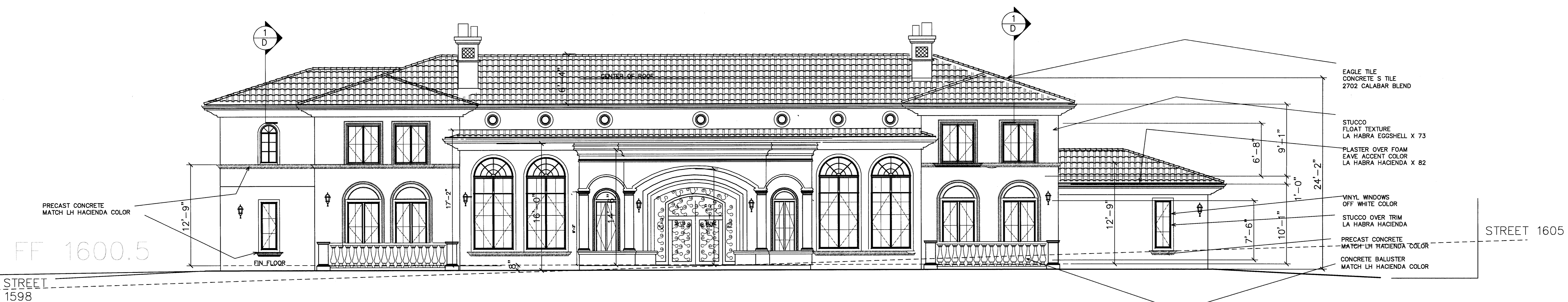
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COURTYARD SOUTH ELEVATION



COURTYARD NORTH ELEVATION



FRONT (EAST) ELEVATION

SCALE 3/16" = 1 FT - 0 IN

SCALE 3/16" = 1 FT - 0 IN

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OWNER APPROVAL	BID SET	
	REVISION	
	DATE	

RES FOR G.E.I.G.  
3429 GRAND AVE., CLAREMONT

SHEET	6
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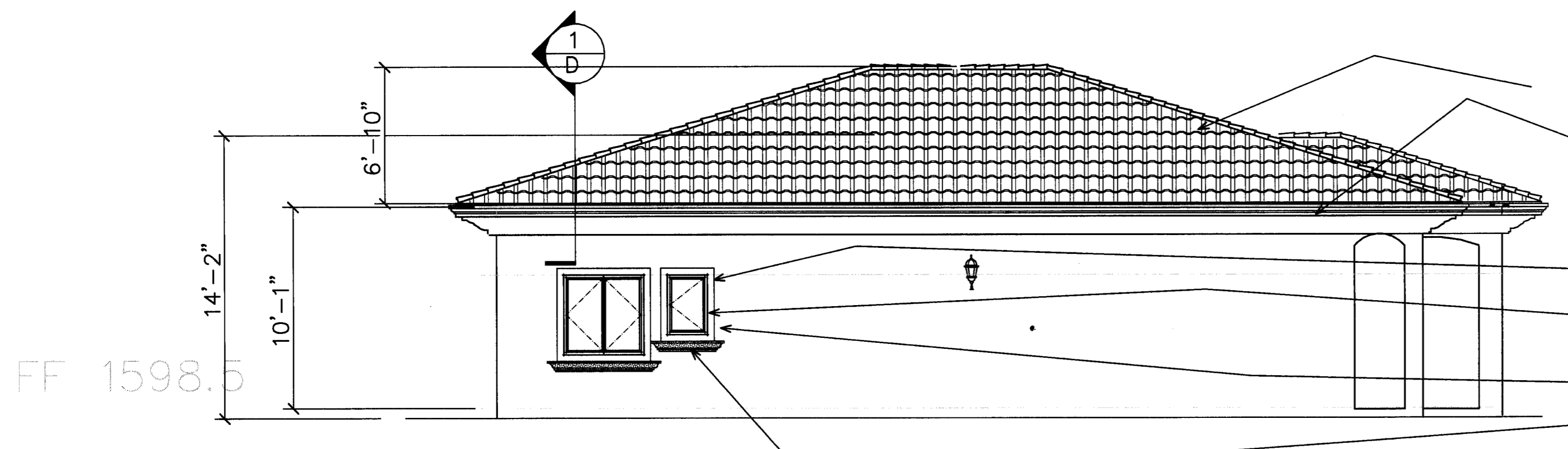
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REAR WEST ELEVATION

SCALE 1/8 INCH = 1 FT - 0 IN



WEST ELEVATION 2ND DWELL. UNIT

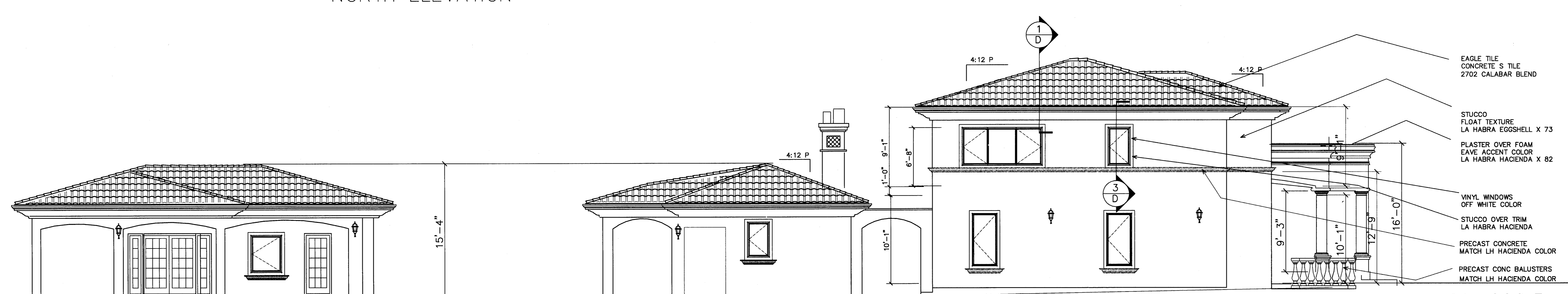
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CONCRETE S TILE  
2702 CALABAR BLEND
- PLASTER OVER FOAM  
EAVE ACCENT COLOR  
LA HABRA HACIENDA X 82
- STUCCO  
FLOAT TEXTURE  
LA HABRA EGGSHELL X 73
- VINYL WINDOWS  
OFF WHITE COLOR
- STUCCO OVER TRIM  
LA HABRA HACIENDA
- PRECAST CONCRETE  
MATCH LH HACIENDA COLOR



NORTH ELEVATION

- EAGLE TILE  
CONCRETE S TILE  
2702 CALABAR BLEND
- STUCCO  
FLOAT TEXTURE  
LA HABRA EGGSHELL X 73
- PLASTER OVER FOAM  
EAVE ACCENT COLOR  
LA HABRA HACIENDA X 82
- VINYL WINDOWS  
OFF WHITE COLOR
- STUCCO OVER TRIM  
LA HABRA HACIENDA
- PRECAST CONCRETE  
MATCH LH HACIENDA COLOR

RAISED PANEL DOOR  
"ANAHEIM DOOR CO."



FF 1599.5

WEST ELEVATION GAME ROOM

FF 1599.5

SOUTH ELEVATION

FF 1600.5

SCALE 3/16" = 1 FT - 0 IN

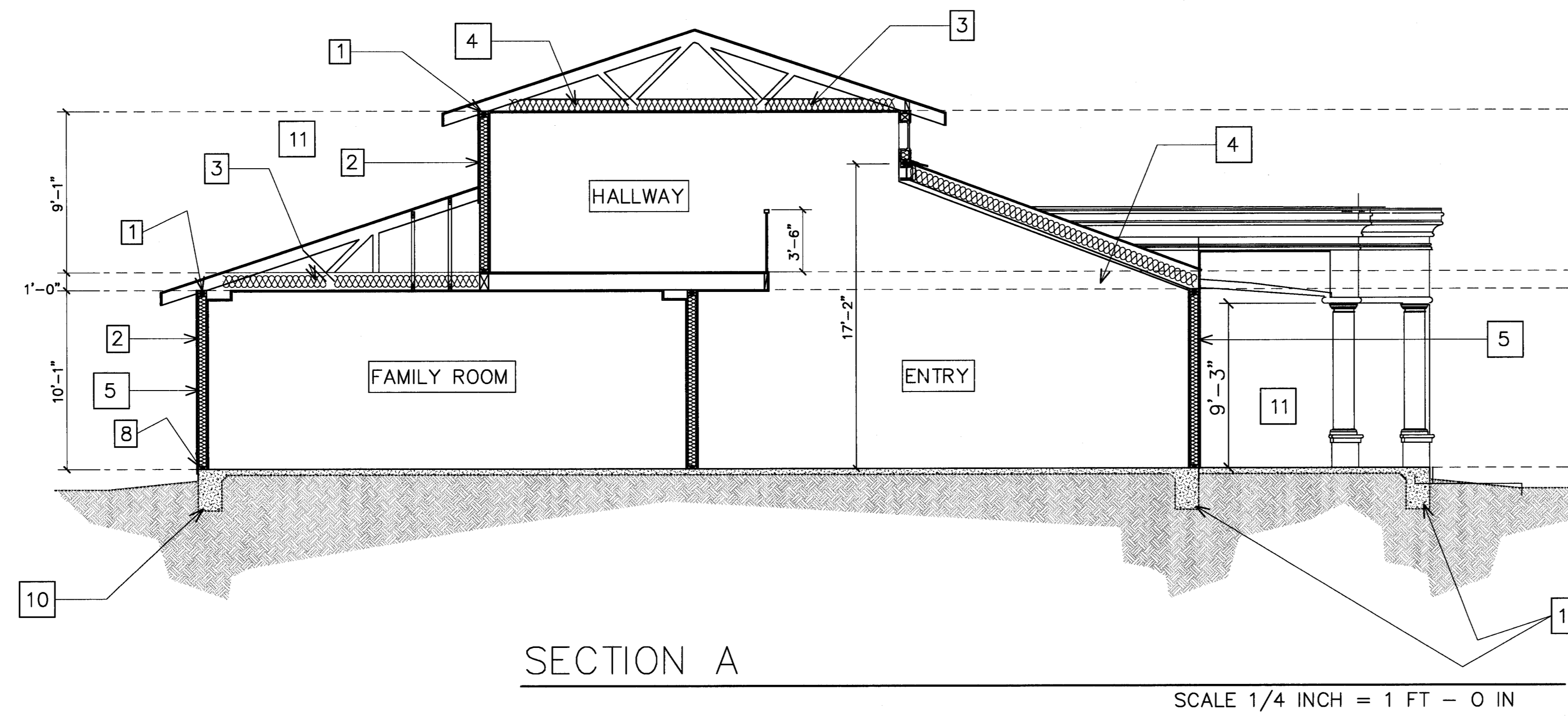
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OFF WHITE COLOR
- STUCCO OVER TRIM  
LA HABRA HACIENDA
- PRECAST CONCRETE  
MATCH LH HACIENDA COLOR
- PRECAST CONC BALUSTERS  
MATCH LH HACIENDA COLOR

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RES FOR G.E.I.G.  
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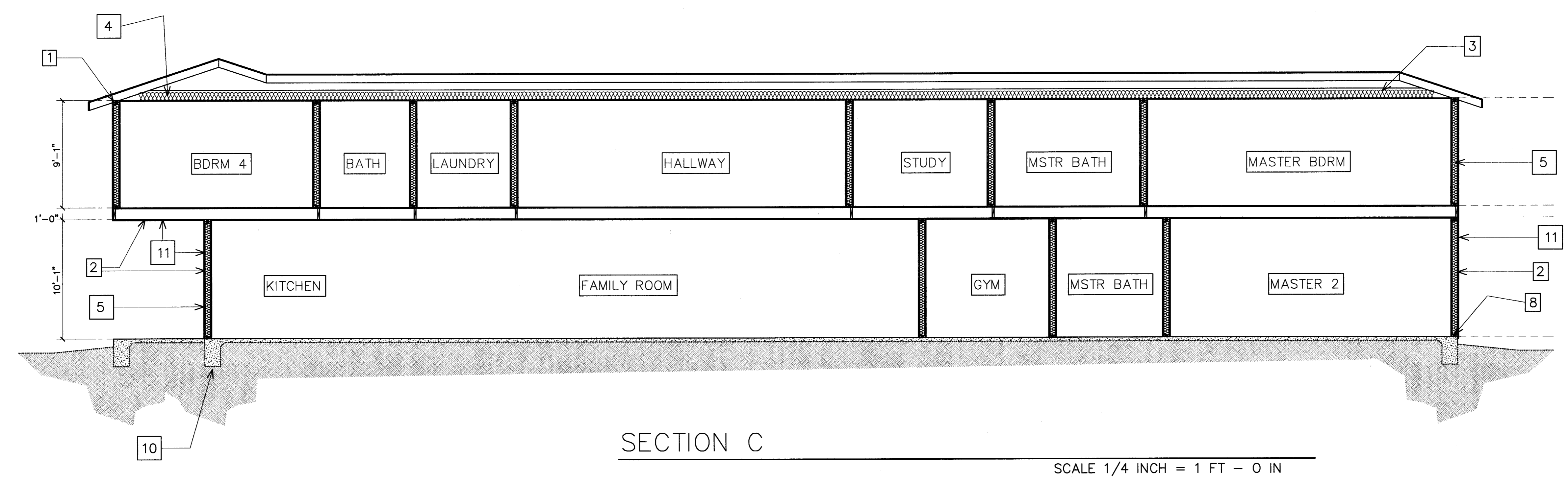
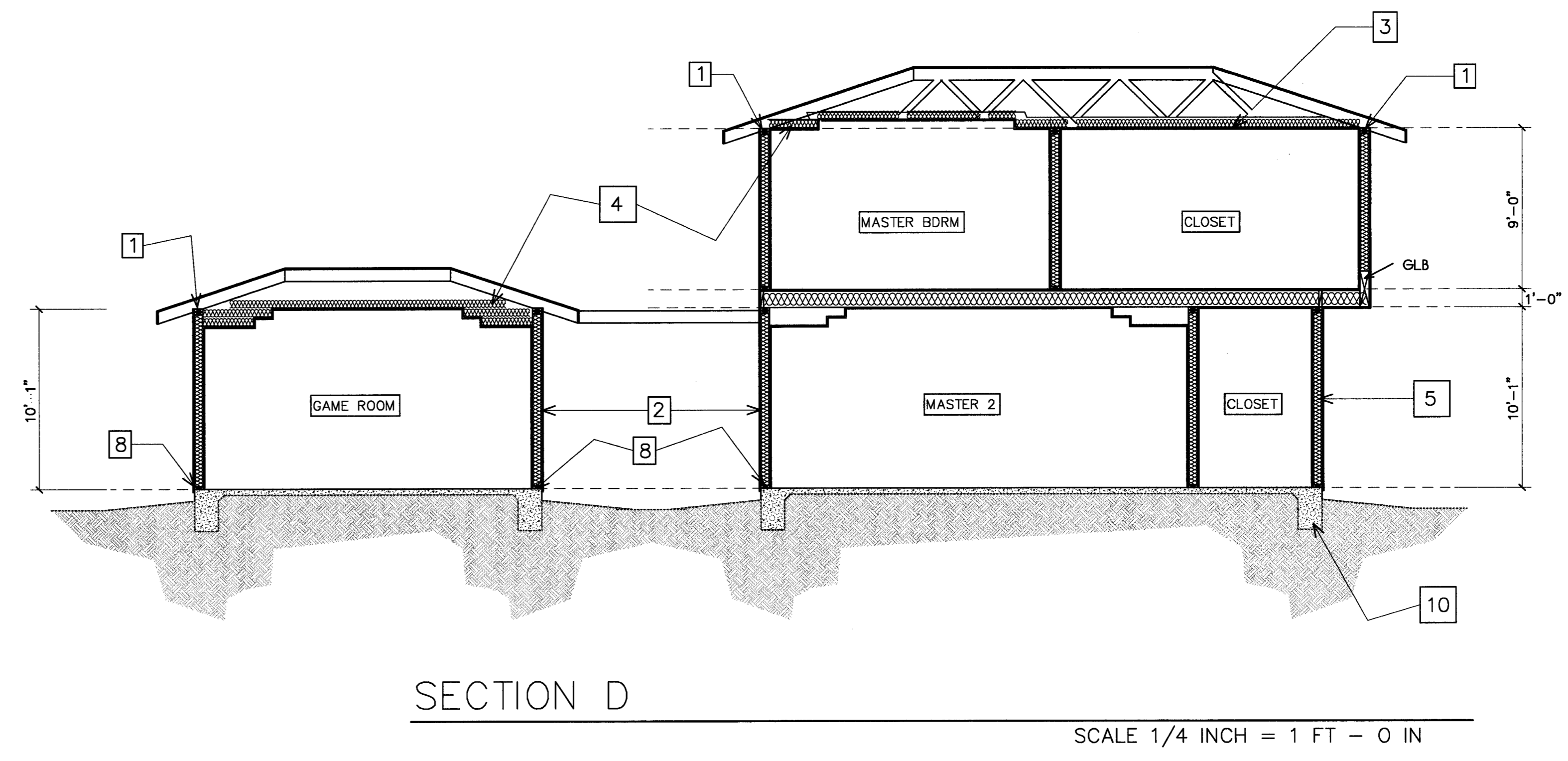
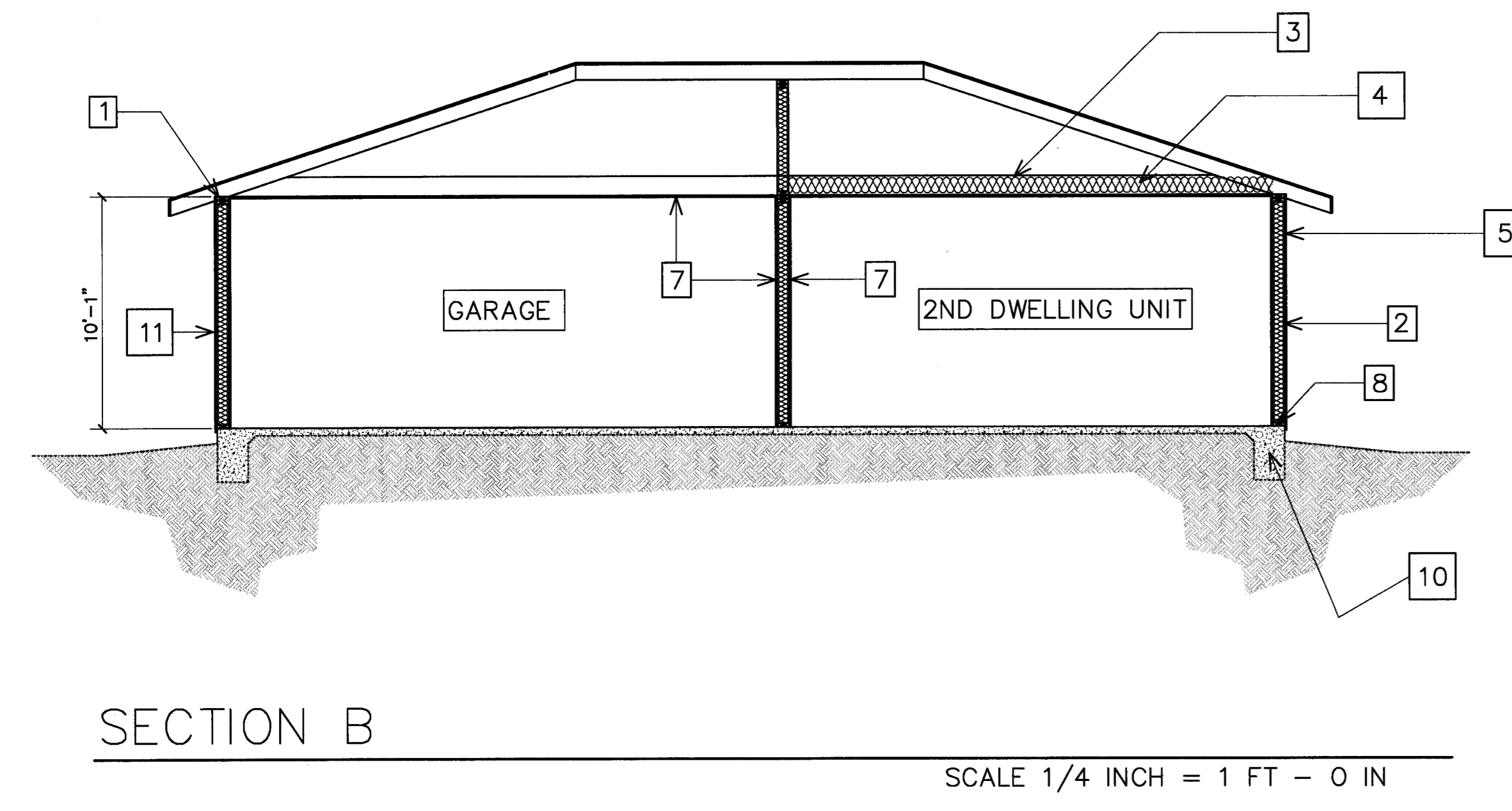


KEY NOTES & INFORMATION

SECTION KEY NOTES

- 1 DBL TOP PLATE
- 2 2 LAYERS GRADE D PAPER
- 3 TRUSSES
- 4 R-19 INSULATION
- 5 R-13 INSULATION
- 6 R-30 INSULATION
- 7 5/8" TYPE "X" GYP. BD.
- 8 2X P.T. SILL W/ A.B. @ 6"O.C.
- 9 2X FRAMED DROP
- 10 CONCRETE FTG
- 11 EXTERIOR STUCCO

SEE STRUCTURAL PLANS FOR MEMBER SIZES



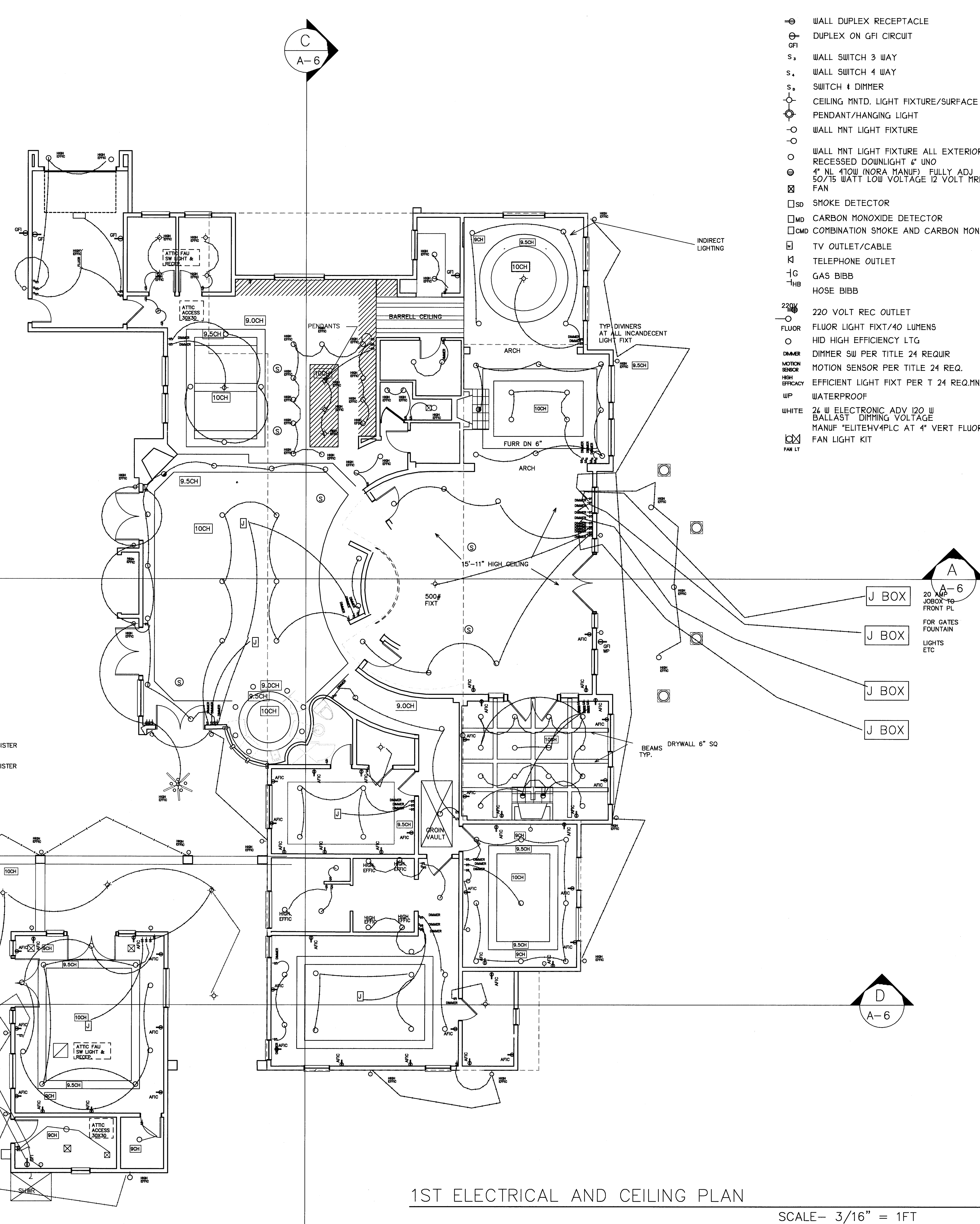
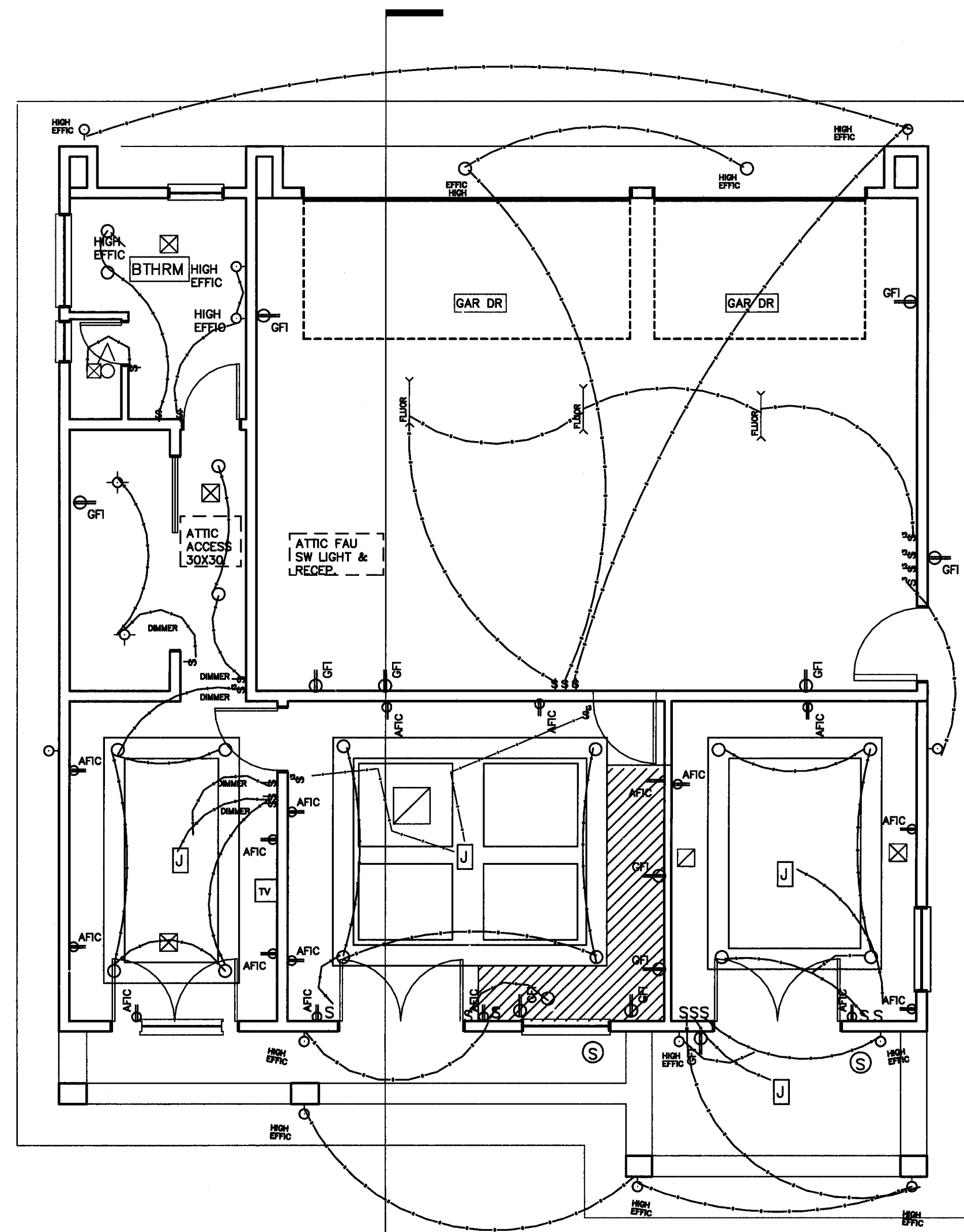
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9/10/2015	
DATE	
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SECTIONS  
 RES FOR G.E.I.G.  
 3429 GRAND AVE., CLAREMONT

SHEET  
 A-6

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- ⊖ WALL DUPLEX RECEPTACLE
- ⊖ DUPLEX ON GFI CIRCUIT
- S<sub>3</sub> WALL SWITCH 3 WAY
- S<sub>4</sub> WALL SWITCH 4 WAY
- S<sub>3</sub> SWITCH & DIMMER
- ⊖ CEILING MNTD. LIGHT FIXTURE/SURFACE MNTD
- ⊖ PENDANT/HANGING LIGHT
- ⊖ WALL MNT LIGHT FIXTURE
- ⊖ WALL MNT LIGHT FIXTURE ALL EXTERIOR WITH PHOTCELL
- ⊖ RECESSED DOWNLIGHT 4" UNO
- ⊖ 4" NL 410W (NORA MANUF) FULLY ADJ
- ⊖ 50/75 WATT LOW VOLTAGE 12 VOLT MR16 LAMPS
- FAN FAN LIGHT KIT
- ⊖ SD SMOKE DETECTOR
- ⊖ MD CARBON MONOXIDE DETECTOR
- ⊖ CMD COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR
- ⊖ TV OUTLET/CABLE
- ⊖ TELEPHONE OUTLET
- ⊖ GAS BIBB
- ⊖ HOSE BIBB
- 220V 220 VOLT REC OUTLET
- ⊖ FLUOR FLUOR LIGHT FIXT/40 LUMENS
- ⊖ HID HID HIGH EFFICIENCY LTG
- DIMMER DIMMER SW PER TITLE 24 REQUIRE
- MOTION SENSOR MOTION SENSOR PER TITLE 24 REQUIRE
- HIGH EFFICACY EFFICIENT LIGHT FIXT PER T 24 REQUIREMENTS
- WIP WATERPROOF
- WHITE 24 W ELECTRONIC ADV 120 W BALLAST DIMMING VOLTAGE MANUF "ELITEHV4PLC AT 4" VERT FLUOR HOUSING
- ⊖ FAN LT FAN LIGHT KIT

The 2013 International Residential Code carbon monoxide alarms are required in new construction residences that have either a garage or a fuel fired appliance. They are also required in remodels of existing dwellings where a permit is required and the dwelling has either a garage or a fuel fired appliance.

When carbon monoxide alarms are required they must be installed outside each sleeping area and in the vicinity of bedrooms. They must also be listed as complying with UL 2034 and installed in accordance with the code and the manufacturer's instructions. SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP

BATTERY CARBON MONOXIDE ALARM IS PERMITTED IN EXITING DWELLING UNITS WHERE NO CONSTRUCTION IS TAKING PLACE.

**SMOKE DETECTORS:**

HARD-WIRE SMOKE DETECTORS WITH A BATTERY BACK-UP IN EACH SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SLEEPING AREA. A DETECTOR SHALL BE LOCATED AT EACH STORY AND BASEMENT, ON THE UPPER LEVEL OF SPLIT LEVEL STORIES AND BOTH LEVELS IS SLEEPING AREA IS ON LOWER LEVEL. A DETECTOR SHALL BE LOCATED IN CLOSE PROXIMITY TO THE STAIRWAY WHEN SLEEPING ROOMS ARE ON THE UPPER LEVEL WHERE THE CEILING HEIGHT OF A ROOM OPEN TO THE HALLWAY SERVING THE BEDROOMS EXCEEDS THAT OF THE HALLWAY BY 24" OR MORE. DETECTORS SHALL BE INSTALLED IN THE HALLWAY AND NEAR THE HIGH POINT OF THE ADJOINING ROOM. (BATTERY OPERATED SMOKE DETECTOR PERMITTED IN EXISTING CONSTRUCTION ONLY.) DETECTOR SHALL SOUND AN AUDIBLE ALARM IN ALL AREAS OF THE UNIT ALL DETECTORS SHALL BE HARD WIRED TOGETHER WITH BATTERY BACKUP

- LEGEND**
- ⊖ RETURN REGISTER
  - ⊖ SUPPLY REGISTER

**PETE VOLBEDA Architecture Planning**

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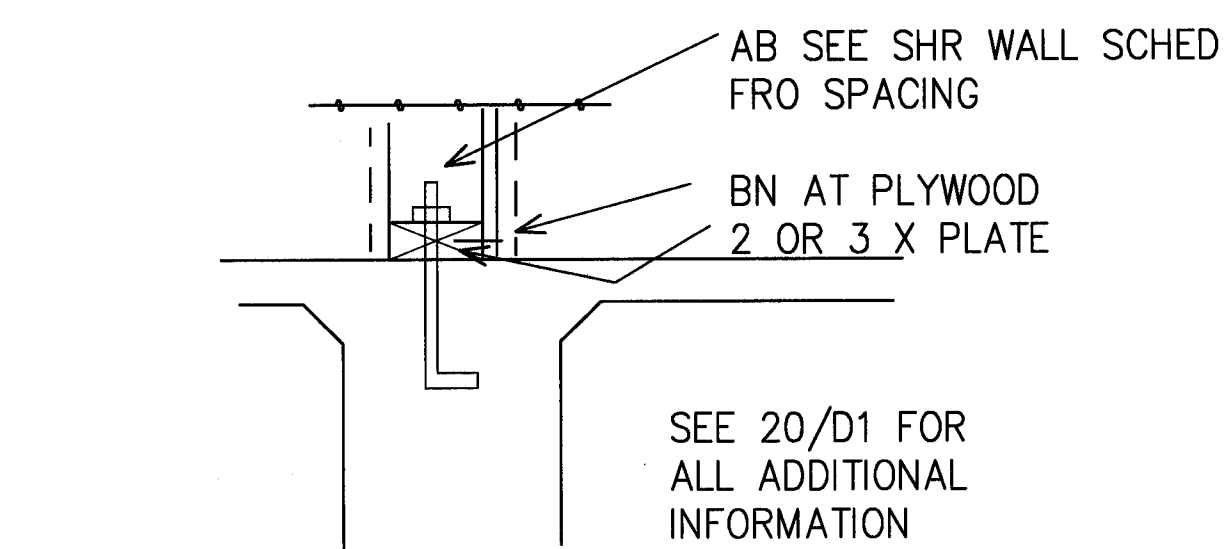
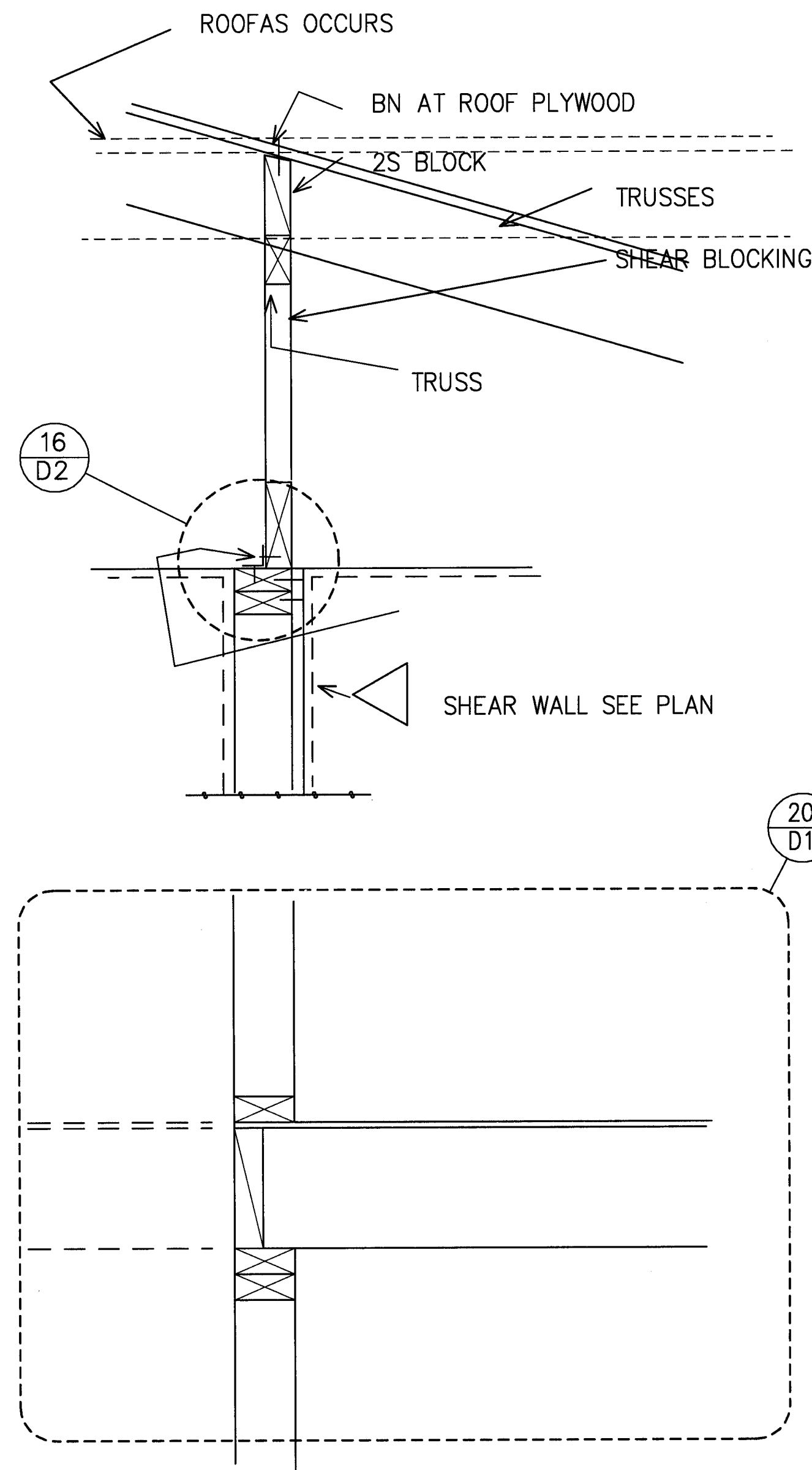
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CHECKED	APPROVED	
OWNER APPROVAL	BID SET	
	REVISION	
	DATE	

**1ST FLOOR ELECTRICAL PLAN**

**RES FOR G.E.I.G.**  
**3429 GRAND AVE., CLAREMONT**

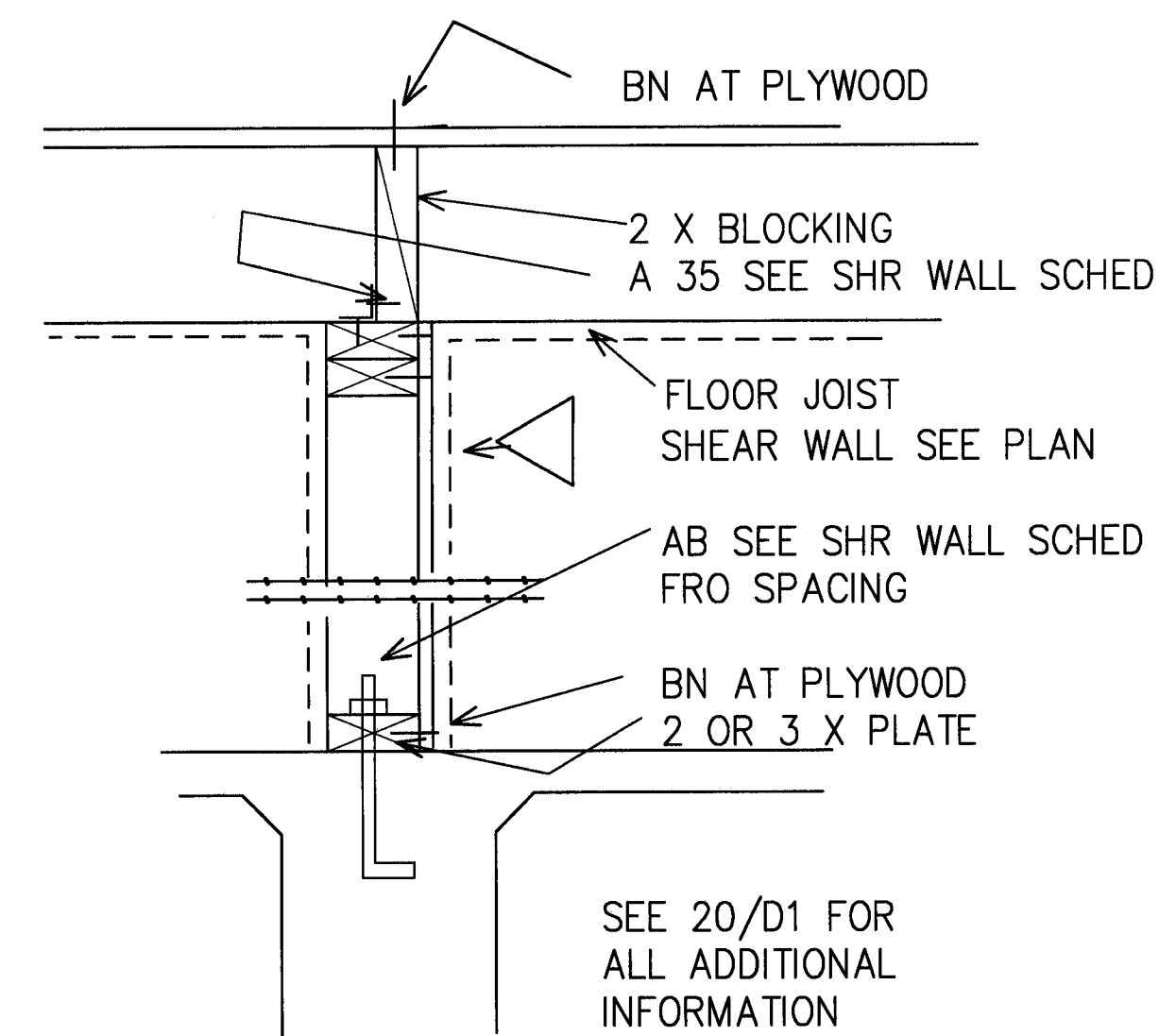
SHEET **E1**

**1ST ELECTRICAL AND CEILING PLAN**  
SCALE- 3/16" = 1FT  
SCALE 3/16" = 1 F T - 0 IN



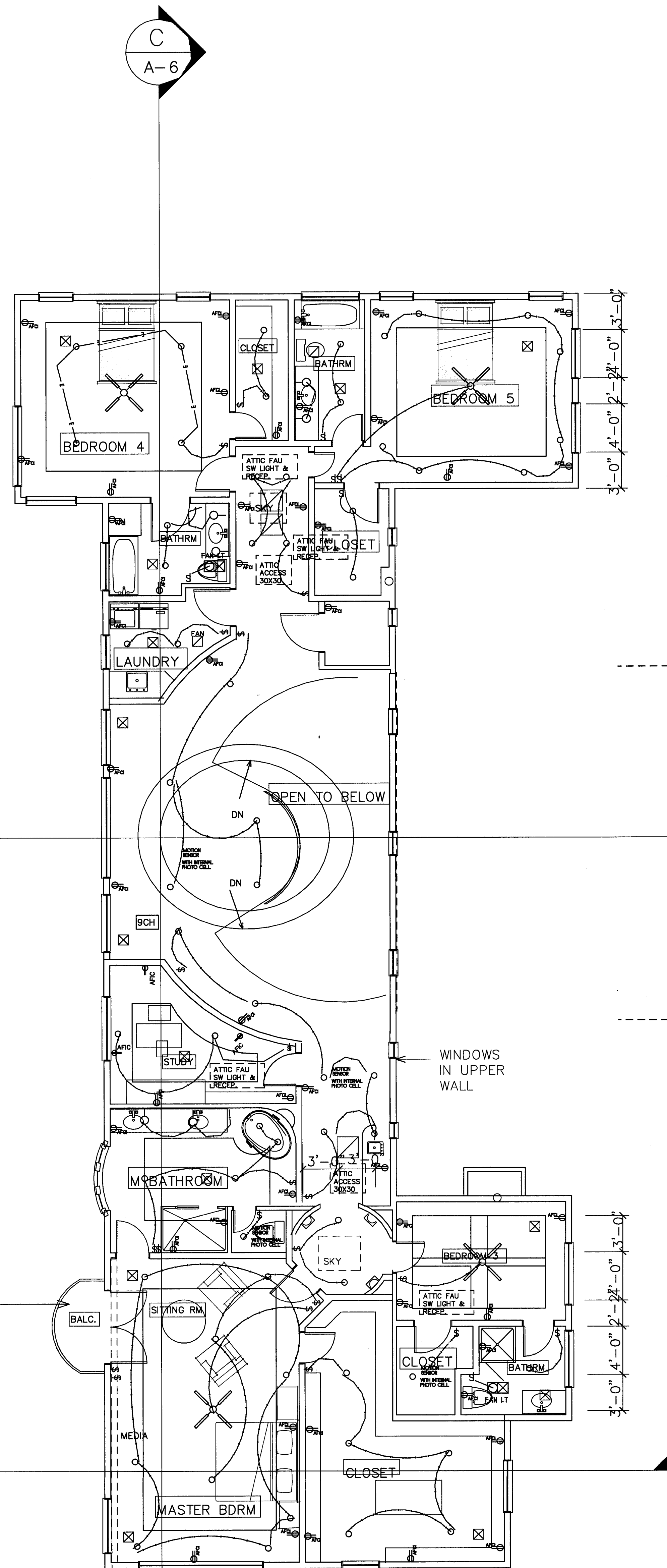
INTERIOR SHEAR WALL

1



ONE STORY SHEAR WALL

2



LEGEND

- RETURN REGISTER
- SUPPLY REGISTER SEE MECHANICAL DRAWINGS
- EXHAUST FAN AS NOTED

- WALL DUPLEX RECEPTACLE
- DUPLEX ON GFI CIRCUIT
- WALL SWITCH 3 WAY
- WALL SWITCH 4 WAY
- SWITCH & DIMMER
- CEILING MNTD. LIGHT FIXTURE/SURFACE MNTD
- PENDANT/HANGING LIGHT
- WALL MNT LIGHT FIXTURE
- WALL MNT LIGHT FIXTURE ALL EXTERIOR WITH PHOTCELL
- RECESSED DOWNLIGHT 4\"/>

The 2013 International Residential Code carbon monoxide alarms are required in new construction residences that have either a garage or a fuel fired appliance. They are also required in remodels of existing dwellings where a permit is required and the dwelling has either a garage or a fuel fired appliance.

When carbon monoxide alarms are required they must be installed outside each sleeping area and in the vicinity of bedrooms. They must also be listed as complying with UL 2034 and installed in accordance with the code and the manufacturer's instructions. SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP

BATTERY CARBON MONOXIDE ALARM IS PERMITTED IN EXISTING DWELLING UNITS WHERE NO CONSTRUCTION IS TAKING PLACE.

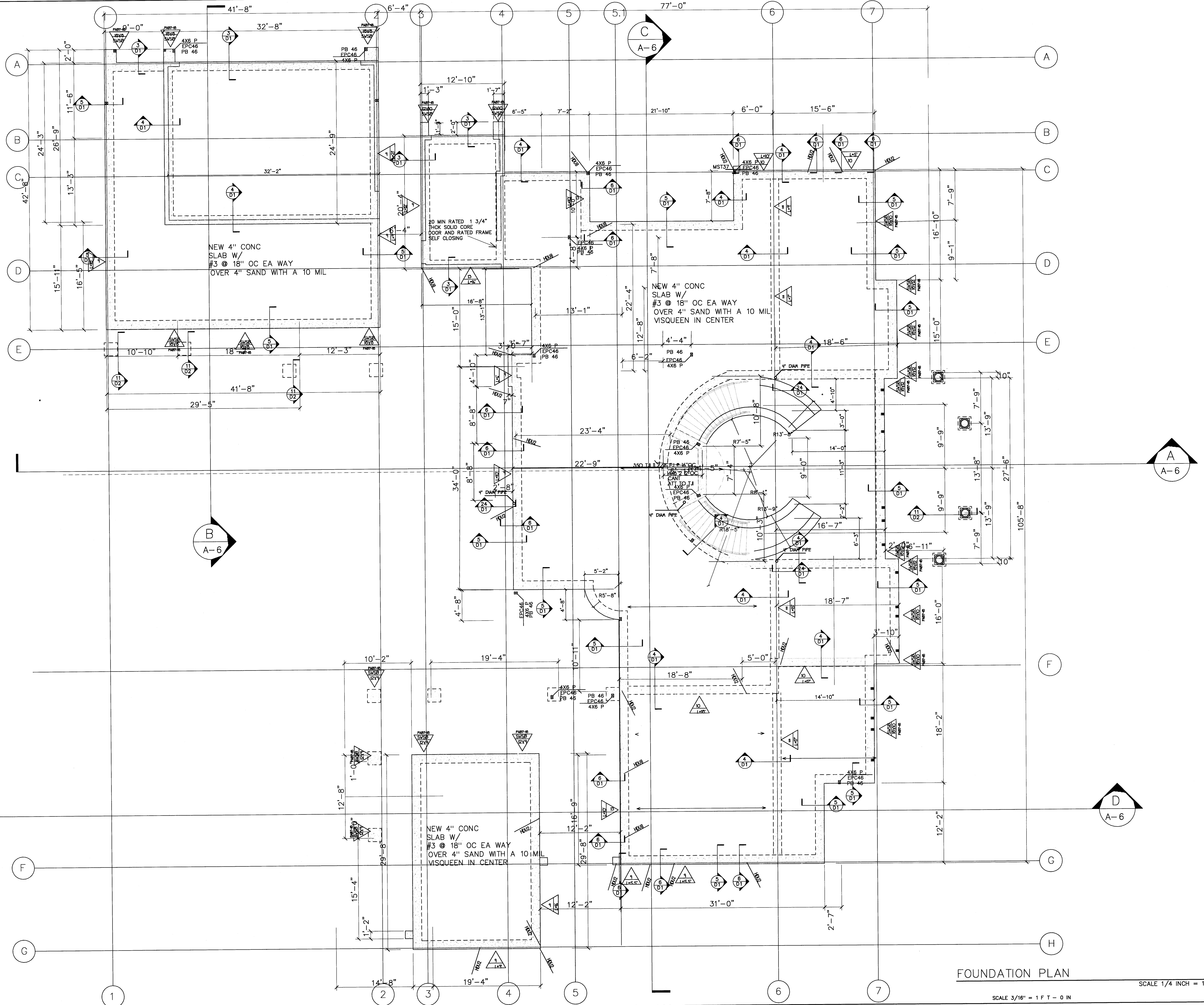
SMOKE DETECTORS:

HARD-WIRE SMOKE DETECTORS WITH A BATTERY BACK-UP IN EACH SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SLEEPING AREA. A DETECTOR SHALL BE LOCATED AT EACH STORY AND BASEMENT, ON THE UPPER LEVEL OF SPLIT LEVEL STORIES AND BOTH LEVELS IS SLEEPING AREA IS ON LOWER LEVEL. A DETECTOR SHALL BE LOCATED IN CLOSE PROXIMITY TO THE STAIRWAY WHEN SLEEPING ROOMS ARE ON THE UPPER LEVEL WHERE THE CEILING HEIGHT OF A ROOM OPEN TO THE HALLWAY SERVING THE BEDROOMS EXCEEDS THAT OF THE HALLWAY BY 24\"/>

2ND ELECTRICAL AND CEILING PLAN  
2ND FLOOR PLAN  
SCALE - 3/16\"/>

SCALE 3/16" = 1 FT - 0 IN

DESIGN	DATE	10/5/2015
DRAWN BY:	PLAN CHECK	
CHECKED	APPROVED	
OWNER APPROVAL	BID SET	
	REVISION	
	DATE	



FOUNDATION PLAN

SCALE 3/16" = 1 FT - 0 IN

SCALE 1/4 INCH = 1 FT - 0 IN

DESIGN	DATE	9/10/2015
DRAWN BY:	PLAN CHECK:	
CHECKED	APPROVED	
OWNER APPROVAL	BID SET	
	REVISION	
	DATE	

FOUNDATION PLAN

SHEET

OF

S1

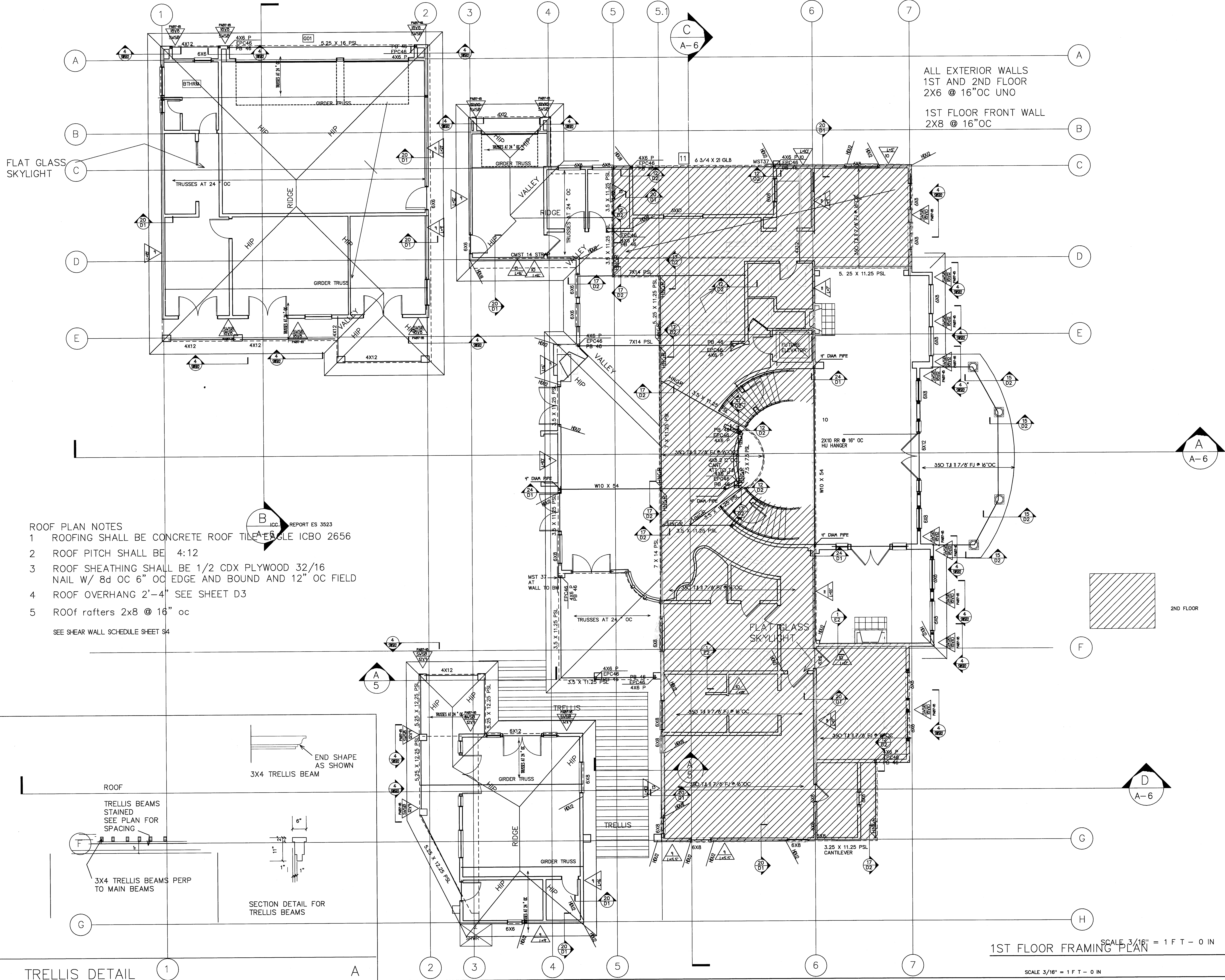
RES FOR G.E.I.G.  
3429 GRAND AVE., CLAREMONT

PETE VOLBEDA Architecture Planning

180 N BENSON AVE. D, UPLAND, CA. 91786

TEL 909 373 1150

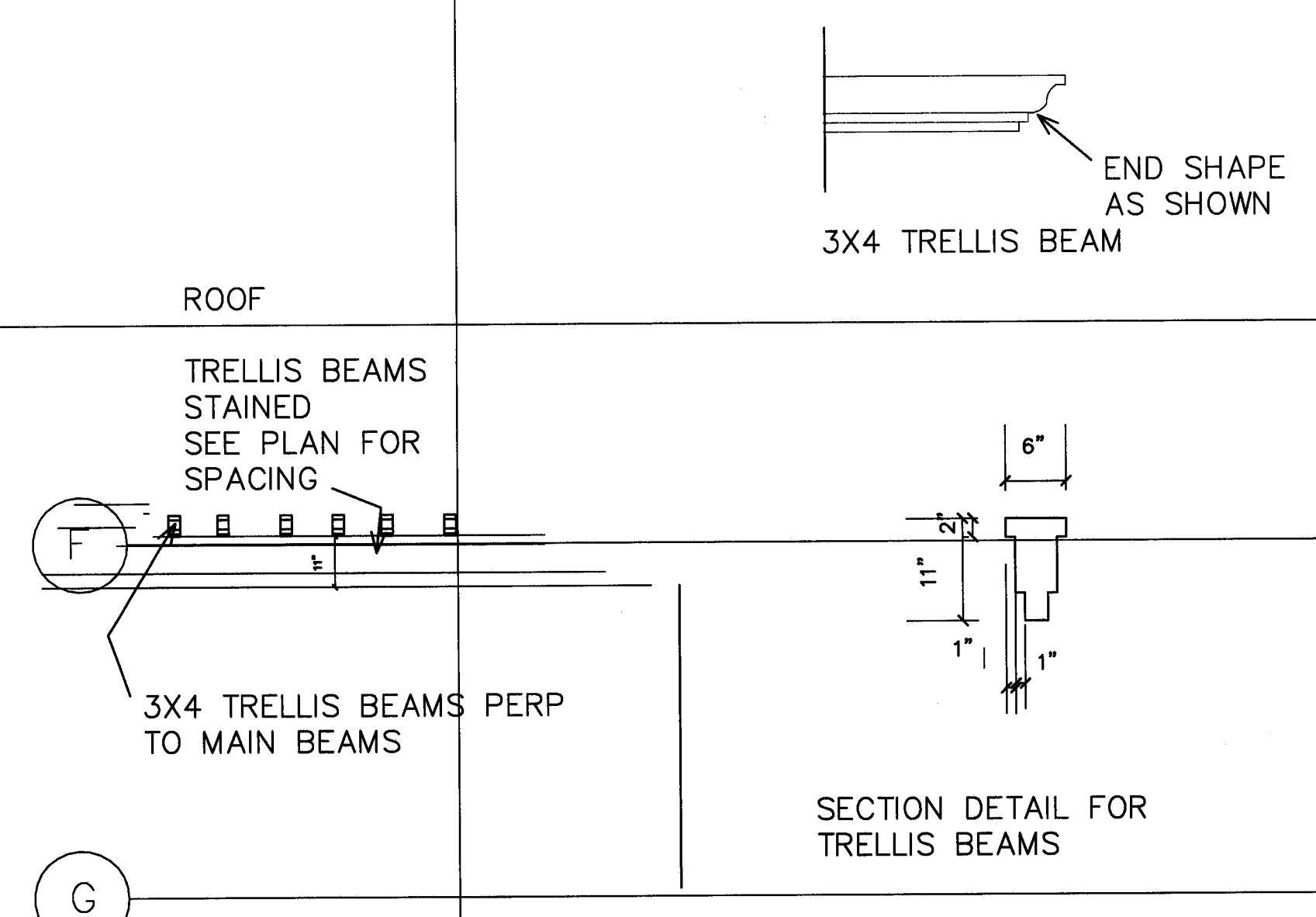
FAX 909 373 1152



ALL EXTERIOR WALLS  
1ST AND 2ND FLOOR  
2X6 @ 16" OC UNO

1ST FLOOR FRONT WALL  
2X8 @ 16" OC

- ROOF PLAN NOTES
- 1 ROOFING SHALL BE CONCRETE ROOF TILE EAGLE ICBO 2656
  - 2 ROOF PITCH SHALL BE 4:12
  - 3 ROOF SHEATHING SHALL BE 1/2 CDX PLYWOOD 32/16  
NAIL W/ 8d OC 6" OC EDGE AND BOUND AND 12" OC FIELD
  - 4 ROOF OVERHANG 2'-4" SEE SHEET D3
  - 5 ROOF RAFTERS 2x8 @ 16" oc
- SEE SHEAR WALL SCHEDULE SHEET S4



1ST FLOOR FRAMING PLAN SCALE 3/16" = 1 FT - 0 IN

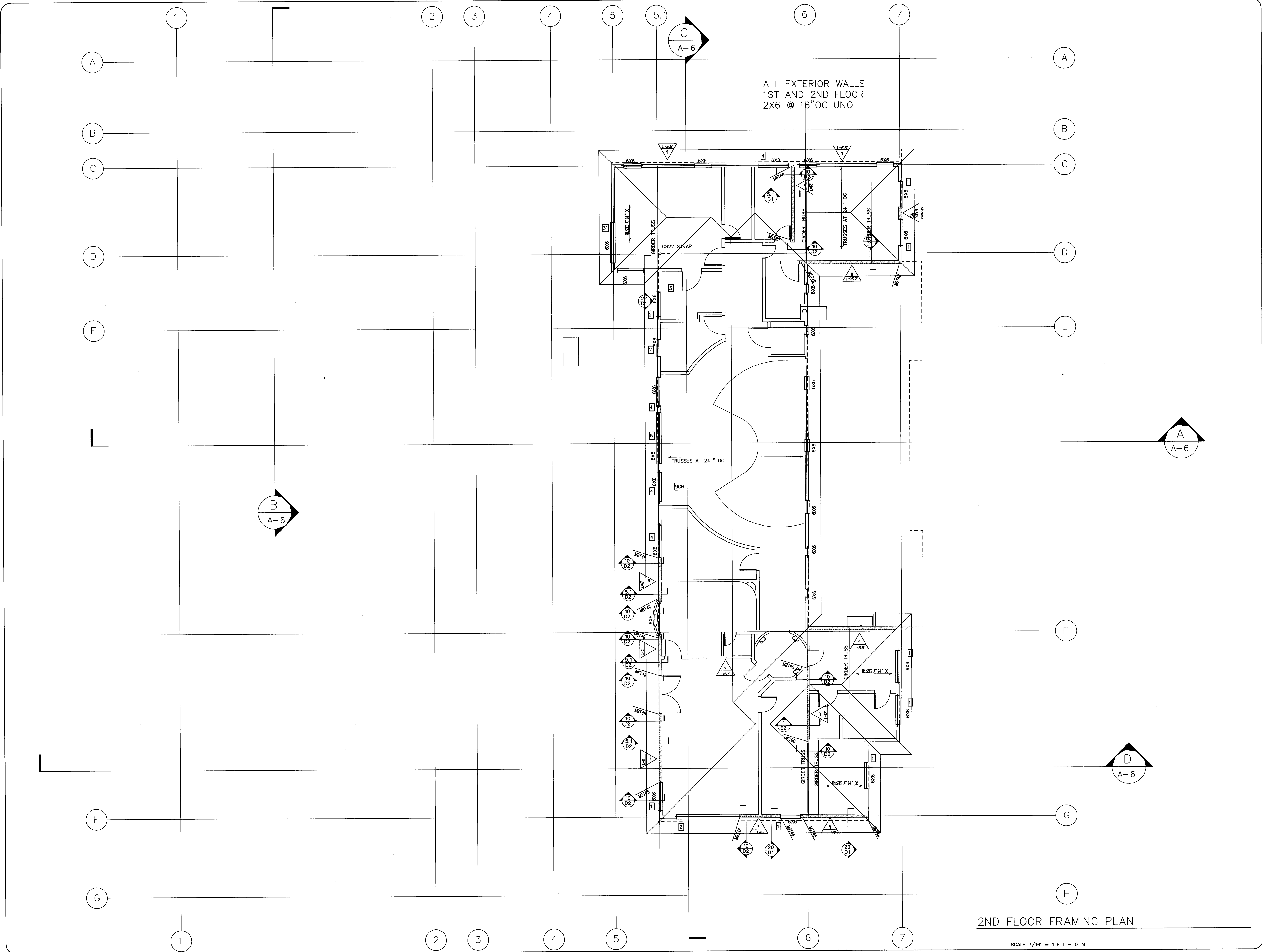
DESIGN	DATE	9/10/2015
DRAWN BY:	PLAN CHECK	
CHECKED	APPROVED	
OWNER APPROVAL	BID SET	
	REVISION	
	DATE	

1ST FLOOR FRAMING PLAN

SHEET S2

PETE VOLBEDA Architecture Planning  
180 N BENSON AVE. D, UPLAND, CA. 91786  
TEL 909 373 1150 FAX 909 373 1152

RES FOR G.E.I.G.  
3429 GRAND AVE., CLAREMONT



ALL EXTERIOR WALLS  
1ST AND 2ND FLOOR  
2X6 @ 16" OC UNO

2ND FLOOR FRAMING PLAN

SCALE 3/16" = 1' T - 0 IN

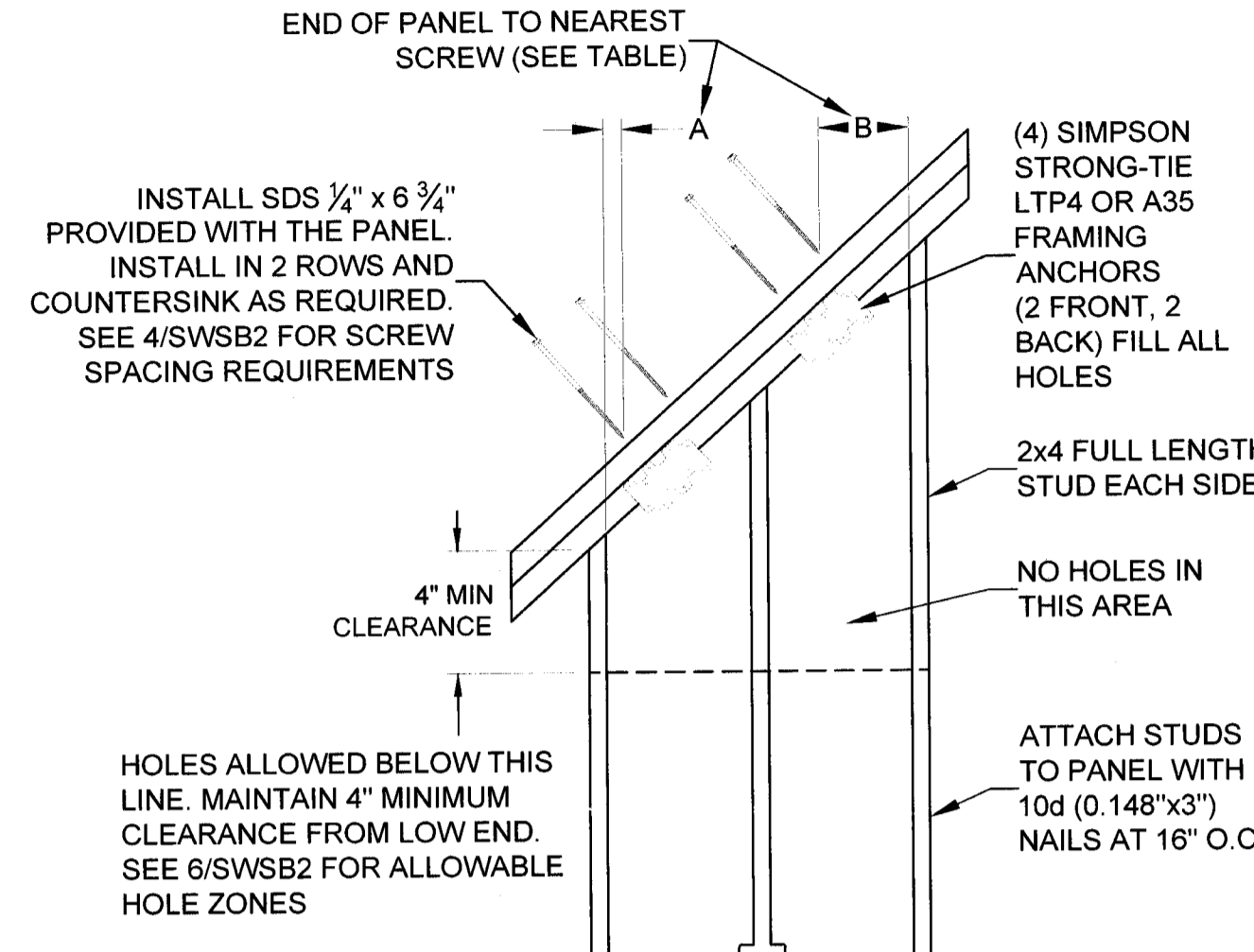
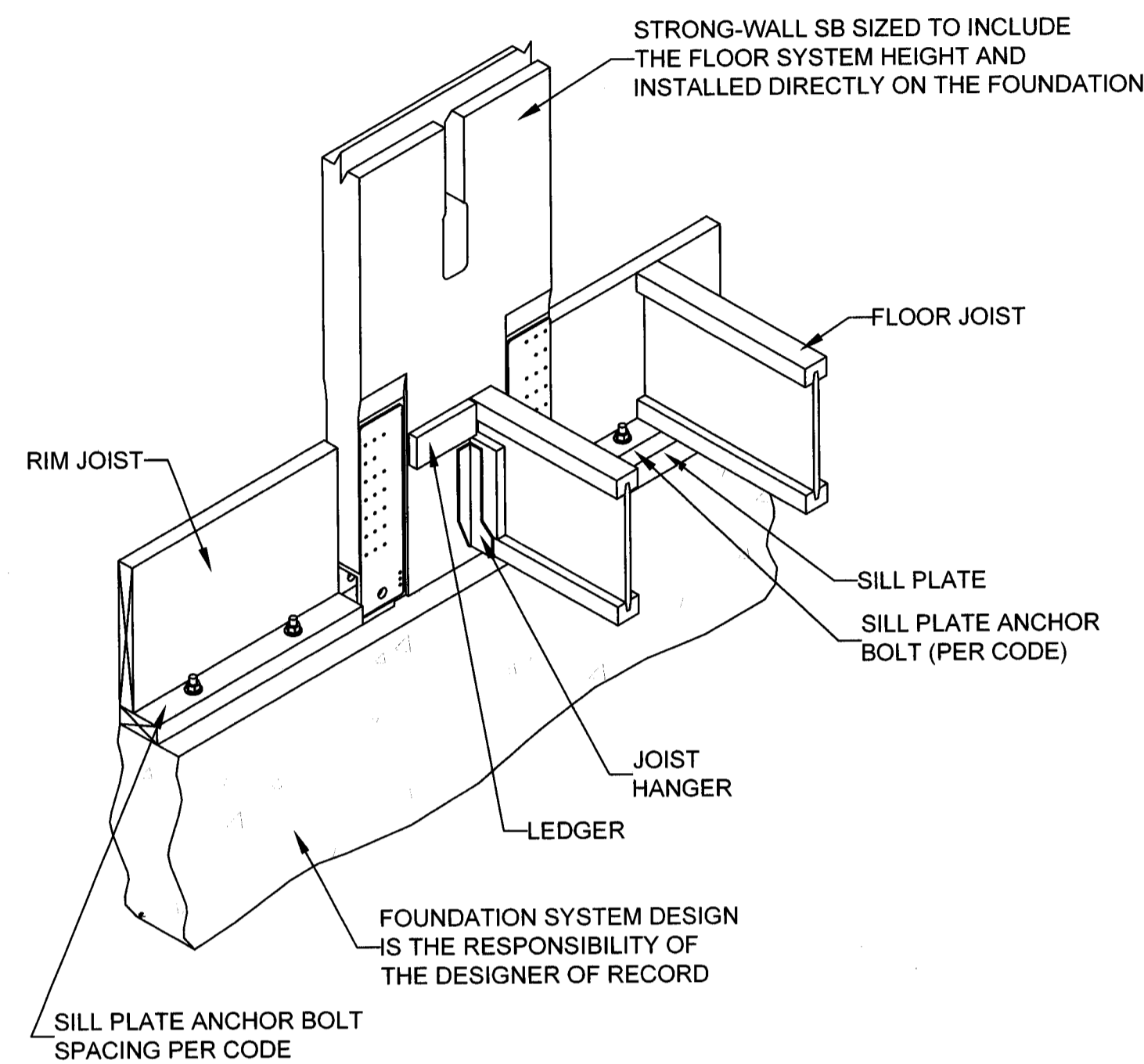
SHEET	2ND FLOOR FRAMING PLAN		DESIGN	DATE	9/10/2015
	RES FOR G.E.I.G. 3429 GRAND AVE., CLAREMONT		DRAWN BY: CHECKED	PLAN CHECK APPROVED	
33			OWNER APPROVAL	BID SET	DATE
				REVISION	

**PETE VOLBEDA Architecture Planning**  
180 N BENSON AVE. D, UPLAND, CA. 91786  
TEL 909 373 1150 FAX 909 373 1152

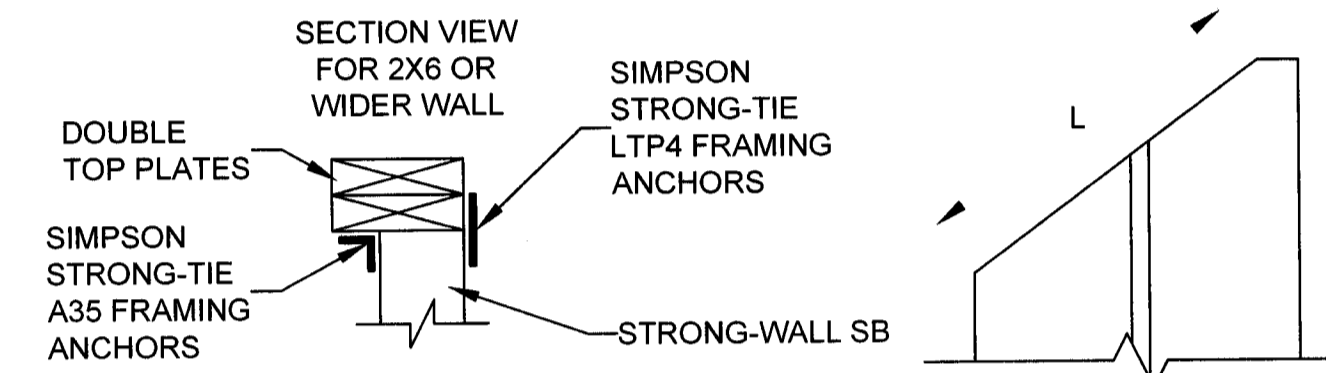
**STRONG-WALL® SB MODELS**

MODEL NO.	W (in)	H (in)	ANCHOR BOLTS		NUMBER OF SCREWS IN TOP OF WALL	TOTAL WALL WEIGHT (lbs)
			QUANTITY	DIA. (in)		
SWSB12x7	12	78	2	7/8	6	100
SWSB18x7	18	78	2	7/8	8	145
SWSB12x7.5	12	85 1/2	2	7/8	6	110
SWSB18x7.5	18	85 1/2	2	7/8	8	155
SWSB12x8	12	93 1/4	2	7/8	6	115
SWSB18x8	18	93 1/4	2	7/8	8	165
SWSB24x8	24	93 1/4	2	1	12	220
SWSB12x9	12	105 1/4	2	7/8	6	125
SWSB18x9	18	105 1/4	2	7/8	8	180
SWSB24x9	24	105 1/4	2	1	12	240
SWSB12x10	12	117 1/4	2	7/8	6	135
SWSB18x10	18	117 1/4	2	7/8	8	200
SWSB24x10	24	117 1/4	2	1	12	265
SWSB12x11	12	129 1/4	2	7/8	6	150
SWSB18x11	18	129 1/4	2	7/8	8	215
SWSB24x11	24	129 1/4	2	1	12	290
SWSB12x12	12	141 1/4	2	7/8	6	160
SWSB18x12	18	141 1/4	2	7/8	8	235
SWSB24x12	24	141 1/4	2	1	12	315
SWSB18x13	18	153 1/4	2	7/8	8	250
SWSB24x13	24	153 1/4	2	1	12	340
SWSB18x20	18	240	2	7/8	8	385
SWSB24x20	24	240	2	1	12	515

- FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 1/2".
- ALL PANELS COME WITH TWO PRE-ATTACHED HOLD-DOWNS, TWO SLOTTED HEX NUTS, TWO FLAT WASHERS, SDS 1/4" X 6 3/4" SCREWS (IN QUANTITIES INDICATED IN TABLE), AND INSTALLATION INSTRUCTIONS.
- ALL PANELS ARE 3/8" THICK.

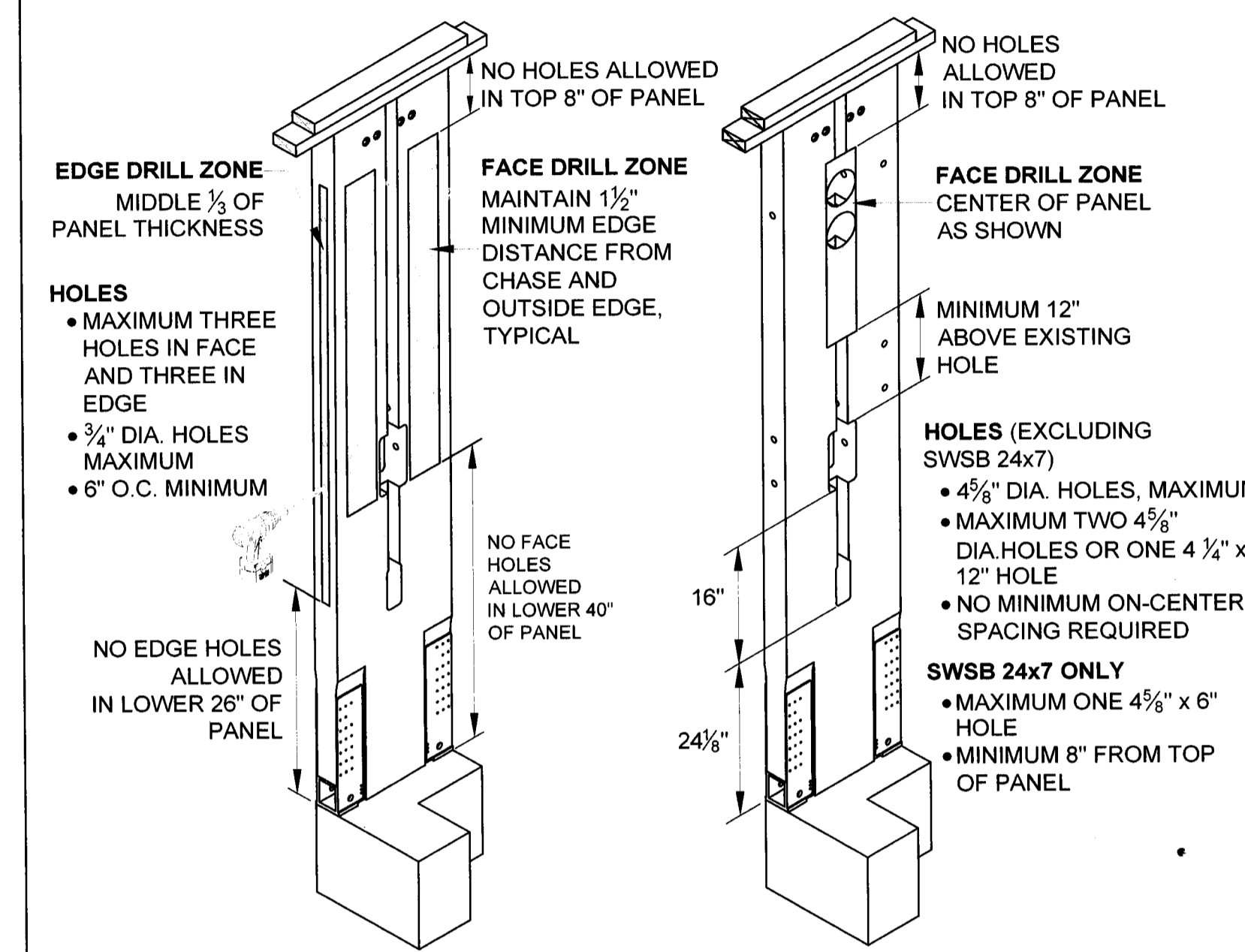


- INSTALLATION NOTES:
- ACTUAL CUT LENGTH (L) MUST BE GREATER THAN OR EQUAL TO PANEL WIDTH (W).
  - THIS DETAIL APPLICABLE FOR SLOPES UP TO 12:12.
  - PANELS TALLER THAN 12' MUST BE DESIGNED FOR THE APPLICATION.



END DISTANCE FOR SCREWS		
SLOPE	DIST. A (IN.)	DIST. B (IN.)
0:12 - 4:12	2	3
5:12 - 8:12	1 1/2	4 1/2
9:12 - 12:12	1/2	5 1/2

- MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES.
- INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.
- EDGE DISTANCES ASSUME DOUBLE TOP PLATE.



ALLOWABLE SMALL HOLES - ALL PANELS FACE AND EDGE DRILL ZONES

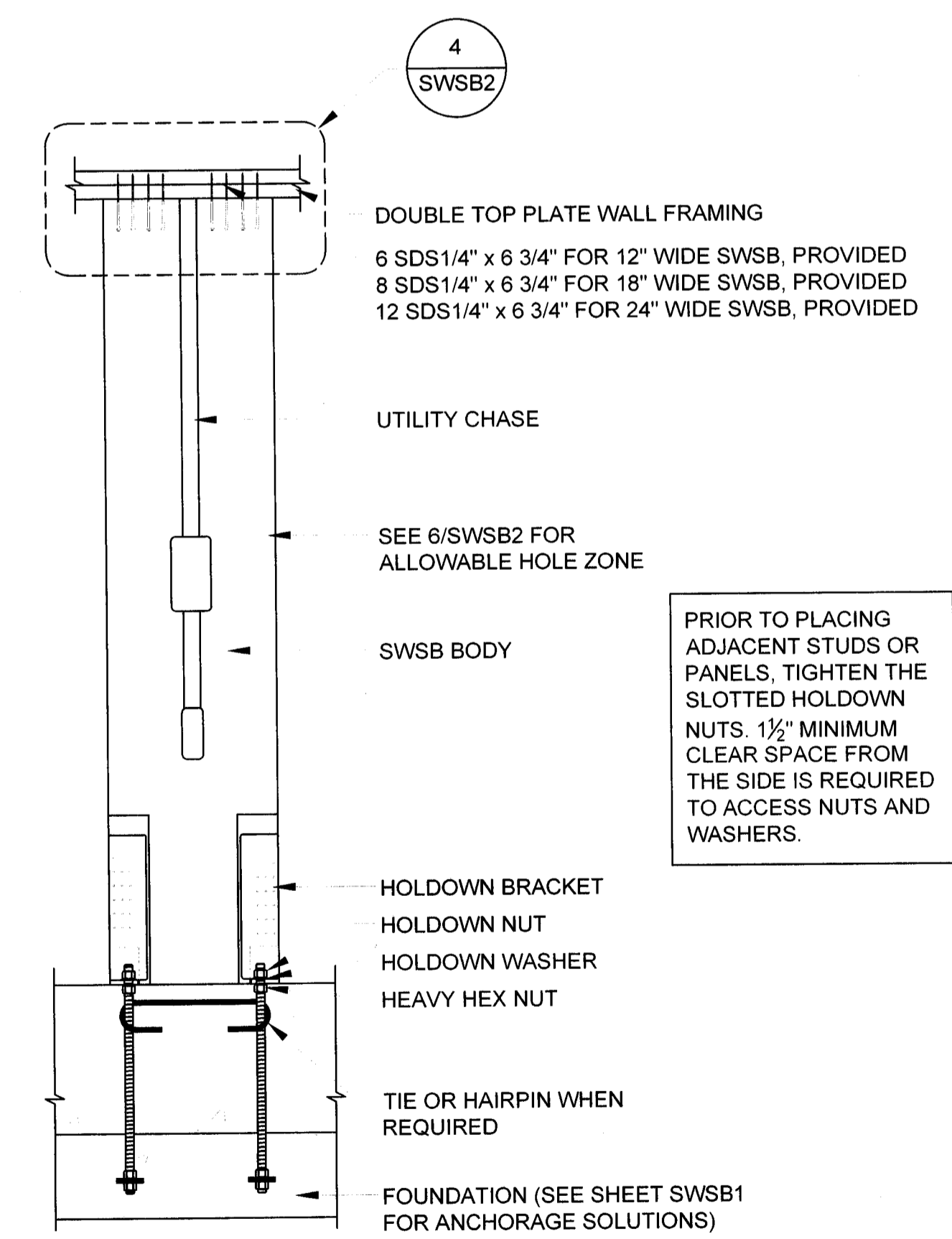
ALLOWABLE LARGE HOLE - ALL PANELS (IN ADDITION TO ALLOWABLE SMALL HOLES)

**STRONG-WALL® SB MODELS**

**1 WOOD FLOOR SYSTEM INSTALLATION**

**3 RAKE WALL**

**5 TRIM ZONES AND ALLOWABLE HOLES**



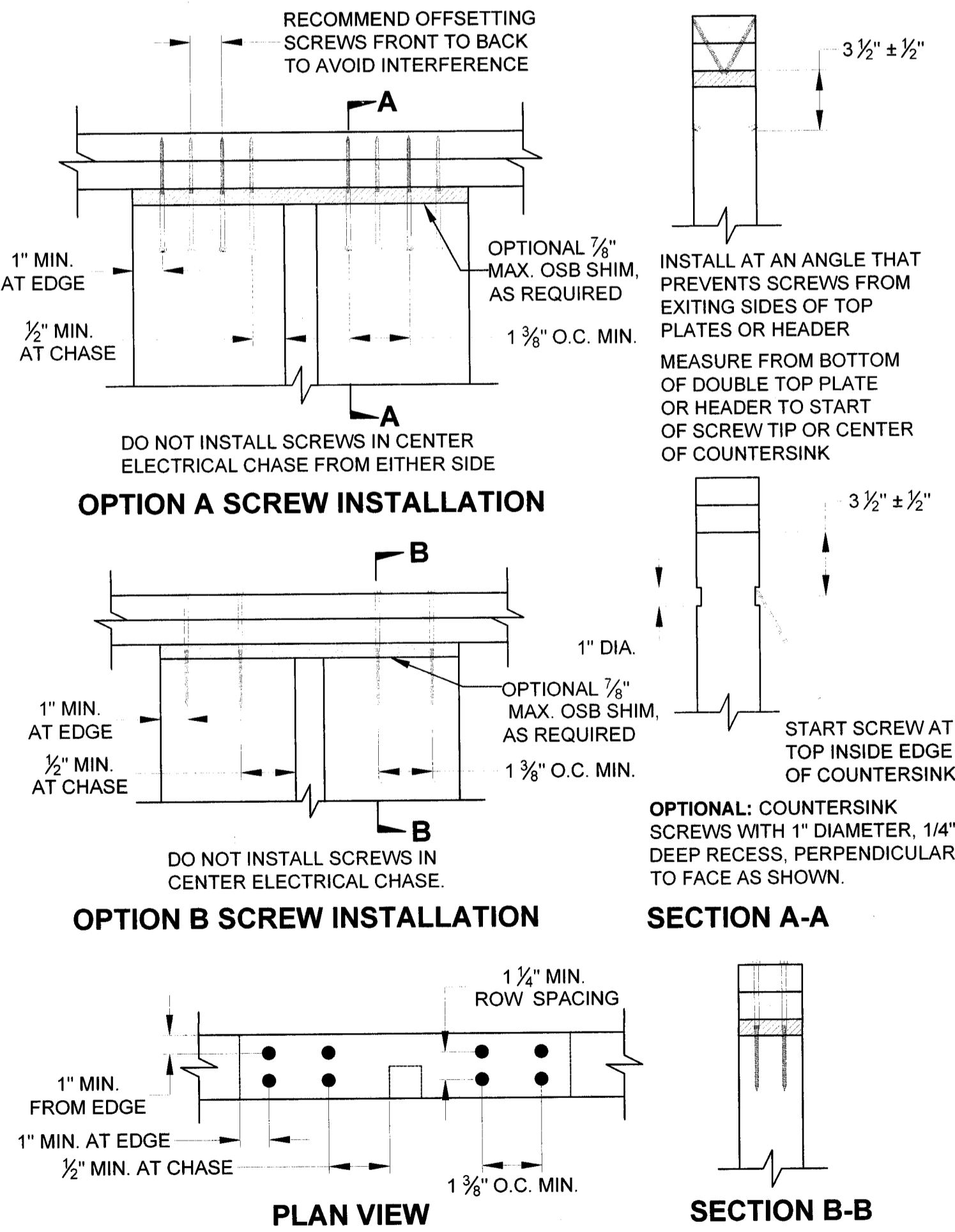
SWSB DESIGNED TO PROVIDE 1/2" GAP BETWEEN WOOD AT BOTTOM OF SWSB AND CONCRETE. ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

**SINGLE STORY SWSB ON CONCRETE**

**2 SCREW SPACING OPTIONS**

**4 NOTES**

**7**



- STRONG-WALL SB SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.
- USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
- THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.
- ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
- INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.
- SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
- ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.
- SEE ICC-ES ESR-2852 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

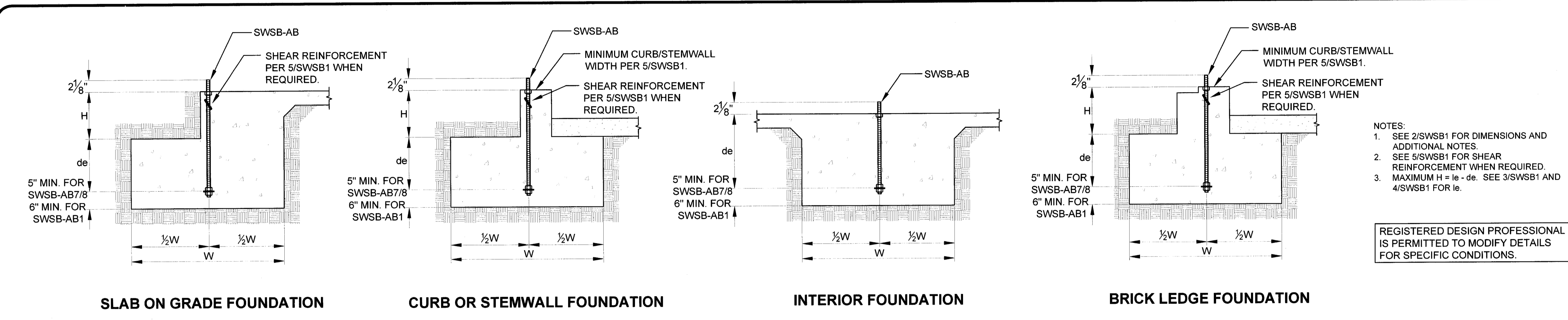
NO.	DATE	REVISIONS
0	11/18/2013	FIRST RELEASE - 2012 IBC REVISION
1	09/01/2014	ESR-2852 REVISIONS

**SIMPSON STRONG-TIE COMPANY INC.**  
 HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588  
 TEL: (800) 999-5099  
 SIMPSON STRONG-TIE  
 THERE IS NO EQUAL

**STRONG-WALL® SB SHEARWALL**  
 FRAMING DETAILS  
 ENGINEERED DESIGNS

NAME	CJK
DATE	09-01-2014
SCALE	N.T.S.
CHECKED	
SHEET	<b>SWSB2</b>
OF SHEETS	
JOB NO.	





**STRONG-WALL® SB ANCHORAGE - TYPICAL SECTIONS**

STRONG-WALL® SB ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SWSB12x_7/8" ANCHOR BOLT			SWSB18x_7/8" ANCHOR BOLT			SWSB24x_1" ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED UNCRACKED	HIGH STRENGTH	12,600	23	8	23,700	35	12	28,400	39	13
			5,400	12	6	5,400	12	6	6,800	14	6
WIND	CRACKED	STANDARD	8,300	16	6	9,900	18	6	11,600	20	7
			11,600	20	7	13,100	22	8	17,100	26	9
			8,300	16	6	15,300	24	8	21,400	30	10
	UNCRAKED	HIGH STRENGTH	11,600	20	7	17,300	26	9	23,600	32	11
			6,800	12	6	6,800	12	6	6,800	12	6
			8,500	14	6	10,400	16	6	12,400	18	6
UNCRAKED	STANDARD	11,400	17	6	13,100	19	7	17,100	23	8	
		8,500	14	6	14,500	20	7	21,600	26	9	
UNCRAKED	HIGH STRENGTH	11,400	17	6	16,800	22	8	24,100	28	10	

STRONG-WALL® SB ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

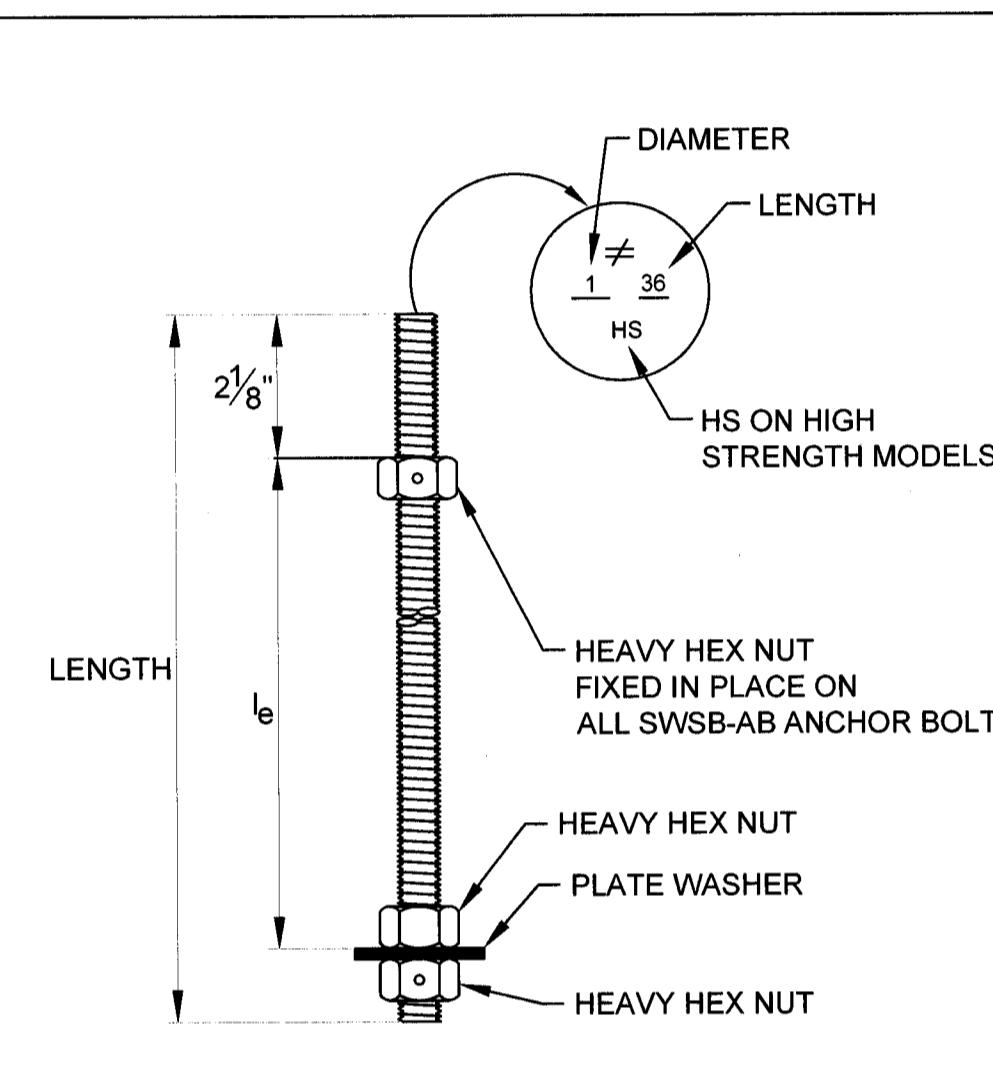
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SWSB12x_7/8" ANCHOR BOLT			SWSB18x_7/8" ANCHOR BOLT			SWSB24x_1" ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED UNCRACKED	HIGH STRENGTH	12,600	28	10	23,000	41	14	28,800	47	16
			12,500	24	8	23,100	36	12	28,700	41	14
WIND	CRACKED	STANDARD	5,100	14	6	6,200	16	6	6,200	16	6
			8,700	20	7	10,000	22	8	11,400	24	8
			11,400	24	8	13,100	27	9	17,100	32	11
	UNCRAKED	HIGH STRENGTH	8,700	20	7	14,400	28	10	21,100	36	12
			11,400	24	8	16,700	31	11	24,100	39	13
			5,000	12	6	6,400	14	6	6,400	14	6
UNCRAKED	STANDARD	9,300	18	6	10,800	20	7	12,500	22	8	
		11,700	21	7	13,100	23	8	17,100	28	10	
UNCRAKED	HIGH STRENGTH	9,300	18	6	14,300	24	8	21,900	32	11	
		11,700	21	7	17,000	27	9	24,000	34	12	

STRONG-WALL® SB ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SWSB12x_7/8" ANCHOR BOLT			SWSB18x_7/8" ANCHOR BOLT			SWSB24x_1" ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED UNCRACKED	HIGH STRENGTH	12,300	26	9	23,100	39	13	27,900	44	15
			12,800	23	8	22,700	34	12	28,900	39	13
WIND	CRACKED	STANDARD	5,600	14	6	5,600	14	6	6,800	16	6
			8,100	18	6	9,900	20	7	12,500	24	8
			11,000	22	8	13,100	25	9	17,100	30	10
	UNCRAKED	HIGH STRENGTH	8,100	18	6	14,900	27	9	21,000	34	12
			11,000	22	8	16,800	29	10	24,200	37	13
			5,500	12	6	5,500	12	6	7,000	14	6
UNCRAKED	STANDARD	8,500	16	6	9,300	17	6	11,900	20	8	
		11,000	19	7	13,100	22	8	17,100	26	9	
UNCRAKED	HIGH STRENGTH	8,500	16	6	15,600	24	8	21,800	30	10	
		11,000	19	7	16,600	25	9	24,000	32	11	

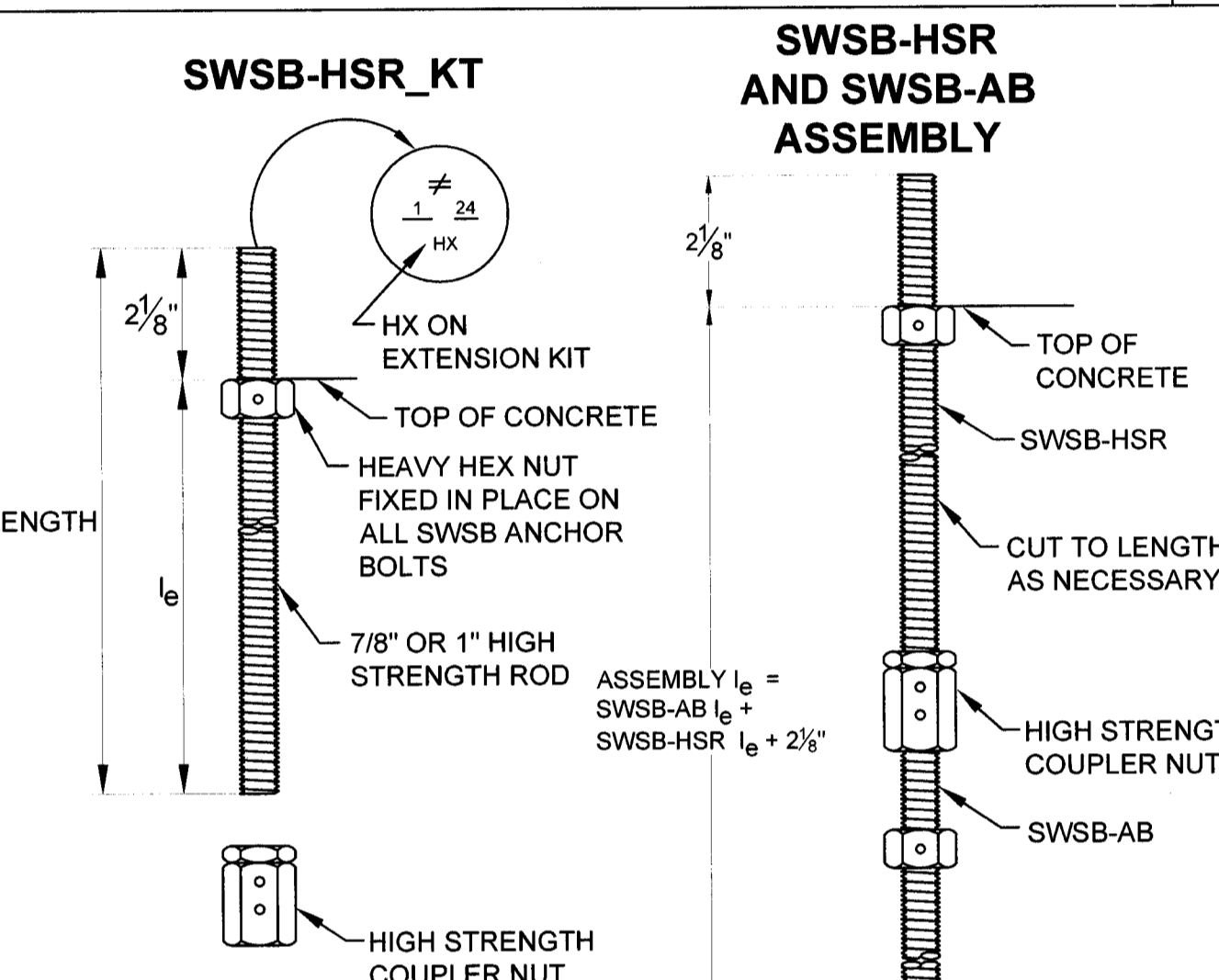
- NOTES:
- ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APP. D WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED/UNCRAKED CONCRETE AS NOTED.
  - ANCHOR STRENGTH INDICATES REQUIRED GRADE OF ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
  - SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SD C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3.
  - WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SD C.
  - FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
  - REFER TO SLAB ON GRADE, CURB, STEMWALL, AND INTERIOR FOOTING SECTIONS IN 1/SWSB1 FOR DE.

**STRONG-WALL® SB TENSION ANCHORAGE SCHEDULE**



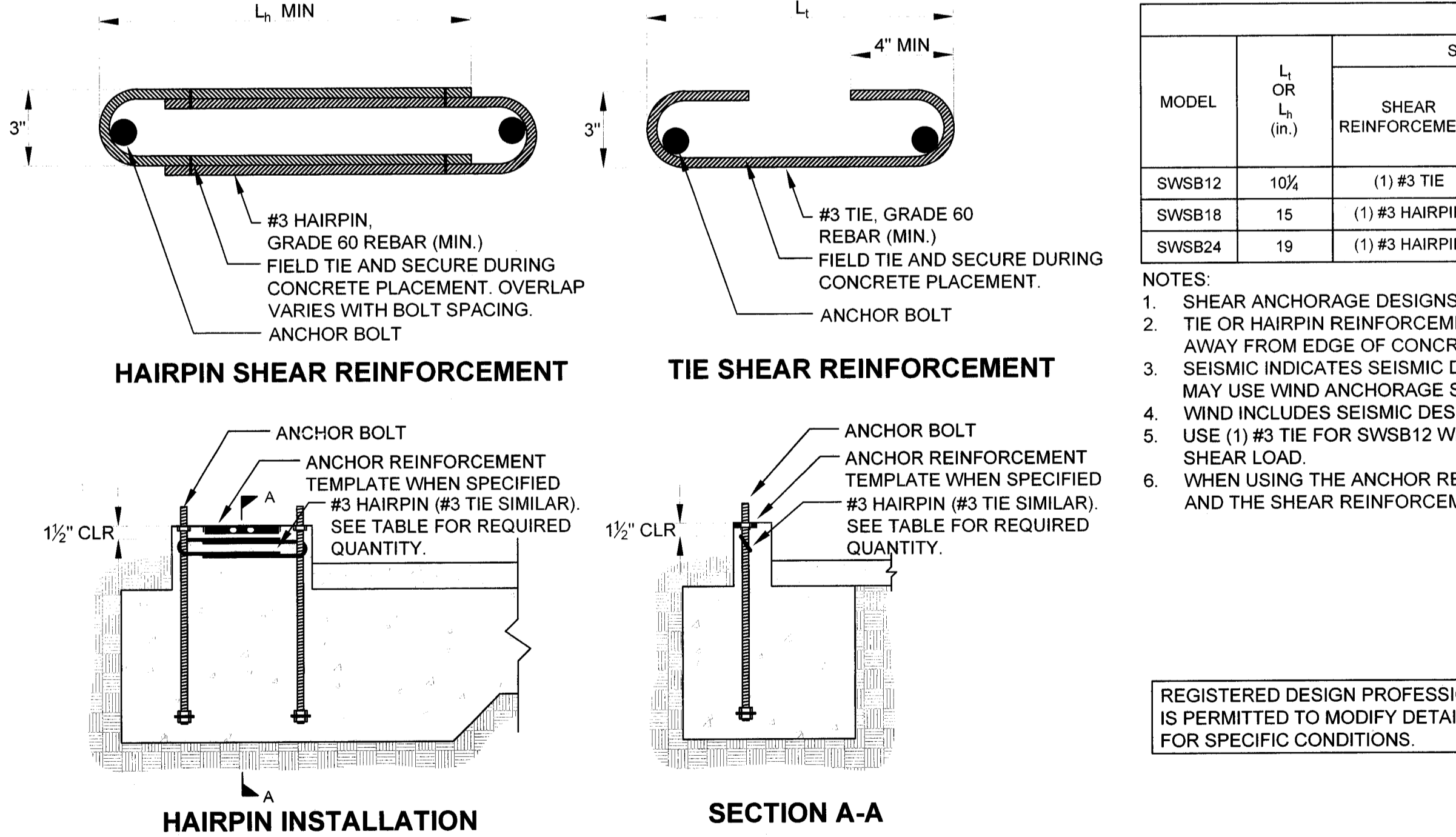
STRONG-WALL SB PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l <sub>a</sub>
SWSB12 AND SWSB18	SWSB-AB78x24	7/8"	24"	20"
	SWSB-AB78x24HS	7/8"	24"	20"
	SWSB-AB78x30	7/8"	30"	26"
	SWSB-AB78x30HS	7/8"	30"	26"
SWSB24	SWSB-AB78x36HS	7/8"	36"	32"
	SWSB-AB1x24	1"	24"	20"
	SWSB-AB1x24HS	1"	24"	20"
	SWSB-AB1x30	1"	30"	26"
SWSB24	SWSB-AB1x30HS	1"	30"	26"
	SWSB-AB1x36HS	1"	36"	32"

**SWSB ANCHOR BOLTS**

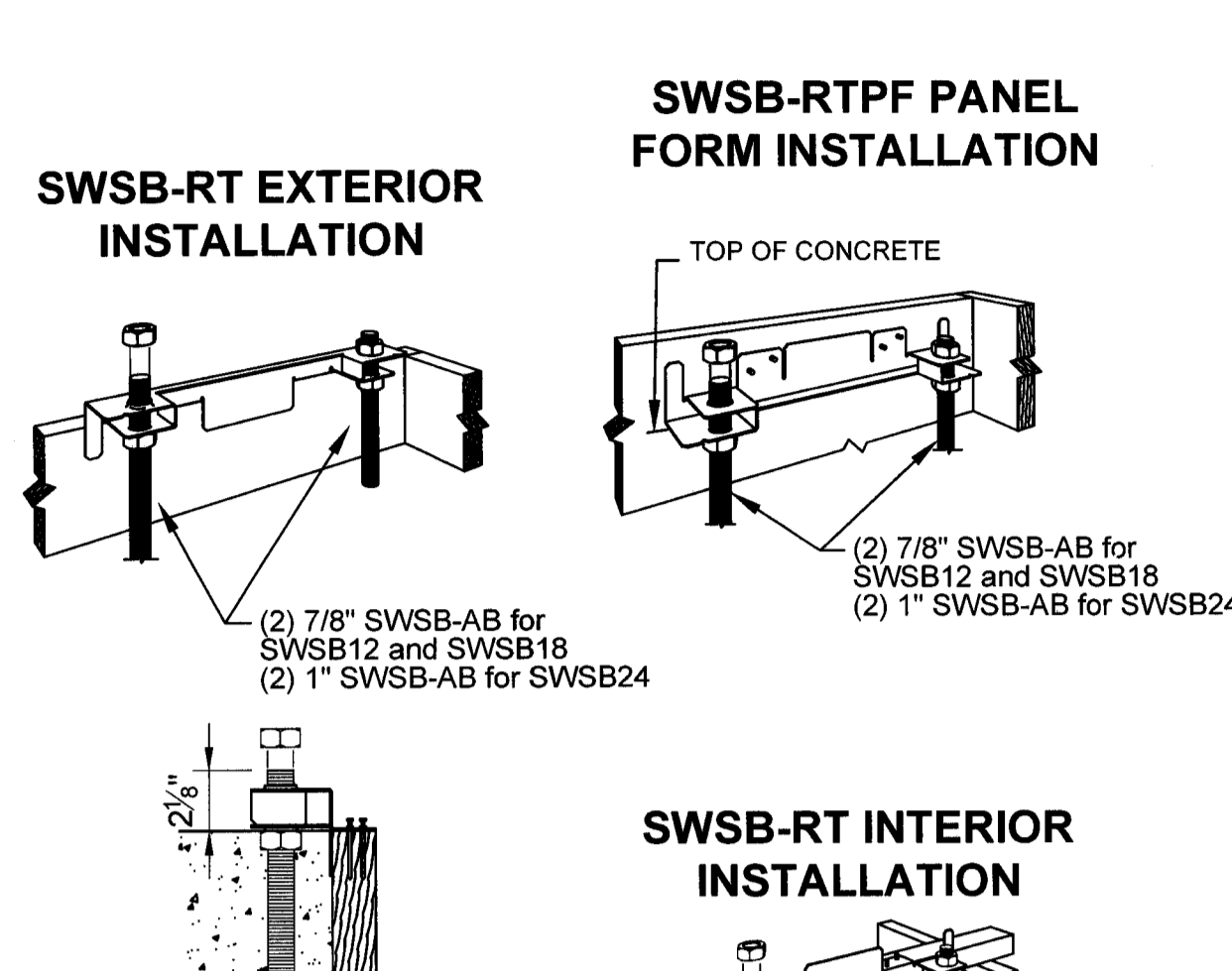


STRONG-WALL SB PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l <sub>a</sub>
SWSB12 AND SWSB18	SWSB-HSR78-2KT	7/8"	24"	22"
	SWSB-HSR78-3KT	7/8"	36"	34"
SWSB24	SWSB-HSR1-2KT	1"	24"	22"
	SWSB-HSR1-3KT	1"	36"	34"

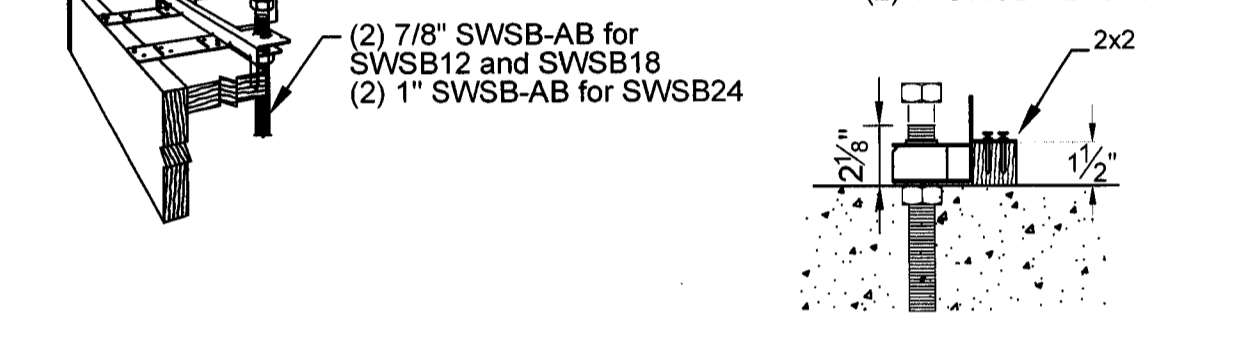
**SWSB ANCHOR BOLT EXTENSION**



**STRONG-WALL® SB SHEAR ANCHORAGE SCHEDULE AND DETAILS**



**SWSB-RTPF PANEL FORM INSTALLATION**



**SWSB-RTBL BRICK LEDGE INSTALLATION**

**SWSB ANCHOR BOLT TEMPLATES**

STRONG-WALL SB	ANCHOR KIT MODEL	BOLT SPACING, S
SWSB12	SWSB-AK12	8"
SWSB18	SWSB-AK18	14"
SWSB24	SWSB-AK24	20"

- NOTES:
- ANCHOR KIT CONTAINS (1) LEAVE-IN ANCHOR REINFORCEMENT TEMPLATE, (2) BOLT COLLARS, (2) PLATE WASHERS, (6) HEAVY HEX NUTS AND INSTALLATION INSTRUCTIONS.
  - THREADED ROD SHALL BE HIGH STRENGTH (HS) ASTM A449 OR ASTM A193 GRADE B7 UNLESS OTHERWISE SPECIFIED. ROD MUST BE ORDERED SEPARATELY.

**STRONG-WALL® SB ANCHOR KIT**

**STRONG-WALL® SB SHEAR ANCHORAGE**

MODEL	L <sub>1</sub> OR L <sub>2</sub> (in.)	SEISMIC <sup>3</sup>		WIND <sup>4</sup>	
		SHEAR REINFORCEMENT	MINIMUM CURB/STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MINIMUM CURB/STEMWALL WIDTH (in.)
SWSB12	10 1/2"	(1) #3 TIE	6	SEE NOTE 5	6
SWSB18	15	(1) #3 HAIRPIN	6	(1) #3 HAIRPIN	6
SWSB24	19	(1) #3 HAIRPIN	6	(1) #3 HAIRPIN	6

ASD ALLOWABLE SHEAR LOAD, V (lbs.)<sup>5</sup>

UNCRAKED	CRACKED
1035	740

HAIRPIN REINFORCEMENT ACHIEVES MAXIMUM ALLOWABLE SHEAR LOAD OF THE SWSB

NOTES:

- SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-11 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
- TIE OR HAIRPIN REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
- SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SD C MAY USE WIND ANCHORAGE SOLUTIONS.
- WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SD C.
- USE (1) #3 TIE FOR SWSB12 WHEN WALL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
- WHEN USING THE ANCHOR REINFORCEMENT TEMPLATE, THE #3 TIE REQUIRED FOR THE SWSB12 MAY BE OMITTED, AND THE SHEAR REINFORCEMENT FOR THE SWSB18 MAY BE REDUCED FROM (1) #3 HAIRPIN TO (1) #3 TIE.

**STRONG-WALL® SB SHEAR ANCHORAGE SCHEDULE**

NO.	DATE	REVISIONS
0	11/18/2013	FIRST RELEASE - 2012 IBC REVISION
1	08/01/2014	ESR-2652 REVISIONS

**SIMPSON STRONG-TIE COMPANY INC.**  
 HOME OFFICE: POSITAS BLVD.  
 5956 W. LAS FELICANTON, CA 94568  
 TEL: (909) 949-5099

**STRONG-WALL® SB SHEARWALL ANCHORAGE DETAILS ENGINEERED DESIGNS**

NAME	CJK
DATE	09-01-2014
SCALE	N.T.S.
CHECKED	
SHEET	<b>SWSB1</b>
OF SHEETS	
JOB NO.	

**TABLE 23-II-B-1 NAILING SCHEDULE**

1. Joist to sill or girder, toenail	3-8d
2. Bridging to joist, toenail each end	2-8d
3. 1" x 6" (25mm x 52mm) subfloor or less to each joist, face nail	2-8d
4. Wider than 1" x 6" (25mm x 52mm) subfloor to each joist, face nail	3-8d
5. 2" (51mm) subfloor to joist or girder, blind and face, nail	2-16d
6. Sole plate to joist or blocking, face nail	16d at 16" (406mm) o.c. 3-16d per 16" (406mm)
Sole plate to joist or blocking, at braced wall panels	
7. Top plate to stud, end nail	2-16d
8. Stud to sole plate	4-8, toenail or 2-16d, end nail
9. Double studs, face nail	16d at 24" (610mm) o.c.
10. Doubled top plates, typical face nail	16d at 16" (406mm) o.c.
Doubled top plates, lap splice	8-16d
11. Blocking between joists or rafters to top plate, toenail	3-8d
12. Rim joist to top plate, toenail	8d at 6" (152mm) o.c.
13. Top plates, laps and intersections, face nail	2-16d
14. Continuous header, two pieces	16d at 16" (406mm) o.c. along each edge
15. Ceiling joists to plate, toenail	3-8d
16. Continuous header to stud, toenail	4-8d
17. Ceiling joists, laps over partitions, face nail	3-16d
18. Ceiling joists to parallel rafters, face nail	3-16d
19. Rafter to plate, toenail	3-8d
20. 1" (25mm) brace to each stud and plate, face nail	2-8d
21. 1" x 8" (25mm x 203mm) sheathing or less to each bearing, face nail	2-8d
22. Wider 1" x 8" (25mm x 203mm) sheathing to each bearing, face nail	3-8d
23. Built-up corner studs	16d at 24" (610mm) o.c.
24. Built-up girder and beams staggered 2-20d at ends and at each splice	20d at 32" (813 cc) o.c. at top and bottom 2-20d at ends and at each splice
25. 2" (51mm) planks	2-16d at each bearing
26. Wood structural panels and particleboard: 2 Subfloor, roof, and wall sheathing (to framing): 1/2" and less 19/32"-3/4" 7/8"-1" 1-1/8"-1-1/4" Combination Subfloor-underlayment (to framing): 3/4" and less 7/8"-1" 1-1/8"-1-1/4"	6d3 8d4 or 6d5 8d3 10d4or 8d5 3/4" and less 6d5 8d5 10d4 or 8d5
27. Panel Siding (to framing): 2 1/2" (13mm) or less 5/8" (16mm)	6d6 8d6
28. Fiberboard Sheathing: 7 1/2" (13mm) 25/32" (20mm)	No. 11 ga.8, 6d4, No. 16 ga.9 No. 11 ga.8, 8d4, No. 16 ga.9
29. Interior Paneling: 1/4" (6.4mm) 3/8" (9.5mm)	4d10 6d11

1-Common or box nails may be used except where otherwise stated  
 2-Nails spaced at 6 inches (152mm) on center at edges, 12 inches (305mm) at supports except 6 inches (152mm) at all supports where spans are 48 inches (1219mm) or more. For nailing of wood structural panel and particle board diaphragms and shear walls, refer to Sections 2315.3.3 and 2315.4. Nails for wall sheathing may be common, box or casing  
 3-Common or deformed shank.  
 4-Common.  
 5-Deformed shank.  
 6-Corrosion-resistant siding or casing nails conforming to the requirements of section 2304.3.  
 7-Fasteners spaced 3 inches (76mm) on center at exterior edges and 6 inches (152mm) on center at intermediate supports  
 8-Corrosion-resistant roofing nails with 7/16-inch-diameter (11mm) head and 1-1/2 inch (38mm) length for 1/2 inch (12.7mm) sheathing and 1-3/4-inch (44mm) length for 25/32-inch (20mm) sheathing conforming to the requirements of Section 2304.3 and 1-1/2-inch (38mm) length for 25/32-inch (20mm) sheathing  
 9-Corrosion-resistant staples with nominal 7/16-inch (11mm) crown and 1-1/8 inch (29mm) length for 1/2 inch (12.7mm) sheathing conforming to the requirements of Section 2304.3.  
 10-Panel supports at 16 inches (406mm) [20 inches (508mm) if strength axis in the long direction of the panel, unless otherwise marked. Casing or finish nails spaced 6 inches (152mm) on panel edges, 12 inches (305mm) at intermediate supports  
 11-Panel supports at 24 inches (610mm). Casing or finish nails spaced 6 inches (152mm) on panel edges, 12 inches (305mm) at intermediate supports.

SEE SHEAR WALL SCHEDULE SHEET S4

STRUCTURAL NOTES:  
 1. USE LUS HANGER FOR FLUSH FLOOR JOISTS & RAFTERS WHERE OCCURS. U.N.O.  
 3. R,R = TRUSSES  
 4. SEE DETAIL (122) FOR TYPICAL TOP PLATE SPLICE.  
 5. FOR SHEAR WALL II - 15, USE 3X MEMBERS AT PANEL JOINTS AND 3X SILL PLATE.

LEGEND FIRST FLOOR AND SECOND FLOOR  
 SHEAR WALL SYMBOL, SEE SHEET  
 HSDA HOLDDOWN AT LEVEL BELOW TO FOUNDATION (SEE EQUIVALENT MET 27 AT WALL ABOVE AND USE MET 46 FOR SIDA SUBSTITUTION)  
 AXIS POST 1434 AT 4X BEAM OR COLUMN BASE TO MATCH POST SIZE  
 GRID LINE REFERS TO STRUCT. CALC  
 KING POST ABOVE BEAM TO ROOF MEMBER OR OTHER BEAM  
 BEAM NO. SEE CALCULATIONS FOR CORRESPONDING NUMBER  
 POST ABOVE TO BEAM  
 2-2X4 STUDS IN WALL OR 2-2X8 AT 2X8 WALL AS OCCURS  
 DEAD STRAP  
 BEAR WALL (SHEAR WALL ABOVE AT 1ST FLOOR PLAN)  
 4X POST END WITH EPC OR 2 ST12 STRAPS TO BEAM  
 4X POST WITH EPC TO BEAM

**FOUNDATION NOTES**

1. STRUCTURAL OBSERVATION IS REQUIRED FOR ALL NEW CONSTRUCTION SEE ATTACHED GENERAL NOTES FOR STRUCTURAL OBSERVATION OBSERVATION REQUIRED FOR FOUNDATION INSPECTION, BOLTS INSTALLED IN CONCRETE STEEL, MOMENT FRAM INSTALLATION WOOD FRAMING, SHEAR WALLS AND BEAMS SHEAR WALL SOVER 300 PLF PER MGD 110 ALL BOLT HOLES SHALL BE DRILLED 1/32 TO 1/16" OVERSIZED NOTE IN REPORT COMMON NAILS SHALL BE USED FOR ALL DIAPHRAGM AND SHEAR WALL NAILING SEE ATTACHED FIG 23-Y-1 FOR NOTCHING AND HOLES IN SHEAR WALL SILL PLATES 2X OR 3X BLOCKING SHALL BE PROVIDED AT ALL HORIZONTAL JOINTS OCCURING IN BRACED WALL PANELS

B. SPECIAL INSPECTION SHALL BE PROVIDED FOR THE FOLLOWING:  
 BOLTS INSTALLED IN CONCRETE, STRUCTURAL WELDING, EXCEPT WHERE PERFORMED BY APPROVED FABRICATOR.

2. A615 LA CITY BLDG DEPT LICENSED SHOP REQUIRED FOR SHP WELDS. CONTINUOUS DEPUTY INSPECTION REQUIRED IS REQUIRED FOR ALL CONCRETE GREATER THAN 2500 PSI

TYPE OF SOIL: ARTIFICIAL FILL AND BEDROCK BEARING 2000 PSF

3 CONTINUOUS DEPUTY INSPECTION IS REQUIRED FOR ALL CONCRETE WITH F<sub>c</sub> GREATER THAN 2500 PSI.

4. LA CITY BLDG DEPT LIC FABRICATOR REQUIRED FOR GLU LAM BEAMS AND STRUCTURAL STEEL FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LA CITY BLDG DEPT FOR STRUCTURAL STEEL, CONTINUOUS DEPUTY INSPECTION REQUIRED DEPT FOR STRUCTURAL STEEL.

5 WELDING OF REINFORCED STEEL SHALL COMPLY WITH RGA 3-77

6 SEE ATTACHED NAILING SCHEDULE

7 THE FOLLOWING APPLIES TO ALL SHEAR WALLS OF 300 PLF OR GREATER  
 A PROVIDE 3X SILLS FOR SILLS THAT REST ON CONCRETE OR MASONRY  
 B PROVIDE 3X STUDS AND BLOCKS BETWEEN ADJ PANELS  
 C PROVIDE 1/2" EDGE DISTANCE FOR PLY BOUNDARY NAILING  
 D SQUARE PLATE WASHERS SHALL BE USED WITH ALL ANCHOR BOLTS  
 1/2" 2X2X3/16" 5/8" 2.5 X 2.5 X 1/4"  
 3/4" 2.75 X 2.75 X 5/16" 7/8" 3X3X3/8"  
 PLATE WASHERS REQUIRED AT ALL HOLD DOWNS

ALL HOLDDOWNS ANCHOR NUTS SHALL BE TIGHTENED JUST PRIOR TO COVERING (INCLUDE IN STRUCTOBS REPORT)

**SHEAR WALL LEGEND**

SYMBOL	SHEATHING & FRAMING	ALLOW SHEAR	BOLTING FOUNDN	ROOF FLOOR & PL NLG.	SIMPSON A35 ALT.
	7/8 STUCCO W/11GA. X 1-1/2" GALV. NLS	90	5/8" Dia. @ 2'-4" O.C.	16d @ 8" O.C.	24" O.C.
	1/2" STRUCT I W/8d @ 4" O.C.	210	5/8" Dia. @ 2'-4" O.C.	16d @ 8" O.C.	24" O.C.
	BOTH SIDES	420	5/8" Dia. @ 1'-2" O.C.	16d @ 6" O.C.	16" O.C.
	1/2" STRUCT I W/8d @ 4" O.C.	310	5/8" Dia. @ 1'-8" O.C.	16d @ 8" O.C.	24" O.C.
	BOTH SIDES	620	5/8" Dia. @ 0'-9" O.C.	16d @ 6" O.C.	6" O.C.
	1/2" STRUCT I W/8d @ 3" O.C.	410	5/8" Dia. @ 1'-3" O.C.	3/8" LAG @ 6" O.C.	8" O.C.
	BOTH SIDES	820	5/8" Dia. @ 0'-7" O.C.	3/8" LAG @ 6" O.C.	4" O.C.
	1/2" STRUCT I W/8d @ 2" O.C.	530	5/8" Dia. @ 1'-0" O.C.	3/8" LAG @ 6" O.C.	8" O.C.
	BOTH SIDES	1060	5/8" Dia. @ 0'-6" O.C.	3/8" LAG @ 4" O.C.	4" O.C.
	1/2" STRUCT. 1 PLY W/10d @ 2" O.C. EN & 12" O.C. FN	770	3/4" Dia. @ 1'-1" O.C.	3/8" LAG @ 6" O.C.	6" O.C.
	BOTH SIDES	1540	3/4" Dia. @ 0'-6 1/2" O.C.	3/8" LAG @ 3" O.C.	3" O.C.
	19/32" STRUCT I PLY W/10d @ 2" O.C. EN & 12" O.C. FN BOTH SIDES DBL LINE NLG ALONG 3X MINIM ALL EDGS	1225	3/4" Dia. @ 0'-6 1/2" O.C.	3/8" LAG @ 3" O.C.	3" O.C.

1. ALL INTERMEDIATE NAILING IS 12" O.C. FOR STUDS @ 16" O.C.  
 2. ALL EDGES SHALL BE BLOCKED OR HAVE A 2X NOMINAL MEMBER.  
 3. AT WALLS 10'-13' +, AND AT ALL WALLS SHEAR BOTH SIDES, THE SILL PLATE, 1" TOP PLATE AND THE STUDS AT PANEL EDGES SHALL BE 3X OR 4X, STAGGER NAILS AT BUTTING PANEL EDGES  
 4X POSTS MAY BE REQUIRED AT SOME SHEAR WALL ENDS AT HOLDDOWNS, SEE PLANS  
 4. ALL STUDS SHALL BE 16" O.C., ALL NAILS SHALL BE COMMON, IF COOLER NAILS ARE REQUIRED, NAILS SHALL BE SPACED 15% CLOSER, VERIFY W/ARCHITECT PRIOR TO INSTALLATION.

**SPECIAL INSPECTIONS REQUIRED:**  
 -EPOXY ANCHORS (ICC ESR 2508)  
 SPECIAL INSPECTION SHALL BE PERFORMED PER CBC SECT. 1900

NOTES:  
 1. WHERE NEW SHEARWALLS ARE ATTACHED TO EXISTING FOOTINGS AND EXISTING ANCHOR BOLTS DO NOT EXIST OR HAVE SMALLER DIAMETERS OR SPACING EXCEEDS 32" O.C. ADD 5/8 DIA. THREADED ROD ANCHORS BOLTS X 7" EMBEDMENT INTO EXISTING FOOTING @ 32" O.C. INSTALL WITH SIMPSON SET EPOXY PER MANUFACTURERS INSTRUCTIONS SPACE BETWEEN EXISTING ANCHORS AS REQUIRED.  
 2. ALL FOUNDATION HARDWARE TO BE SECURED IN PLACE TO FOUNDATION INSPECTION.

**LEGEND**

	NEW FOOTING
	EXISTING FOOTING

1. ALL CONCRETE SHALL BE 2500 PSI @ 28 DAYS, E.A.N.B.  
 2. VERIFY LOCATIONS OF HOLDDOWN AS SHOWN ON STRUCTURAL PLAN AND VERIFY ANCHOR BOLT SPACING WITH SHEAR WALL SCHEDULE.  
 3. HOLDDOWNS MAY NOT BE SUBSTITUTED WITHOUT ARCHITECT'S WRITTEN PERMISSION.  
 4. ALL PAD FOOTINGS SHALL HAVE #4 @ 12" OC EA WAY AT BOTTOM 3" CLEAR, U.N.O.  
 5. ALL HOLDDOWN ANCHORS SHALL BE TIED IN PLACE PRIOR TO CALLING FOUNDATION INSPECTOR.  
 6 USE SIMPSON FOUNDATION TEMPLATE FOR PROPER AB AND SSTB BOLT SPACING AT SW WALLS  
 7. EXTEND 5/8" SILL BOLTS 7" MIN. INTO CONCRETE OR REINFORCED MASONRY OR 15" INTO UNREINFORCED GROUTED MASONRY FOUNDATIONS, AND SPACE BOLTS 6'-0" (MAX). (2907-C2)  
 MINIMUM SIZE FOR SQUARE PLATE WASHER  
 ALL: .209" X 3" X3"  
 SOIL BEARING PRESSURE 1000 PSF  
 FOUNDATION SHALL BE PRESSURE TREATED OR FOUNDATION GRADE REDWOOD  
 ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX  
 ALL HOLES SHALL BE DRILLED 1/32 TO 1/16" OVERSIZE  
 PLATE WASHERS ARE REQUIRED FOR ALL HOLDDOWNS  
 HOLDDOWNS SHALL BE RETIGHTENED JUST PRIOR TO COVERING OF WALL FRAMING  
 DEPTH OF FOOTING BELOW THE NATURAL AND FINISH GRADE SHALL NOT BE LESS THAN 24" FOR EXTERIOR AND 18 IN FOR INTERIOR FOOTINGS  
 THE SOIL BELOW AN INTERIOR SLAB SHALLBE SATURATED WITH MOISTURE TO A E DEPTH OF 18 IN PRIOR TO PLACING CONCRETE  
 CONCRETE SLAB OVER 4" COARSE AGGREGATE SLAB SHALLBE 3 1/2IN THICK MIN. WITH #4 BARS @ 16" OC EA WAY.  
 IF ADVERSE SOIL CINDITIONS ARE ENCOUNTERED A SOILS

**GENERAL NOTES**

1 CONTRACTORS AND SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO STARTING CONSTRUCTION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO STARTING ON ANY WORK IN QUESTION.

2 FLOOR PLAN NOTES

3 ALL STUDS SHALL BE STUD GRADE 2X4 @ 16" OC, 2X6 AT PLUMBING WALLS

4 FRAMING LUMBER SHALL BE AS FOLLOWS:  
 STUDS STUD GRADE  
 JOISTS AND RAFTERS NO 2 DF  
 BEAMS AND HEADERS NO 1 DF  
 GLUE LAMINATED TIMBER 24 F V4 UNO PROVIDE CERTIFICATE TO INSPECTOR

FLOOR PLYWOOD  
 FLOOR PLYWOOD SHALL BE 3/4" CDX (32/16)  
 ACTUAL 23/32", T & G NAIL WITH 10d SCREW SHANK NAILS @ 6,6,10. GLUE TO JOISTS

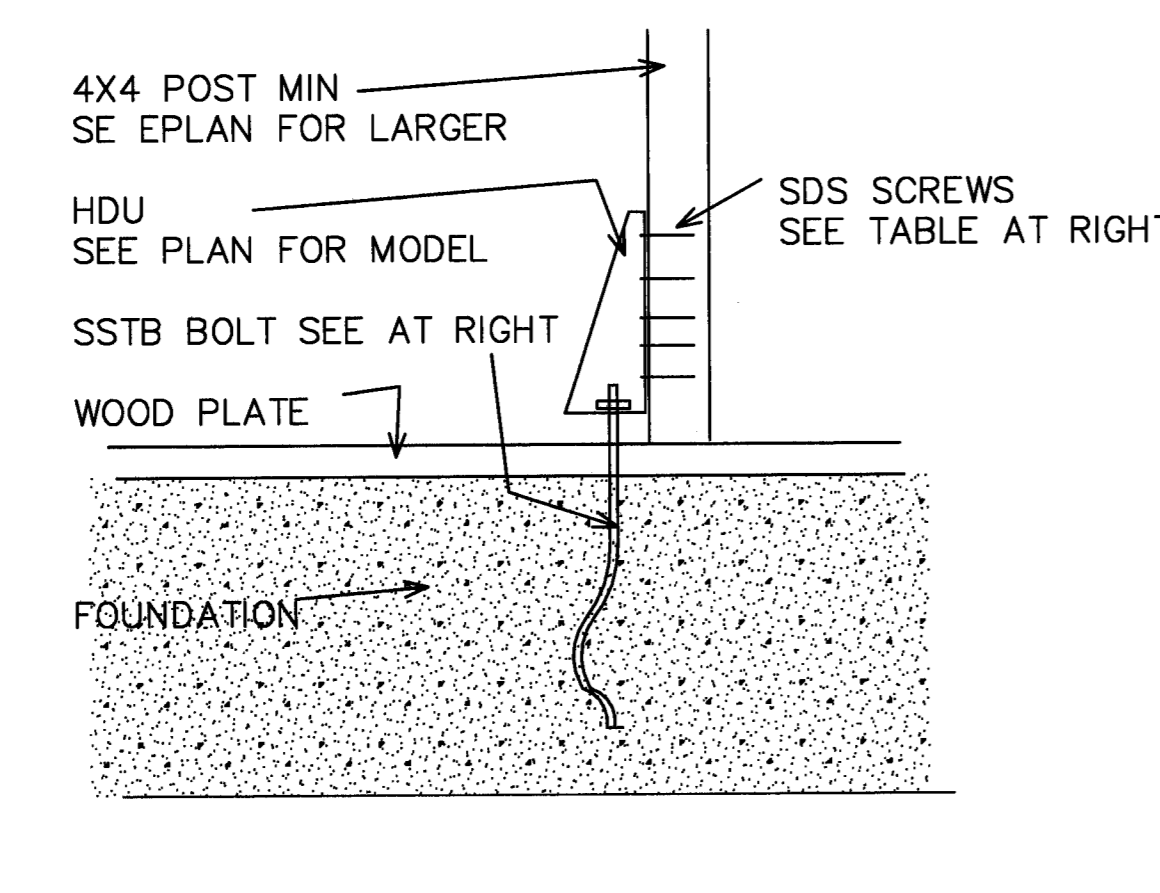
SCALE 3/16" = 1' T - 0 IN

STRUCTURAL NOTES

STRUCTURAL NOTES RES FOR G.E.I.G. 3429 GRAND AVE., CLAREMONT	PETE VOLBEDA Architecture Planning 180 N BENSON AVE. D, UPLAND, CA. 91786 TEL 909 373 1150 FAX 909 373 1152
	SHEET OF S4

(10)	DOOR NUMBER	⊕	WALL DUPLEX RECEPTACLE
(A)	WINDOW LETTER	S <sub>2</sub>	DUPLEX ON GFI CIRCUIT
⊕	SECTION NUMBER	S <sub>3</sub>	WALL SWITCH 3 WAY
⊕	SHEET NUMBER	S <sub>4</sub>	WALL SWITCH 4 WAY
⊕	INTERIOR ELEVATION NUMBER	S <sub>5</sub>	SWITCH 4 DIMMER
⊕	SHEET NUMBER	S <sub>6</sub>	CEILING INTD. LIGHT FIXTURE
⊕	DETAIL NUMBER	S <sub>7</sub>	WALL INT LIGHT FIXTURE
⊕	SHEET NUMBER	S <sub>8</sub>	RECESSED DOWNLIGHT 4" UNO
⊕	BEAM NUMBER (REFERS TO STRUCTURAL CALCULATIONS)	S <sub>9</sub>	FAN
⊕		S <sub>10</sub>	SMOKE DETECTOR
⊕		S <sub>11</sub>	TV OUTLET/CABLE
⊕		S <sub>12</sub>	TELEPHONE OUTLET
⊕		S <sub>13</sub>	GAS BIBB
⊕		S <sub>14</sub>	HOSE BIBB
⊕		S <sub>15</sub>	FLOOR RECEPTACLE
⊕		S <sub>16</sub>	DOOR BELL
⊕		S <sub>17</sub>	220 VOLT REC. OUTLET
⊕		S <sub>18</sub>	FLOOR LIGHT FIXT/40 LUMENS

**SYMBOLS**

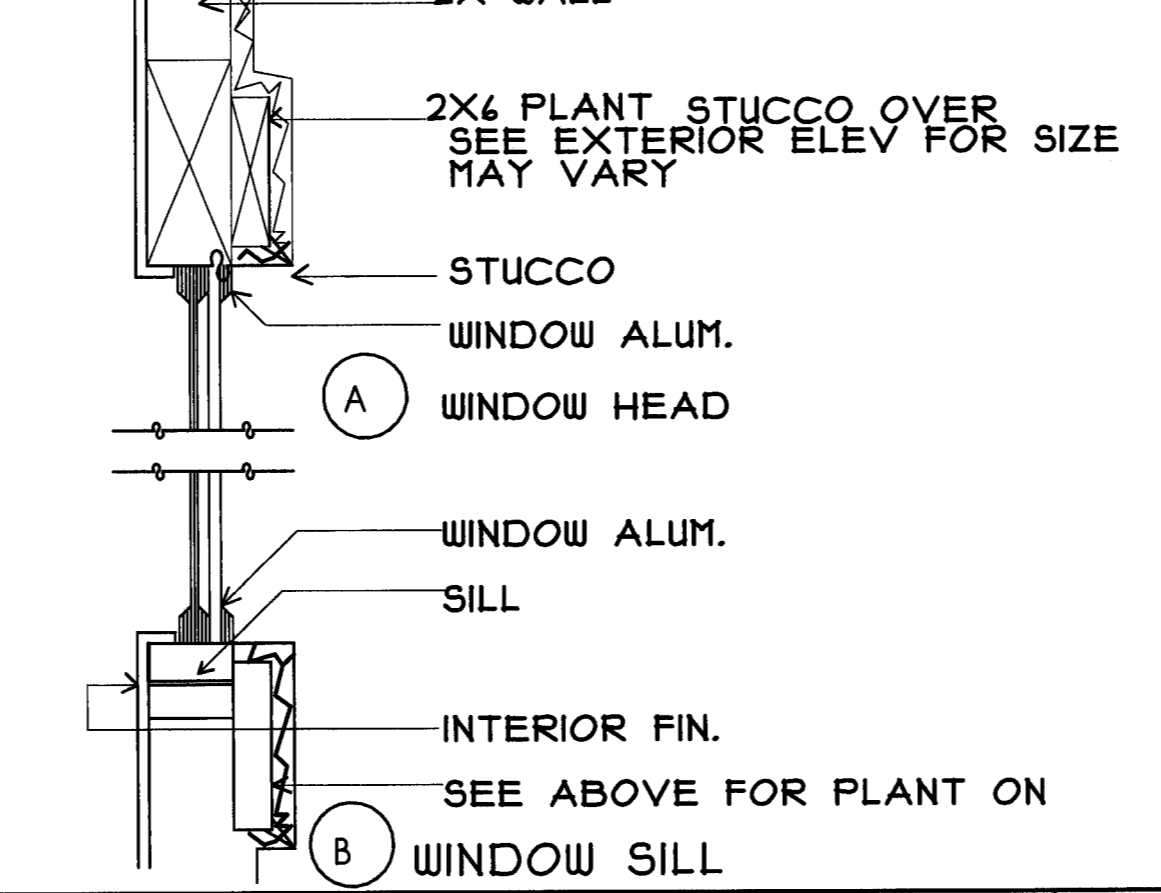


**EXTERIOR DOOR**

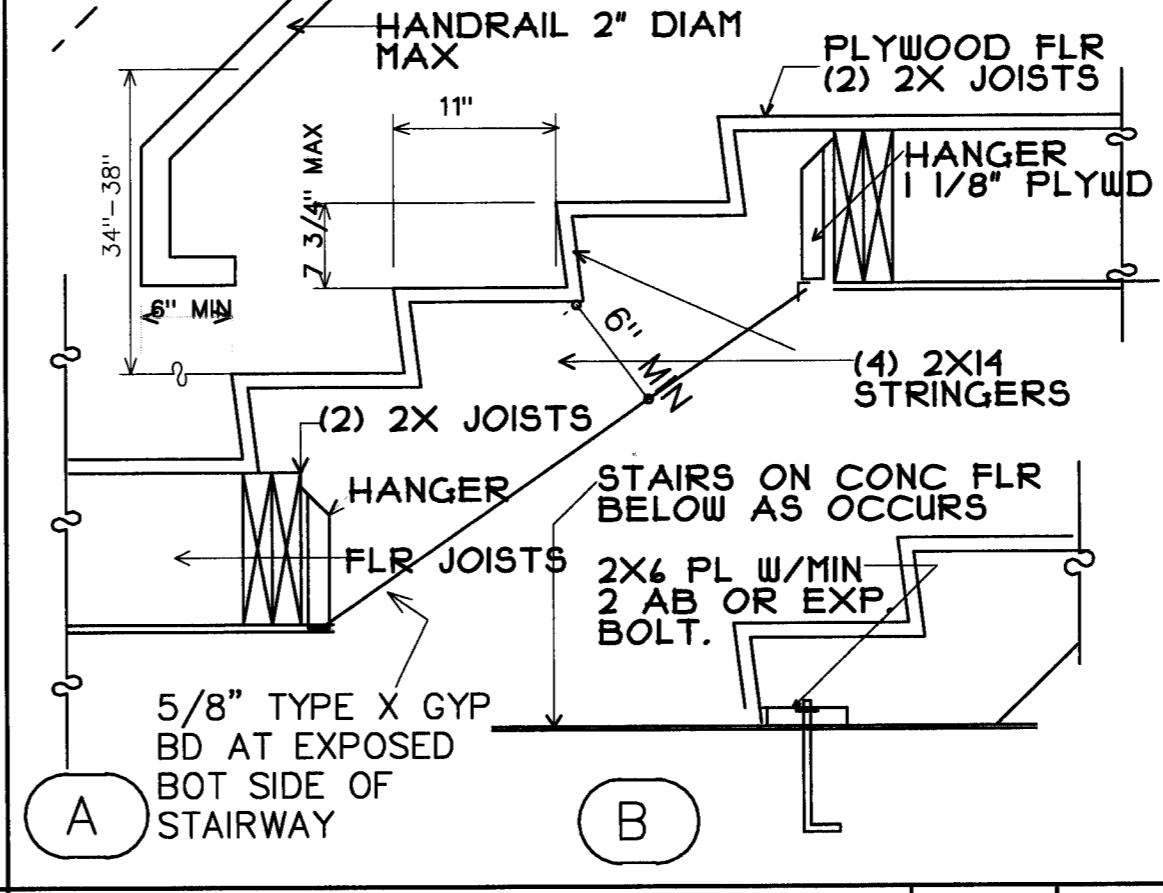
HDU LOADS/ANCHOR BOLTS ON 2 POUR HD POST SCREWS ALLOWABLE LOAD			
HD2U	4X4	1/4 X 2.5	3075
HD4	4X4	1/4 X 2.5	4565
HD5	4X4	1/4 X 2.5	5445
HD8	4X4	1/4 X 2.5	6910
HD11	4X8	1/4 X 2.5	9535
HD14	8X8	1/4 X 2.5	14390

DEEPEN FOOTING AS REQ AT DEPTH OF AB

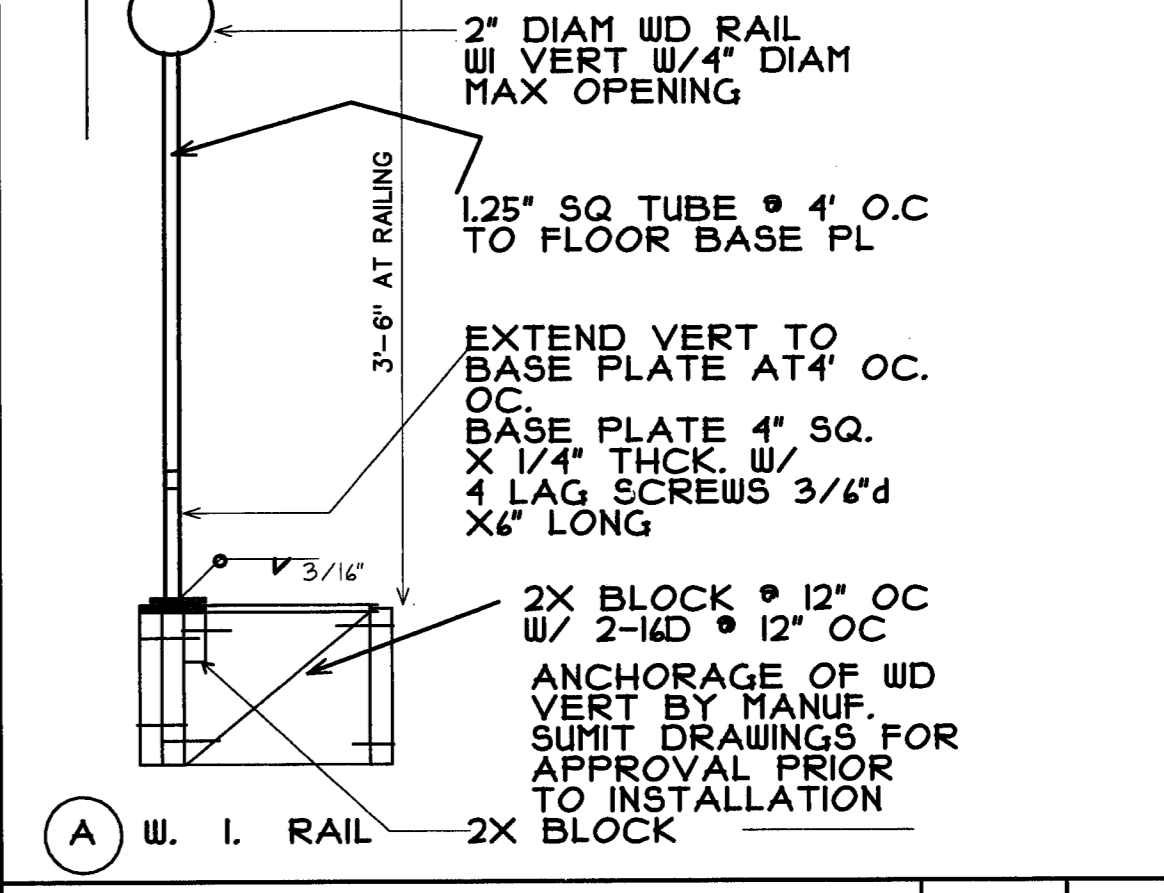
**GARAGE FTG**



**INTERIOR FTG**



**EXTERIOR FTG**



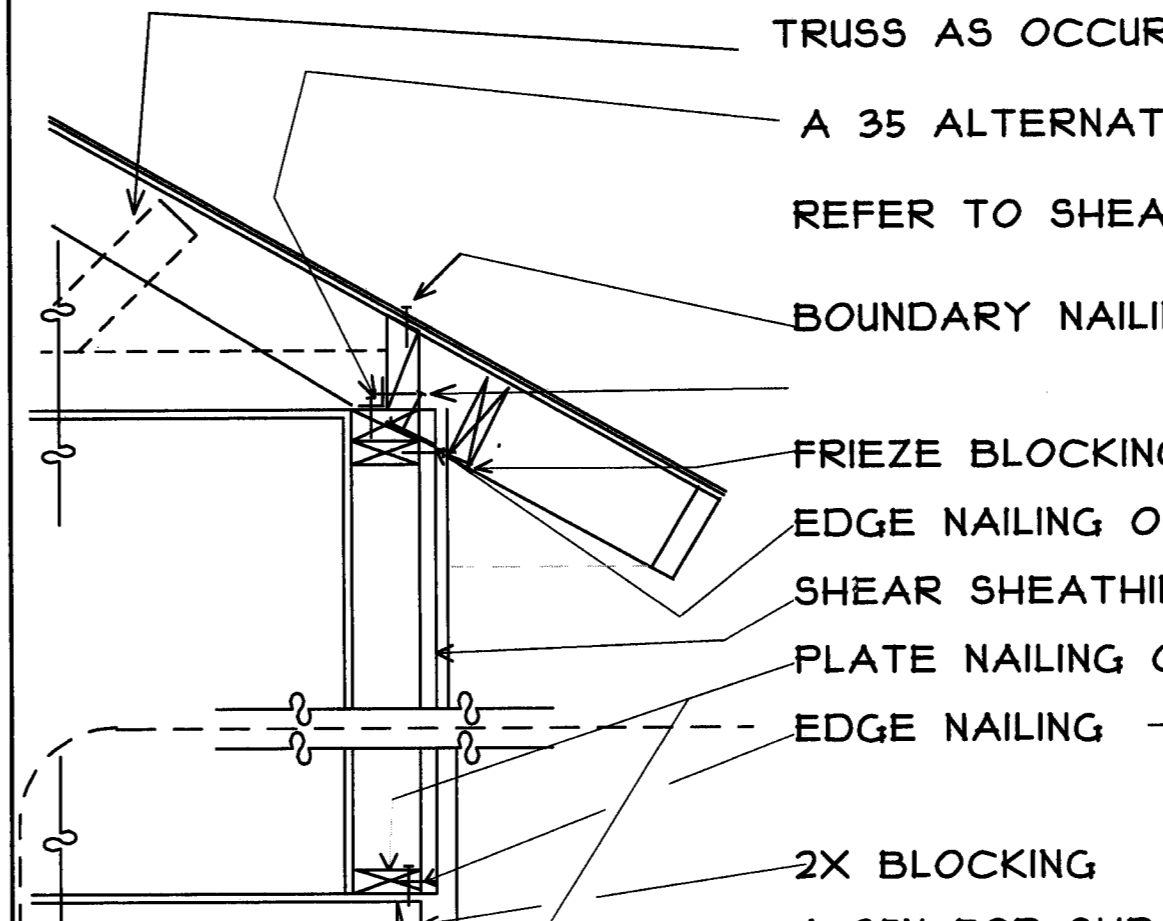
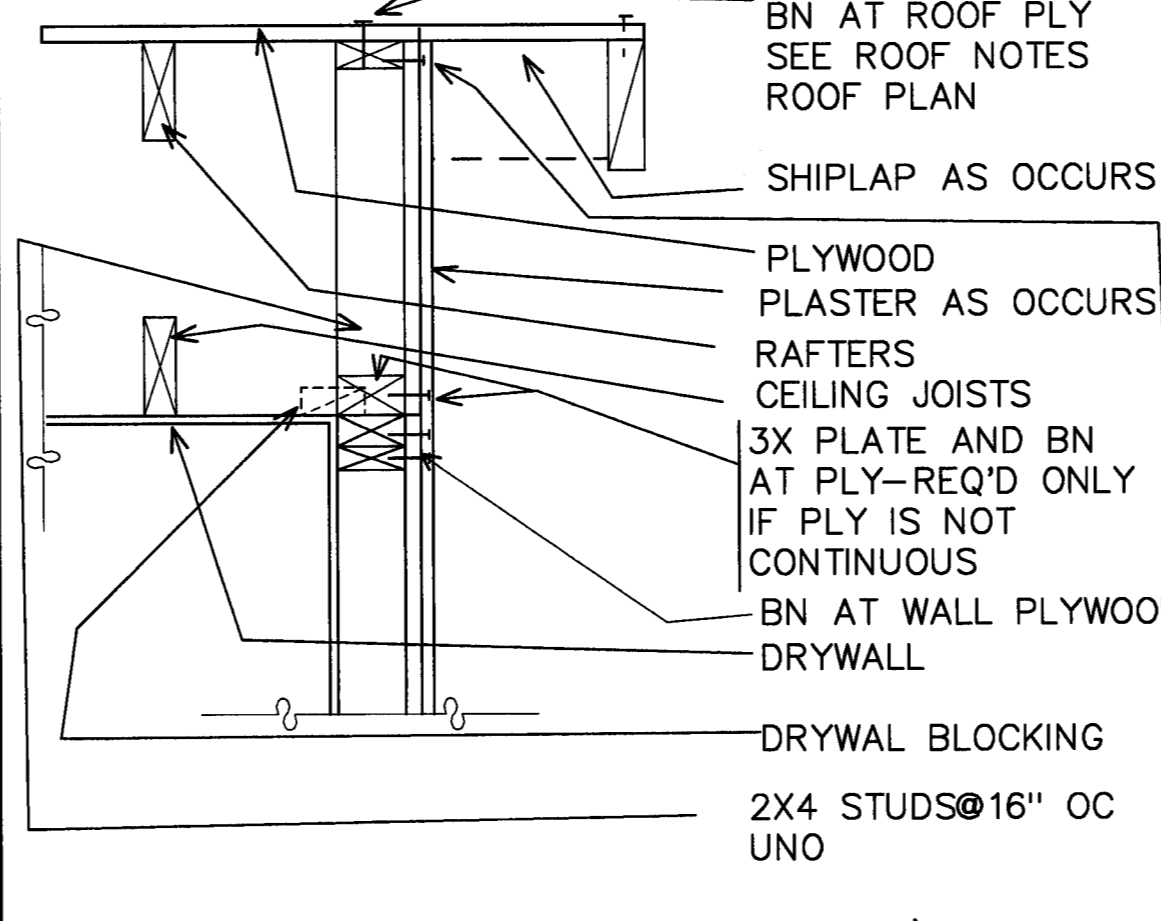
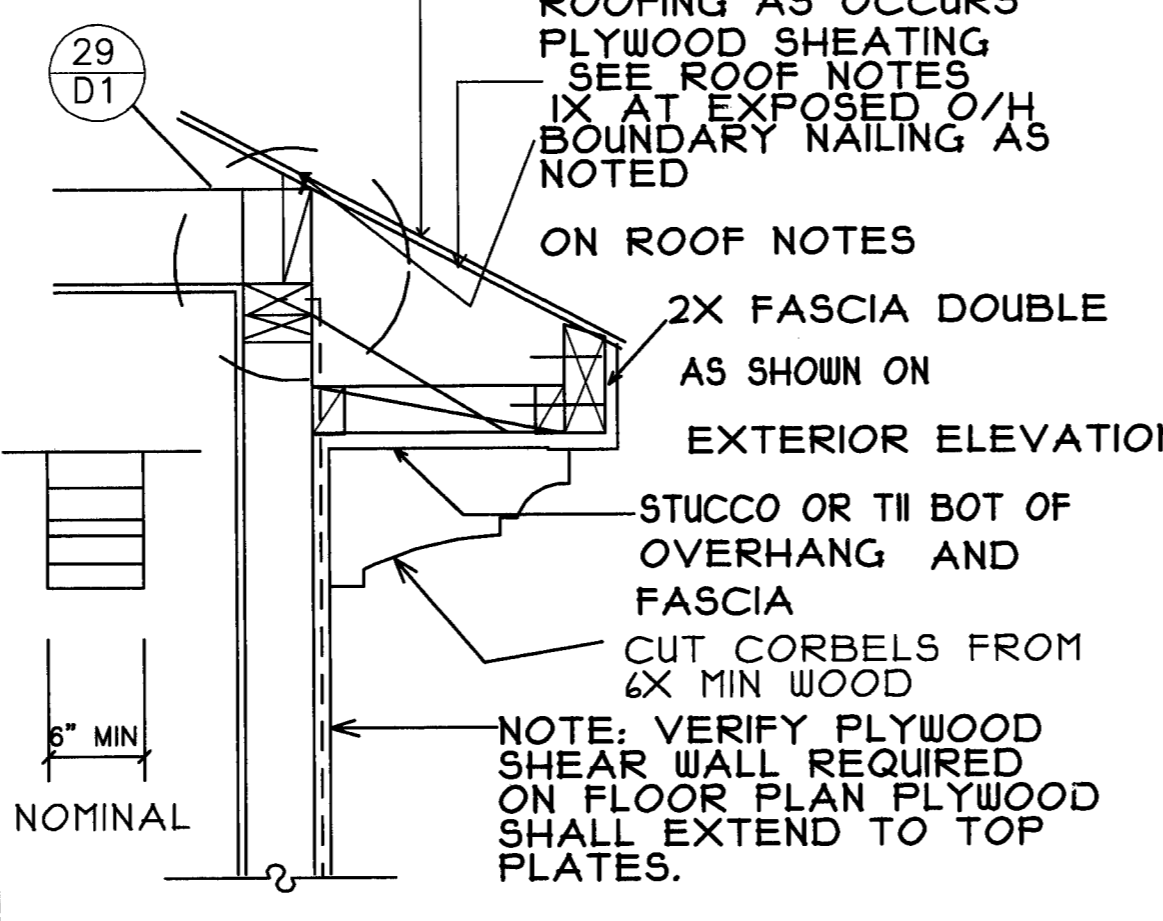
**6**

**7**

**WINDOW DETAIL**

**8**

**9**



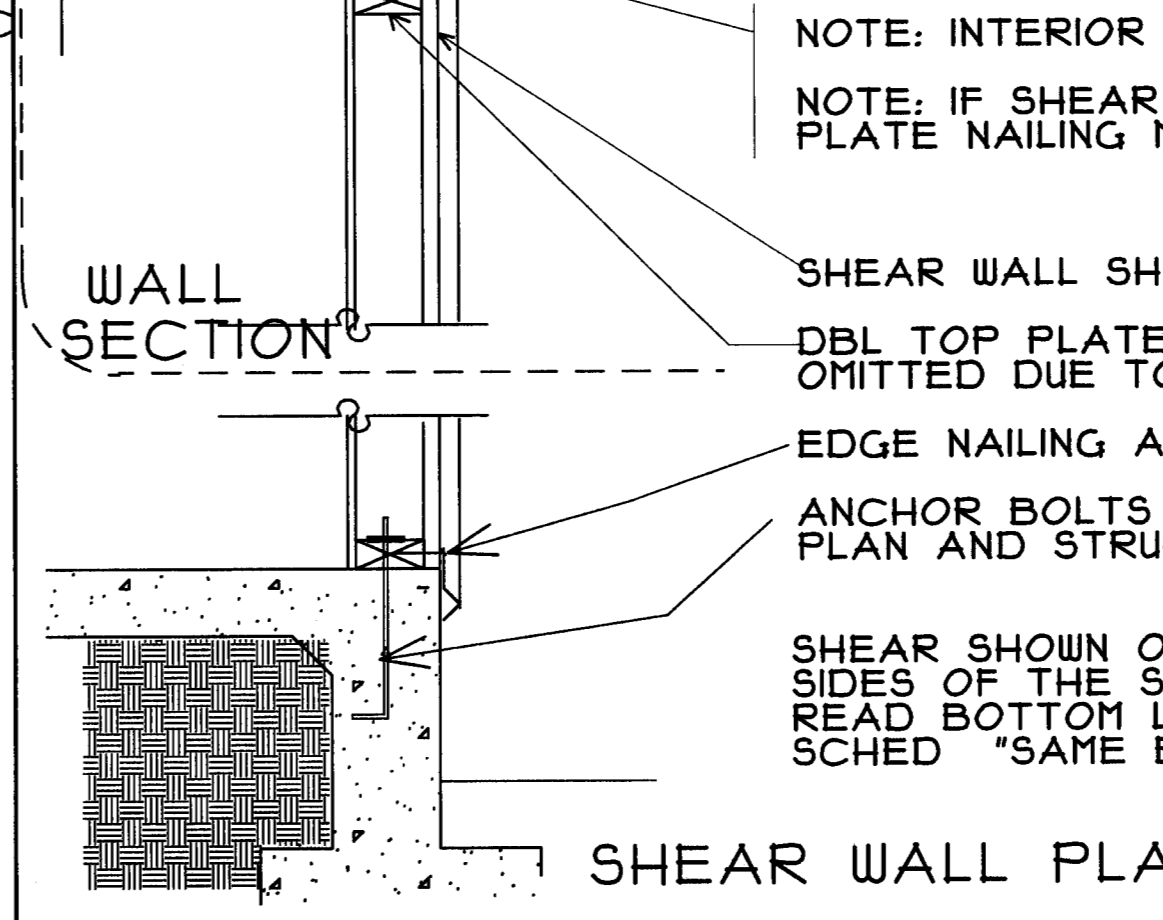
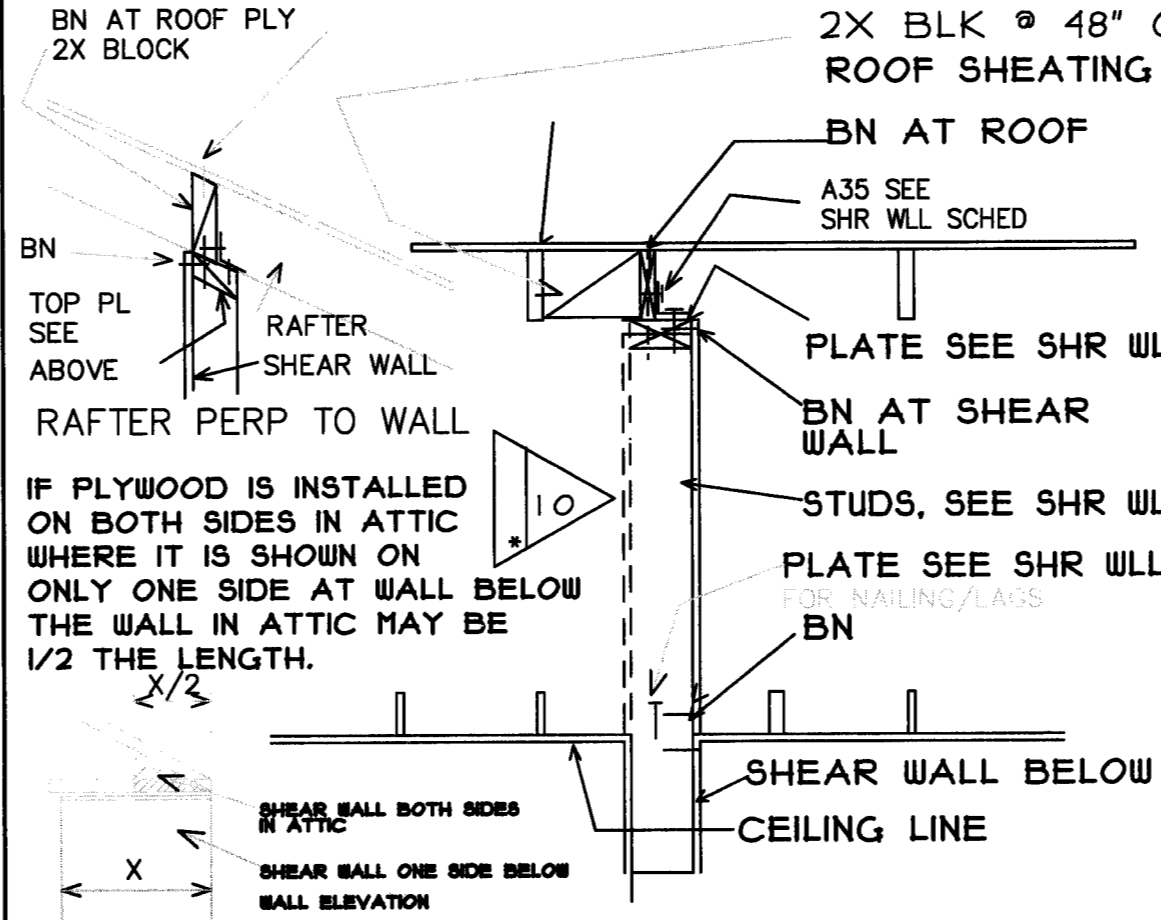
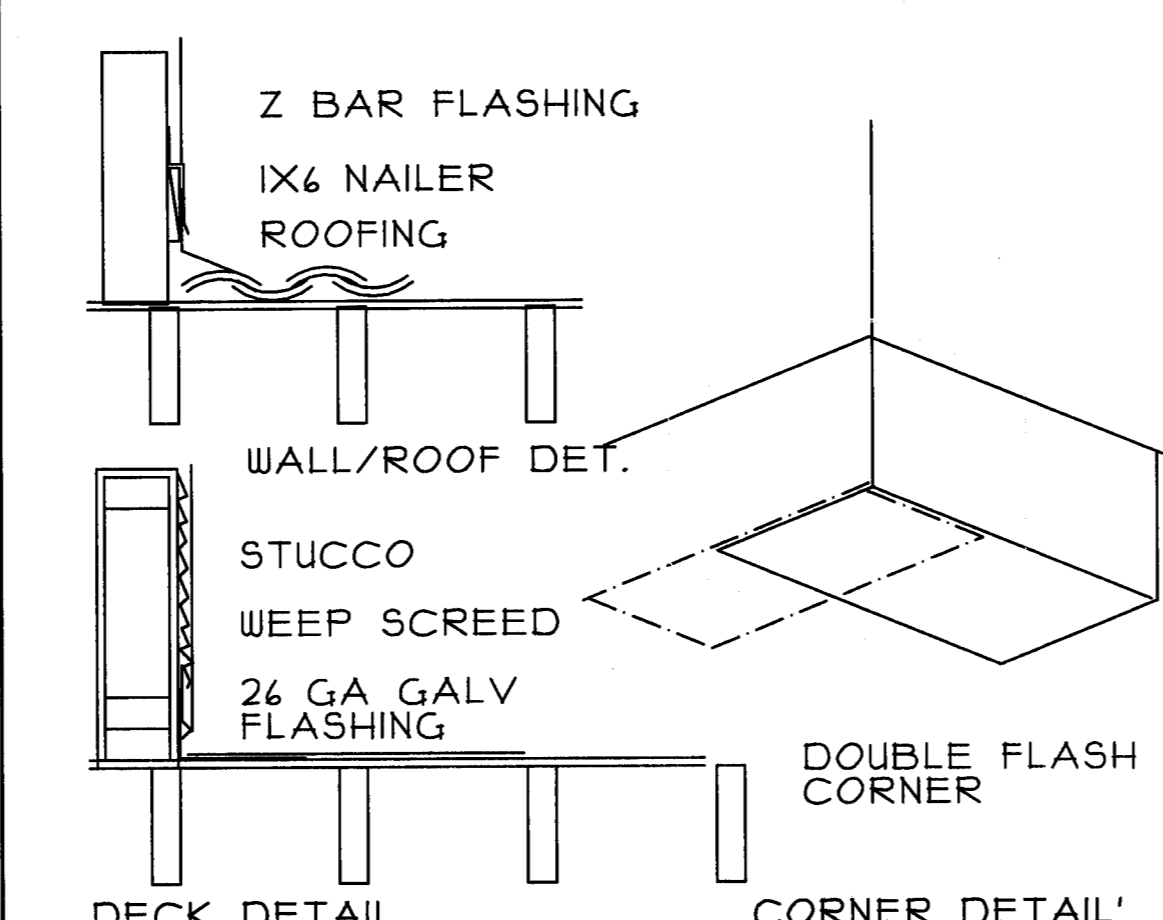
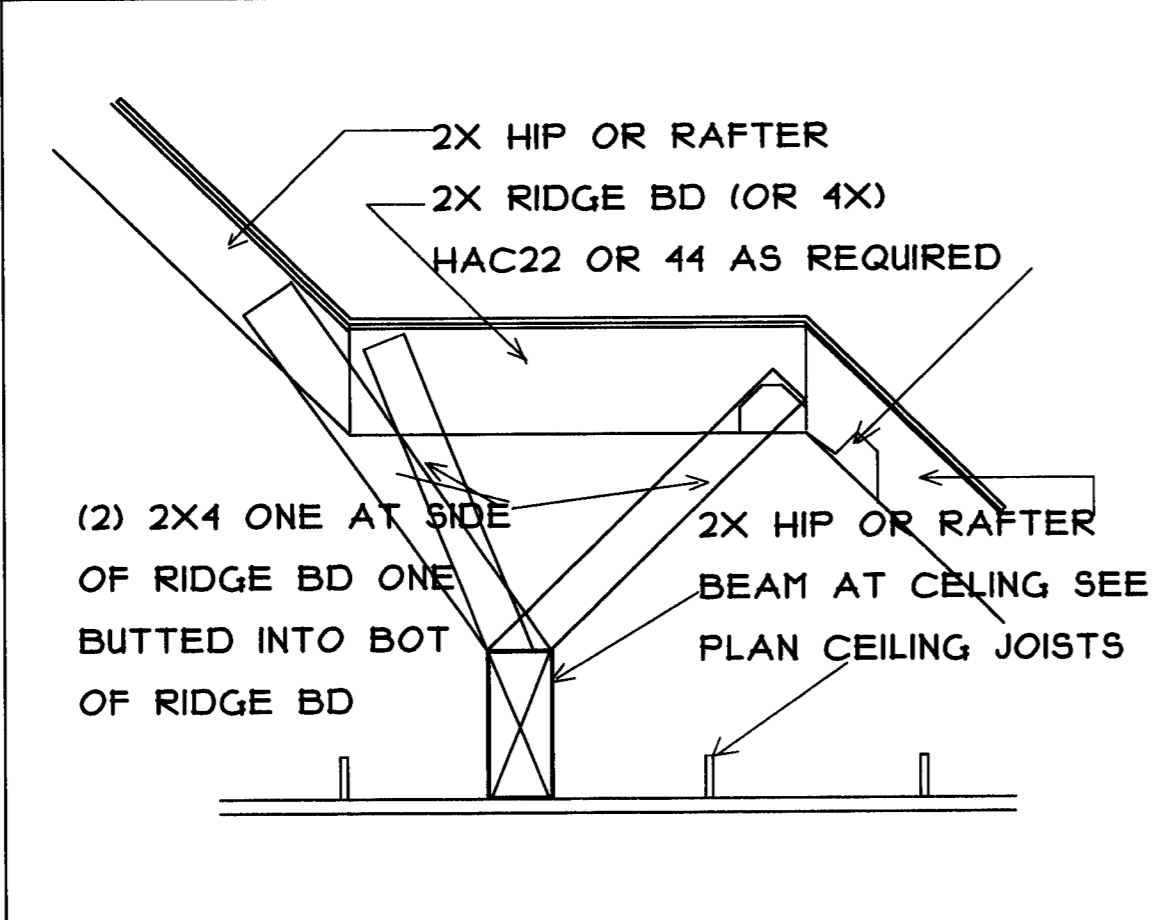
**11**

**STUCCO EAVE**

**13**

**16**

**17**



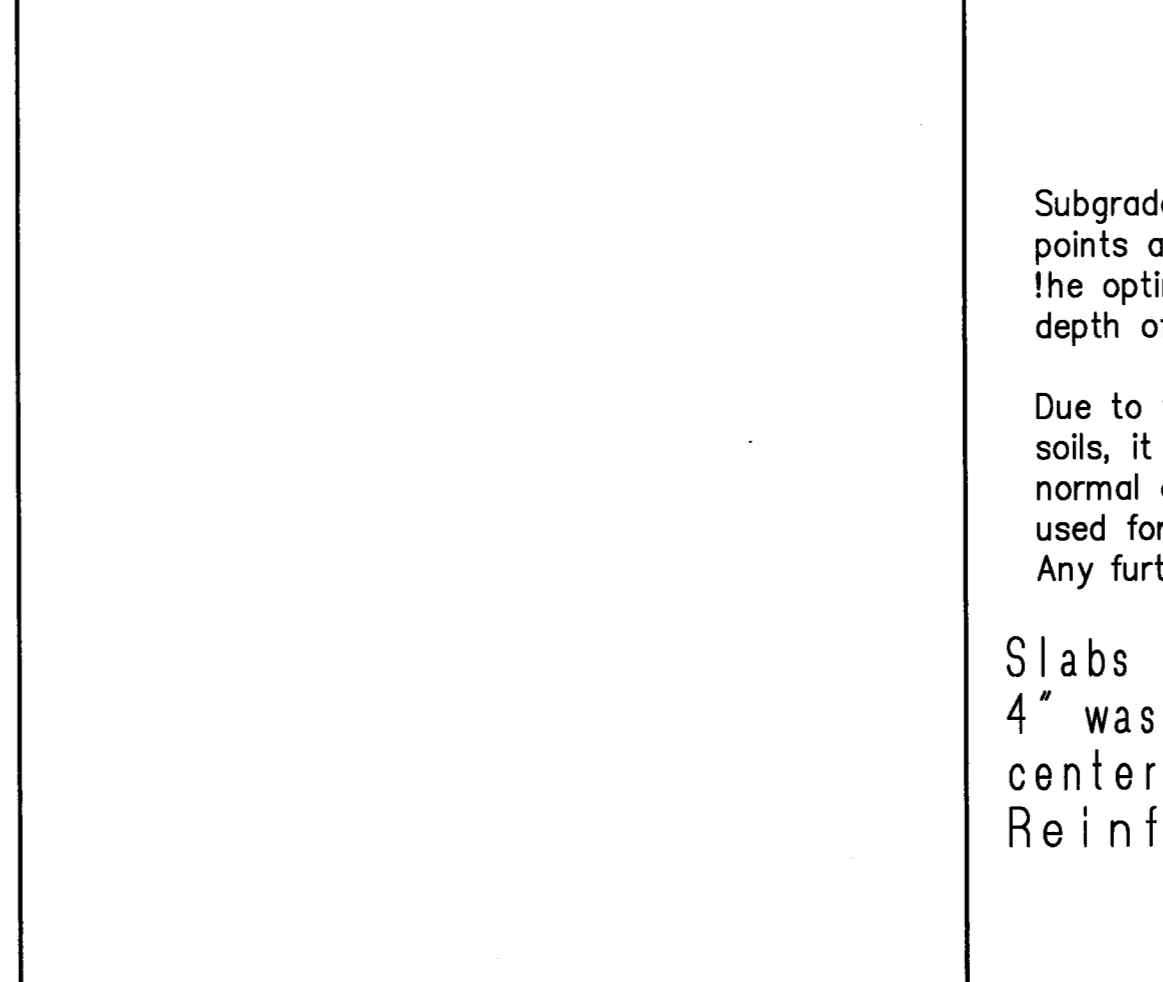
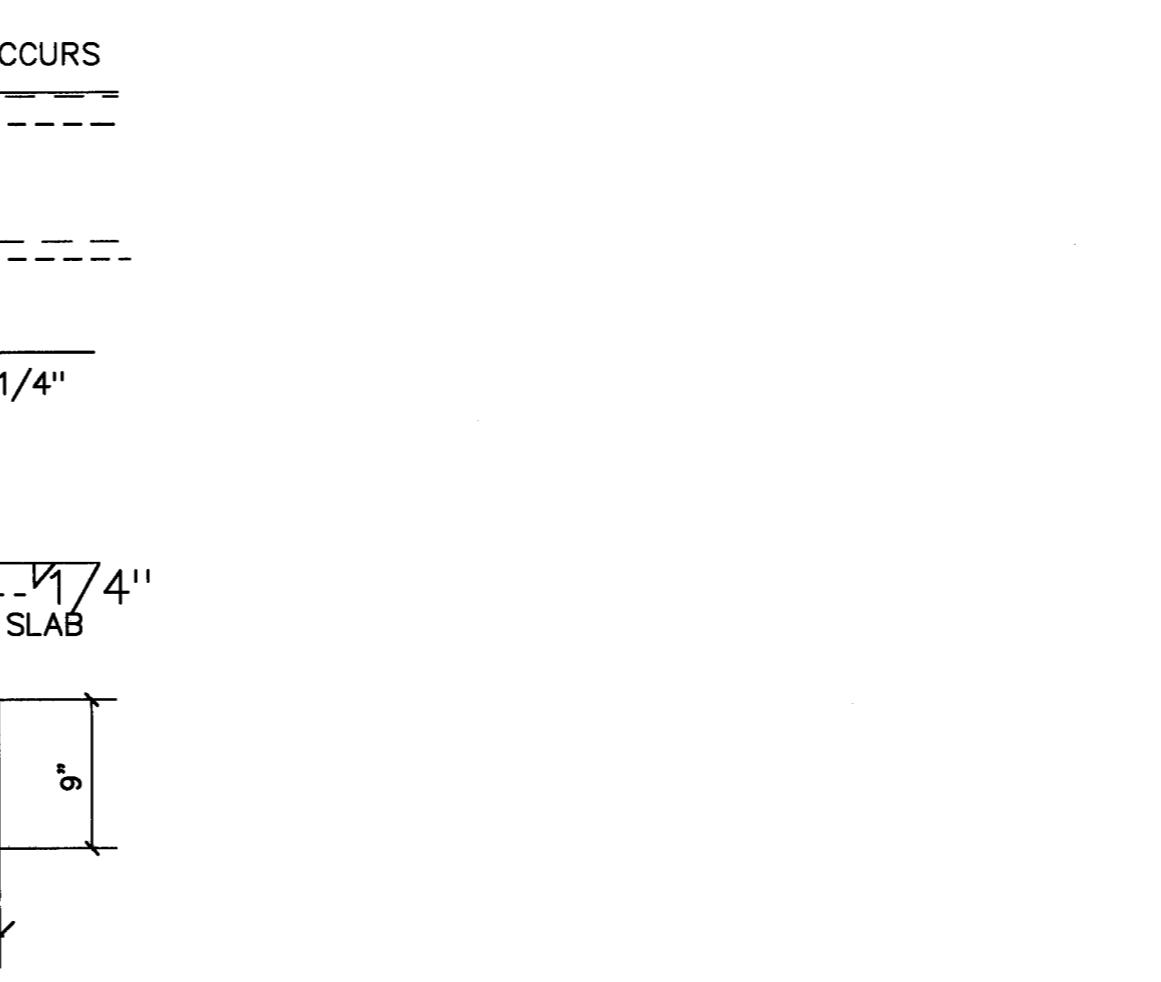
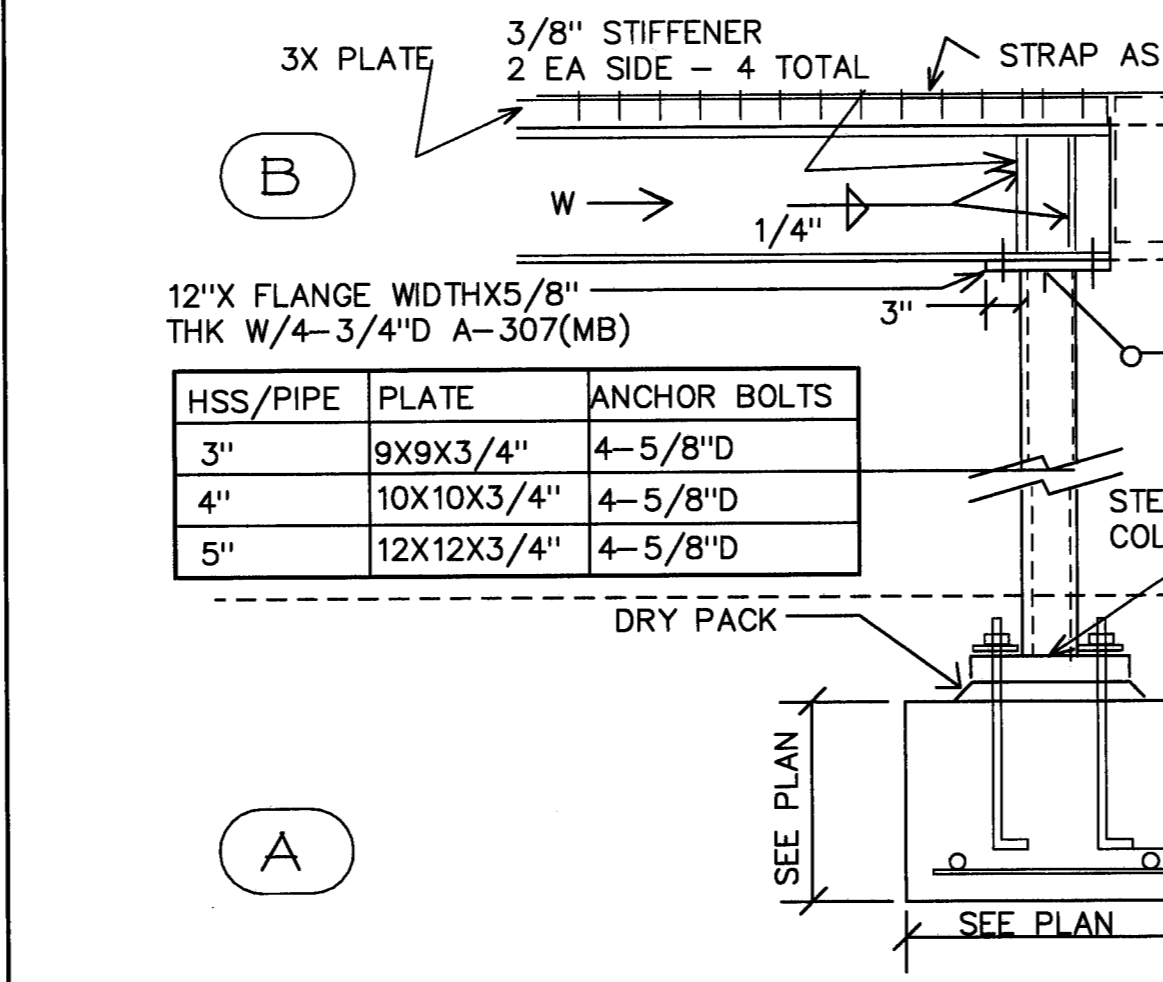
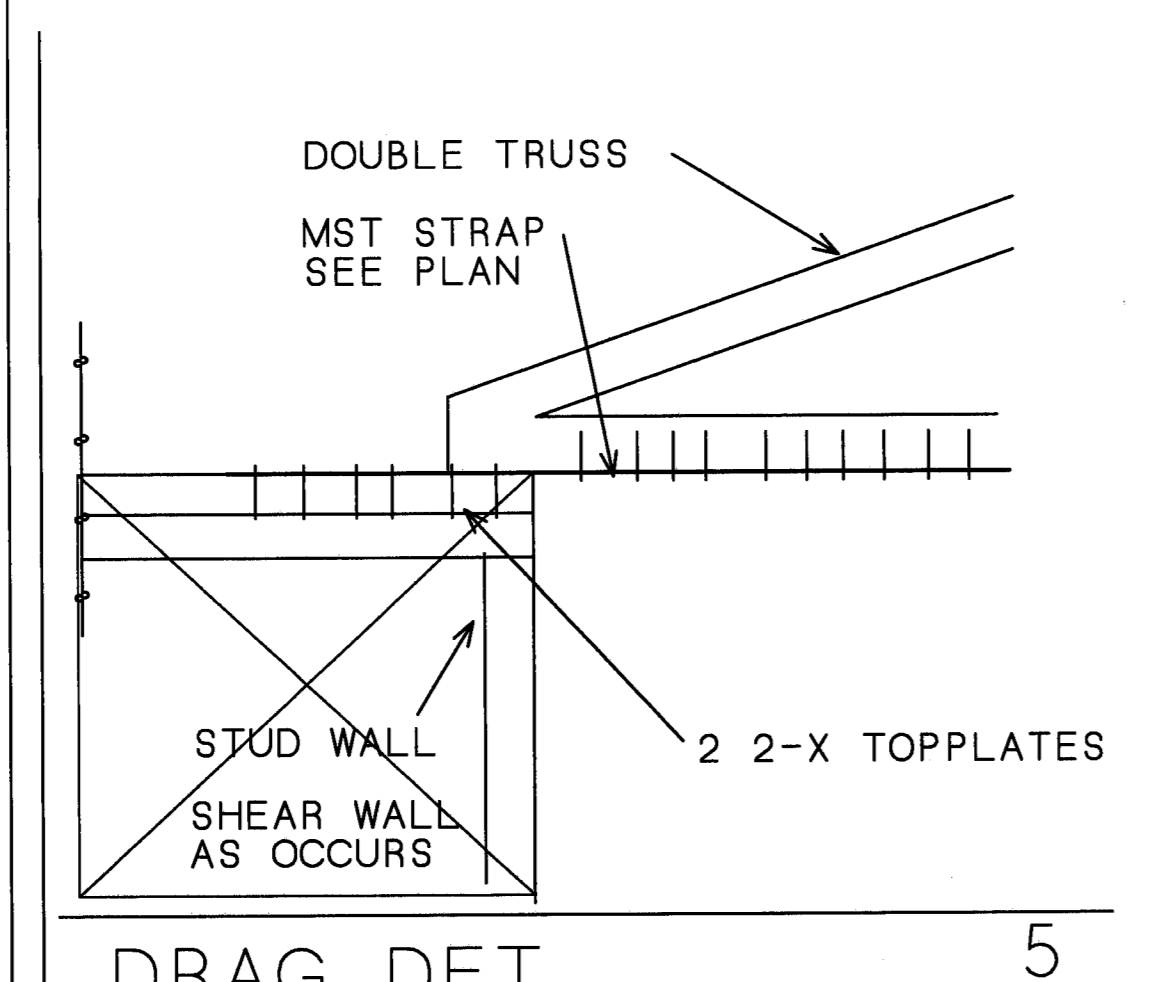
**ROOF BRACING**

**ROOF FLASHING**

**SHEAR WALL ATTIC**

**SHEAR WALL DETAIL WOOD FLOOR**

**20**



Subgrade soil should be pre-saturated at least 5 percentage points above the optimum moisture content or 120 percent of the optimum moisture content, (whichever is greater) to a depth of at least 18 inches.

Due to the negligible sulfate concentration in the on-site soils, it is recommended that Type I or II cement with normal compressive strength and a .50 water/cement ratio be used for the proposed construction.

Any further questions may be directed to this firm.

Slabs 5" thick  
4" washed concrete sand with 10mil vapor barrier in the center of sand.  
Reinforce with #3 rebar 16" on center.

**DRAG DET**

**STEEL PIPE AND FTG**

**24**

**25**

**PETE VOLBEDA Architecture Planning**

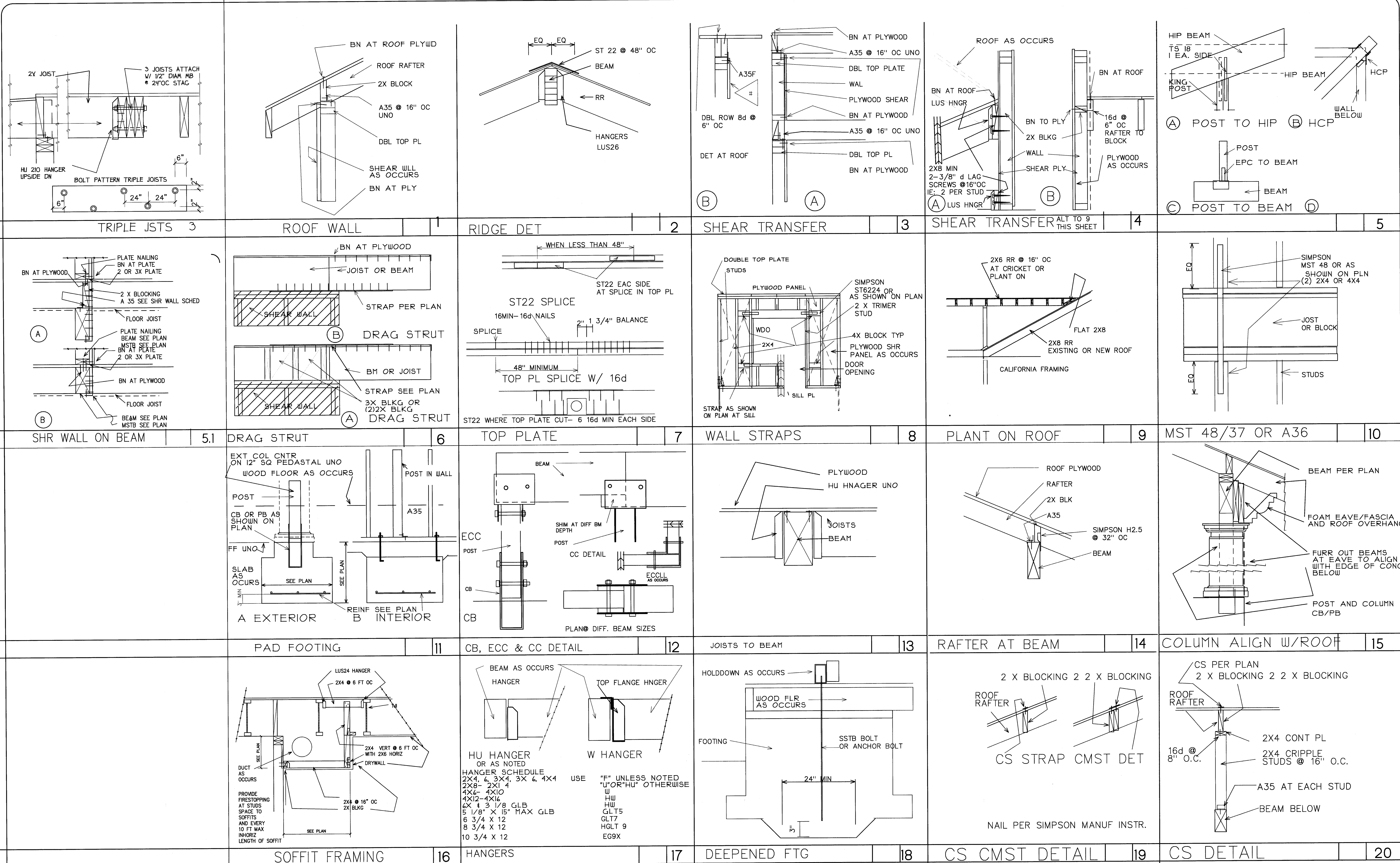
180 N BENSON AVE. D, UPLAND, CA 91786

TEL 909 373 1150 FAX 909 373 1152

DATE	9/10/2015	DESIGN	CHECKED	APPROVED	REVISION
PLAN CHECK		BID SET			
OWNER APPROVAL					

RES FOR G.E.I.G.  
3429 GRAND AVE., CLAREMONT

SHEET **D1**



**PETE VOLBEDA Architecture Planning**

180 N BENSON AVE. D, UPLAND, CA. 91786

TEL 909 373 1150 FAX 909 373 1152

DATE	9/10/2015	DESIGN	DRAWN BY:	CHECKED	OWNER APPROVAL
PLAN CHECK	APPROVED	BID SET	REVISION	DATE	

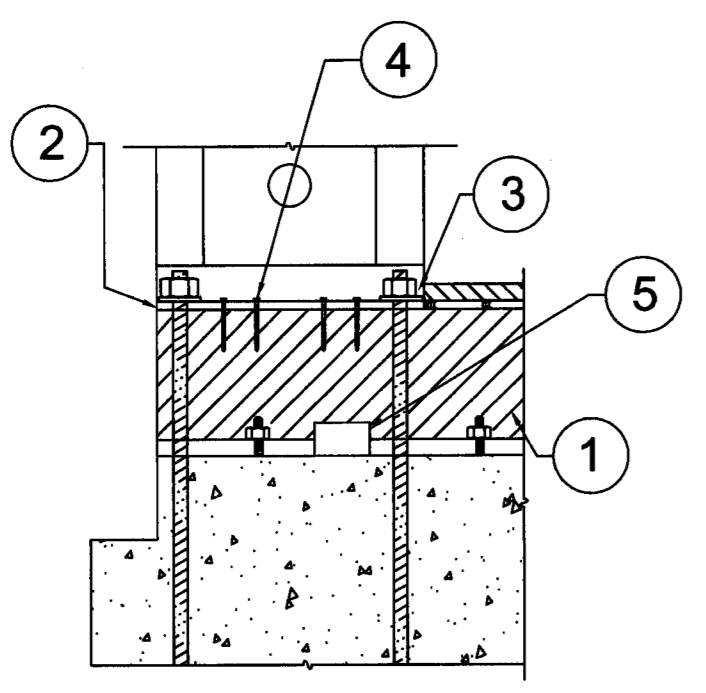
RES FOR G.E.I.G.  
3429 GRAND AVE., CLAREMONT

SHEET OF D2

SCALE 3/16" = 1 FT - 0 IN

NOTE: INSTALLATION WITHOUT HARDY FRAME BEARING PLATE (HFXPB) RESULTS IN A DECREASE OF ALLOWABLE SHEAR VALUE. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS.

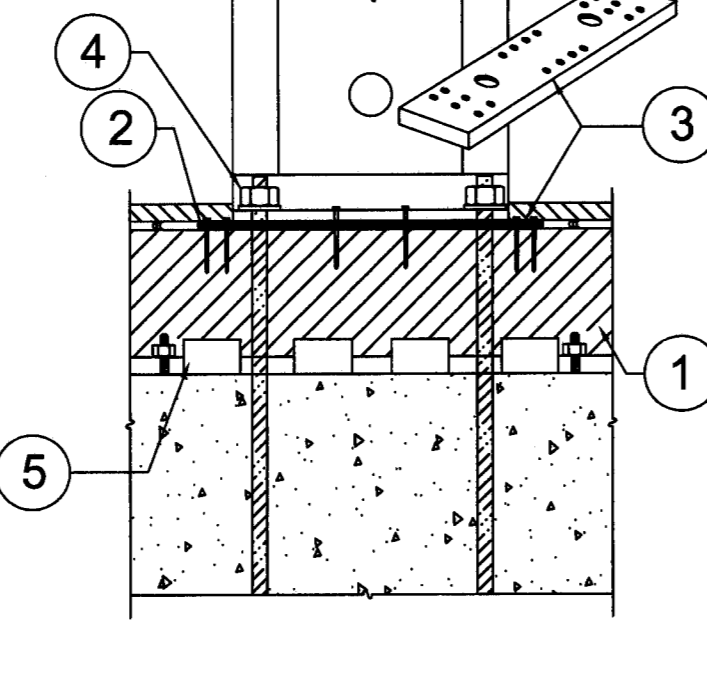
NOTE: COUPLING NUTS MAY BE USED WHEN THREADED ROD IS SUBJECT TO TENSION LOADS ONLY.



- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE (HFXPB).
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
- 1/4" x 4-1/2" (MIN) USP-WS SCREWS (OR EQUAL) THROUGH BOTTOM OF PANEL. MIN QUANTITY PER TABLE.
- USP MP4 F CONNECTORS OR EQUAL BY BUILDING DESIGN PROFESSIONAL.

RAISED-OS CORNER (4)

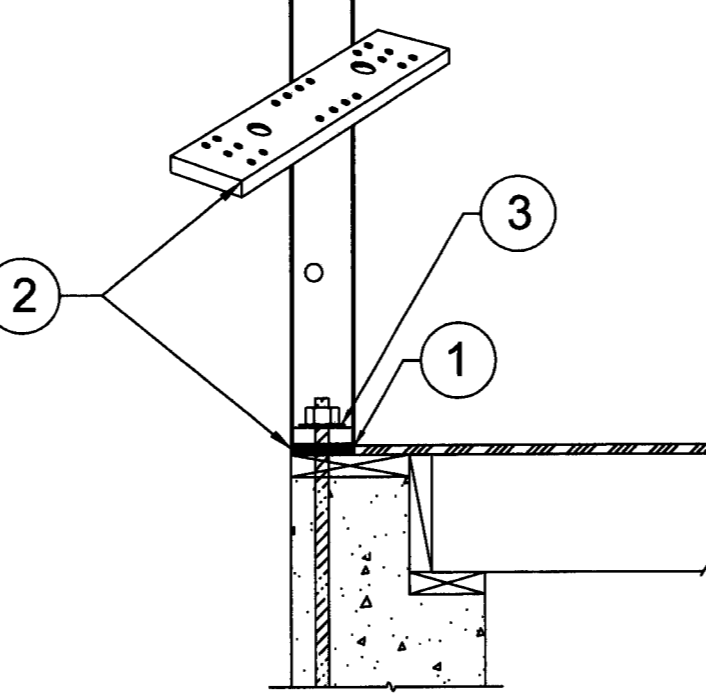
NOTE: COUPLING NUTS MAY BE USED WHEN THREADED ROD IS SUBJECT TO TENSION LOADS ONLY.



- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE (HFXPB).
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
- USP MP4 F CONNECTORS OR EQUAL BY BUILDING DESIGN PROFESSIONAL.

RAISED-BEARING PL (3)

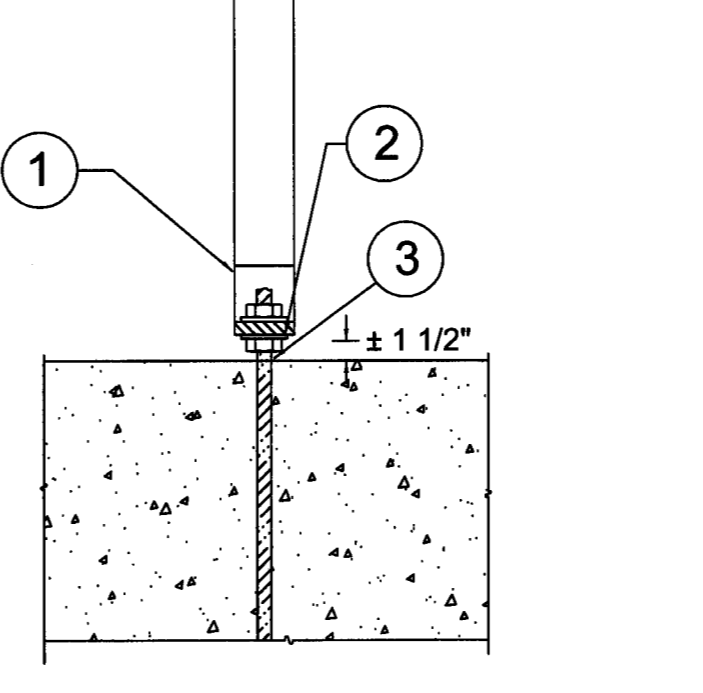
NOTE: INSTALLATION WITHOUT HARDY FRAME BEARING PLATE (HFXPB) MAY INCREASE DEFLECTION AND RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUE. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS.



- FLOOR SHEATHING NOTCHED FOR BEARING PLATE (HFXPB).
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

RAISED STEM WALL (2)

NOTE: INSTALLATION WITHOUT HARDY FRAME BEARING PLATE (HFXPB) MAY INCREASE DEFLECTION AND RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUE. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS.



- ACCESS HOLE LOCATED AT EDGE OF POST.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
- PLUS OR MINUS 1/16" GAP TO BE FILLED WITH MINIMUM 5,000 PSI STRENGTH NON-SHULK GROUT.

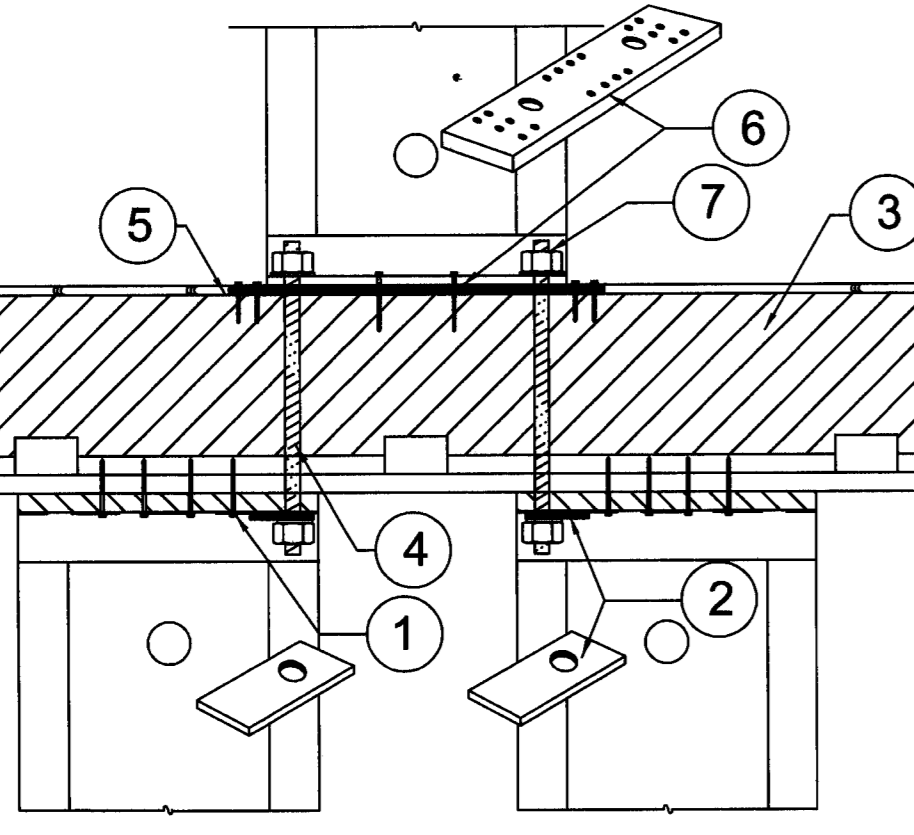
POST ON DBL. NUT (1)

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Screw Quantity			Screw Qty <sup>4</sup> Available at Edges (ea)
				Panel (ea)	Top <sup>2</sup> (ea)	Bot <sup>3</sup> (ea)	
HFX-12,15,18,21 & 24x8	92-1/4	3-1/2	1-1/8	12" Width	6	6	4
HFX-12,15,18,21 & 24x9	104-1/4			15" Width	8	8	
HFX-12,15,18,21 & 24x10	116-1/4			18" Width	10	10	5
HFX-15,18,21 & 24x11	128-1/4			21" Width	12	12	
HFX-15,18,21 & 24x12	140-1/4			24" Width	14	14	6
HFX-15,18,21 & 24x13	152-1/4						

NOTE: HARDY FRAME "STK" WASHERS ARE REQUIRED IN THE TOP OF PANELS WHEN CONNECTING TO A HOLD DOWN ROD FROM ABOVE. HARDY FRAME "STK PANELS" INCLUDE STK WASHERS PRE-WELDED IN THE TOP CHANNEL.

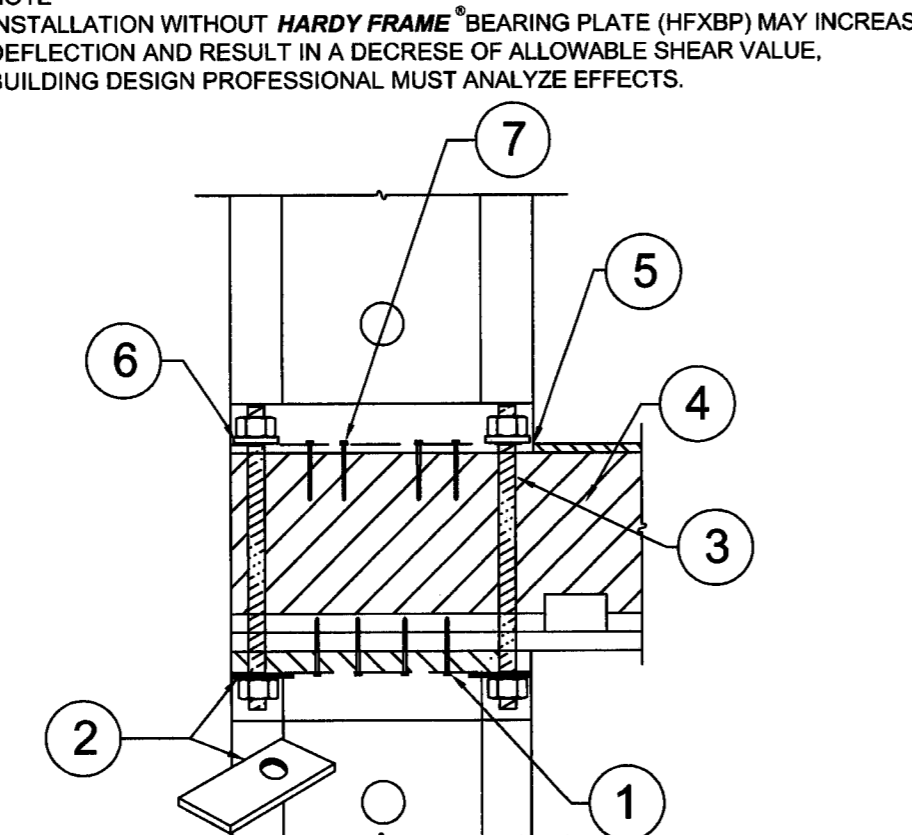
- Hold down bolts specified as Standard Grade (STD) must comply with ASTM F1554 Grade 36 (or equal) Hold down bolts specified as High Strength (HS) must comply with ASTM A 193 Grade B7 (or equal). HD bolts (both grades) connect to the base of the Panel above with one Hardened Round, two Flat or two SAE Washers and a Grade 8 Hex Nut (or equal). HD bolts (both grades) connect to the top channel of the Panel below with a Hardy Frame Stacking (STK) Washer (may be pre-welded in a Hardy Frame "STK" Panel), one Hardened Round, two Flat or two SAE Washers and a Grade 8 Hex Nut (or equal).
- 1/4" diameter USP-WS Series screws (or equal). Length is 3" (minimum) when attaching directly to the collector and 4-1/2" (minimum) when installing a 2x filler above the Panel.
- 1/4" diameter USP-WS Series screws (or equal). Length is 4-1/2" (minimum) through base of Panel and 3" (minimum) at Hardy Frame Bearing Plate (HFXPB).
- 1/4" diameter screws are required at the edges when installing a 4x filler above or when specified by the Design Professional.

(A)



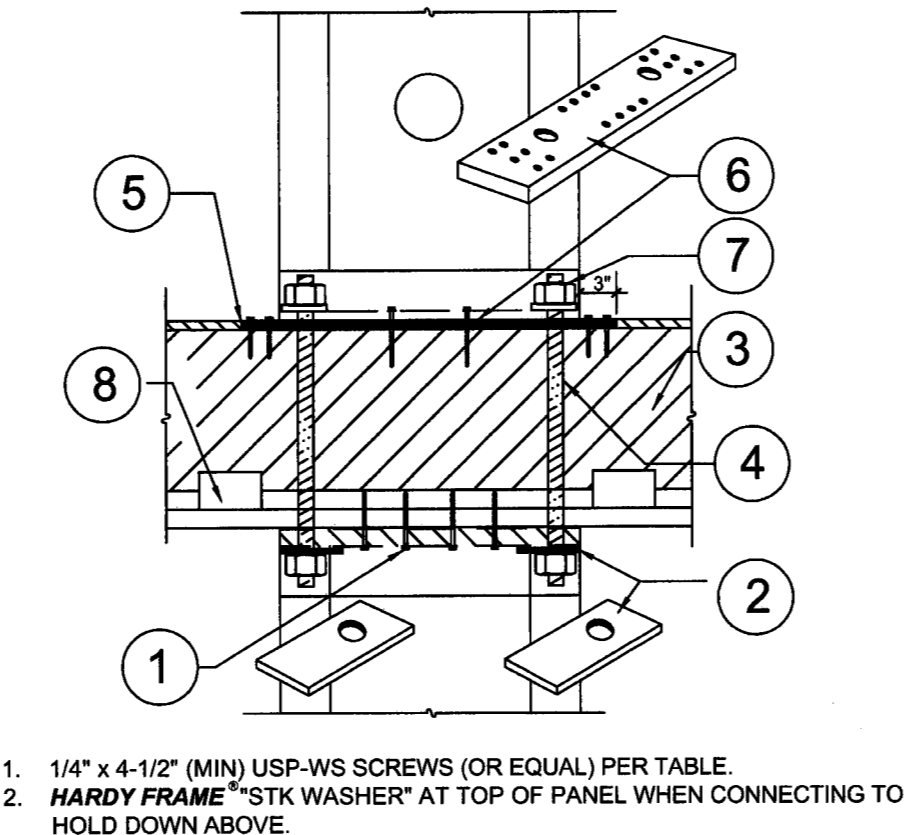
- 1/4" x 4-1/2" (MIN) USP-WS SCREWS (OR EQUAL) PER TABLE.
- HARDY FRAME "STK" WASHER AT TOP OF PANEL WHEN CONNECTING TO HOLD DOWN ABOVE.
- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- ALL THREAD ROD PER PLANS.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE.
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS.

PYRAMID STACK (8)



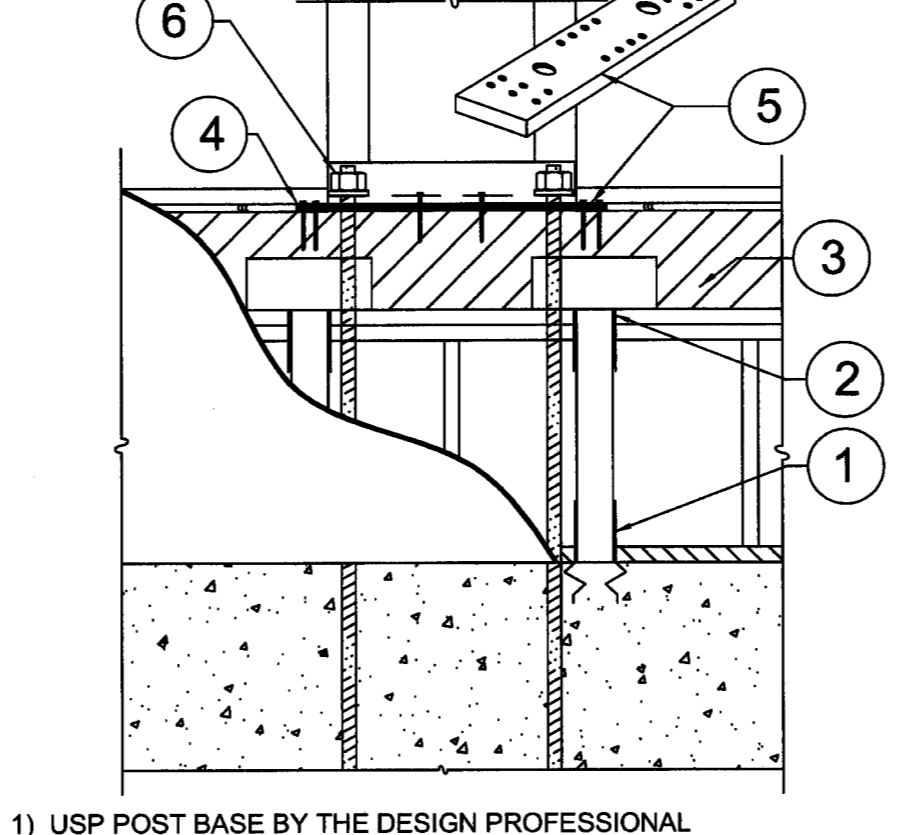
- 1/4" x 4-1/2" (MIN) USP-WS SCREWS (OR EQUAL) PER TABLE.
- HARDY FRAME "STK" WASHER AT TOP OF PANEL WHEN CONNECTING TO HOLD DOWN ABOVE.
- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- ALL THREAD ROD PER PLANS.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE.
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS.
- 1/4" x 4-1/2" (MIN) USP-WS SCREWS (OR EQUAL) THROUGH BOTTOM OF PANEL. MIN QUANTITY PER TABLE.

STACK @ OS CORNER (7)



- 1/4" x 4-1/2" (MIN) USP-WS SCREWS (OR EQUAL) PER TABLE.
- HARDY FRAME "STK" WASHER AT TOP OF PANEL WHEN CONNECTING TO HOLD DOWN ABOVE.
- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- ALL THREAD ROD PER PLANS.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE (HFXPB).
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT.
- USP MP4 F CONNECTORS OR EQUAL BY BUILDING DESIGN PROFESSIONAL.

STRAIGHT STACK (6)



- USP POST BASE BY THE DESIGN PROFESSIONAL.
- USP POST CAP BY THE DESIGN PROFESSIONAL.
- 4x (MIN) RIM AND STRUCTURAL FRAMING BY THE DESIGN PROFESSIONAL.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE.
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

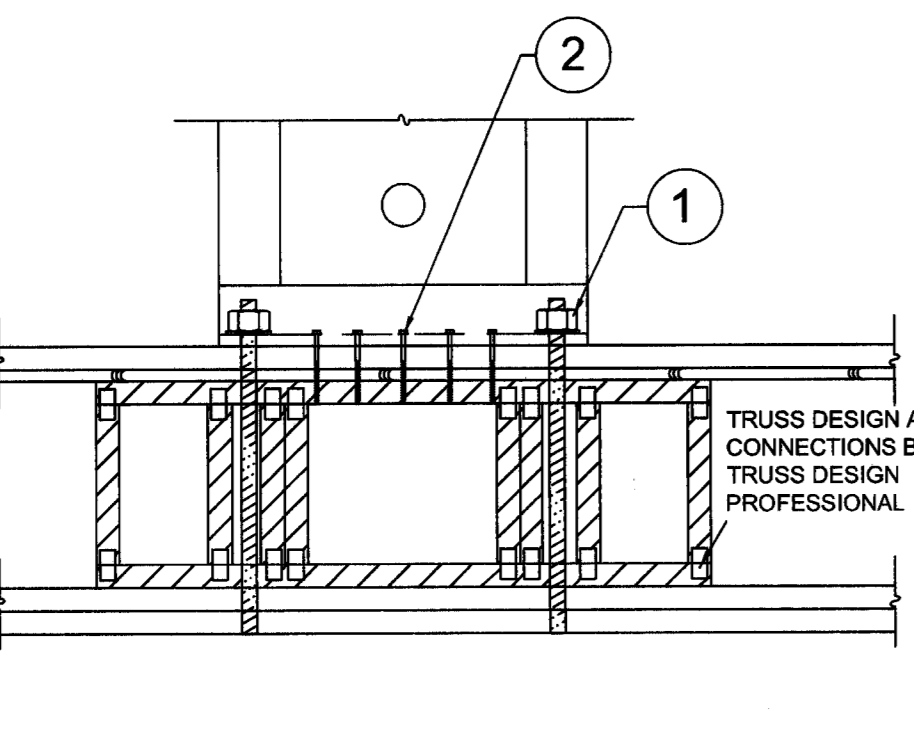
CRIPPLE WALL (5)

Panel Width	Panel Width	Panel Width
3" PANEL WIDTH	3" PANEL WIDTH	3" PANEL WIDTH
HFXBP12	HFXBP15	HFXBP18
3" PANEL WIDTH	3" PANEL WIDTH	3" PANEL WIDTH
HFXBP21	HFXBP24	

(B)

(C)

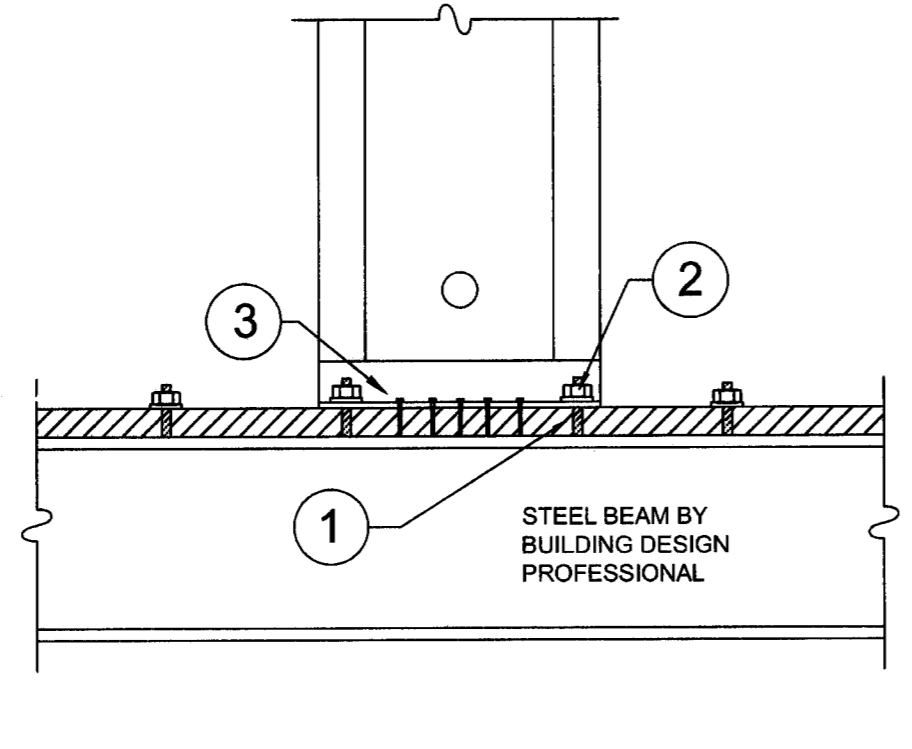
NOTE: A. INSTALLATION WITHOUT HARDY FRAME BEARING PLATE (HFXPB) INCREASES DEFLECTION AND MAY RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUES BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS. B. TRUSS DESIGN PROFESSIONAL TO CHECK LATERAL SHEAR AND OVERTURNING MOMENT OF TRUSS SYSTEM. C. END BLOCK CONFIGURATION MAY CHANGE TO ACCOMMODATE SPECIFIC JOB CONDITIONS.



- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS.
- 1/4" MIN USP-WS SCREWS (OR EQUAL) WITH FULL PENETRATION INTO TOP CHORD OF BLOCK.

OPEN WEB TRUSS (14)

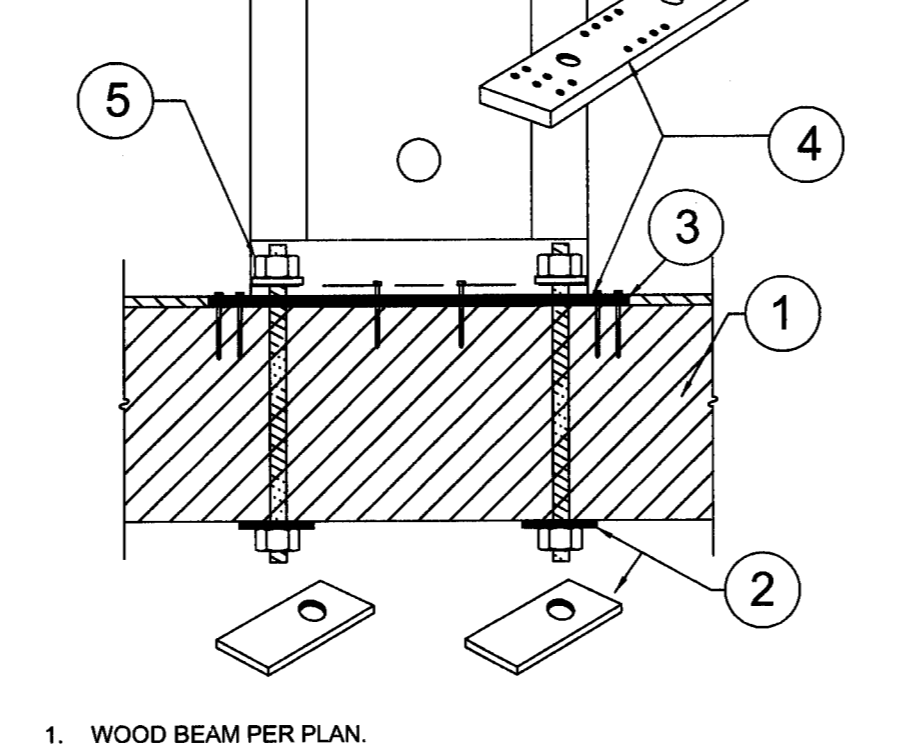
BUILDING DESIGN PROFESSIONAL TO DESIGN. A. LOAD PATH FROM BEAM TO FOUNDATION. B. INSTALLATION WITHOUT HARDY FRAME BEARING PLATE (HFXPB) INCREASES PANEL DEFLECTION AND MAY RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUES. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS. C. BEAM DEFLECTION MAY INCREASE TOTAL DRIFT OF PANEL. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS.



- HOLD DOWN ALL THREAD RODS WELDED TO STEEL BEAM BY BUILDING DESIGN PROFESSIONAL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT.
- 1/4" MIN USP-WS SCREWS (OR EQUAL) MAY BE INSTALLED FOR ADDITIONAL SHEAR TRANSFER.

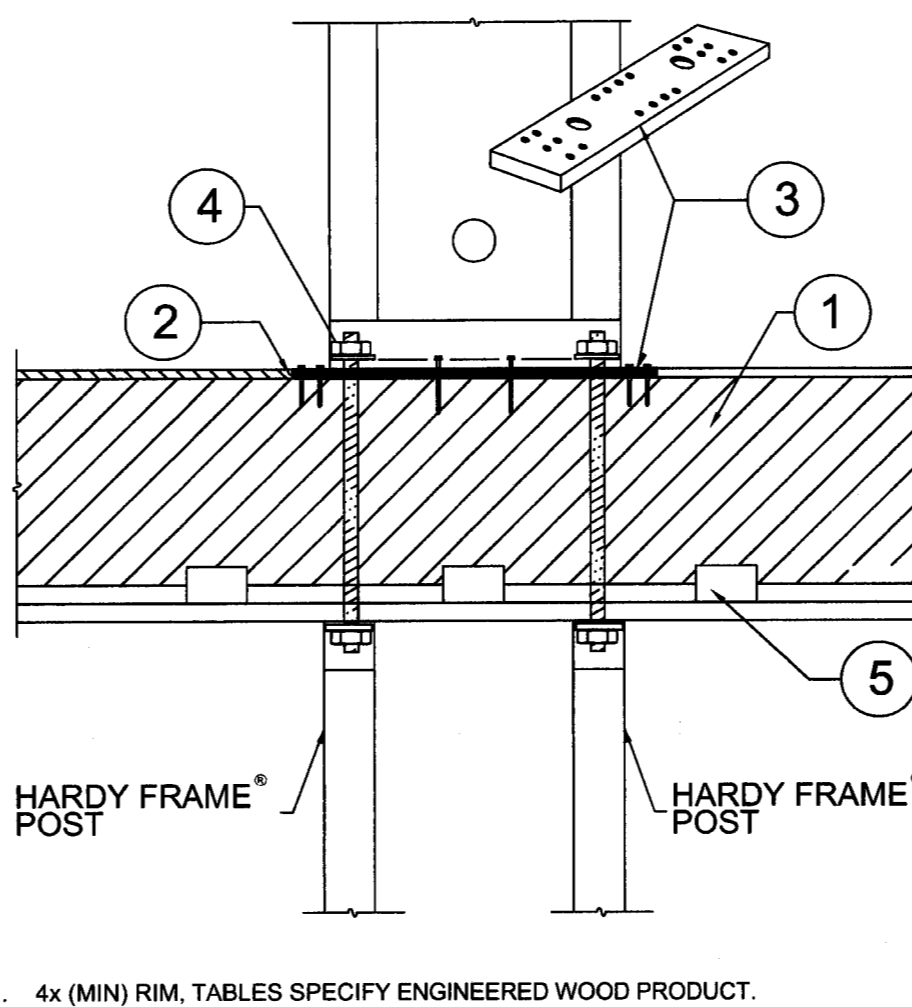
STEEL BM-WELDED HD (13)

BUILDING DESIGN PROFESSIONAL TO DESIGN. A. LOAD PATH FROM BEAM TO FOUNDATION. B. INSTALLATION WITHOUT HARDY FRAME BEARING PLATE (HFXPB) INCREASES PANEL DEFLECTION AND MAY RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUES. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS. C. BEAM DEFLECTION MAY INCREASE TOTAL DRIFT OF PANEL. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS.



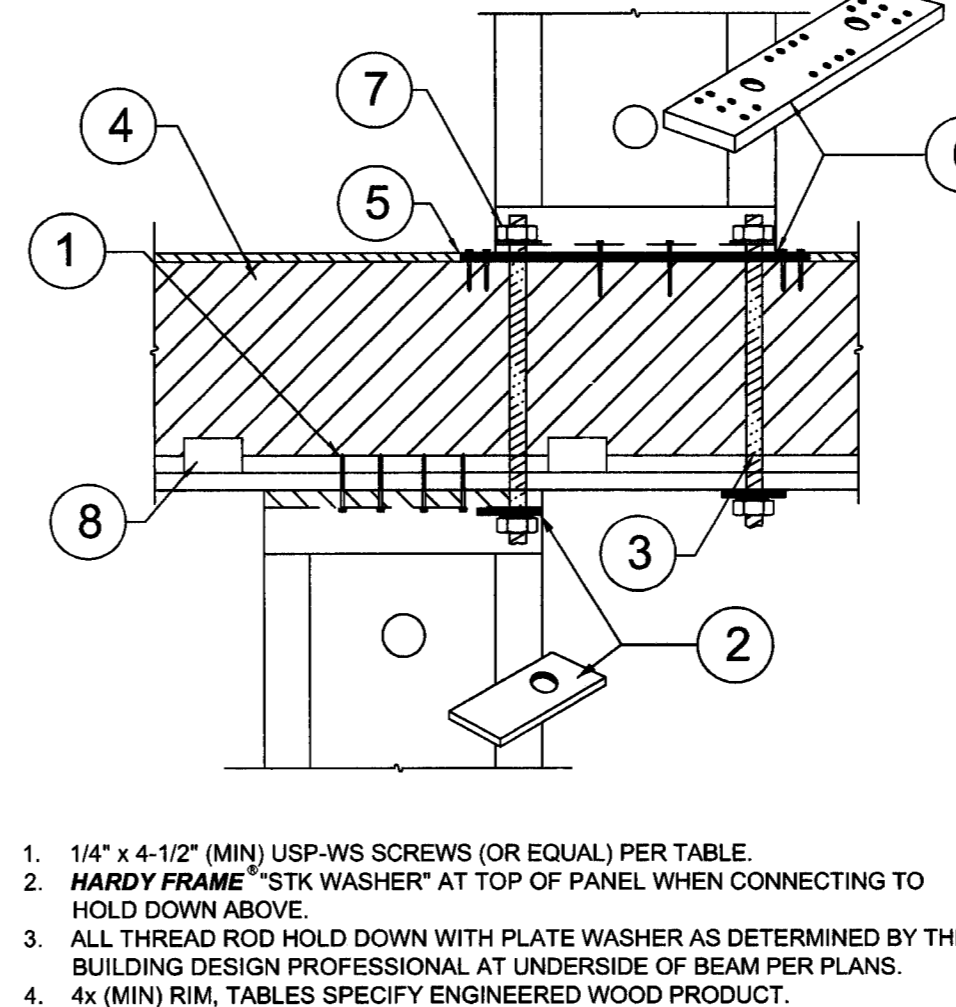
- WOOD BEAM PER PLAN.
- ALL THREAD HOLD DOWN WITH PLATE WASHER AS DETERMINED BY THE BUILDING DESIGN PROFESSIONAL AT UNDERSIDE OF BEAM PER PLAN.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE.
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT.

WOOD BM THRU BOLT (12)



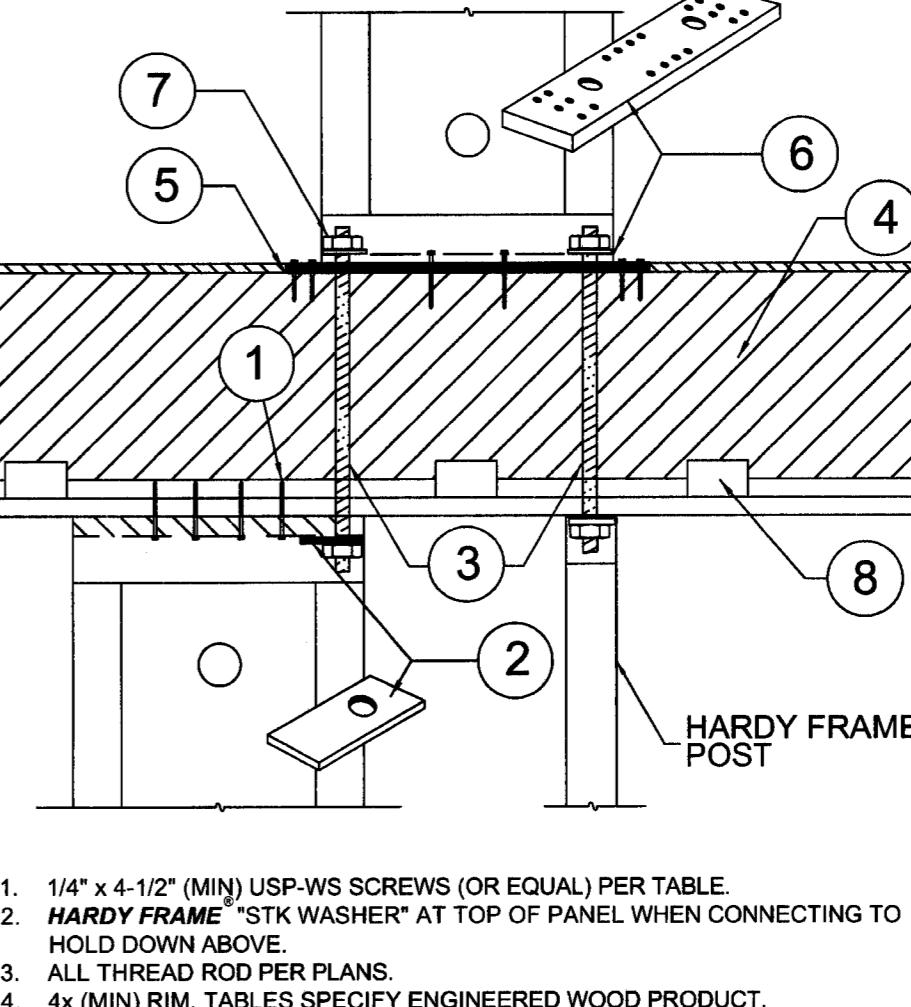
- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE.
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS.
- USP MP4 F CONNECTORS OR EQUAL BY BUILDING DESIGN PROFESSIONAL.

POSTS BELOW (11)



- 1/4" x 4-1/2" (MIN) USP-WS SCREWS (OR EQUAL) PER TABLE.
- HARDY FRAME "STK" WASHER AT TOP OF PANEL WHEN CONNECTING TO HOLD DOWN ABOVE.
- ALL THREAD ROD HOLD DOWN WITH PLATE WASHER AS DETERMINED BY THE BUILDING DESIGN PROFESSIONAL AT UNDERSIDE OF BEAM PER PLANS.
- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE (HFXPB).
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS.
- USP MP4 F CONNECTORS OR EQUAL BY BUILDING DESIGN PROFESSIONAL.

STAGGERED-THRU BOLT (10)



- 1/4" x 4-1/2" (MIN) USP-WS SCREWS (OR EQUAL) PER TABLE.
- HARDY FRAME "STK" WASHER AT TOP OF PANEL WHEN CONNECTING TO HOLD DOWN ABOVE.
- 4x (MIN) RIM, TABLES SPECIFY ENGINEERED WOOD PRODUCT.
- FLOOR SHEATHING NOTCHED FOR BEARING PLATE (HFXPB).
- HARDY FRAME BEARING PLATE (HFXPB) WITH 6 EA. 1/4" DIA. x 3" (MIN) USP-WS SCREWS (OR EQUAL) AT EACH END. WHEN MORE THAN 12 EA. SCREWS ARE REQUIRED INSTALL 1/4" x 4-1/2" (MIN) SCREWS THROUGH BASE OF PANEL.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS.
- USP MP4 F CONNECTORS OR EQUAL BY BUILDING DESIGN PROFESSIONAL.

STAGGERED TO POST (9)

REVISIONS	DATE

HFX-Series Panels at Typical Floor System Details

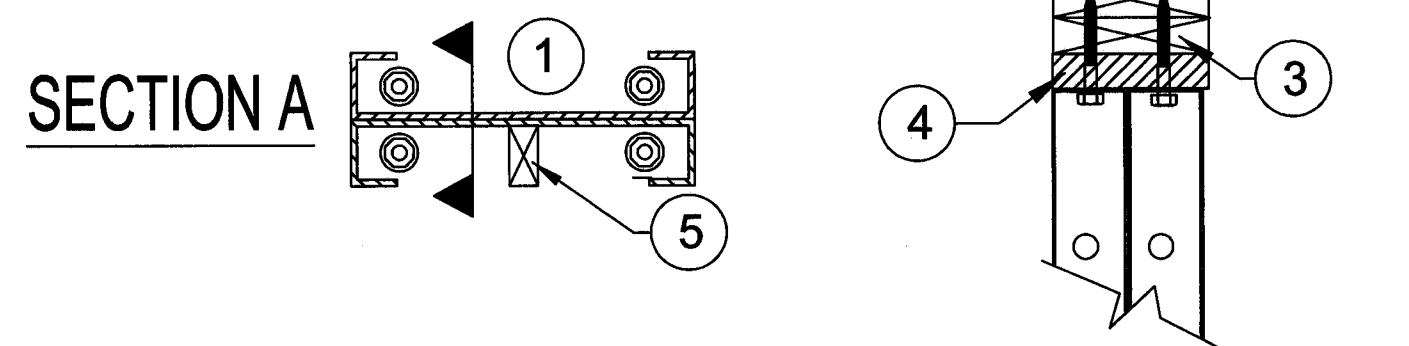
THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

**HARDY FRAME**  
A Mit Tek Company  
1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
TELEPHONE: 800.754-3030 / www.hardyframe.com



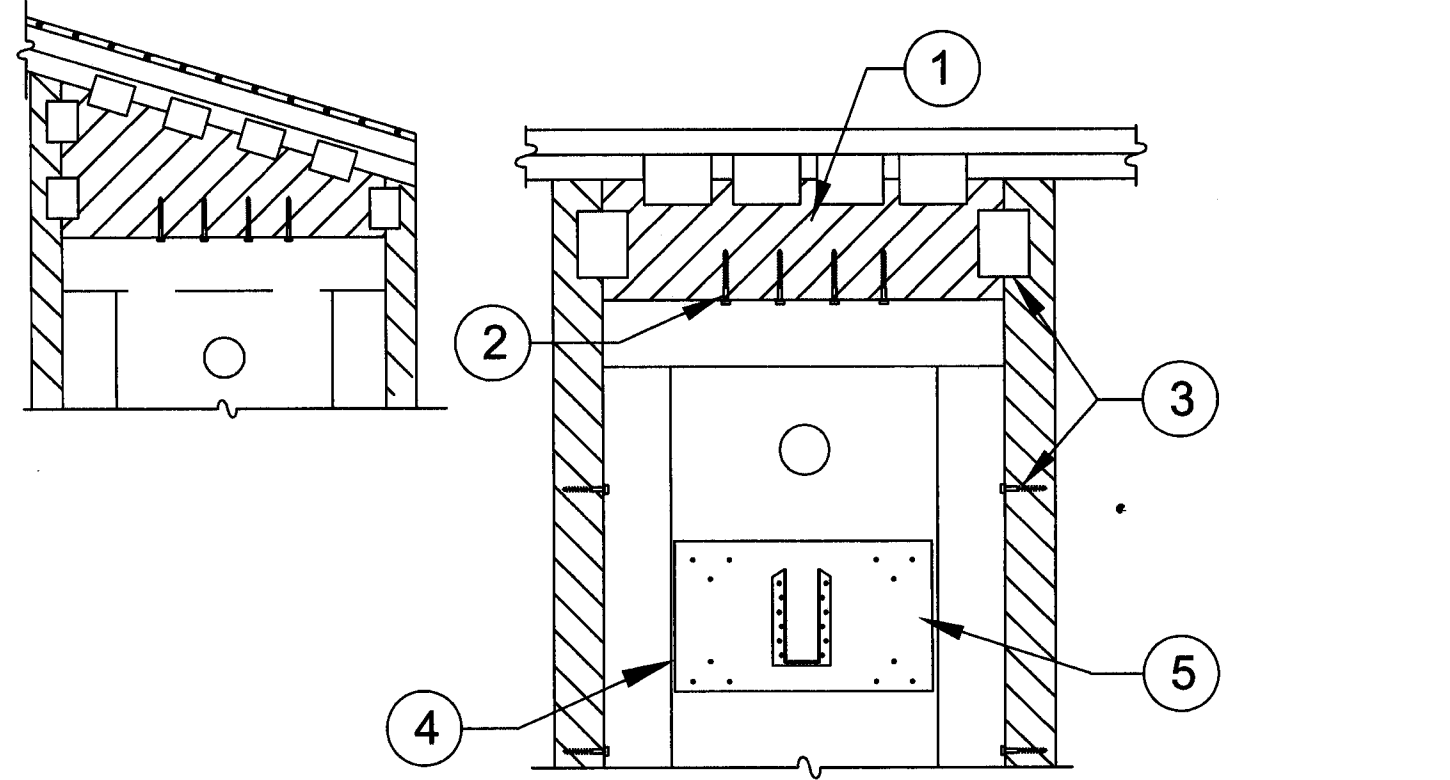
DATE: 4-1-2014

**HFX3 FLRS**



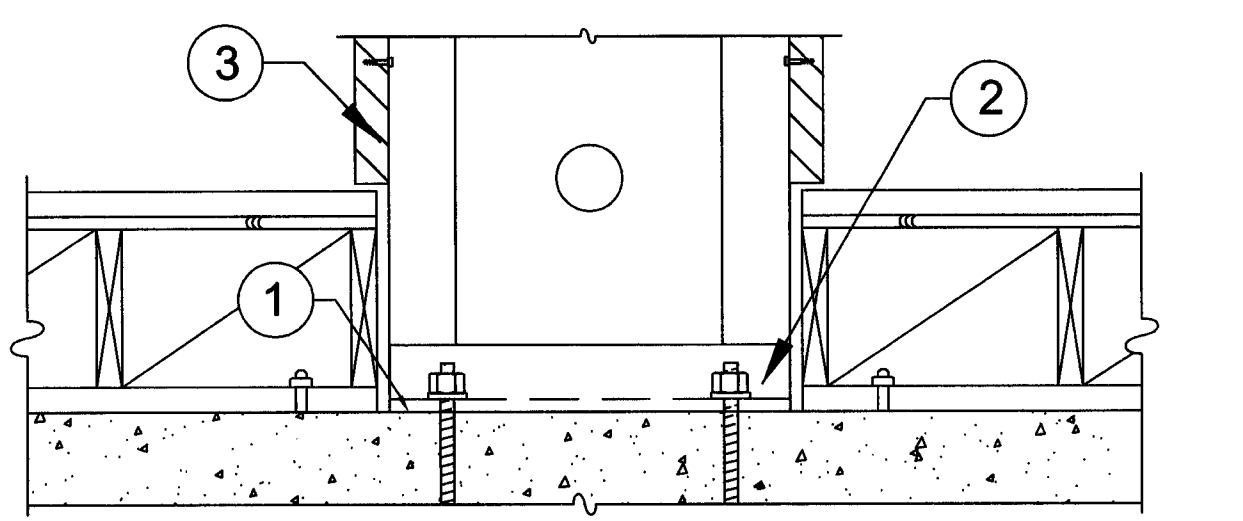
1. CAVITY ORIENTED FOR CONNECTION ACCESS.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.
3. 8 INCH FRAMING ABOVE (MIN).
4. A 2x FILLER WITH 1/4" x 4-1/2" MIN USP-WS SCREWS (OR EQUAL) IS PERMITTED.
5. WOOD BACKING FIELD INSTALLED AS NEEDED.

BACK TO BACK INSTALLATION (11)



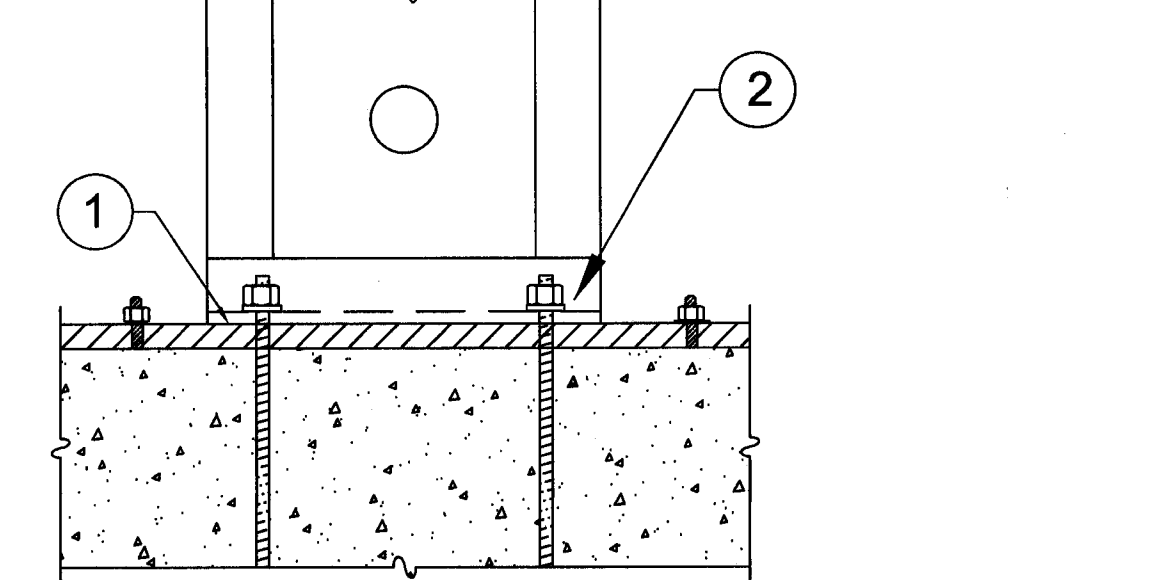
1. 4x WOOD FILLER WITH USP MP4-F CONNECTORS (OR EQUAL) BY BUILDING DESIGN PROFESSIONAL.
2. 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES.
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.
4. OPTIONAL LEDGER PRE-DRILL 3/16" DIA. HOLES, EVENLY SPACED IN FACE OF PANEL AND INSTALL 1/4" DIA. WOOD SCREWS INTO 2x (MIN.) WOOD LEDGER LOCATED IN PANEL CAVITY.
5. CONNECTOR AND ATTACHMENT BY BUILDING DESIGN PROFESSIONAL.

TOP CONNECTION W/ 4x FILLER (10)



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.

RAISED FLOOR HEAD-OUT (9)



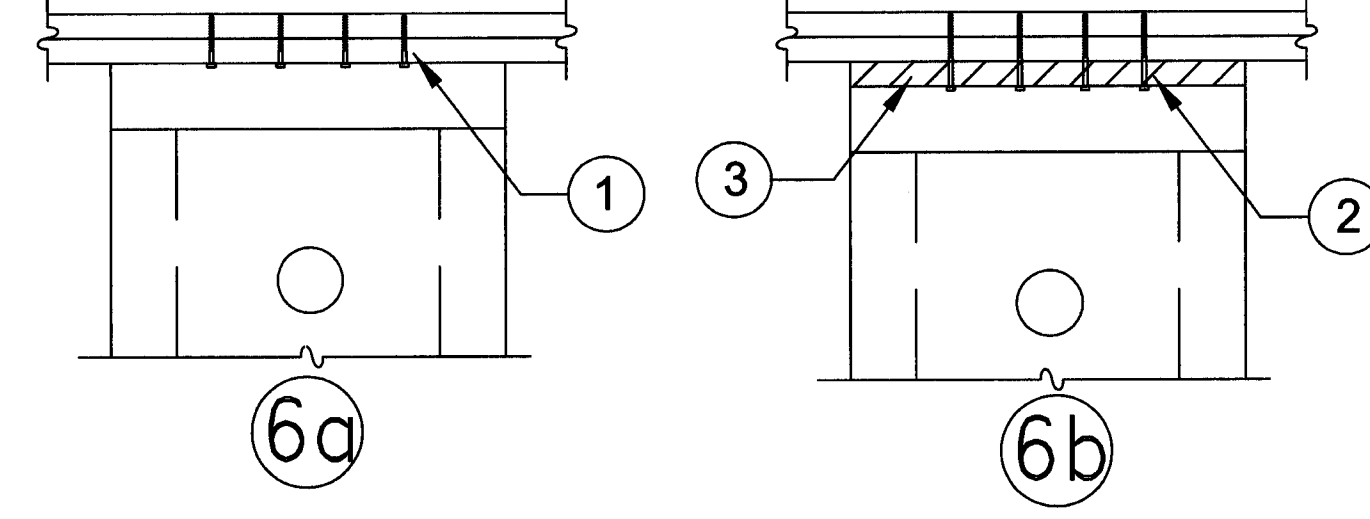
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

INSTALLATION ON 2x PLATE (8)

**NOTES:**  
 A) OUT OF PLANE FORCES TO BE RESISTED BY OTHER FRAMING MEMBERS PER THE BUILDING DESIGN PROFESSIONAL.  
 B) BALLOON WALL APPLICATIONS REQUIRE HIGH STRENGTH ANCHORAGE. SEE FOUNDATION PLAN AND ANCHORAGE TABLES ON SHEET HFX-1

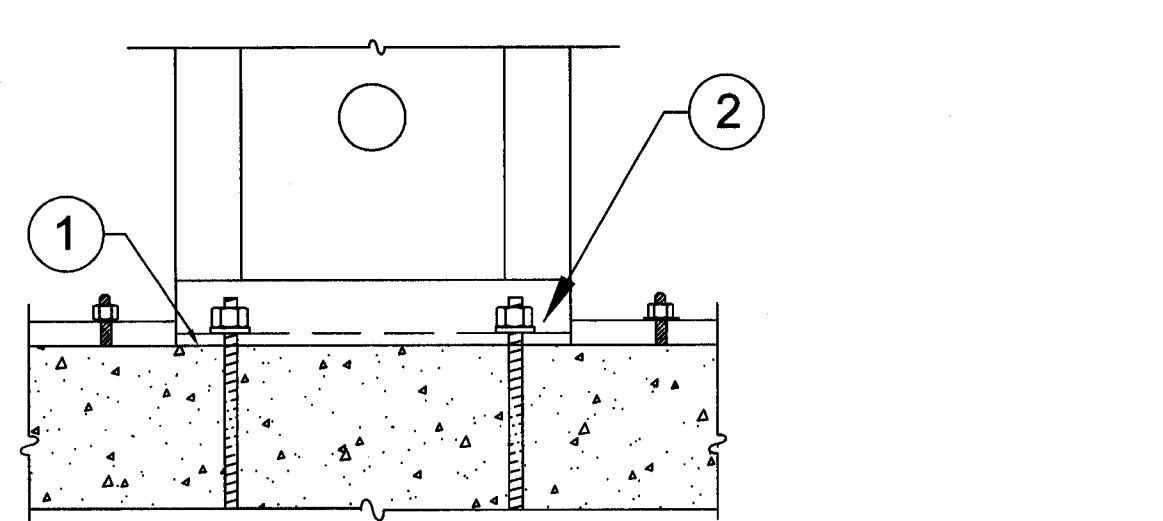
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
3. WELDED CONNECTION BY HARDY FRAMES, INC. (NO FIELD CONNECTION REQUIRED).
4. A 2x FILLER WITH 1/4" x 4-1/2" MIN USP-WS SCREWS (OR EQUAL) IS PERMITTED.
5. WHEN REQUIRED BY THE BUILDING DESIGN PROFESSIONAL ATTACH ADJACENT WOOD MEMBERS TO PANEL WITH 1/4" USP-WS SCREWS (OR EQUAL) THROUGH THE PANEL EDGE INTO THE WOOD MEMBER.

BALLOON WALL INSTALLATION (7)



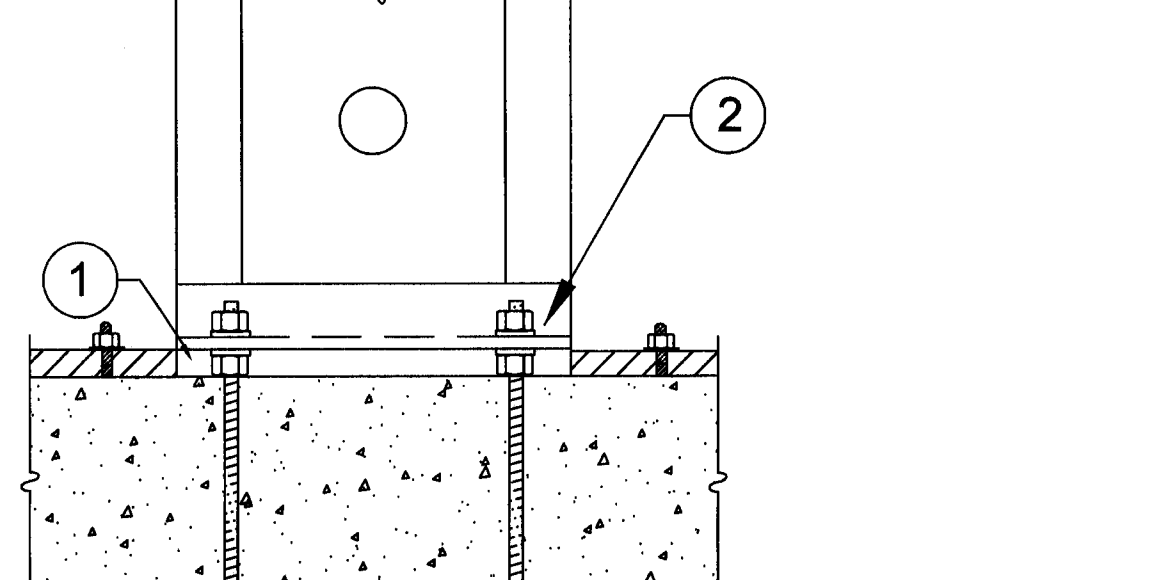
1. 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES.
2. 1/4" x 4-1/2" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES.
3. 2x WOOD FILLER.

TOP PLATE CONNECTIONS (6)



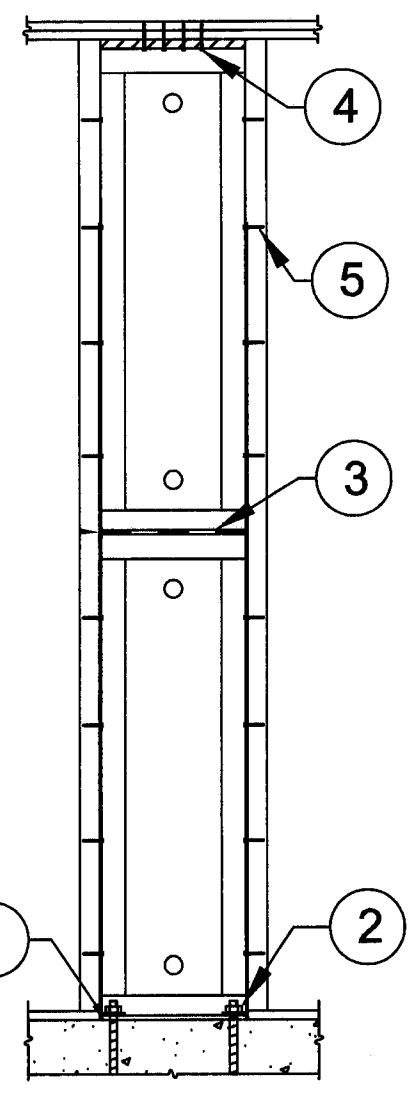
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.

INSTALLATION ON FOUNDATION (5)



1. PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH MIN 5,000 PSI STRENGTH NON-SHRINK GROUT.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

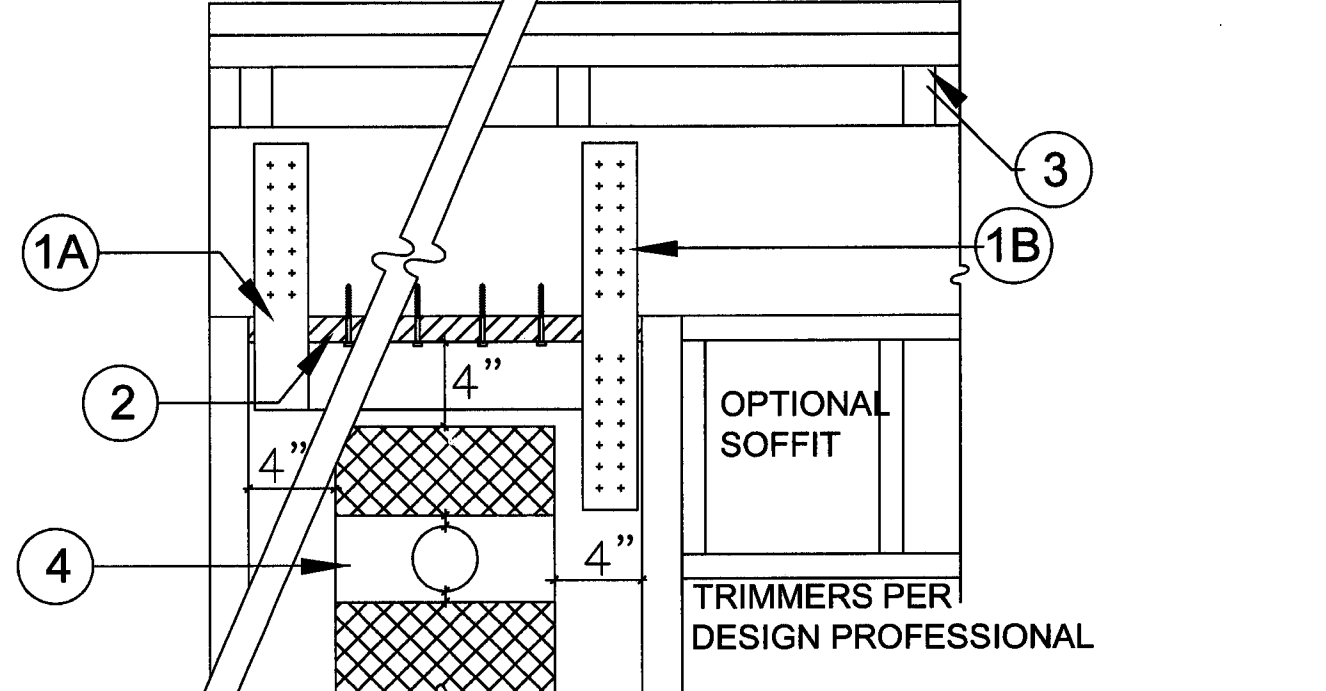
INSTALLATION ON NUTS&WASHERS (4)



**NOTES:**  
 ATTACHMENTS MAY BE MADE AT SCREW HOLES PROVIDED OR WITH SELF TAPPING SCREWS (#12 AT EDGES, #10 AT FACE).

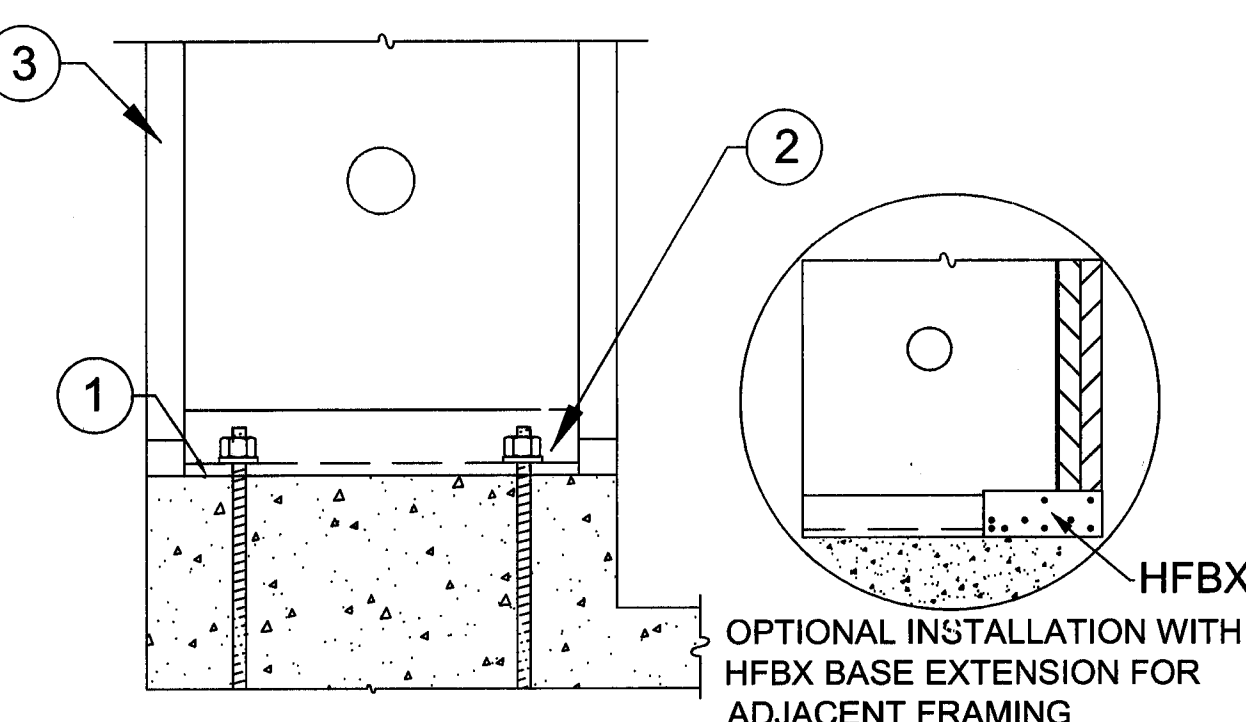
1. TRIMMERS PROVIDE FULL BEARING FOR HEADER ABOVE, DESIGN AND CONNECTIONS BY OTHERS.
2. 6x HEADER.
3. WOOD MEMBERS MAY BE INSERTED VERTICALLY OR HORIZONTALLY IN CAVITY FOR BACKING AS NEEDED.

6x HEADER ABOVE-SECTION (3)



- 1A. WELDED STRAPS ARE AVAILABLE FROM MANUFACTURER WHEN REQUIRED BY THE DESIGN PROFESSIONAL.
- 1B. WHEN STRAPS ARE FIELD INSTALLED THE DESIGN AND CONNECTION IS BY THE DESIGN PROFESSIONAL. CONNECTION TO PANEL WITH SELF TAPPING SCREWS IS PERMITTED.
2. A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) USP "WS" SERIES SCREWS OR EQUAL IS PERMITTED.
3. WHEN CRIPPLE STUDS OCCUR, SHEAR TRANSFER DESIGN TO BE PER THE DESIGN PROFESSIONAL.
- 4A. THERE IS NO "INSIDE" OR "OUTSIDE" FACE OF PANEL. TO PREVENT THE NEED FOR ADDITIONAL HOLES ORIENT THE PANEL CAVITY TOWARD THE FIXTURE BEING INSTALLED.
- 4B. A 1" DIA. HOLE MAY BE ADDED IN THE PANEL FACE WHEN IT IS LOCATED IN THE UPPER HALF OF THE PANEL HEIGHT AND IS 4" MIN. FROM ANY EDGE. FOR PANELS MORE THAN 12" WIDE, ADDITIONAL HOLES MUST ALSO BE 1" MINIMUM ABOVE AND BELOW THE 3" DIA. HOLE PROVIDED.
- 4C. FOR HOLES LARGER THAN 1" DIA. OR TO ADD MORE THAN ONE HOLE CONTACT HARDY FRAMES, INC.

TOP CONNECTION TO HEADER (2)



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
3. ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

INSTALLATION ON CURB (1)

HFX-SERIES 78 IN. THRU 13 FOOT

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-12,15,18,21 & 24x78	78				
HFX-9x79.5	79-1/2			9" Width = 5	
HFX-12,15,18,21 & 24x8	92-1/4			12" Width = 6	4
HFX-9x8	93-3/4	3-1/2	1-1/8	15" Width = 8	
HFX-12,15,18,21 & 24x9	104-1/4			18" Width = 10	5
HFX-12,15,18,21 & 24x10	116-1/4			21" Width = 12	
HFX-15,18,21 & 24x11	128-1/4			24" Width = 14	6
HFX-15,18,21 & 24x12	140-1/4				
HFX-15,18,21 & 24x13	152-1/4				

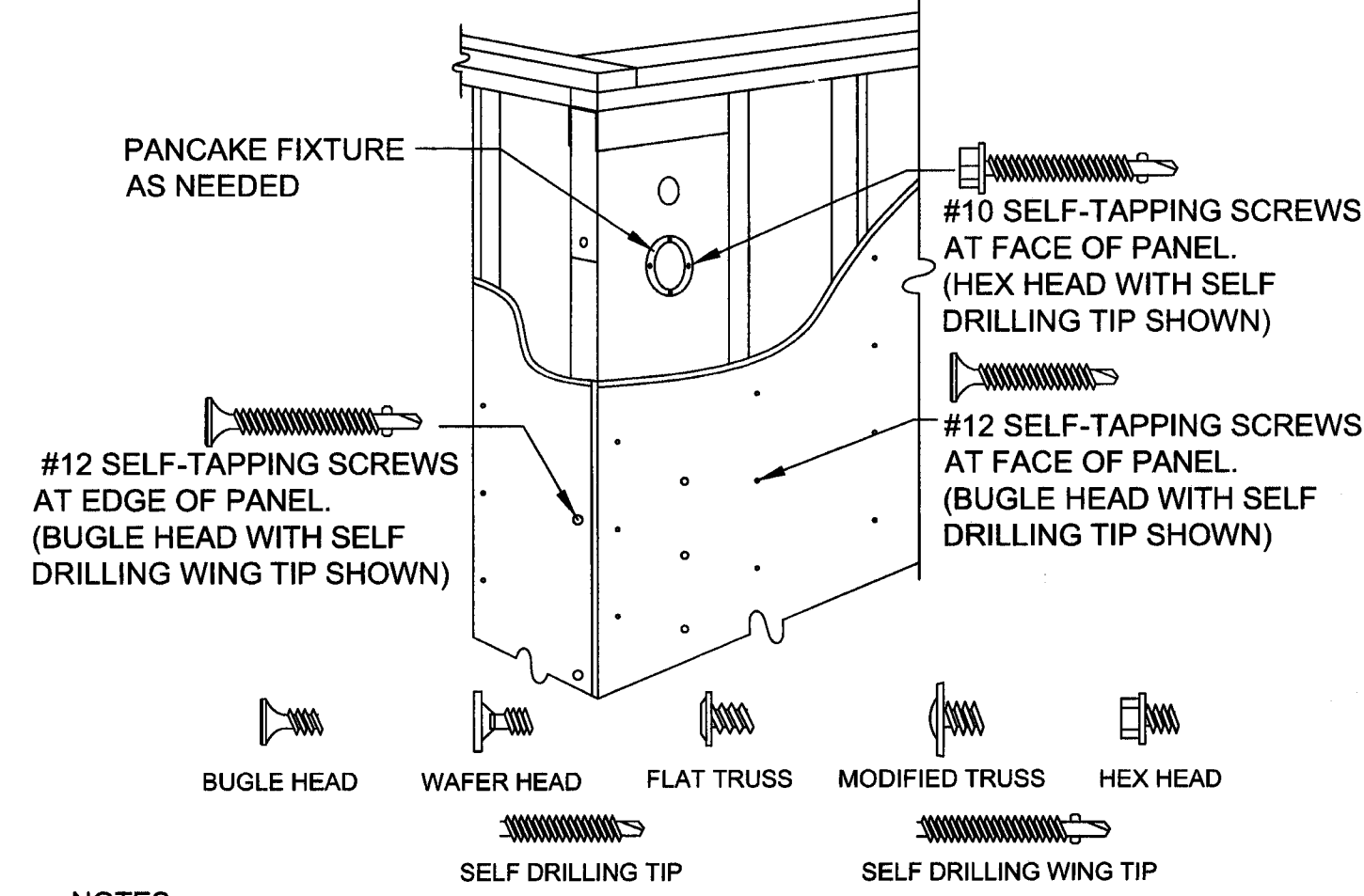
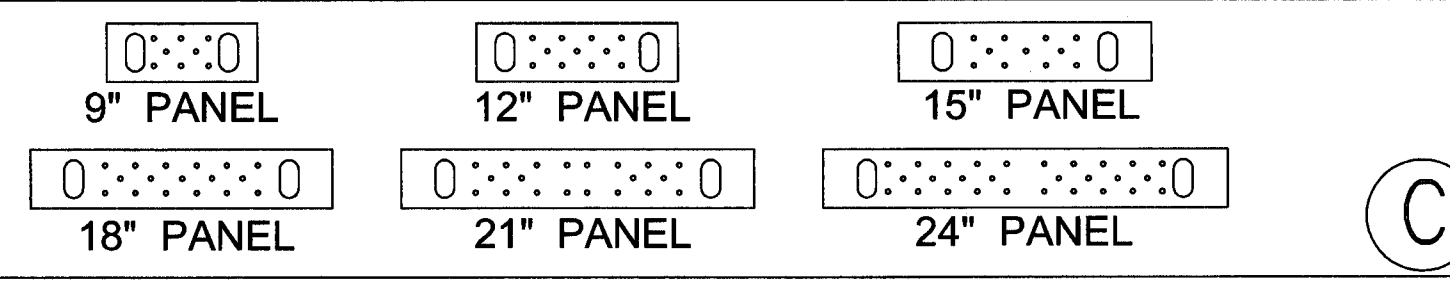
BALLOON PANELS

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-15,18,21 & 24x14	164-1/4			15" Width = 8	
HFX-15,18,21 & 24x15	176-1/4			18" Width = 10	6
HFX-15,18,21 & 24x16	188-1/4			21" Width = 12	
HFX-15,18,21 & 24x17	200-1/4	3-1/2	1-1/8	24" Width = 14	7
HFX-15,18,21 & 24x18	212-1/4				
HFX-15,18,21 & 24x19	224-1/4				
HFX-15,18,21 & 24x20	236-1/4				8

- 1) Hold down bolts connect to the Panel base with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 Hex Nut on each rod or as specified by the Building Design Professional.
- 2) 1/4" diameter USP-WS Series screws (or equal). Length is 3" (minimum) when attached directly to the collector and 4-1/2" (minimum) when installing a 2x filler above the Panel.
- 3) Adjacent framing with 1/4" diameter screws is required at the edges when installing a 4X filler above or when specified by the Design Professional.

INSTALLATION INSTRUCTIONS

- When installing directly on concrete, place Panel over bolts and connect with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 or 2H Heavy Hex Nut. Secure with a deep socket (recommended) until "Snug Tight".
- If bottom connection is not detailed on plans, confirm with Design Professional before installing on Nuts & Washers or on a Mudsill.
- Use 1/4"x4-1/2" USP-WS Series screws (or equal) at top connections with a 2x filler. If the top of Panel is in direct contact with the collector above (top plates, header, beam, etc.) use 1/4 x 3" (minimum).
- For installations with a 4x filler above 1/4" diameter screws are required at the Panel edges to brace for the out-of-plane hinge or when they are specified by the Design Professional.



- NOTES:**  
 1) SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH # 10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.  
 2) ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH # 12 SELF-TAPPING SCREWS.  
 3) STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.  
 4) STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAGE.

REVISIONS	DATE

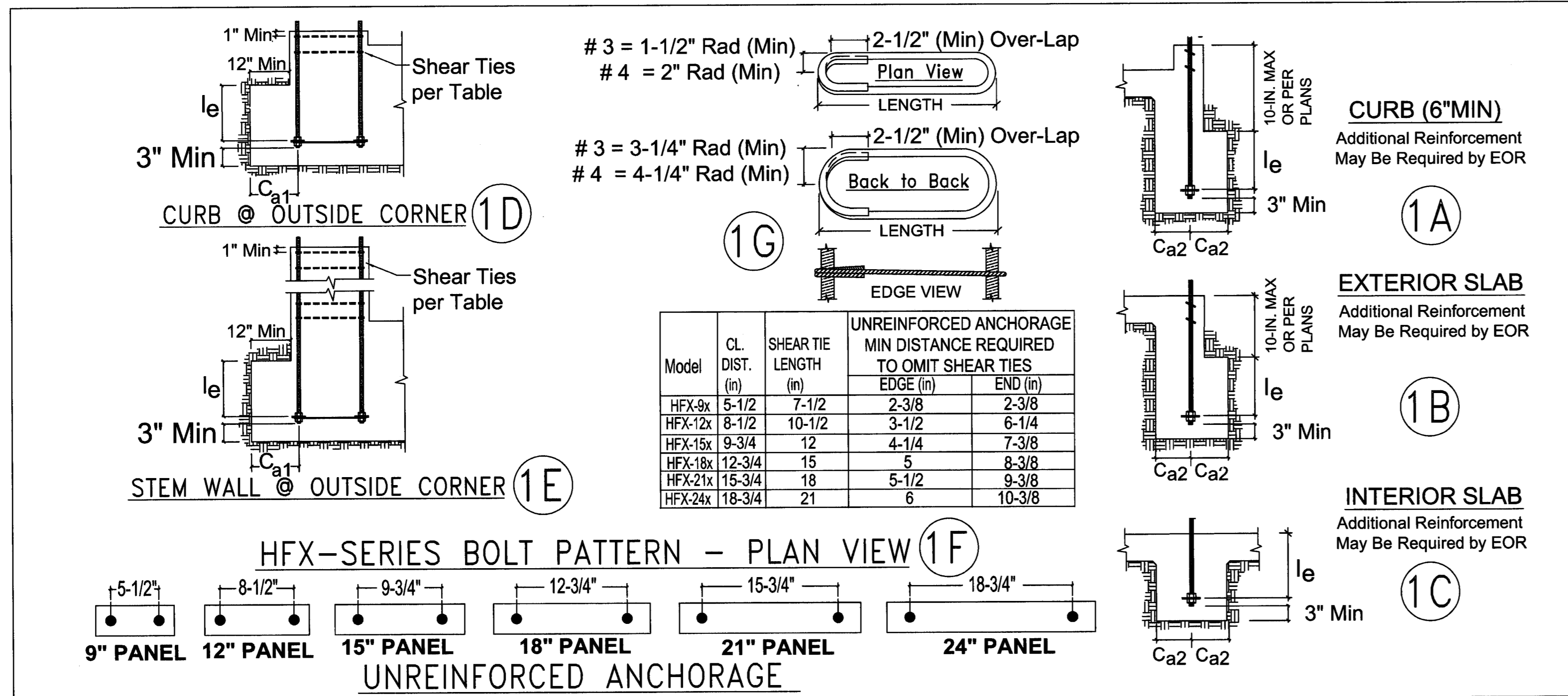
HFX-Series Panels Typical Framing Details  
 THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

**HARDY FRAME**  
 A MiTek Company  
 1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
 TELEPHONE: 800 754-3030 / www.hardyframe.com



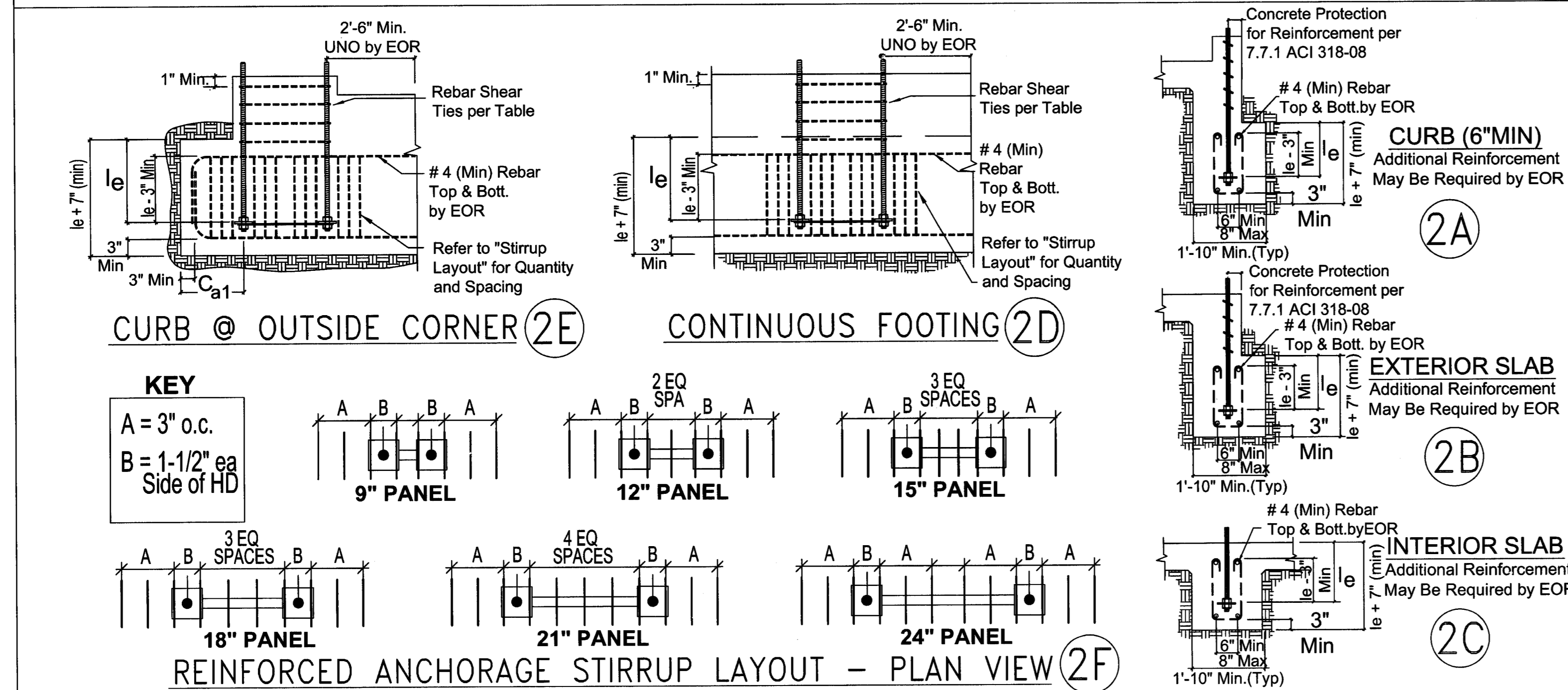
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**HFX2 FRMG**



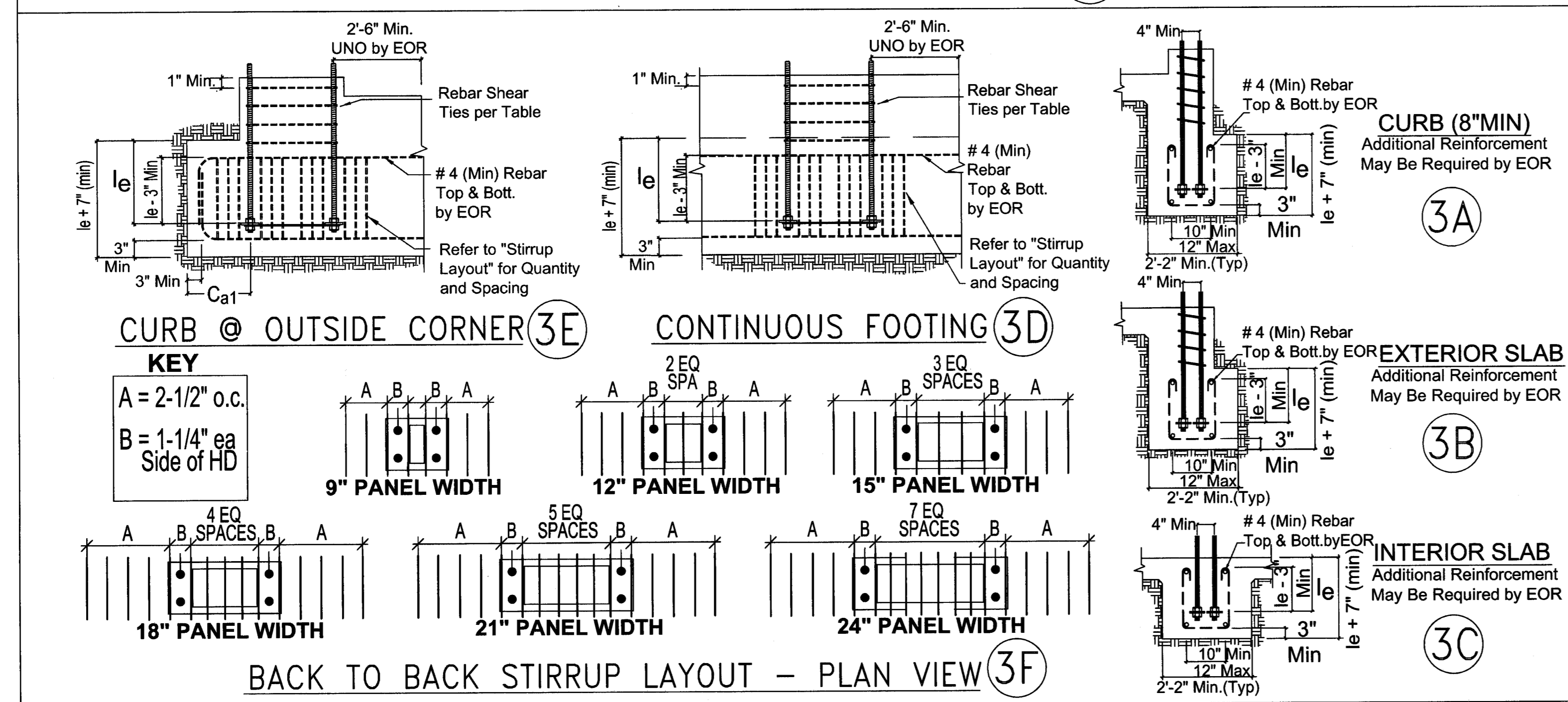
Panel Width	Panel Height	Anchorage 1	Rod Dia (in)	Rod 2,3 Grade	le 4 (in)	Ca1 5,6 & Ca2 (in)	Shear Tie Qty & Size 7,8
HFX-9x	79.5'-8"	1-1/8-STD-13-19		STD	13	19	1 - # 3
HFX-12x	78"-10"	1-1/8-HS-20-30		HS	20	30	
HFX-15x, 18x	78"-13"	1-1/8-STD-14-20	1-1/8	STD	14	20	2 - # 3
HFX-15x, 18x Balloon	14'-20"	1-1/8-HS-20-30		HS	20	30	
HFX-21x, 24x	78"-13"	1-1/8-STD-14-20	1-1/8	STD	14	20	2 - # 3
HFX-21x, 24x Balloon	14'-20"	1-1/8-HS-23-34		HS	23	34	

**UNREINFORCED ANCHORAGE NOMENCLATURE**  
 1-1/8 - STD -14-20  
 L<sub>Ca1</sub> Ca<sub>2</sub>  
 ROD GRADE  
 ROD DIAMETER



Model	Panel Width (in)	Anchorage 1	Rod Dia (in)	Rod 2,3 Grade	le 4 (in)	Ca1 5 (in)	Ca2 6 (in)	Stirrups 9 (ea)	Shear Tie Sz & Spa 7,8
HFX-9x	9	1-1/8-STD-RA		STD				8 - # 3	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-RA		STD				9 - # 3	
HFX-15x	15	1-1/8-STD-RA	1-1/8	STD				10 - # 4	# 3 (min) @ 4" OC
HFX-18x	18	1-1/8-STD-RA		HS	15			11	10 - # 4
HFX-21x	21	1-1/8-STD-RA	1-1/8	STD				11 - # 4	
HFX-21x	21	1-1/8-HS-RA		HS	20-5/8				11 - # 4
HFX-24x	24	1-1/8-STD-RA	1-1/8	STD				12 - # 4	# 4 (min) @ 4" OC
HFX-24x	24	1-1/8-HS-RA		HS	20-5/8				12 - # 4

**REINFORCED ANCHORAGE NOMENCLATURE**  
 1-1/8 - STD -RA  
 REINFORCED ANCHORAGE  
 ROD GRADE  
 ROD DIAMETER

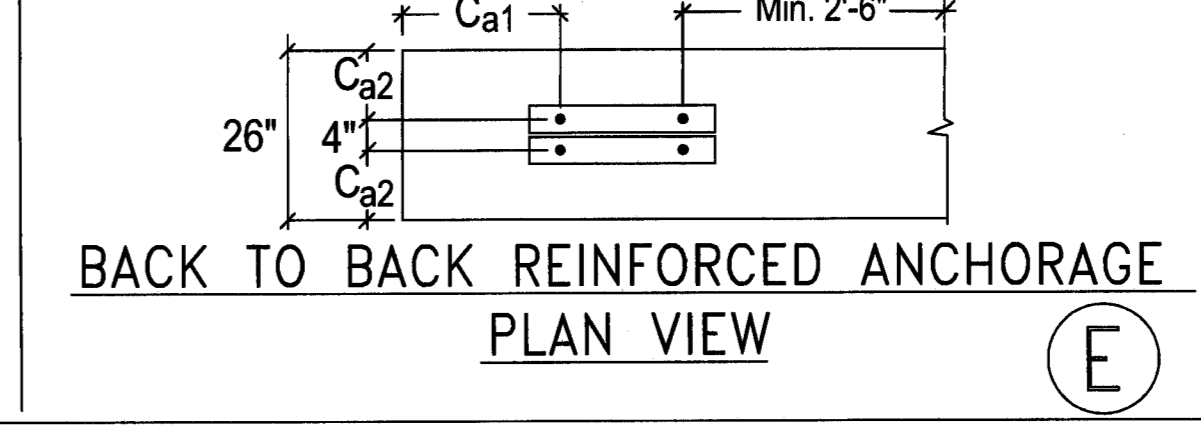
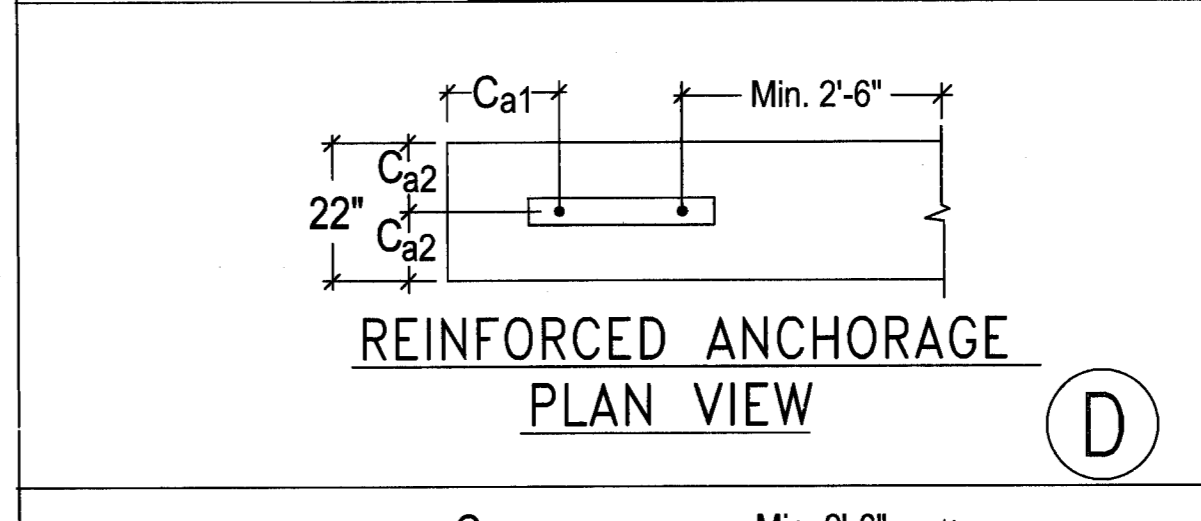
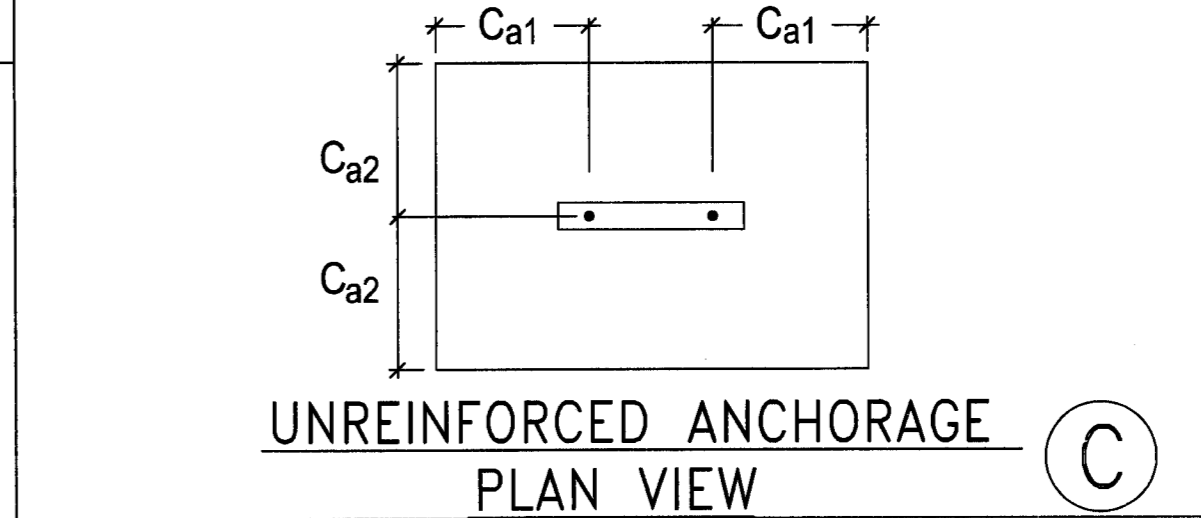
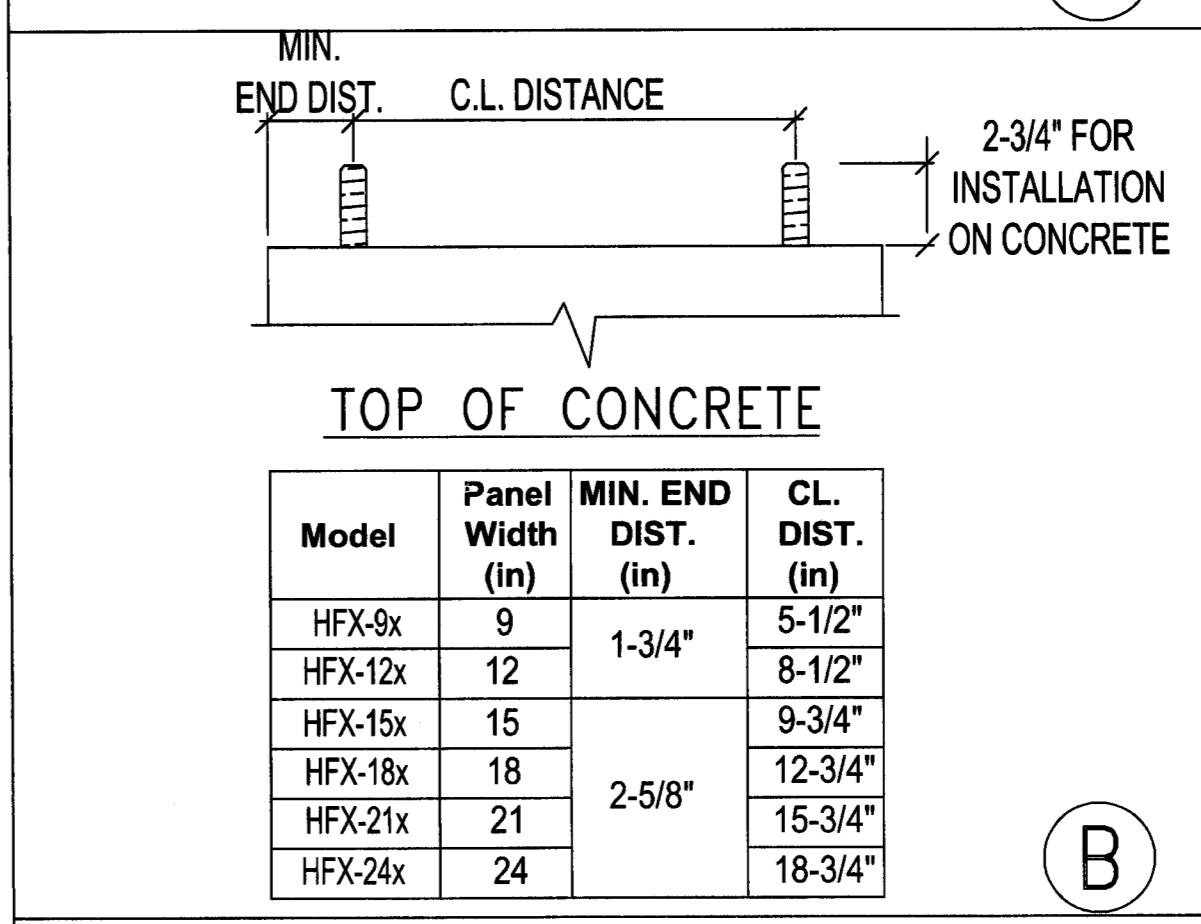


Model	Panel Width (in)	Anchorage 1	Rod Dia (in)	Rod 2,3 Grade	le 4 (in)	Ca1 5 (in)	Ca2 6 (in)	Stirrups 9 (ea)	Shear Tie Sz & Spa 7,8
HFX-9x	9	1-1/8-STD-BB-RA		STD	13			8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-HS-BB-RA		HS	18			11 - # 4	# 3 (min) @ 4" OC
HFX-15x	15	1-1/8-STD-BB-RA	1-1/8	STD	20			12 - # 4	
HFX-18x	18	1-1/8-HS-BB-RA		HS	23			11	15 - # 4
HFX-21x	21	1-1/8-STD-BB-RA	1-1/8	STD	26			16 - # 4	
HFX-21x	21	1-1/8-HS-BB-RA		HS	20-5/8				16 - # 4
HFX-24x	24	1-1/8-STD-BB-RA	1-1/8	STD	26			18 - # 4	
HFX-24x	24	1-1/8-HS-BB-RA		HS	20-5/8				18 - # 4

**BACK TO BACK REINFORCED ANCHORAGE NOMENCLATURE**  
 1-1/8 - STD -BB - RA  
 REINFORCED ANCHORAGE  
 "BACK TO BACK" INSTALLATION  
 ROD GRADE  
 ROD DIAMETER

**TABLE NOTES**

- Designs are based on ACI 318 for 2500 psi concrete to resist shear and tension loads when subjected to the allowable seismic and wind load for the corresponding Panel being anchored.
- STD indicates HD rods complying with ASTM F1554 Grade 36 with a Hardy Frame Bolt Brace (HFXBB) installed with double nuts on the embed end.
- HS indicates HD rods complying with ASTM A193 Grade B7 with a 1/2"x3"x3" (Min) Plate Washer installed with double nuts on the embed end (HFXBB not required).
- le = length of embedment from the top of footing or grade beam to the top of the HFXBB Bolt Brace (top of the embedded Plate Washer @ HS anchors)
- Ca1 = distance from HD CL to the end of the footing or grade beam at outside corner conditions.
- Ca2 = distance from HD CL to both the front and the back face of the footing or grade beam.
- For Unreinforced and Reinforced, curbs and stemwalls must be 6 inch width (min). For Back to Back Reinforced curbs and stemwalls must be 8 inch width (min) and require supplemental shear reinforcement per ACI-318-08, f<sub>c</sub> = 2500 psi
- Stirrups are Grade 60 (Min) rebar and are required at curbs and stem walls for near edge distance conditions. Stem wall conditions may require additional ties. Shear Ties are not required for installation away from foundation edge, installation on wood framing, or for IRC Braced Wall Panel applications
- Stirrups are Grade 60 (Min) rebar. See table for size and spacing, see "Stirrup Layout" diagrams for layout pattern with corresponding Panel being installed.
- Concrete Edge Distances must comply with ACI 318-08 D8.2
- The EOR is responsible for foundation design and is permitted to design the anchorage



REVISIONS DATE

**HFX Series Panels-Typ Anchorage Details**

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

**HARDY FRAME**  
 A MiTek Company  
 1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
 TELEPHONE: 800 754-3030 / www.hardyframe.com

DATE:  
 4-1-2014

**HFX1 ANCH**