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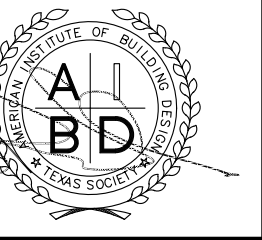
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REDRAW # E9016-A1.1			
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PRODUCTION 3:	DATE:	CHECKED:	DATE:
XXX	X-X-XX	XXX	X-X-XX

CODE INFORMATION	
<b>BUILDING CODE:</b>	2021 I.R.C. WITH CITY OF HOUSTON AMENDMENTS
<b>OCCUPANCY:</b>	GROUP R-3 SINGLE FAMILY HOME
<b>BUILDING CONSTRUCTION TYPE:</b>	TYPE V-B NON-RATED
<b>FIRE PROTECTION:</b>	GROUP R-3 LESS THAN 4-STORIES NO FIRE SPRINKLER SYSTEM REQUIRED
<b>ALLOWABLE HEIGHT:</b>	2021 IBC, TABLE 503: 3 TOTAL FLOORS WITH MAXIMUM HEIGHT OF 50'-0"

**SCOPE OF WORK**  
 A NEW 3-STORY SINGLE FAMILY DETACHED DWELLING WITH A 2-CAR ATTACHED GARAGE ACCESSED FROM A PRIVATE DRIVE.

Plan Name **B1.1-L-FW2**

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SQUARE FOOTAGES	
FIRST FLOOR:	233
SECOND FLOOR:	807
THIRD FLOOR:	744
TOTAL LIVING AREA:	1784 SF.
GARAGE:	482
PORCH:	12
PORTE-COCHERE:	71
TOTAL SLAB:	798 SF.
TOTAL AREA:	2349 SF.

**TREEHOUSE DEVELOPMENT**  
 AMUNDSEN PALMS REPLAT NO 1 LT 1 & 2 BLK 1  
 4504 & 4506 TERRY ST  
 HOUSTON, TX 77009

PWA Project Number: **1** of **10**  
**F2212-A1.1-L-v1**  
 PERMIT SET Date: 12 April 2024

**EGRESS REQUIREMENTS 2021 I.R.C.**

R301.1 IRC 2021 EMERGENCY ESCAPE AND RESCUE REQUIRED  
BASEMENTS IN HABITABLE SPACE AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPENABLE EMERGENCY ESCAPE AND RESCUE WINDOW OR EXTERIOR DOOR OPENING FOR EMERGENCY ESCAPE AND RESCUE. WHERE OPENINGS ARE PROVIDED AS A MEANS OF ESCAPE AND RESCUE, THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES (1118mm) ABOVE THE FLOOR.

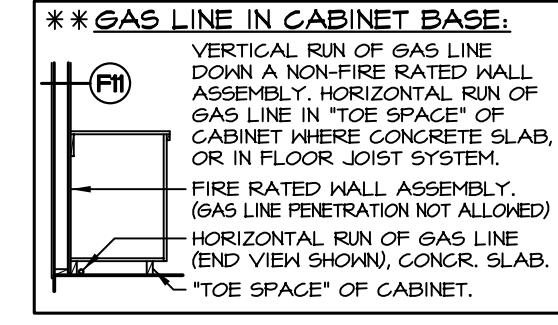
R301.1.1 IRC 2021 MINIMUM OPENING AREA  
ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. (0.530 m<sup>2</sup>).

R301.1.2 IRC 2021 MINIMUM OPENING HEIGHT  
THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24 INCHES (610 mm).

R301.1.3 IRC 2021 MINIMUM OPENING WIDTH  
THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20 INCHES (508 mm).

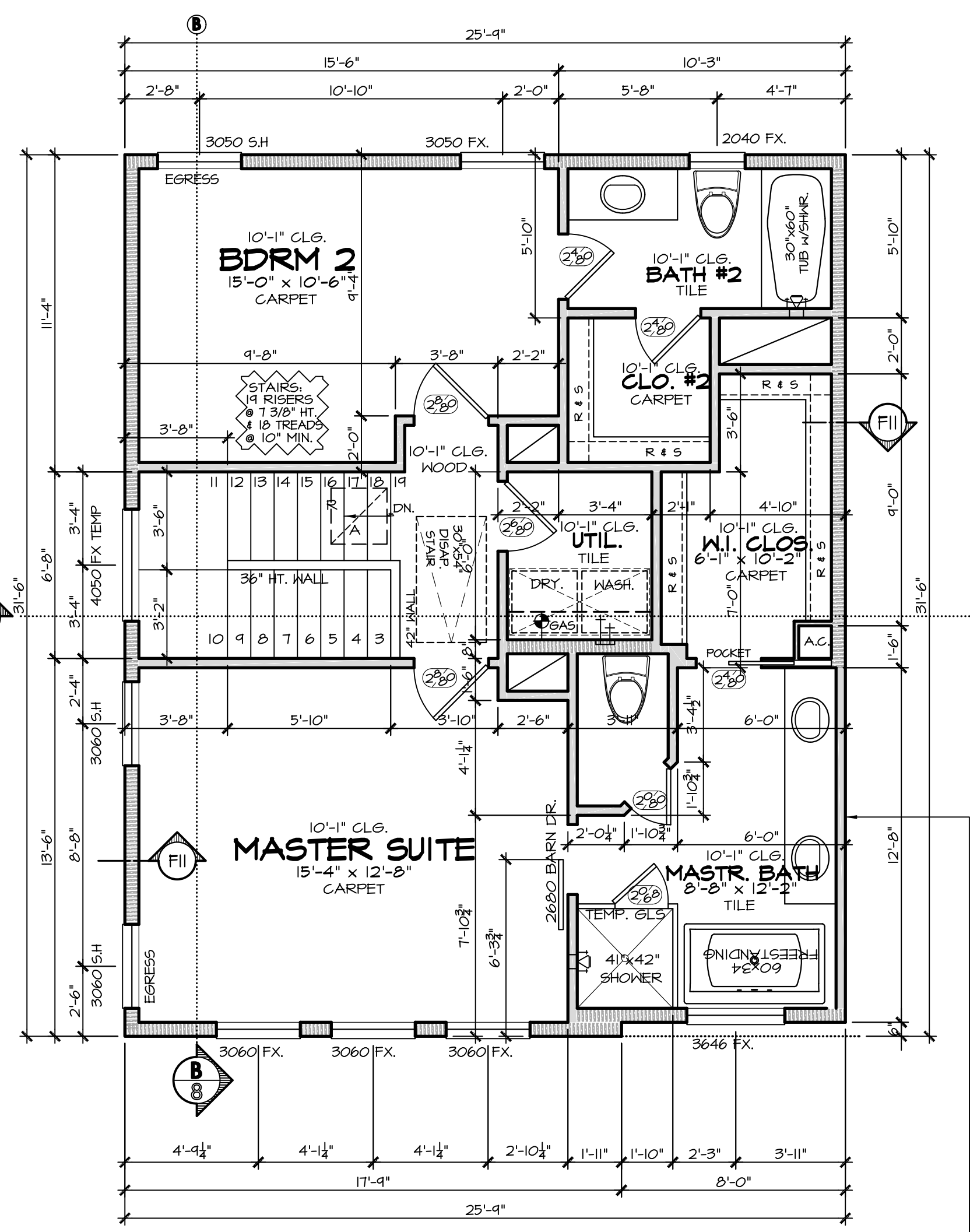
R301.1.4 IRC 2021 OPERATIONAL CONSTRAINTS  
EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS OR TOOLS.

OPERABLE WINDOW SILL HEIGHT - A MINIMUM OF 25" OFF OF FINISH FLOOR HEIGHT AT SECOND FLOOR AND ABOVE.



**FIRE NOTE**

- 1) PROVIDE 5/8" TYPE 'X' GYPSUM BOARD TO THE GARAGE (4 CARPORT) SIDE OF STUDS AND JOISTS.
- 2) INSTALL MINIMUM 1-3/8 IN. SOLID CORE DOOR, OR SOLID OR HONEYCOMB STEEL DOOR 1-3/8 IN. THICK, OR 20 MIN. FIRE RATED DOOR WITH SELF CLOSING HARDWARE FROM GARAGE AREA TO CONDITIONED AREA. (R304.1)
- 3) UNRATED DISAPPEARING STAIRS IN GARAGES TO HAVE MIN. 3/8" THICK FIRE RETARDANT PLYWOOD OR MIN. 1/8 GA. SHEET METAL.
- 4) PROVIDE 5/8" TYPE 'X' GYPSUM BOARD TO ENCLOSED AREAS LOCATED UNDER ALL STAIRS.

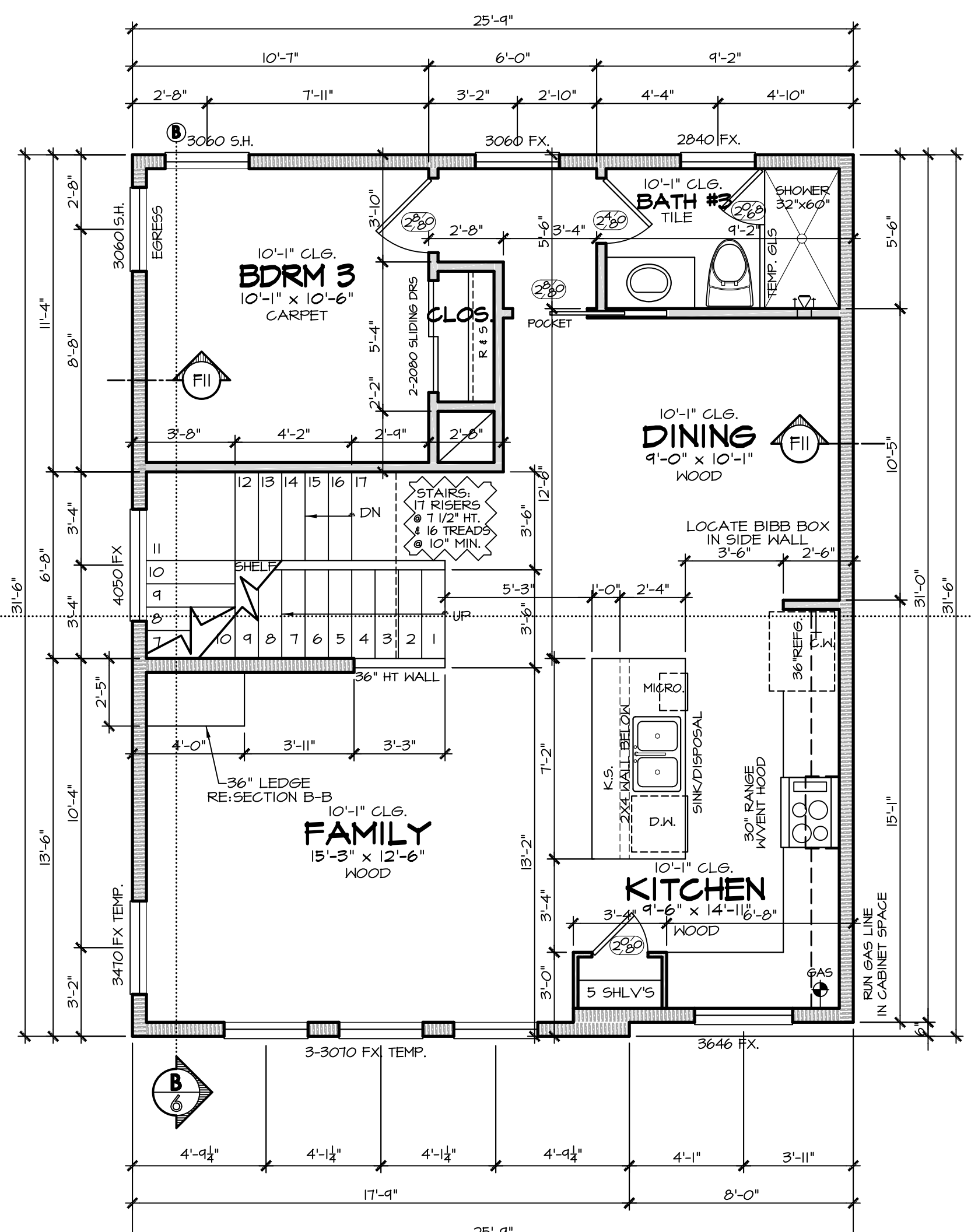


**FIRE RESISTIVE CONSTRUCTION:**  
BEFORE INSTALLING SECONDARY (MURS) WALL, APPLY 5/8" TYPE 'X' GYPSUM BOARD TO THE INTERIOR SIDE OF EXTERIOR WALL. PVC WASTEWATER PIPES NOT ALLOWED TO PENETRATE THE TYPE 'X' GYPSUM.

## 3RD FLOOR PLAN

SCALE: 1/4" = 1'-0"  
10'-1" STUD HT. WITH 2 X 4'S @ 16" O.C. TYPICAL. U.N.O. (UNLESS NOTED OTHERWISE.)  
PRIMARY FLOOR COVERING: CARPET U.N.O.  
FIELD VERIFY ALL TRANSOMS.  
FLOOR SYSTEM: 18" OPEN WEB TRUSS  
PROVIDE PAN W/ 2" DRAIN TO OUTSIDE UNDER WASHING MACHINE.  
WATER HEATER LOCATED IN ATTIC

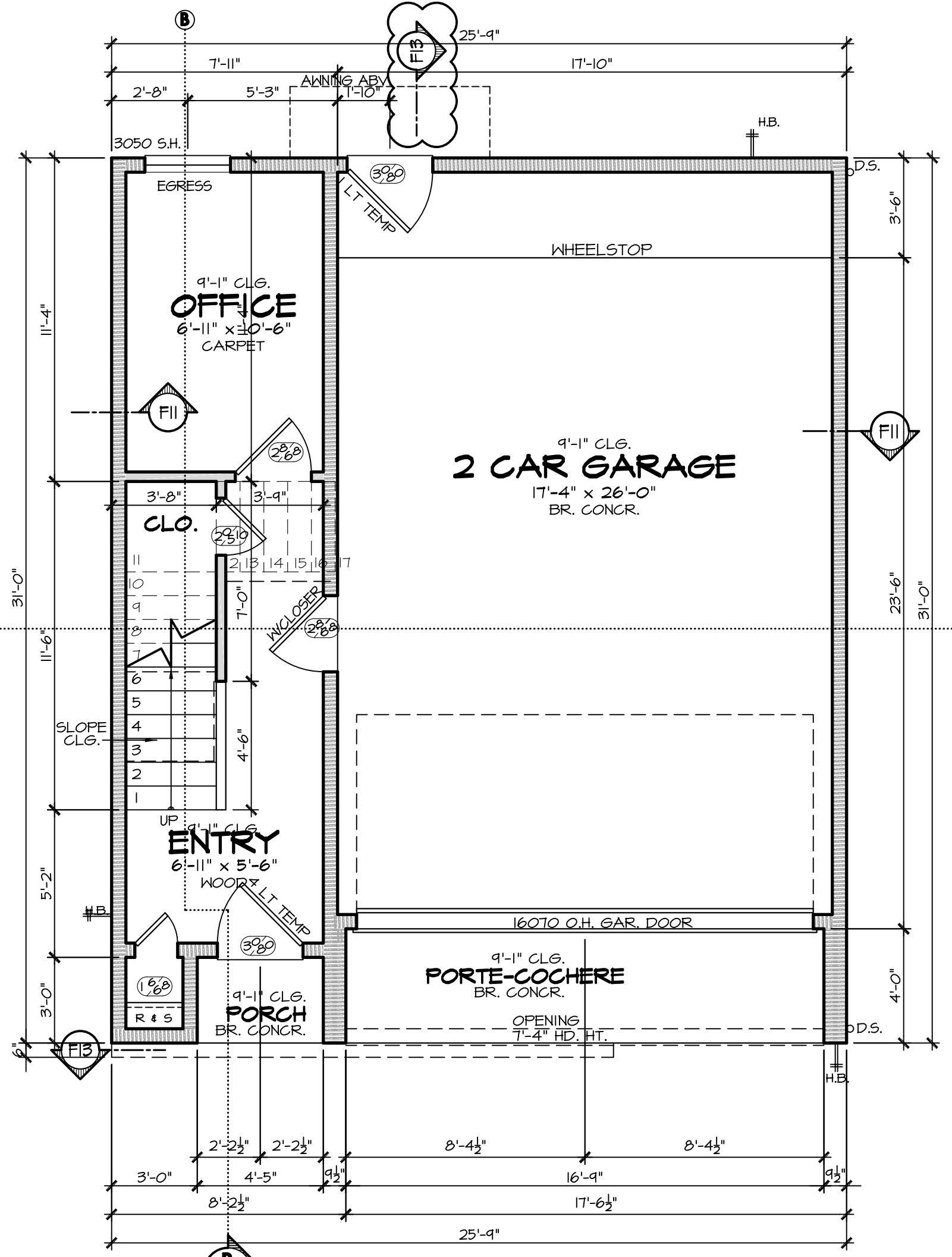
\*BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE.



## 2ND FLOOR PLAN

SCALE: 1/4" = 1'-0"  
10'-1" STUD HT. WITH 2 X 6'S @ 16" O.C. TYPICAL. U.N.O. (UNLESS NOTED OTHERWISE.)  
PRIMARY FLOOR COVERING: WOOD U.N.O.  
FIELD VERIFY ALL TRANSOMS.  
FLOOR SYSTEM: 18" OPEN WEB TRUSS

\*BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE.



## 1ST FLOOR PLAN

SCALE: 1/4" = 1'-0"  
9'-1" STUD HT. WITH 2 X 6'S @ 16" O.C. TYPICAL. U.N.O. (UNLESS NOTED OTHERWISE.)  
PRIMARY FLOOR COVERING: WOOD U.N.O.  
FIELD VERIFY ALL TRANSOMS

\*BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE.



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XXX	X-X-XX	XXX	X-X-XX

**SCHEDULES** BUILDER AND/OR OWNER TO FILL OUT THE FOLLOWING:

**DOOR SCHEDULE:** SIZE AS NOTED ON PLANS.  
EXTERIOR DOORS ARE 1 3/4" SOLID CORE.  
INTERIOR DOORS ARE 1 3/8" SOLID OR HOLLOW CORE.  
DOOR GLAZING TO BE SAFETY GLASS.  
FRAME TYPE: SIZE AS NOTED ON PLANS.  
FRAME COLOR: \_\_\_\_\_  
GLAZING: \_\_\_\_\_  
EXTERIOR TRIM: \_\_\_\_\_  
INTERIOR TRIM: \_\_\_\_\_

**ROOM FINISH SCHEDULE:**  
TILE FLOORS AT ALL WET AREAS. TILE HALLS AT TB. FILL TILE WALLS AND FLOOR IN SHOWER STALL. SYNTHETIC MARBLE OR S.M. COUNTER TOPS AND SPLASHES.  
ALL CASED OPENINGS TO HAVE SHEETROCK RETURN.  
RE: BUILDER/OWNER FOR USE OF WOOD CO. RETURNS.  
- OR - AS NOTED ON PLANS.  
- OR - AS NOTED IN DETAILED SPECS. BETWEEN OWNER & BUILDER.

**PLAN NOTES** REFERENCING THE 2021 IRC WITH CITY OF HOUSTON AMENDMENTS

- 1) DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE. CONTRACTOR TO VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND NOTIFY PRESTON WOOD & ASSOCIATES, L.L.C. OF ANY VARIATIONS FROM THE DIMENSIONS OR CONDITIONS SHOWN ON THESE DRAWINGS. PRESTON WOOD & ASSOCIATES, L.L.C. WILL NOT BE HELD RESPONSIBLE FOR THE CONTENTS PRESENTED BY THIRD PARTY CONSULTANTS (M.E.P., CIVIL, STRUCTURAL, ETC.).
- 2) ALL WRITTEN NOTES ON THESE DRAWINGS SHALL TAKE PRECEDENCE OVER THE MINIMUM STANDARD NOTES DETAILED ON THE LAST SHEET OF THESE DRAWINGS.
- 3) CEILING HEIGHTS TAKEN FROM WHERE THE NOTE IS LOCATED ON THE PLAN.
- 4) ALL FLOOR DRAINS TO HAVE OVERFLOW PAN WITH RELIEF LINE TO OUTSIDE OR STORM SEWER (DO NOT CONNECT TO SANITARY SEWER).
- 5) PROVIDE PLUMBING ACCESS PANEL AT ALL BATHUBS PER IRC 2021 SECT. P2704.1.
- 6) ALL GLASS AT TUBS AND SHOWERS SHALL BE TEMPERED SAFETY GLASS AND TO COMPLY WITH IRC 2021 SECT. R308.
- 7) SEE STAIR NOTES AND DETAILS - LAST SHEET. CONFORM TO IRC 2012, SECTIONS R311.5.6 AND IBC 2012, CITY OF HOUSTON AMENDMENTS, SECTION 1003.3.11, EXCEPTION 4. PROVIDE CONTINUOUS RAILINGS WHEN THERE ARE 4 OR MORE RISERS.
- 8) PROVIDE ATTIC ACCESS WITH A MINIMUM CLEAR OPENING OF 22"x30". PROVIDE MINIMUM HEAD CLEARANCE OF 30". WHERE SERVING MECHANICAL EQUIPMENT, THE MINIMUM SIZE OF A FULL-DOWN STAIRS IS 30"x54", AND HAVE A MINIMUM LOAD CAPACITY OF 350 LBS. SEE IRC 2021SECT. R807 AND SECT. M305.1.3.
- 9) LOCATE WATER HEATER(S) IN ATTIC ABOVE A LOAD BEARING PARTITION, IN A PAN, WITH A RELIEF LINE TO OUTSIDE OR STORM SEWER LINE. INSTALLATION TO CONFORM WITH IRC 2021SECT. P2803.
- 10) LOCATE H.V.A.C. EQUIPMENT IN ATTIC.
- 11) PROVIDE 24" WIDE PLYWOOD WALKWAY TO ACCESS ALL MECHANICAL EQUIPMENT LOCATED IN ATTIC. MAXIMUM DISTANCE FROM ATTIC ACCESS TO EQUIPMENT SHALL NOT EXCEED 20'-0". PROVIDE A 30" WIDE SERVICE PLATFORM AT SERVICE SIDE OF ALL EQUIPMENT IN ATTIC.
- 12) ALL INSULATION SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY RATING NOT TO EXCEED 450. SEE IRC 2021SECT. R3201.
- 13) PROVIDE ADEQUATE FURRINS 50 VENT AND SOIL PIPES DO NOT PENETRATE FLATES. ALL PLUMBING VENTS SHALL EXIT THROUGH A ROOF FLARE THAT SLOPES TO THE BACK.

**SYMBOLS**

	<b>SECTION CUTS</b>		<b>CABINET &amp; WALL ELEVATIONS</b>		<b>FIRE WALL TYPE</b>
	<b>SHEET LOCATION</b>		<b>SHEET LOCATION</b>		<b>DETAIL LOCATED LAST SHEET (U.N.O.)</b>

**LINE LEGEND**

	<b>WALLS:</b>		<b>CLOSETS:</b>
4" STUD WALL		WALL	
6" STUD WALL		ROD & SHELF	
	<b>CEILING:</b>		<b>CABINETS:</b>
DESIGNATION FOR FURRED DOWN CLG.		WALL	
DESIGNATION FOR OPEN FRAMING ABOVE (STAIR VOIDS & OPENINGS).		18" ABOVE COUNTERTOP TYP.	
		COUNTERTOP @ 36" HT. TYP.	

**SQUARE FOOTAGES**

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THIRD FLOOR:	744
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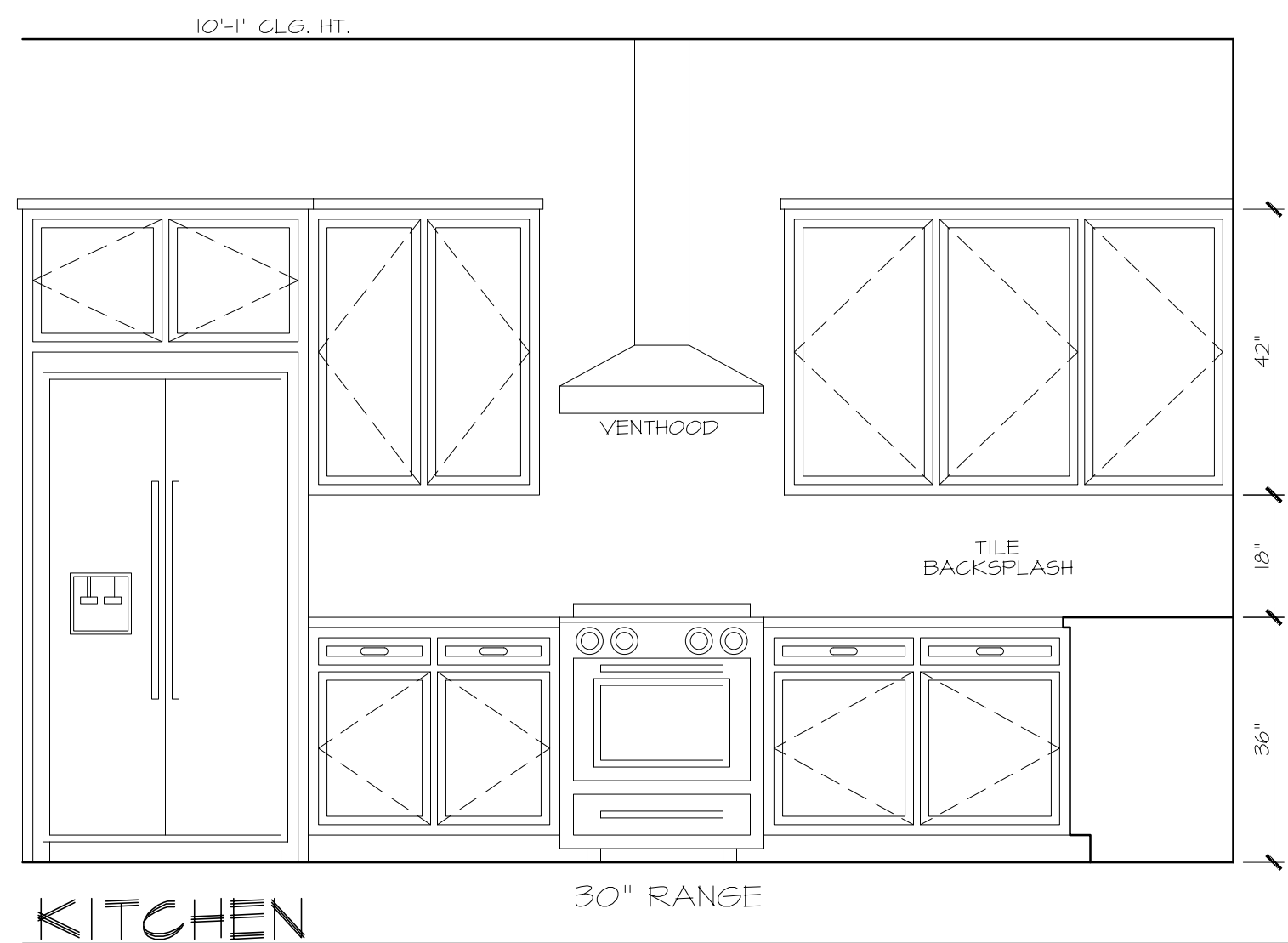




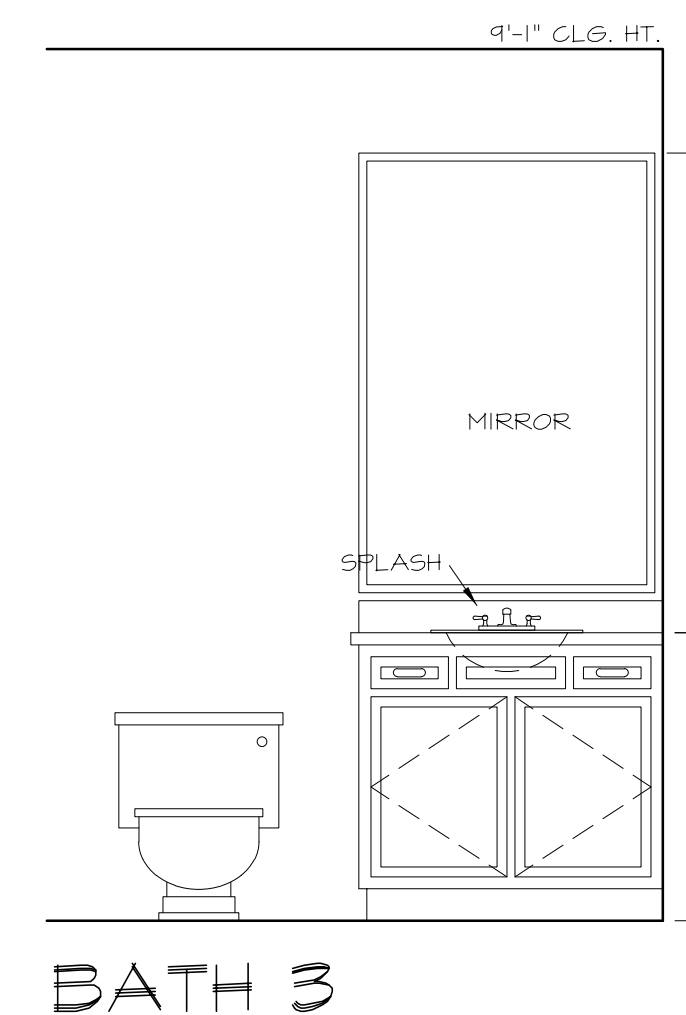
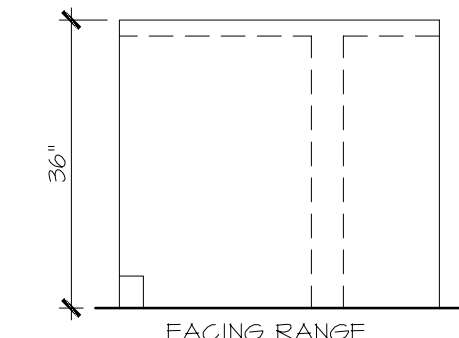
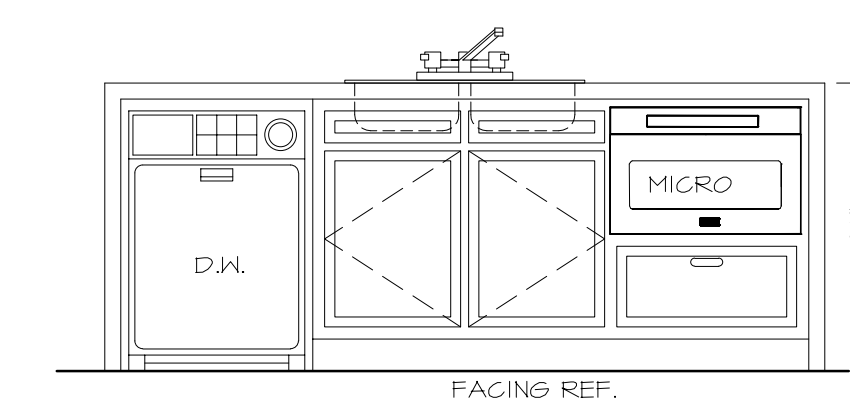
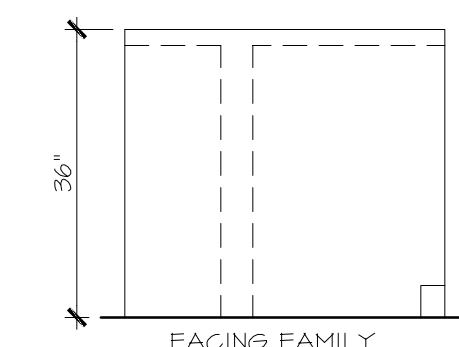
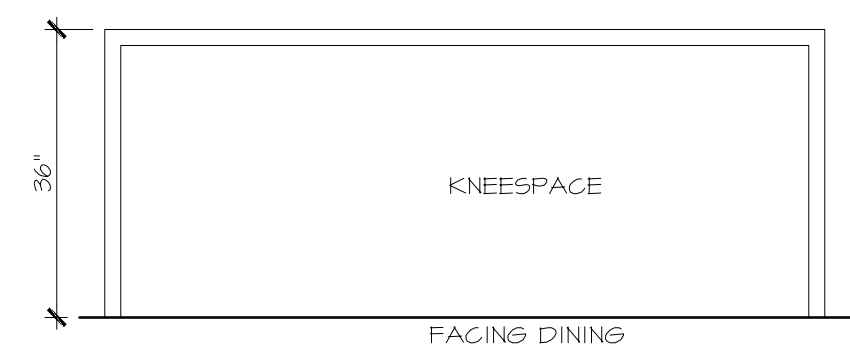
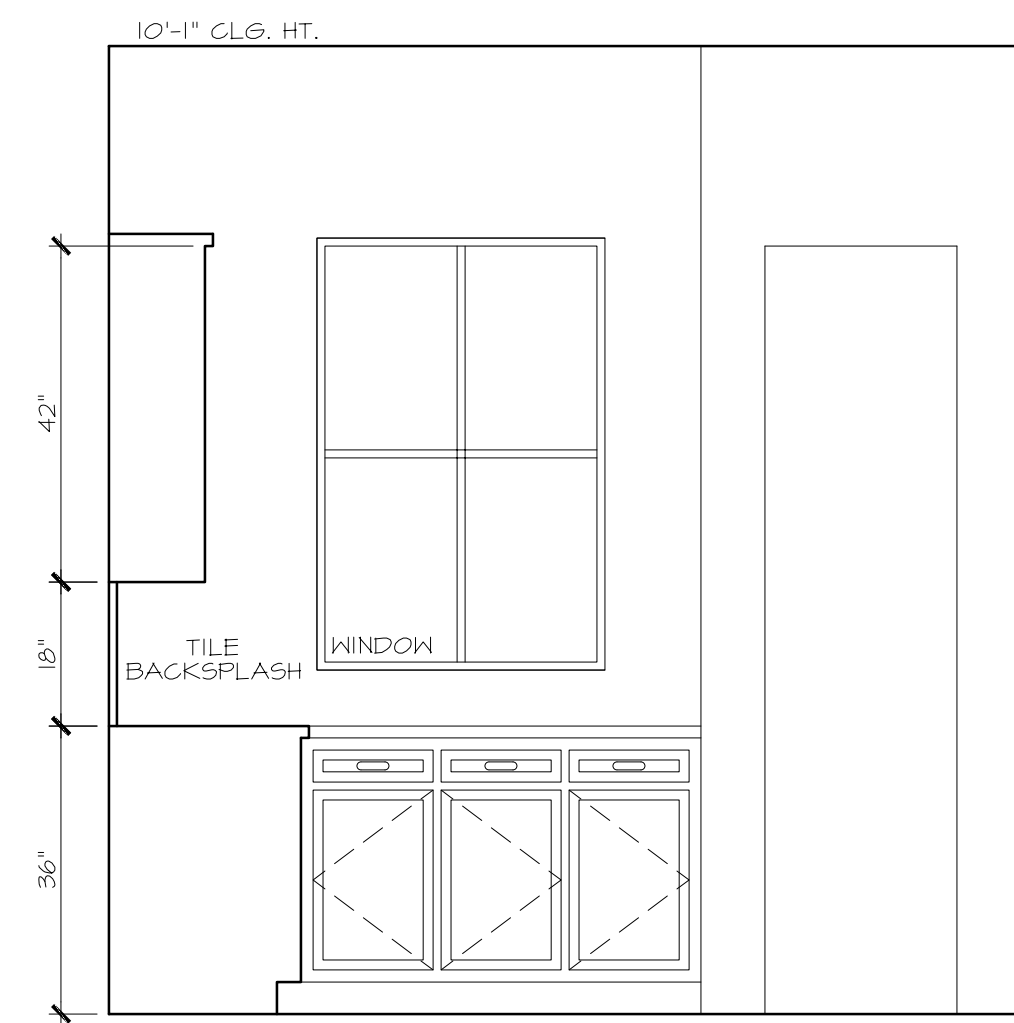


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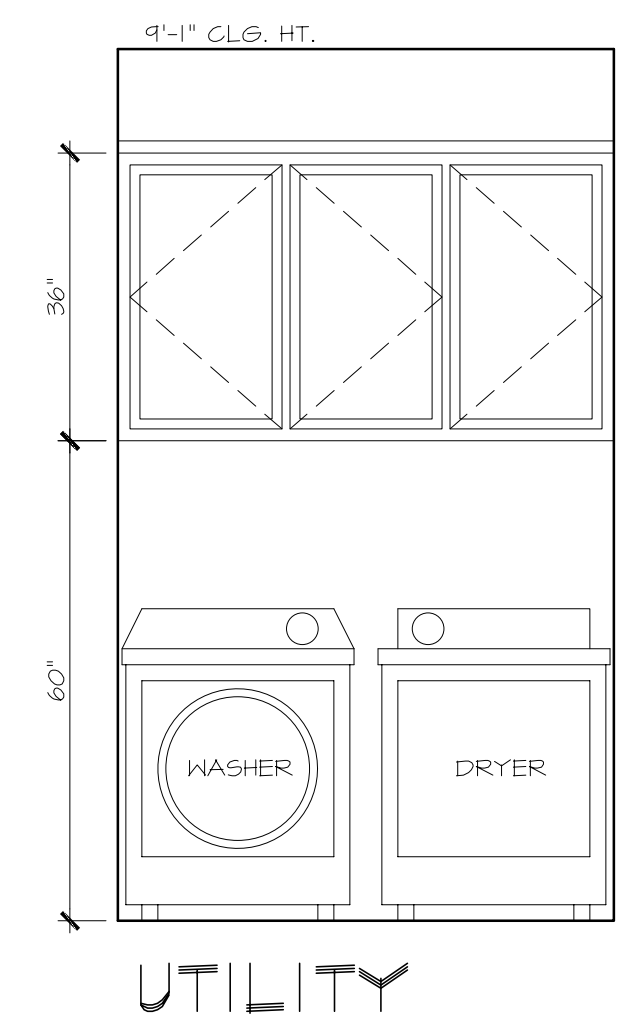
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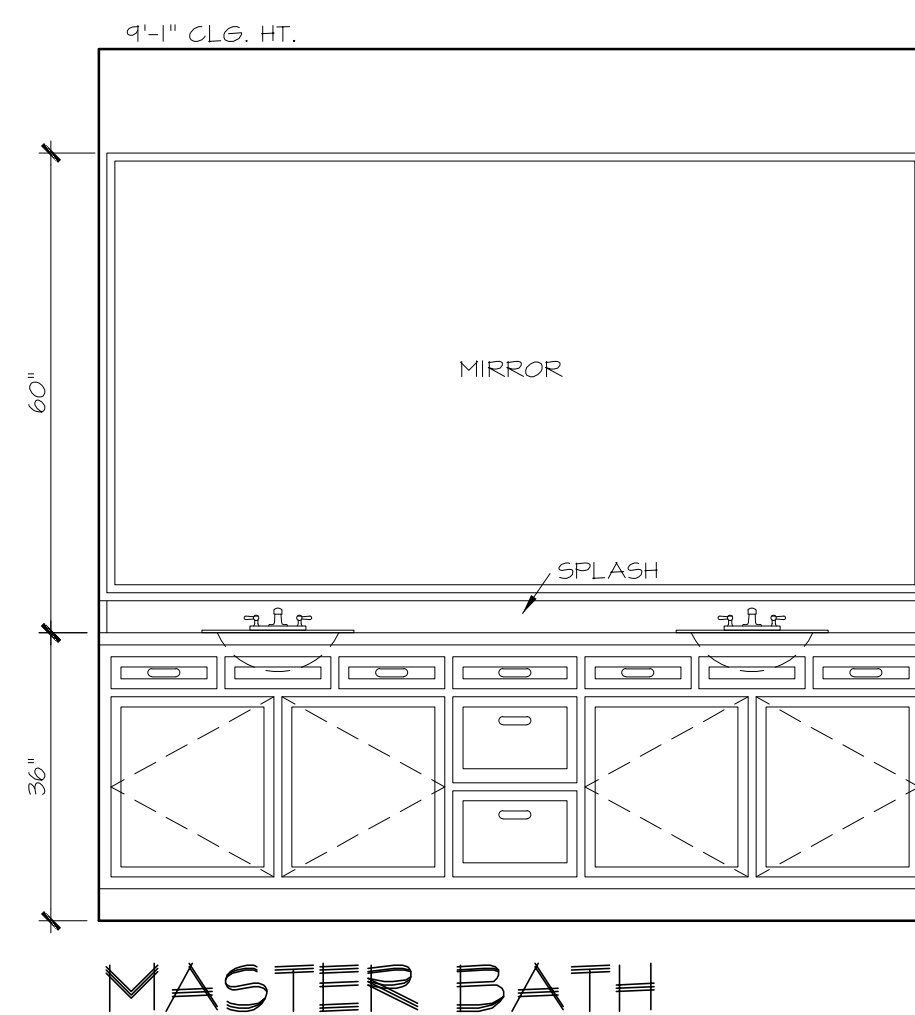
KITCHEN



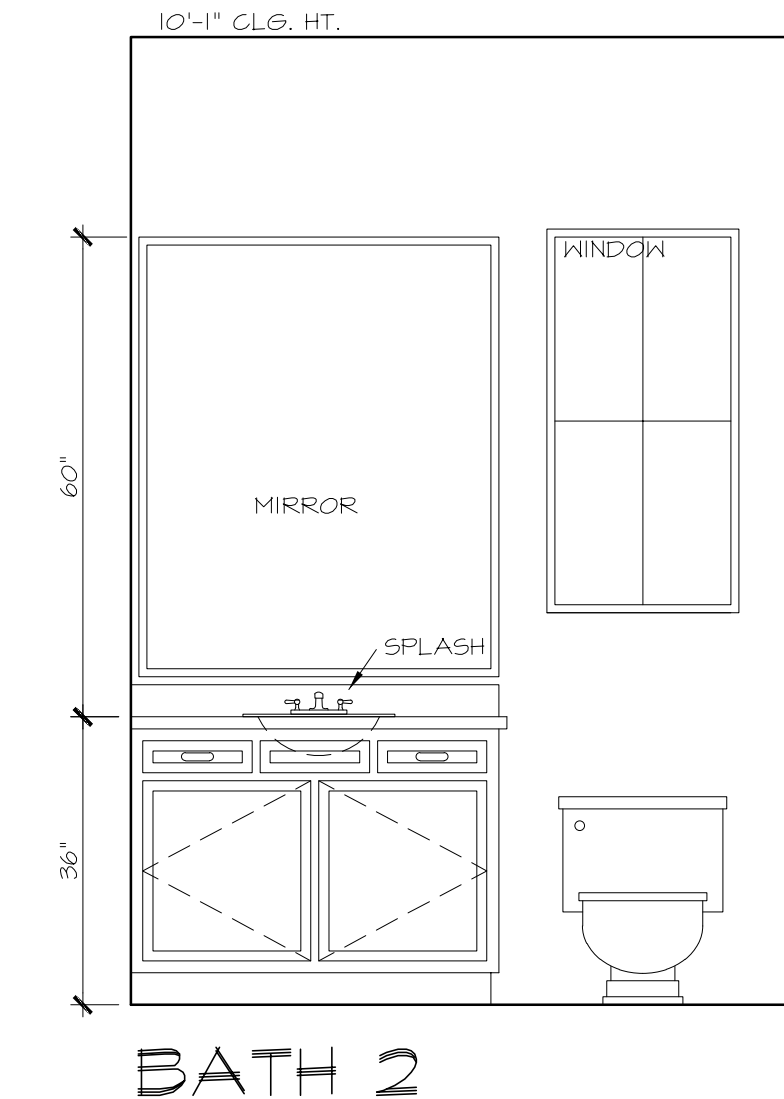
BATH 3



UTILITY



MASTER BATH



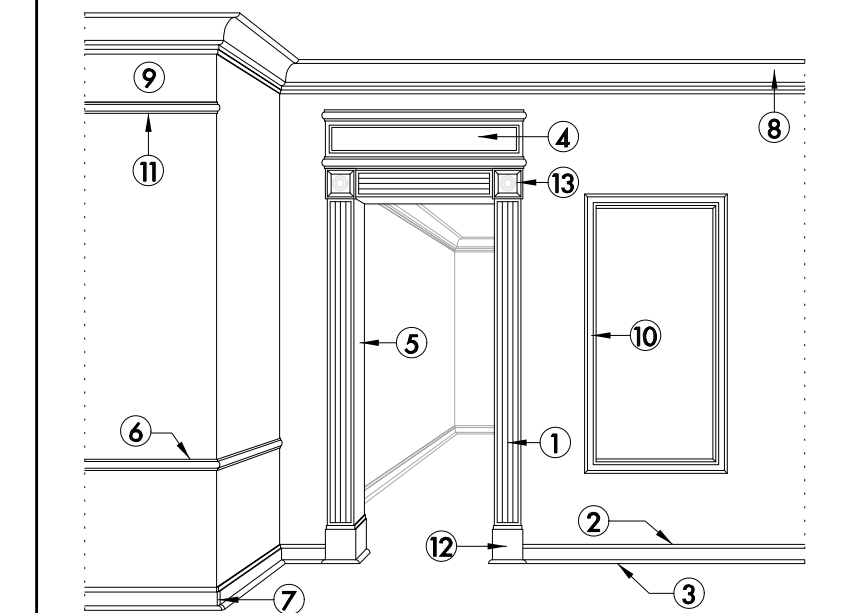
BATH 2



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**MOULDING DEFINITIONS**



1. ARCHITRAVE - THE MOULDED FRAME SURROUNDING A DOOR, WINDOW OR C.O. - ALSO CALLED CASING.
2. BASEBOARD - THE BOARD (PLAIN OR MOULDED) WHICH RUNS AROUND THE BOTTOM OF AN INTERIOR WALL AND COVERS THE JUNCTION OF THE FLOORBOARDS WITH THE WALL.
3. BASEBOARD SHOE - A THIN PIECE OF MOULDING USED TO CONCEAL THE GAP BETWEEN THE BOTTOM OF THE BASEBOARD AND THE FLOOR.
4. CABINET HEAD - IS THE BOXED-IN HEAD AT THE TOP OF AN ARCHITRAVE (DOOR FRAME).
5. CASING - THE INNER PART OF THE FRAME IN WHICH THE DOOR OR WINDOW IS HUNG. IT IS ALSO WHERE THE ARCHITRAVE AND OTHER TRIM DETAILS, SUCH AS STOPS ARE FIXED. THE CASING IS COMPRISED OF THE HEAD & JAMB. SEE ARCHITRAVE DEFINITION.
6. CHAIR RAIL - A HORIZONTAL PIECE (PLAIN OR MOULDED) ATTACHED 32" ABOVE THE FLOOR PARALLEL TO THE BASEBOARD.
7. CORNER BLOCK - A THIN BLOCK (PLAIN OR MOULDED) FOR INSIDE AND OUTSIDE CORNERS, USUALLY THE SAME HEIGHT AS THE BASEBOARD.
8. CROWN MOULDING - ANY MOULDING USED FOR THE CROWNING OR TOP FINISHING MEMBER OF A STRUCTURE. MOST COMMONLY USED IN HIGH CORNERS (WALL & CLG.).
9. FRIEZE - THE SPACE BETWEEN THE CEILING AND THE PICTURE RAILING (BETWEEN THE CROWN AND THE RAIL).
10. PANEL MOULDING - A DECORATIVE (PLAIN OR MOULDED) FLATBACK PIECE USED TO FRAME-OUT A RECTANGLE OR SQUARE ON A WALL.
11. PICTURE RAIL - IS A HORIZONTAL MOULDING WHICH RUNS AROUND A ROOM JUST BELOW THE CEILING.
12. FLINTH BLOCK - A BLOCK OF WOOD PLACED AT THE DOOR MOULDINGS TO SEPERATE THE BASEBOARD FROM THE ARCHITRAVE.
13. ROSETTE - A DECORATIVE (PLAIN OR MOULDED) BLOCK USED AT THE UPPER CORNER OF A DOOR, WINDOW OR C.O. ATTACHED TO THE ARCHITRAVE TO ELIMINATE THE NEED FOR MITERED ARCHITRAVE CORNERS.

**MILLWORK**

SCALE: 1/2" = 1'-0"  
 THE OWNER AND BUILDER TO DETERMINE FINAL MATERIAL MAKEUP AND FINISHES. ALL VIEWS SHOWN ARE SIMPLIFIED FOR CLARITY.

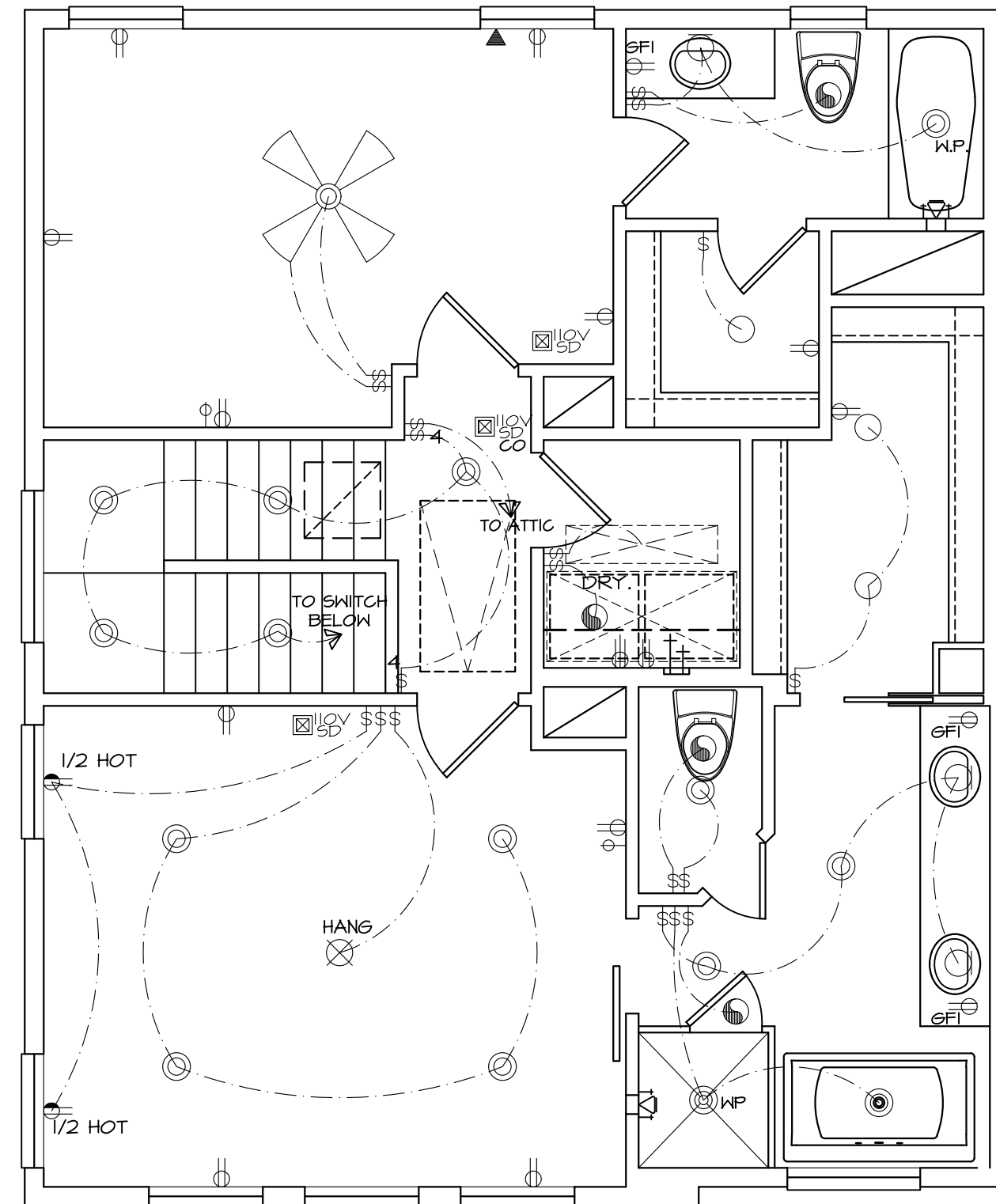


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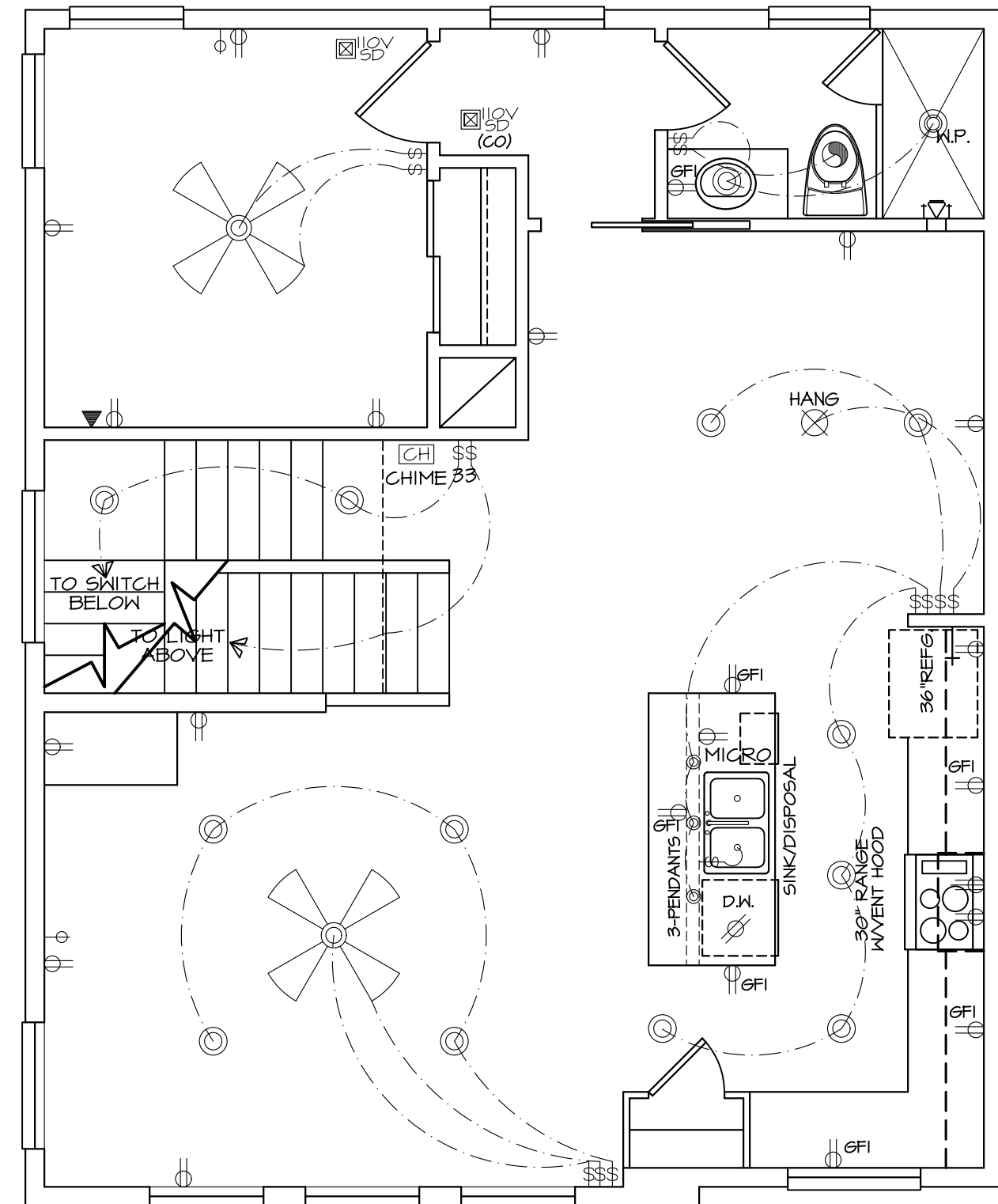
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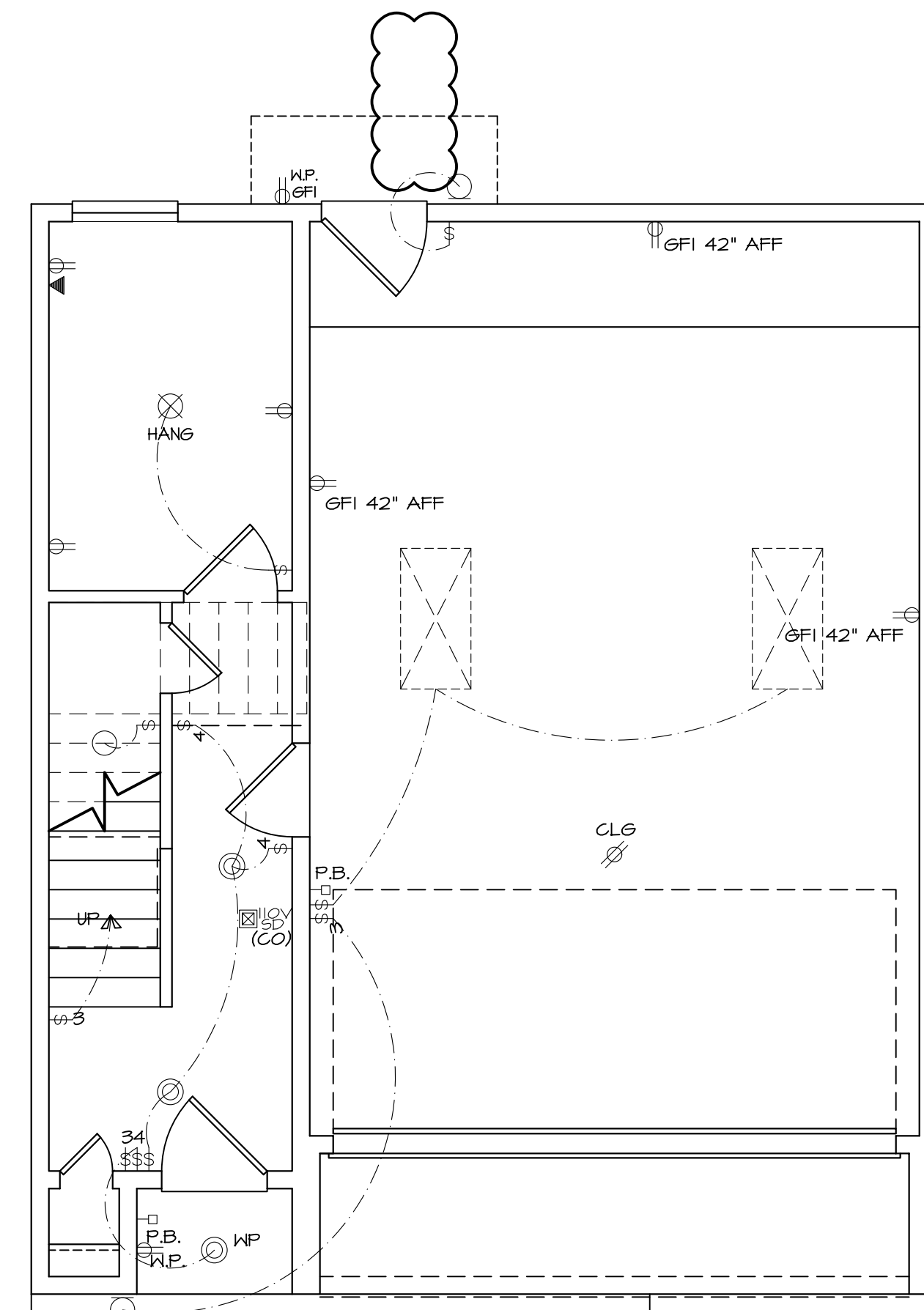
## THIRD FLOOR ELECTRICAL

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



## SECOND FLOOR ELECTRICAL

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

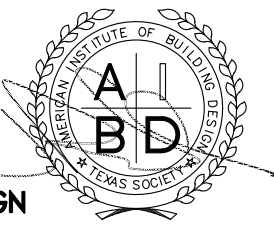


## FIRST FLOOR ELECTRICAL

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### ELECTRICAL SYMBOLS & NOTES

	110 VOLT RECEPTACLE		FLOOD LIGHTS
	110 VOLT HV GROUND FAULT INTERRUPTOR		UNDER CABINET LIGHT
	110 VOLT IN CEILING		OVER CABINET LIGHT
	WATERPROOF G.F.I.		IN CABINET LIGHT
	110 VOLT IN FLOOR		220 VOLT RECEPTACLE
	110 VOLT 1/2 SWITCHED		RS-6 CABLE RECEPTACLE (TV CABLE/SATELLITE)
	TELEPHONE OUTLET		2'x4' FLUORESCENT LIGHT BOX (1'x4' AND 4'x4' SIMILAR)
	NETWORK		SINGLE POLE SWITCH
	THREE WAY SWITCH		ELECT. PANEL
	FOUR WAY SWITCH		ELECT. METER
	DIMMER SWITCH (RHEOSTAT)		INTERCOM
	PUSH BUTTON SWITCH		SECURITY KEYPAD
	CARBON MONOXIDE/SMOKE DETECTOR W/ BATTERY BACKUP		SECURITY CAMERA
	SMOKE DETECTOR W/ BATTERY BACKUP		THERMOSTAT
	CHIMES		CEILING FAN
	SPEAKER		CEILING MOUNTED FIXTURE
	HANGING LIGHT		RECESSED CAN
	RECESSED CAN		WATERPROOF RECESSED CAN
	WATERPROOF RECESSED CAN		RECESSED EYEBALL SPOT
	RECESSED EYEBALL SPOT		WALL MOUNTED FIXTURE
	WALL MOUNTED FIXTURE		PORCELAIN FIXTURE W/ PULL CORD
	PORCELAIN FIXTURE W/ PULL CORD		EXHAUST FAN
	EXHAUST FAN		PENDANT LIGHT
	PENDANT LIGHT		CEILING LIGHT W/ OPTIONAL FAN (PREMIRE AND BLOCK)

### ELECTRICAL NOTES

- SMOKE DETECTORS REQUIRE A 110V CONNECTION TO HOSE WITH BATTERY BACKUP. ALL SMOKE DETECTORS SHALL BE WIRED IN SERIES (INTERCONNECTED).
- PROVIDE G.F.I. OUTLETS WITHIN 6'-0" OF SINKS, IN GARAGES AND ALL EXTERIOR WATERPROOF OUTLETS.
- RECESS LIGHTS IN INSULATED CEILINGS TO BE LIGHTOLIER 1102 IC - 1105 OR EQUAL.
- PROVIDE 110V OUTLET AND SWITCHED LIGHT IN ATTIC NEAR H.V.A.C. EQUIPMENT. LOCATE SWITCH NEAR (IF NOT OUTSIDE) ATTIC ACCESS.
- PROVIDE VENTILATION AT ALL BATHS AND UTILITY ROOMS. IF UTILITY ROOM HAS A MEANS OF NATURAL VENTILATION TO OUTSIDE, A VENT IS NOT REQUIRED.
- ALL EXHAUST VENTS SHALL EXIT THROUGH THE ROOF DECKING AT A MINIMUM DISTANCE OF 1'-0" FROM ANY PROPERTY LINE. DRYER VENTS MAY EXIT A NON-FIRE RATED EXTERIOR WALL.
- WHEN GARAGE DOOR OPENERS ARE INSTALLED, PROVIDE 110V VOLTAGE FOR SENSORS AND REVERSE SENSORS AT BOTH SIDES OF OVERHEAD DOOR.

ELECTRICAL NOTE:  
ELECTRICAL PLANS ARE PROVIDED FOR DESIGN INTENT ONLY. VERIFY LOCATIONS OF FIXTURES, SWITCHES, OUTLETS AND EQUIPMENT WITH A LICENSED PROFESSIONAL ELECTRICIAN.

### SQUARE FOOTAGES

FIRST FLOOR:	233
SECOND FLOOR:	807
THIRD FLOOR:	744
TOTAL LIVING AREA:	1784 S.F.
GARAGE:	482
PORCH:	12
PORTE-COCHERE:	71
TOTAL SLAB:	798 S.F.
TOTAL AREA:	2341 S.F.

**TREEHOUSE DEVELOPMENT**  
 AMUNDSEN PALMS REPLAT NO 1 LT 1 & 2 BLK 1  
 4504 & 4506 TERRY ST  
 HOUSTON, TX 77009

PWA Project Number: **8** of **10**  
**F2212-A1.1-L-v1**  
 PERMIT SET Date: 12 April 2024



REVIEWED FOR COMPLIANCE  
 City of Houston  
 240 8555

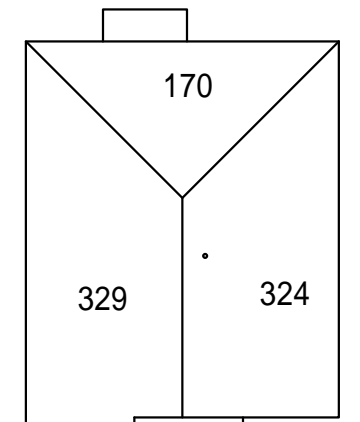
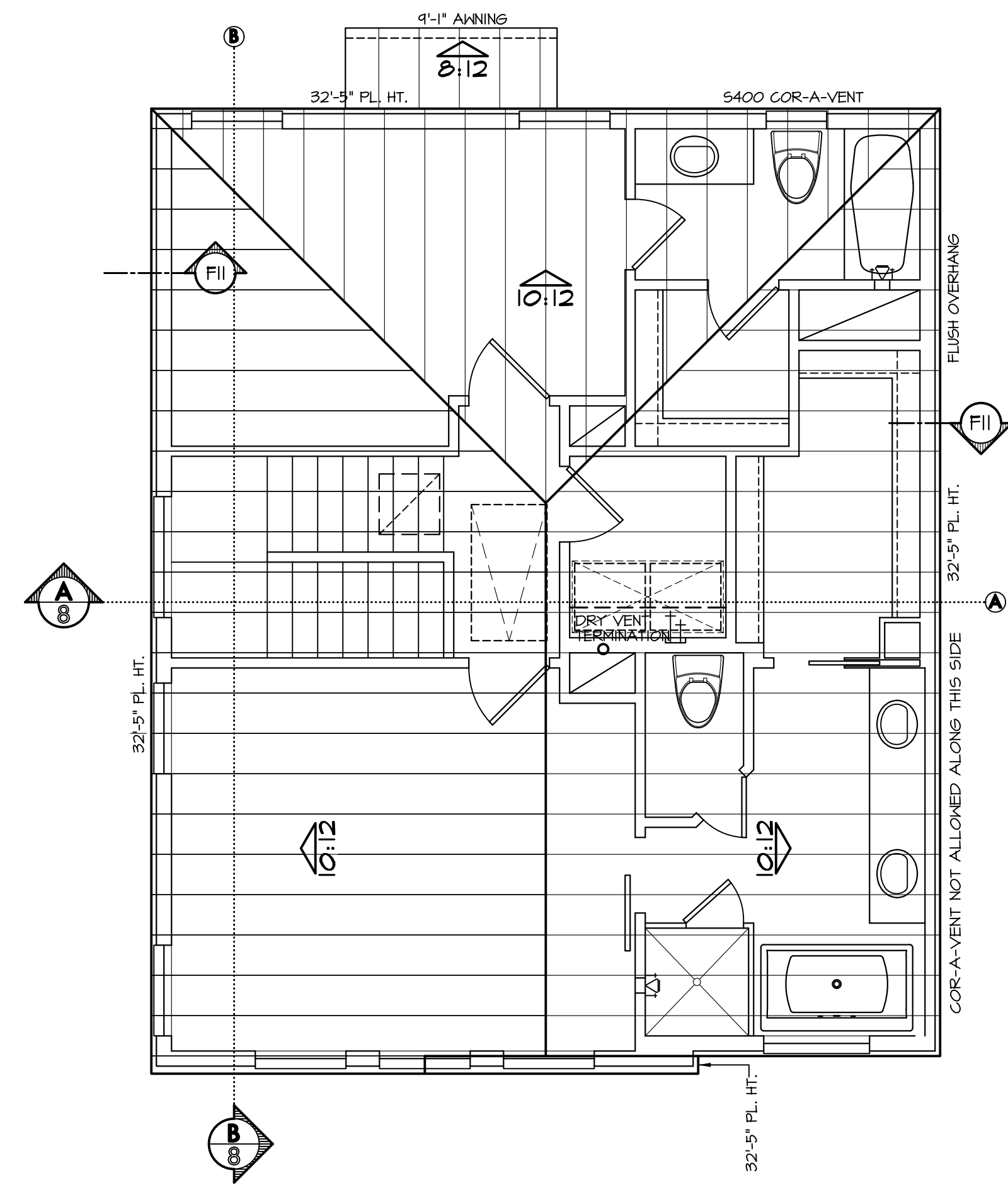
ALL IDEAS, PLANS AND SPECIFICATIONS ARE THE PROPERTY OF PRESTON WOOD & ASSOCIATES, L.L.C. INCHAMER'S RIGHT IS CONDITIONAL AND LIMITED TO A ONE-TIME USE TO CONSTRUCT A SINGLE PROJECT ON THE LOT STATED HEREIN. ANY REPRODUCTION OF THESE PLANS CONCERNING ANY OTHER CONSTRUCTION PROJECT WITHOUT THE WRITTEN PERMISSION OF PRESTON WOOD & ASSOCIATES, L.L.C. IS STRICTLY PROHIBITED. ANY REPRODUCTION OF THESE PLANS WITHOUT THE WRITTEN PERMISSION OF PRESTON WOOD & ASSOCIATES, L.L.C. IS STRICTLY PROHIBITED. IN THE EVENT OF ANY CONFLICTS OR INCONSISTENCIES BETWEEN THESE PLANS AND ANY OTHER DOCUMENTS, THESE PLANS SHALL PREVAIL. THE CONTRACTOR AND SUBCONTRACTORS, THEIR AGENTS AND EMPLOYEES, ASSUME ALL LIABILITY ASSOCIATED WITH SUCH CONFLICTS OR INCONSISTENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATORY REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATORY REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATORY REQUIREMENTS.

MINIMUM ROOF/ATTIC VENTILATION	
R206.2 EXCEPTION: THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE.	
NET FREE VENTILATING AREA (NFVA)	
ATTIC AREA:	784 sq.ft.
MINIMUM NFVA - UPPER HALF OF ATTIC (@50%):	188 sq.in.
MINIMUM NFVA - LOWER HALF OF ATTIC (@50%):	188 sq.in.
TOTAL MINIMUM NFVA REQUIRED:	376 sq.in.

**SOLAR READY ZONE NOT APPLICABLE** 2021 IRC APPX U

A SOLAR READY ZONE WILL NOT BE REQUIRED FOR THIS BUILDING/DWELLING AS AT LEAST ONE OF THESE CONDITIONS APPLY:

- THERE IS NO INDIVIDUAL PROJECTED ROOF PLANE AREA GREATER THAN 600 SQUARE FEET.
- THE QUALIFIED PROJECTED ROOF PLANE IS UNABLE TO PROVIDE FOR A MINIMUM 300 SQUARE FEET CONTIGUOUS SOLAR READY AREA.



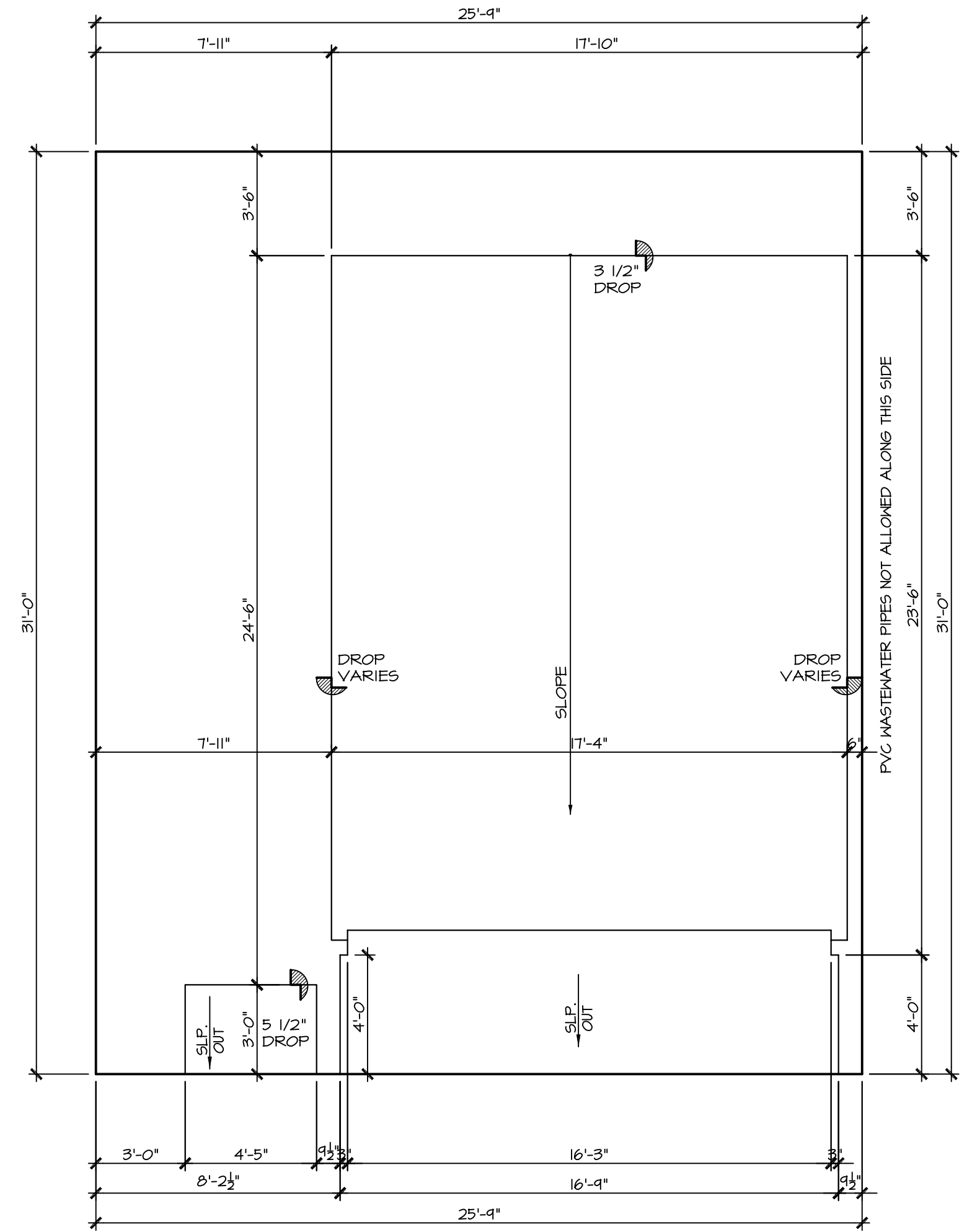
**SOLAR DIAGRAM**  
SCALE: 1/16" = 1'-0"

- BUBBLE NOTES:**
- ADJUST SLOPES TO MATCH RIDGES.
  - ADJUST OVERHANGS TO MATCH FASCIA.
  - ADJUST PLATE HEIGHT TO MATCH FASCIA.

## ROOF PLAN

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

PLATE HEIGHTS AS NOTED.  
SLOPES AS NOTED.  
FLUSH OVERHANGS FROM FRAME U.N.O.  
SOFFIT AND RIDGE VENTING PER BUILDER SPEC'S.  
ROOF MATERIAL: **COMPOSITION SHINGLES**  
PLUMBING VENTS AND ALL OTHER PENETRATIONS THROUGH ROOF DECKING SHALL BE DIRECTED TO BACK ROOF SLOPE.  
MINIMIZE PLUMBING VENT PENETRATIONS THROUGH ROOF DECKING.  
COLOR COORDINATE PIPING TO ROOF MATERIAL WHERE APPLICABLE.



## FOUNDATION OUTLINE

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

DIMENSION OF DROPS AND LABELING OF SLOPES TAKES PRECEDENCE ON THIS PAGE.

DROP VALUES (U.N.O.):  
3 1/2" FOR PORCHES, TIRE STOPS, SHOWER STALLS.  
1 1/2" FOR OVERHEAD DOORS.  
12" FOR ELEVATOR PITS.

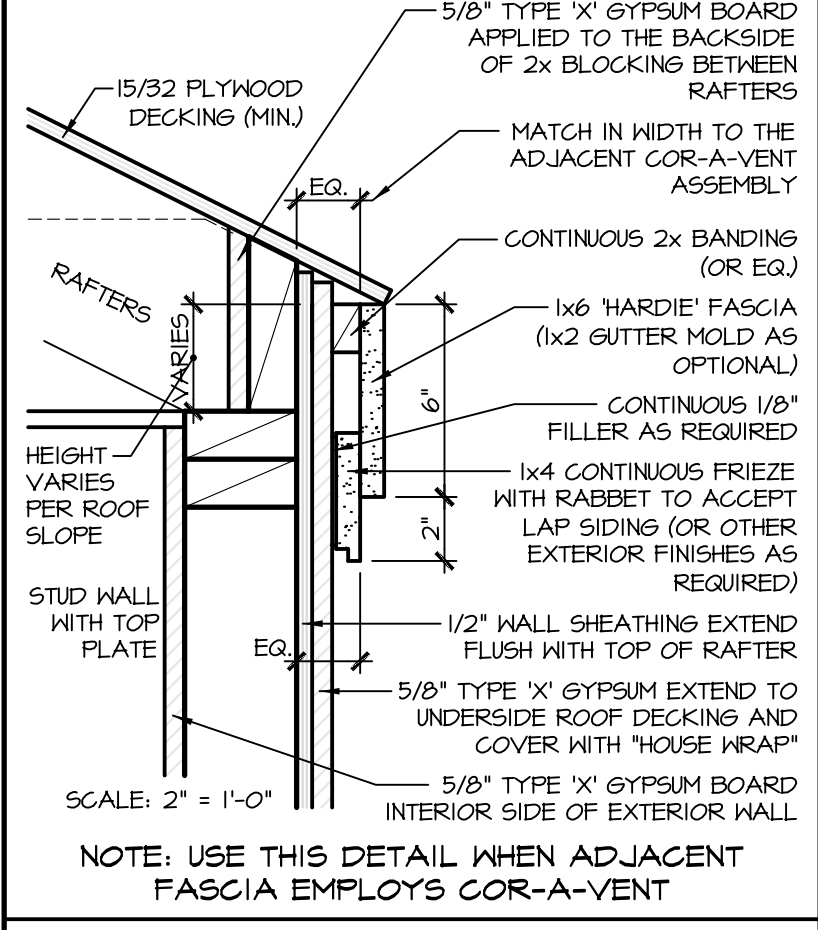
TERMITE PROTECTION SHALL BE PROVIDED IN ONE OF THE FOLLOWING WAYS:  
CHEMICAL TERMITICIDE TREATMENT, TERMITE BATING, PRESSURE-PRESERVE-TREATED WOOD  
NATURALLY DURABLE TERMITE RESISTANT WOOD, PHYSICAL BARRIERS, OR COLD FORMED STEEL



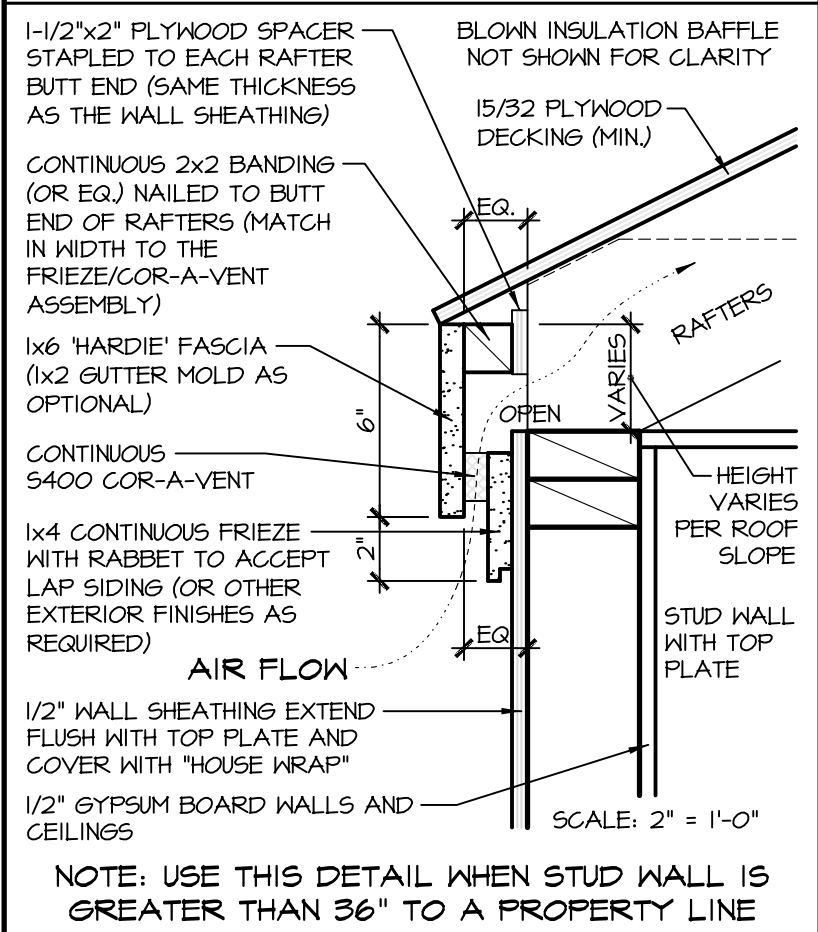
**PRESTON WOOD & ASSOCIATES, LLC**  
3217 Mercer St., Houston, TX 77027  
phone: 713.522.2724  
www.jackprestonwood.com  
Jack Preston Wood PBD Certification: TX-431  
AMERICAN INSTITUTE OF BUILDING DESIGN

REDRAW # E9016-A1.1			
DESIGNER:	DATE:	PRODUCTION 4:	DATE:
XXX	X-X-XX	XXX	X-X-XX
PRODUCTION 1:	DATE:	SENT TO ENGINEER:	DATE:
XXX	X-X-XX	XXX	X-X-XX
PRODUCTION 2:	DATE:	CORRECTIONS:	DATE:
XXX	X-X-XX	XXX	X-X-XX
PRODUCTION 3:	DATE:	CHECKED:	DATE:
XXX	X-X-XX	XXX	X-X-XX

### FLUSH OVERHANG - ONE-HOUR FIRE-RATED WALL



### FLUSH OVERHANG - S400 COR-A-VENT



### SQUARE FOOTAGES

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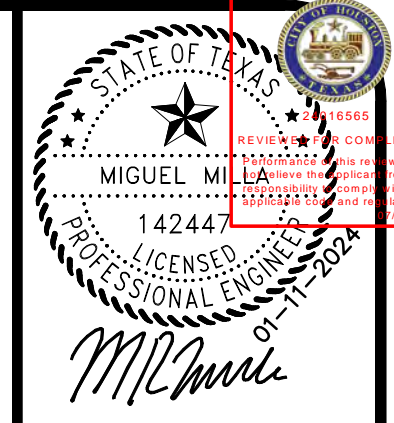
**TREEHOUSE DEVELOPMENT**  
AMUNDSEN PALMS REPLAT NO 1 LT 1 & 2 BLK 1  
4504 & 4506 TERRY ST  
HOUSTON, TX 77009

PWA Project Number: **2212-A1.1-L-v1** 9 of 10  
PERMIT SET Date: 12 April 2024



240 8555  
REVIEWED FOR COMPLIANCE  
Minimum of 30 days and  
not later than 60 days from  
the date of the permit  
issuance or the date of  
the final inspection.





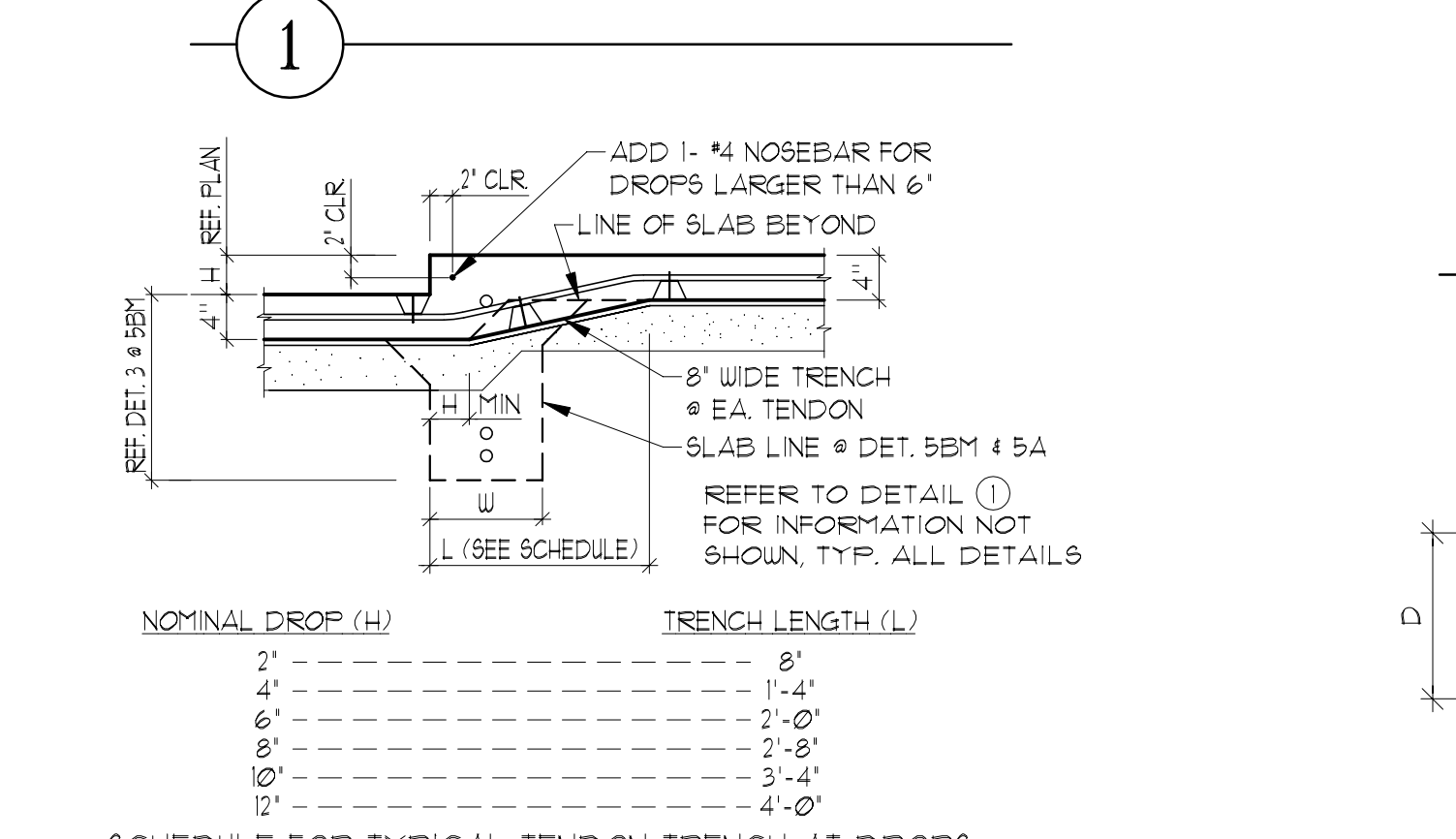
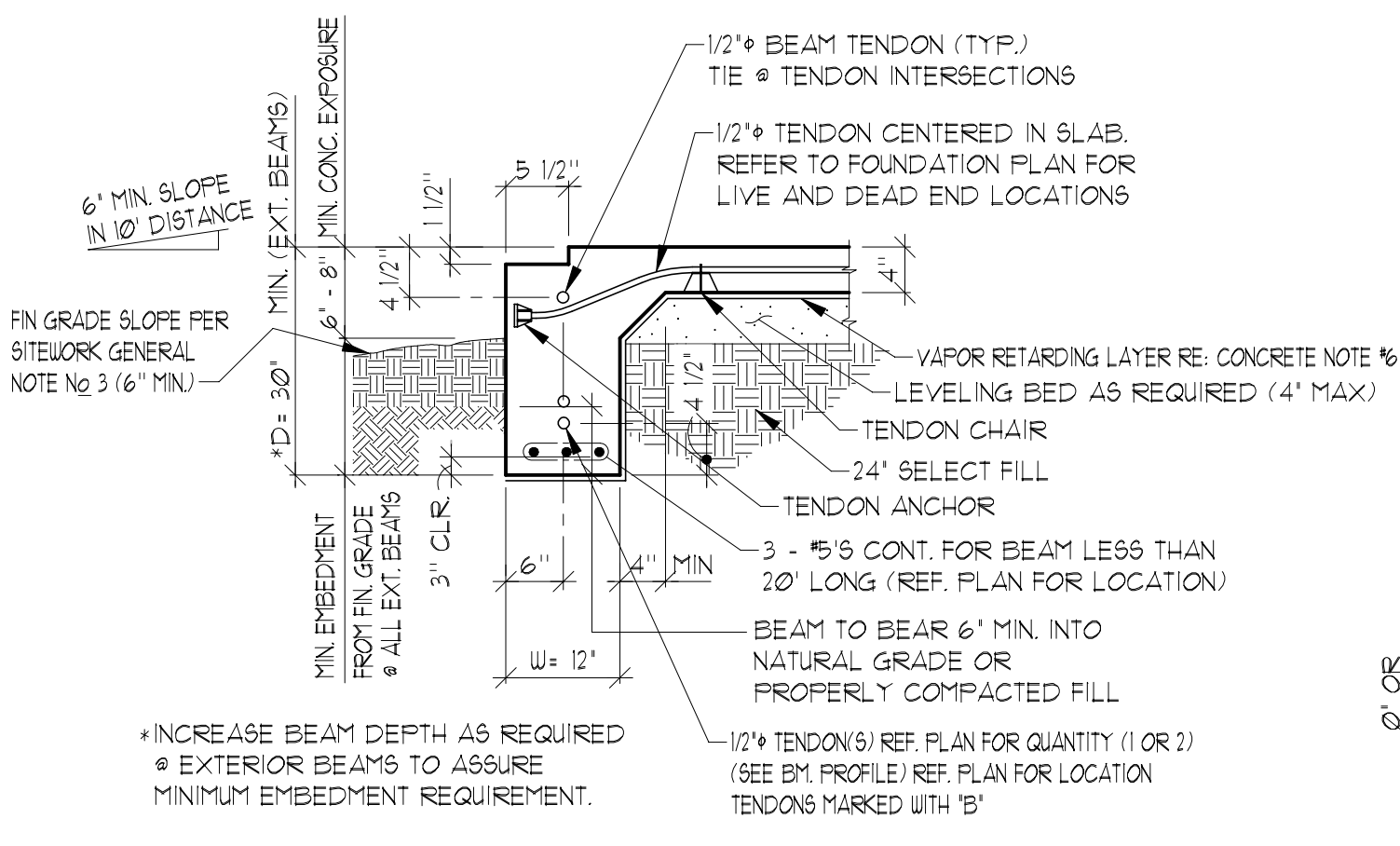
NO	DATE	ISSUES/REVISIONS
A	11/22/2023	ISSUED FOR REVIEW
0	07/11/2024	ISSUED FOR PERMIT

**DUNAWAY | BEC**  
 DUNAWAY | BEC CONSULTANTS, LLC  
 3200 Wilcrest Dr., Suite 410, Houston, Texas 77042  
 Ph: 832-240-3771 | Fax: 832-240-2724  
 (BEC REGIS. #: F-1114)

**TREEHOUSE DEVELOPMENT, LLC**  
 4504 & 4506 TERRY STREET  
 HOUSTON, TEXAS 77009

REF: B-10508  
 DRN: [ ] CHK: [ ] MM: [ ] DES: [ ]  
**FOUNDATION DETAILS SHEET**  
 SHEET NO. **S2.0**

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**SCHEDULE FOR TYPICAL TRENCH AT DROPS**

NOMINAL DROP (H)	TRENCH LENGTH (L)
2'	8'
4'	1'-4"
6'	2'-0"
8'	2'-8"
10'	3'-4"
12'	4'-0"

**GENERAL NOTES - TENDONS**

- FRESTRESSING STEEL TENDONS SHALL CONSIST OF 1/2" DIA. SEVEN-WIRE STRESS-RELIEVED STRAND CONFORMING TO ASTM A416 WITH A MIN. ULTIMATE TENSILE STRENGTH OF 270,000 PSI.
- TENDONS SHALL BE COATED WITH A PERMANENT RUST PREVENTATIVE LUBRICANT WITHIN A PLASTIC SHEATH. TAPE ALL BREAKS IN SHEATHING AND TAPE SHEATHING ENDS TO WITHIN 4 INCHES OF ANCHORAGES.
- TENDONS SHALL BE INITIALLY FRESTRESSED TO HAND-TIGHTNESS AGAINST THE FORMS AND SHALL BE SUPPORTED ON CHAIRS AT 3'-6" EACH WAY. ALL CHAIRS SHALL BE TIED AND ALL S-HOOKS SHALL BE CRIMPED.
- ACCEPTABLE TOLERANCES FOR THE TENDON PLACEMENT SHALL BE AS FOLLOWS:  
 BEAM TENDONS +/- 1 IN. VERT. +/- 1/2" HORIZ.  
 SLAB TENDONS +/- 1/2" IN. VERT. +/- 1/2" IN. HORIZ.

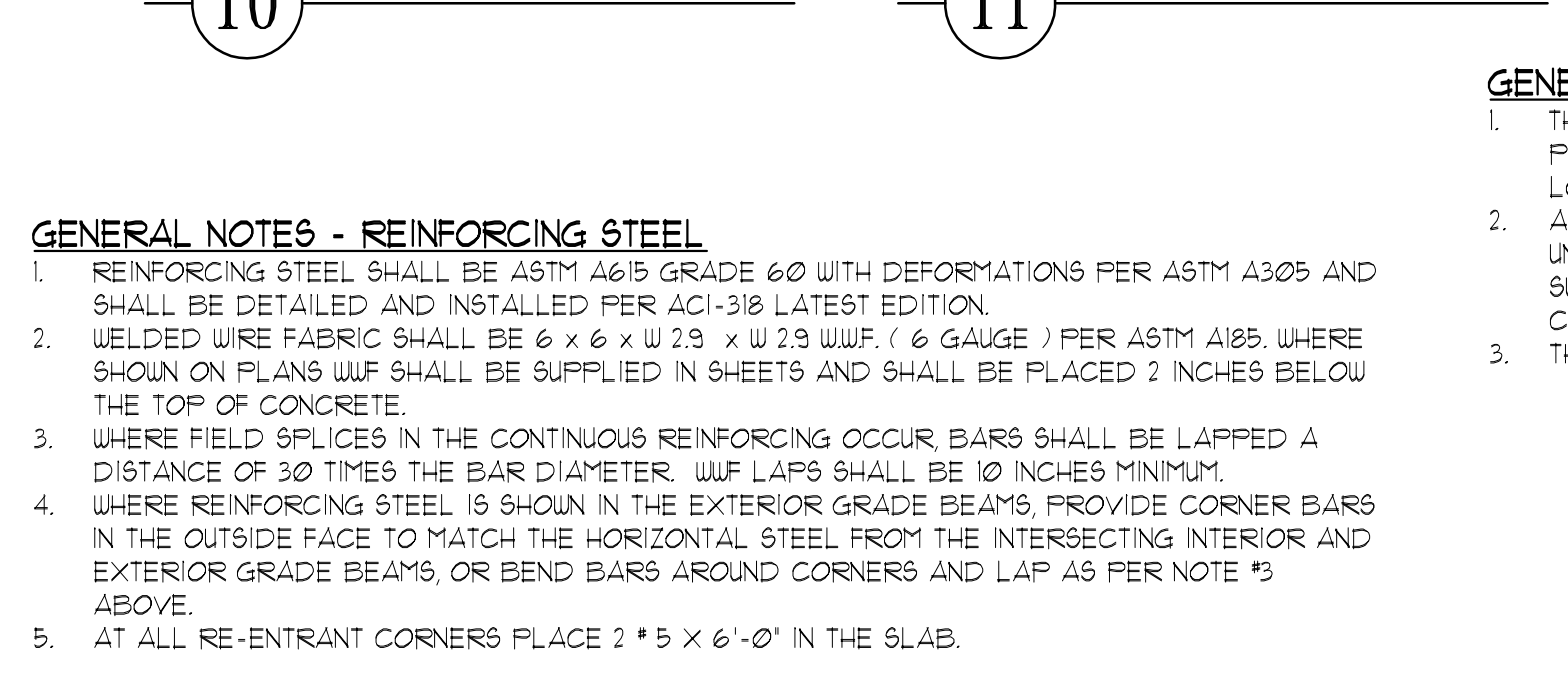
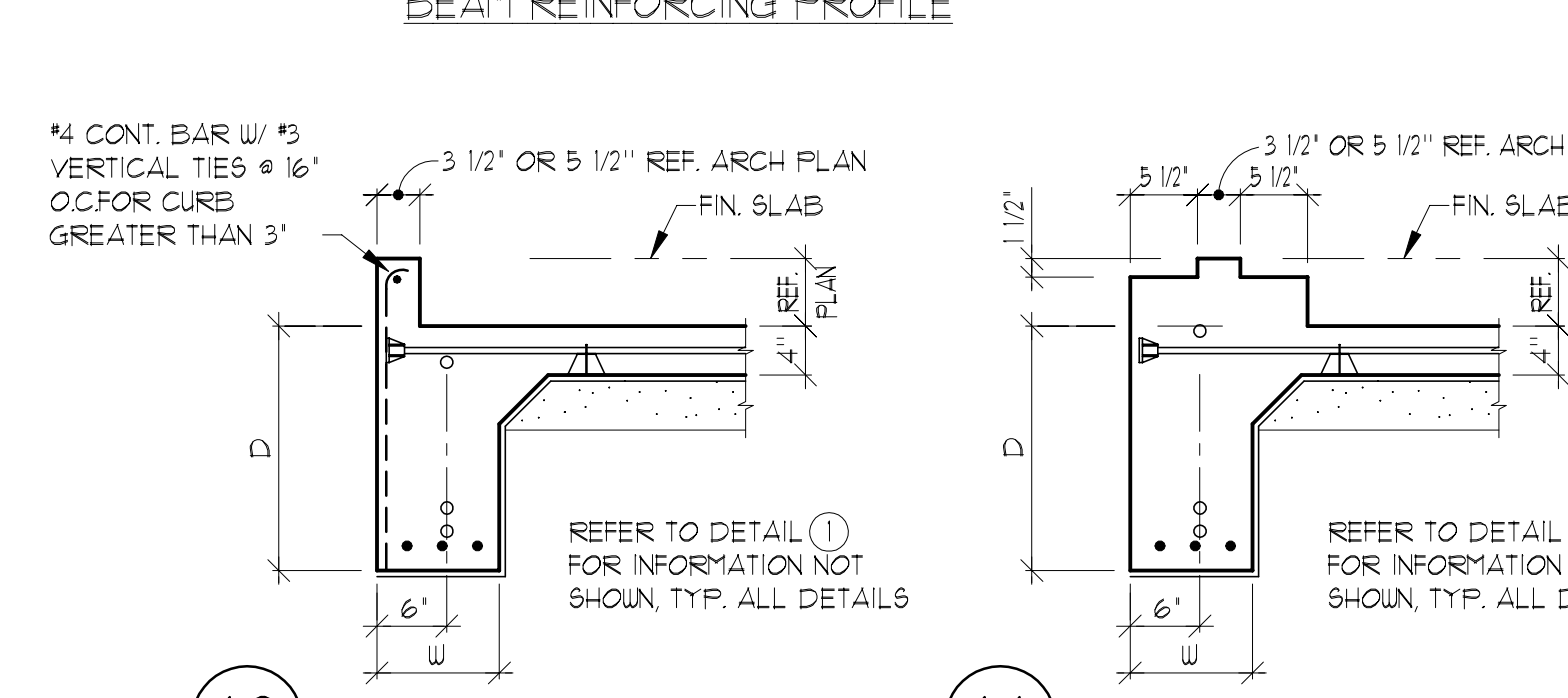
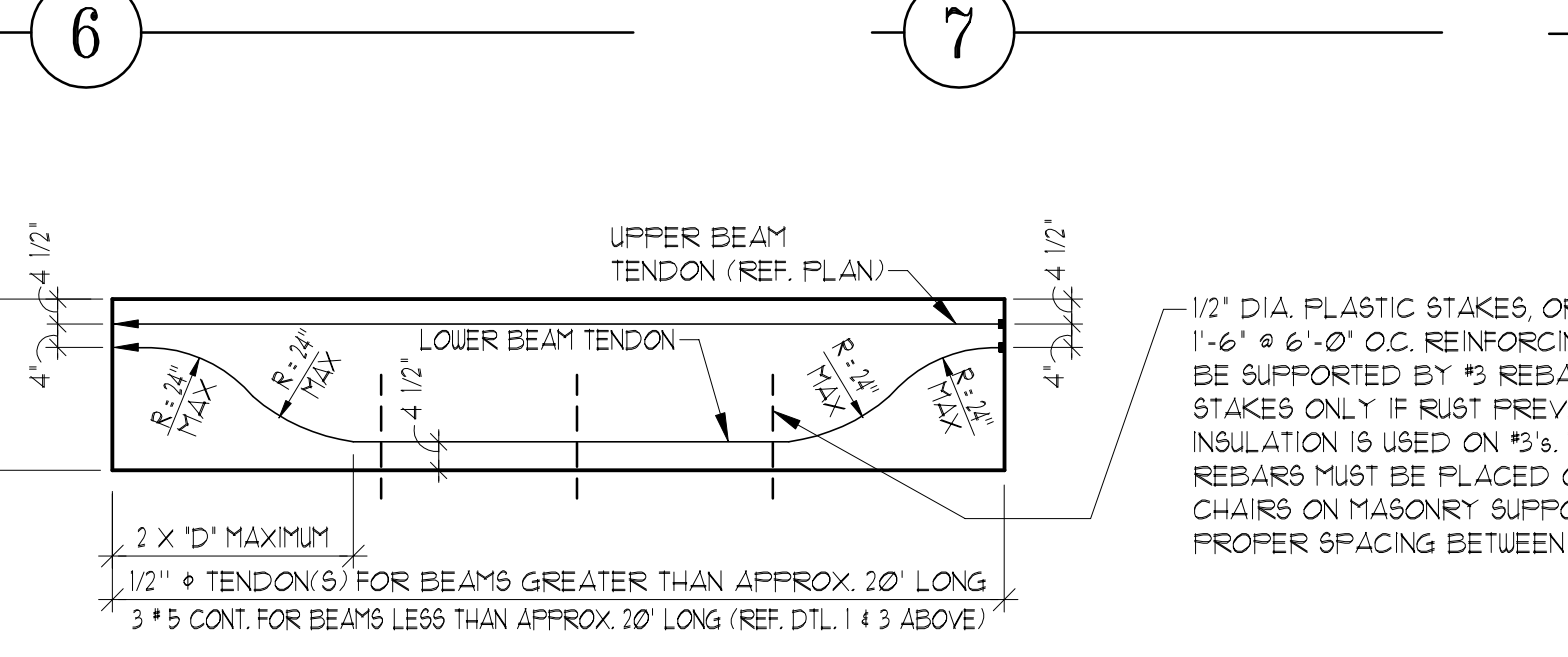
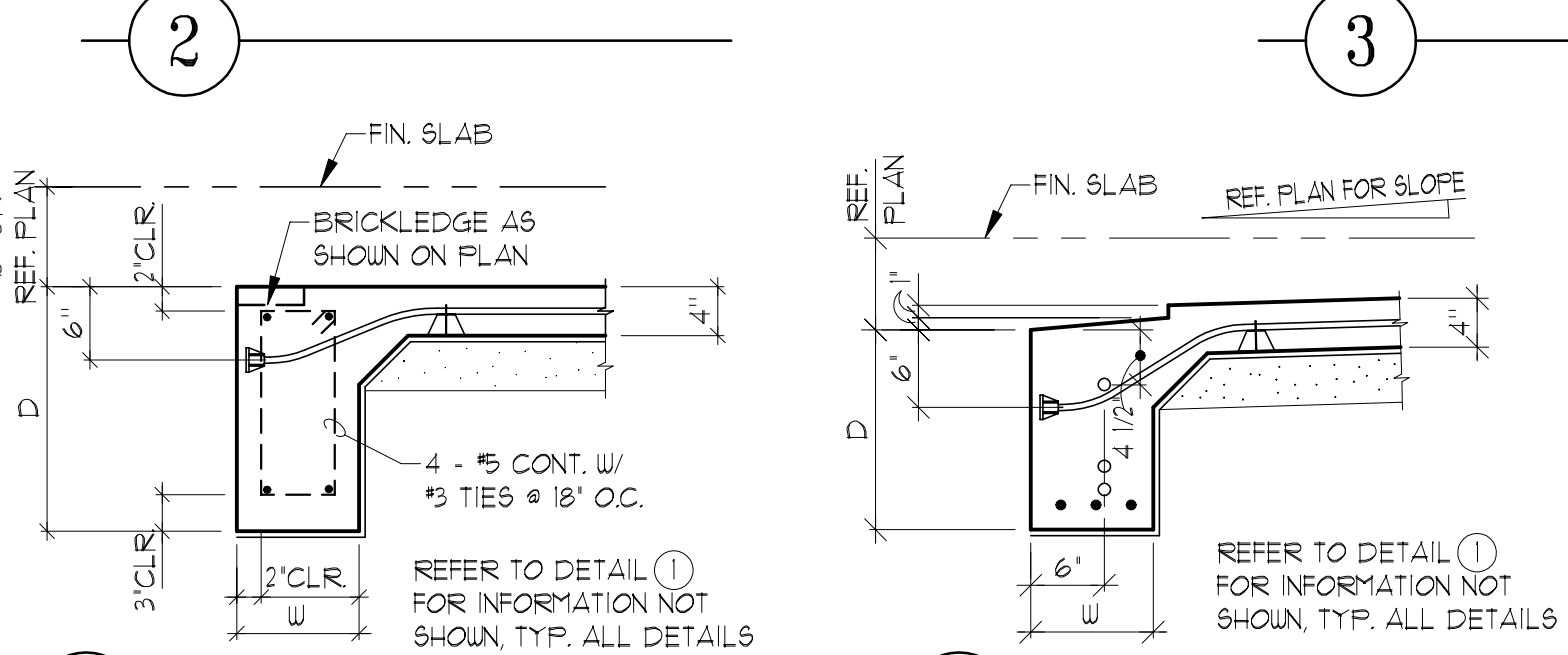
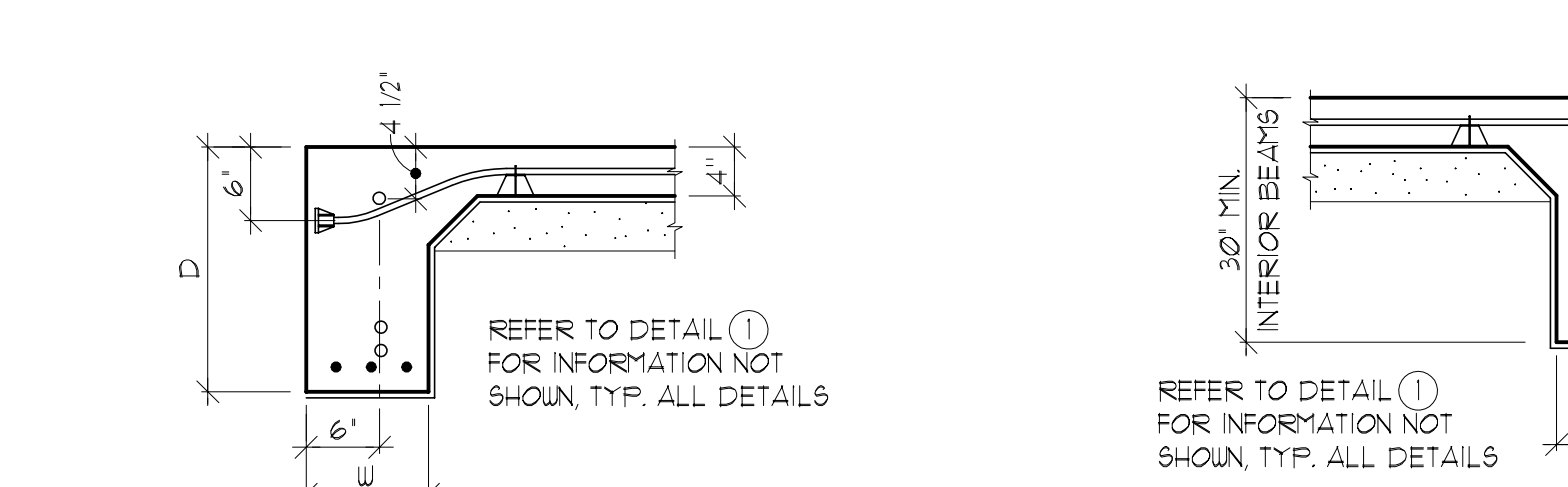
NOTE THAT SLAB TENDON HORIZONTAL DEVIATION SHALL BE LIMITED TO 1 INCH PER FOOT OF CABLE IN ORDER TO MISS OBSTRUCTIONS.

**GENERAL NOTES - STRESSING**

- TENDONS SHALL BE STRESSED TO 330 KIPS PER STRAND AND SHALL HAVE A MIN. SET LOAD OF 285 KIPS.
- ACTUAL TENDON ELONGATIONS SHALL MEASURE WITHIN 10 PERCENT OF THEORETICAL ELONGATIONS AND CORRESPONDING PRESSURE GAUGE READINGS.
- TENDONS SHALL BE STRESSED NO EARLIER THAN 3 DAYS AND NO LATER THAN 10 DAYS AFTER CONCRETE PLACEMENT, DURING COLD WEATHER CONDITIONS, STRESSING SHALL TAKE PLACE BETWEEN 7 AND 14 DAYS AFTER CONCRETE PLACEMENT.
- CONCRETE SHALL HAVE ATTAINED A MIN. COMPRESSIVE STRENGTH OF 70% OF ITS 28 DAY STRENGTH AT THE TIME OF STRESSING.
- BRICKWORK SHALL NOT BEGIN BEFORE STRESSING IS COMPLETED.
- TENDONS SHALL BE CUT OR BURNED AT 1 INCH FROM THE WEDGES. POCKETS SHALL BE FILLED WITH NON-SHRINK GROUT.

**GENERAL NOTES - SITEWORK**

- SITE PREPARATION BENEATH THE FOUNDATION SYSTEM SHALL BE IN ACCORDANCE WITH THE SOIL REPORT DESIGN RECOMMENDATIONS WHICH APPLY TO THE TYPE OF FOUNDATION SYSTEM BEING CONSTRUCTED OR SHOULD MEET THE FOLLOWING MINIMUM REQUIREMENTS:  
 A. STRIP ALL VEGETATION DOWN TO NATURAL SOIL. REMOVE ALL TREES WITHIN A CLOSE PROXIMITY OF THE FOUNDATION.  
 B. PROOF-ROLL EXPOSED SUB-GRADE, BACKFILL AND COMPACT TREE-HOLES OR SOFT POCKETS WITH MATERIAL SIMILAR TO THE SITE MATERIALS.  
 C. BRING SUB-GRADE TO REQUIRED ELEVATION WITH SELECT FILL MATERIAL. SELECT FILL SHALL BE SANDY CLAY OR CLAYEY SAND, FREE OF ORGANIC MATERIAL, HAVING A PLASTICITY INDEX GREATER THAN 7 BUT LESS THAN 20.  
 D. FILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 (STANDARD PROCTOR). WHERE LARGE DEPTHS OF FILL OCCUR, FIELD DENSITY TESTS ARE REQUIRED FOR EACH LIFT LOCATED AT OR BELOW THE BOTTOM OF THE SLAB.
- THE LEVELING BED SHALL BE FIRM STABLE BANK SAND OR OTHER CLEAN GRANULAR MATERIAL.
- INITIAL SITE GRADING SHALL BE COMPLETED PRIOR TO SETTING FORMS. FINAL GRADE SHALL SLOPE AWAY FROM THE FOUNDATION 1 INCH/FOOT FOR THE FIRST 5 FEET SUCH THAT POSITIVE DRAINAGE AWAY FROM THE SLAB IS ASSURED.
- DURING CONSTRUCTION A DRAINAGE TRENCH SHALL BE FORMED SUCH THAT ANY WATER WHICH INTRUDES INTO THE FOUNDATION MAKE UP WILL IMMEDIATELY DRAIN OUT OF THE BOTTOM OF THE BEAMS.
- IF A SOIL REPORT CONTAINING FOUNDATION DESIGN RECOMMENDATIONS WAS SUPPLIED FOR THIS PROJECT, THE SOIL REPORT SHALL CONTROL. IF A CONFLICT OCCURS BETWEEN THESE MIN. REQUIREMENTS AND THE SOIL ENGINEER'S RECOMMENDATIONS.
- THE CLIENT AND CONTRACTOR SHALL READ THE SOIL REPORT(S) REFERENCED BELOW AND BE THOROUGHLY FAMILIAR WITH AND UNDERSTAND ALL THE SITE AND SUB-GRADE PREPARATION AND MAINTENANCE REQUIREMENTS AND RECOMMENDATIONS CONTAINED THEREIN.

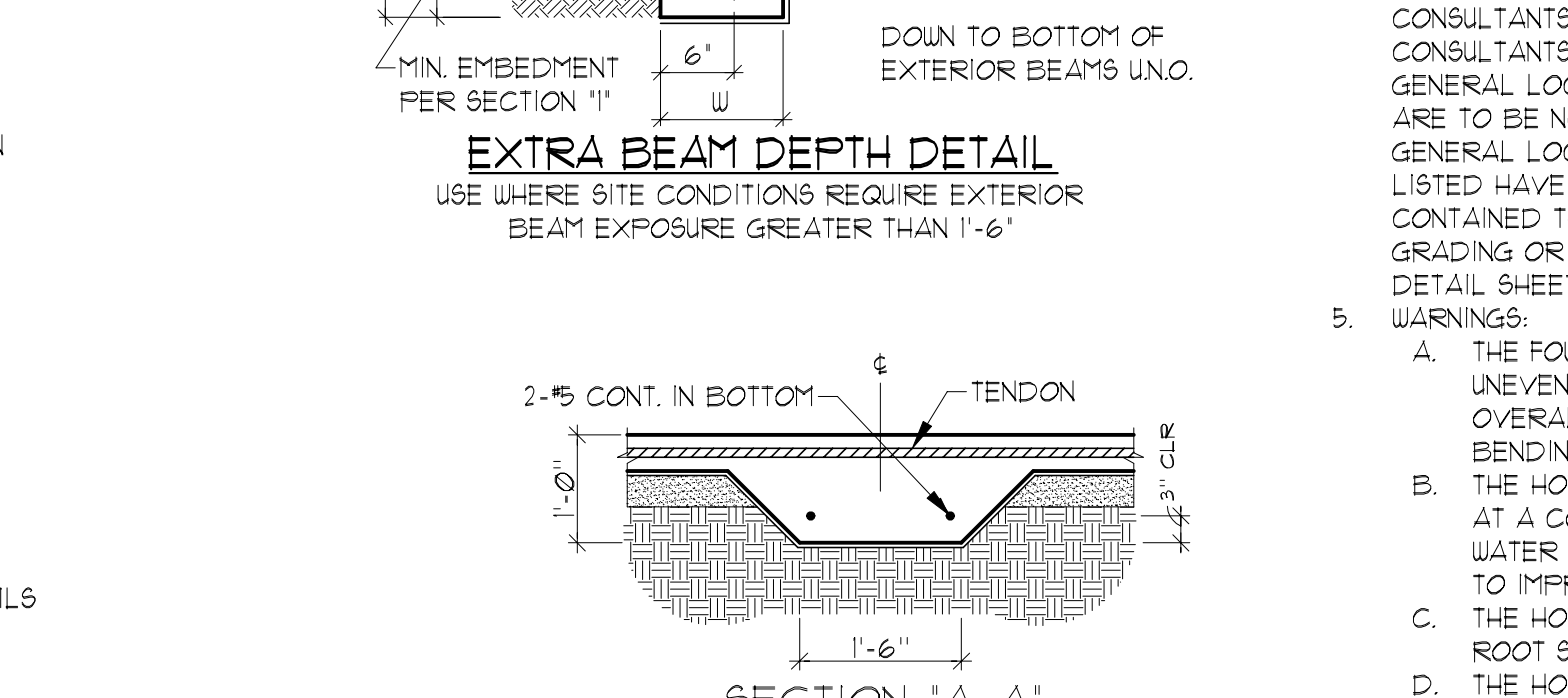
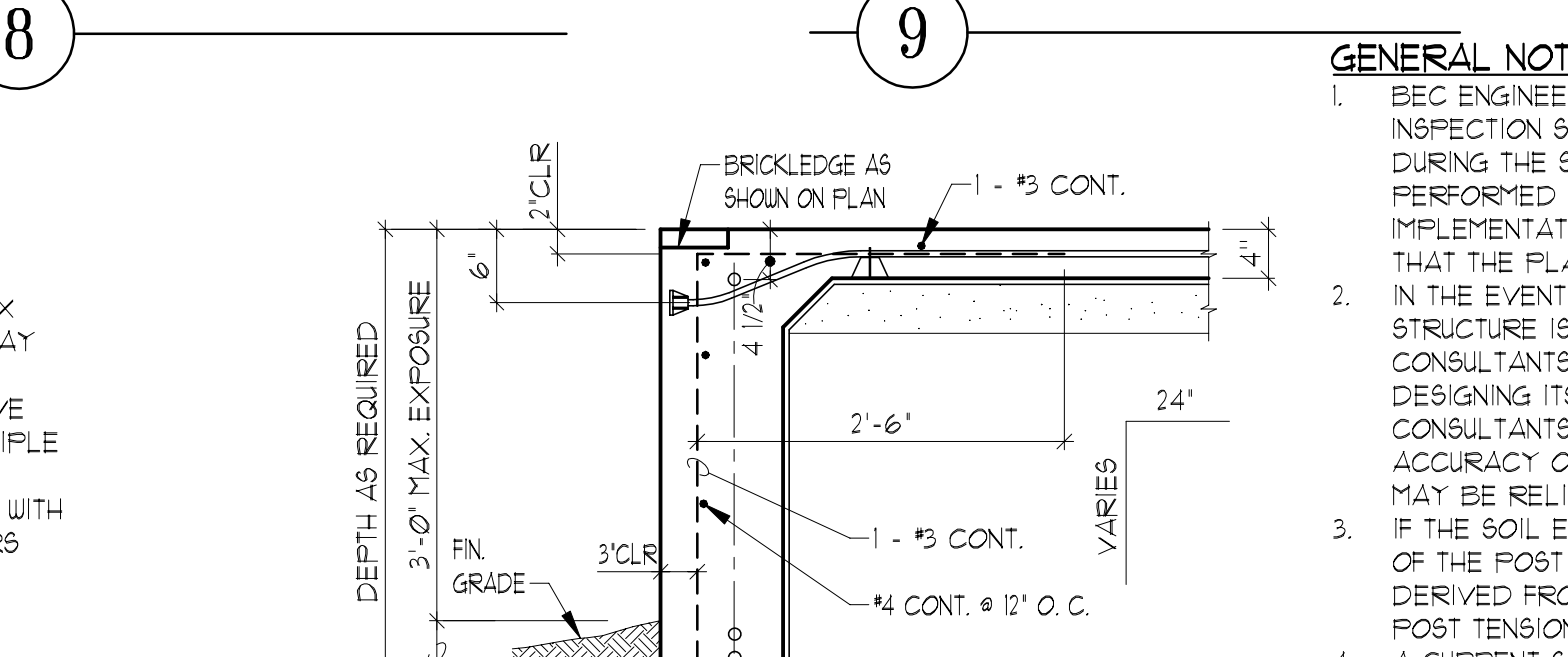
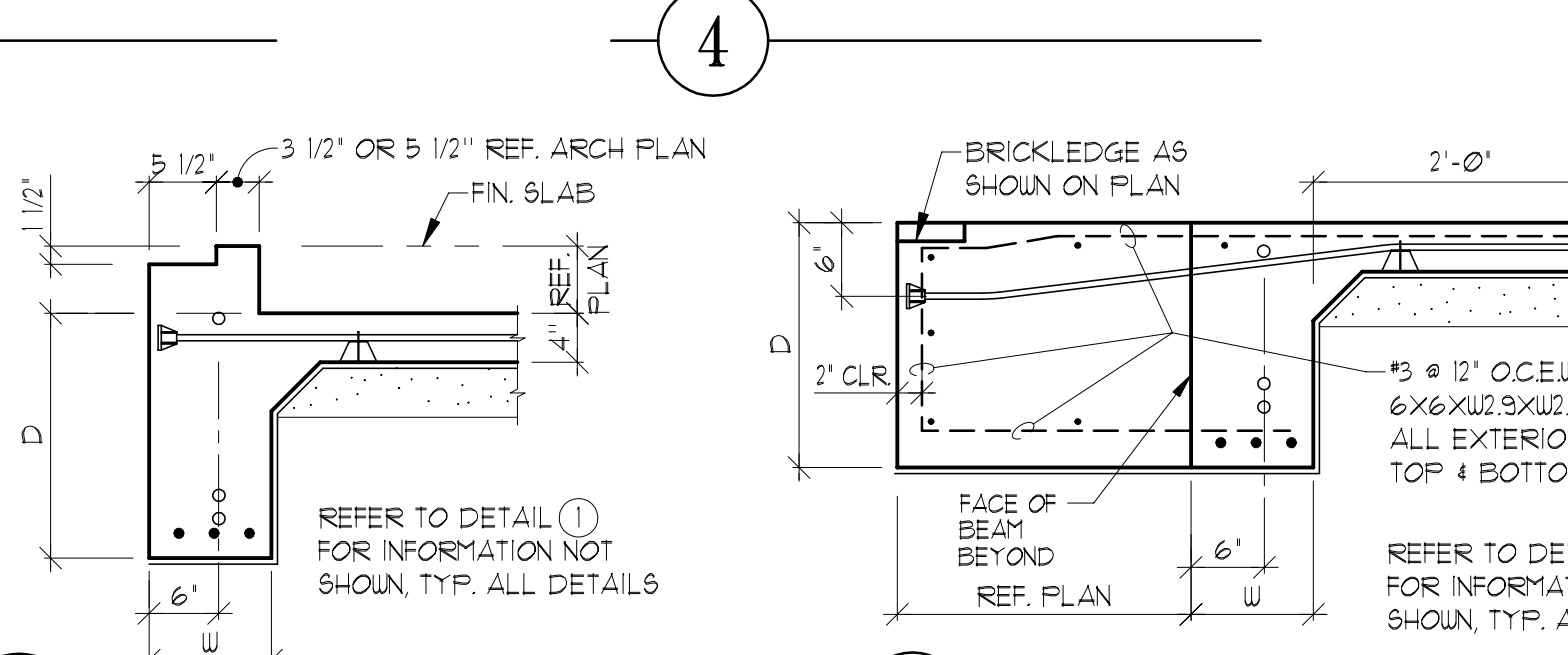
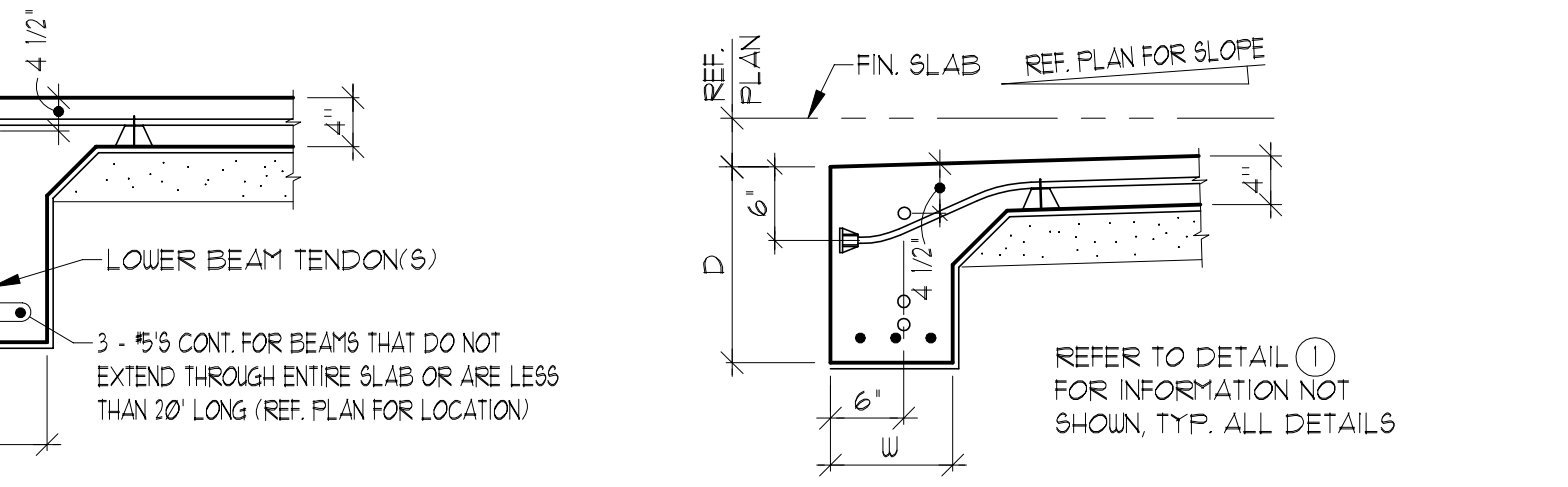


**GENERAL NOTES - REINFORCING STEEL**

- REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 WITH DEFORMATIONS PER ASTM A305 AND SHALL BE DETAILED AND INSTALLED PER ACI-318 LATEST EDITION.
- WELDED WIRE FABRIC SHALL BE 6 x 6 x W 2.9 x W 2.9 WUF. (6 GAUGE) PER ASTM A185, WHERE SHOWN ON PLANS WUF SHALL BE SUPPLIED IN SHEETS AND SHALL BE PLACED 2 INCHES BELOW THE TOP OF CONCRETE.
- WHERE FIELD SPLICES IN THE CONTINUOUS REINFORCING OCCUR BARS SHALL BE LAPPED A DISTANCE OF 30 TIMES THE BAR DIAMETER. WUF LAPS SHALL BE 10 INCHES MINIMUM.
- WHERE REINFORCING STEEL IS SHOWN IN THE EXTERIOR GRADE BEAMS, PROVIDE CORNER BARS IN THE OUTSIDE FACE TO MATCH THE HORIZONTAL STEEL FROM THE INTERSECTING INTERIOR AND EXTERIOR GRADE BEAMS, OR BEND BARS AROUND CORNERS AND LAP AS PER NOTE #3 ABOVE.
- AT ALL RE-ENTRANT CORNERS PLACE 2 #5 x 6'-0" IN THE SLAB.

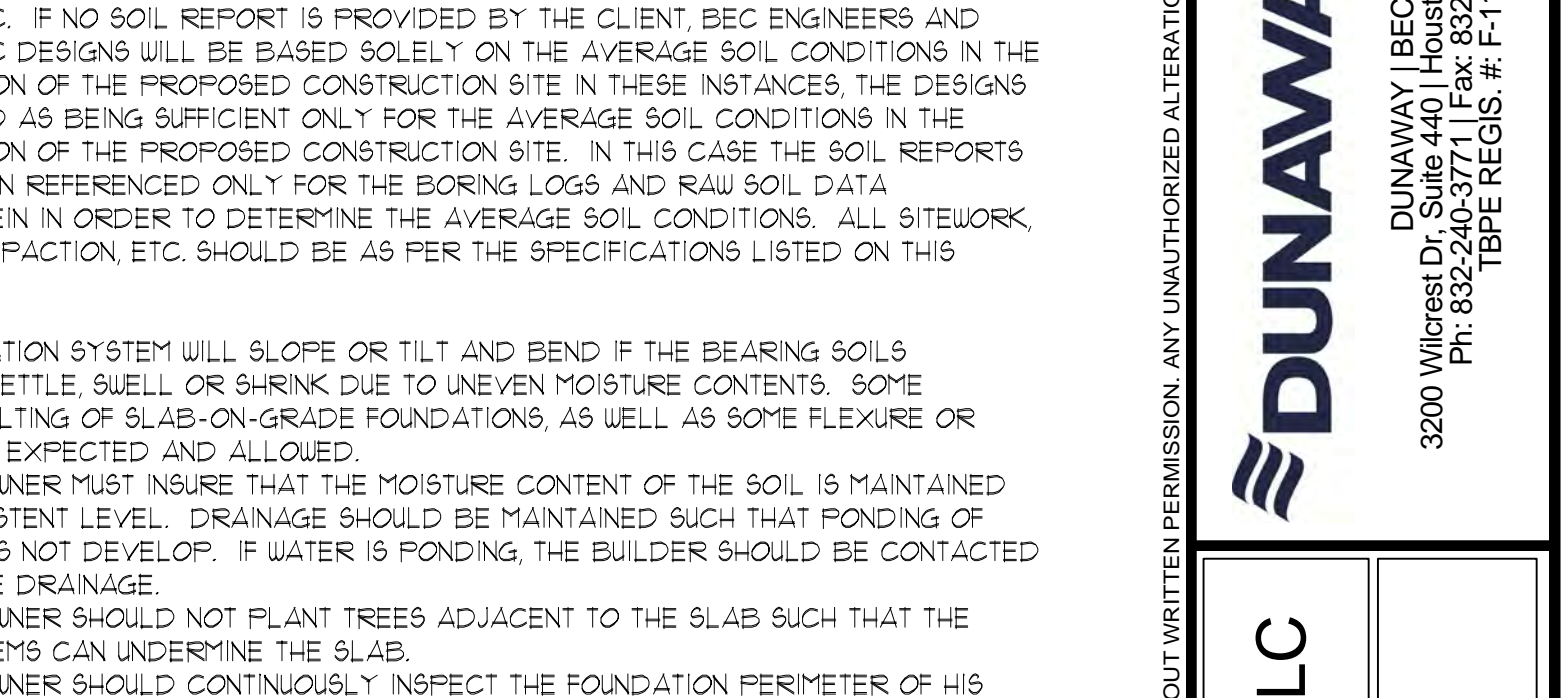
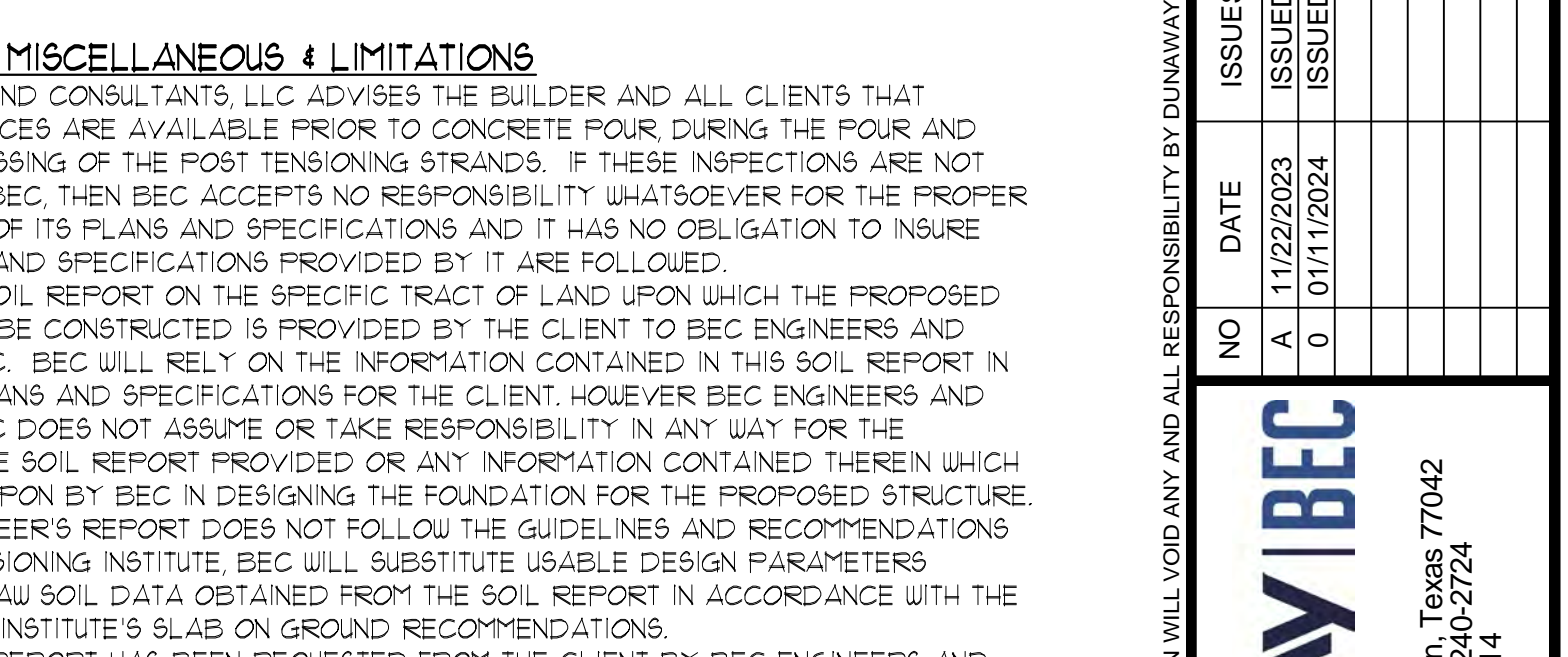
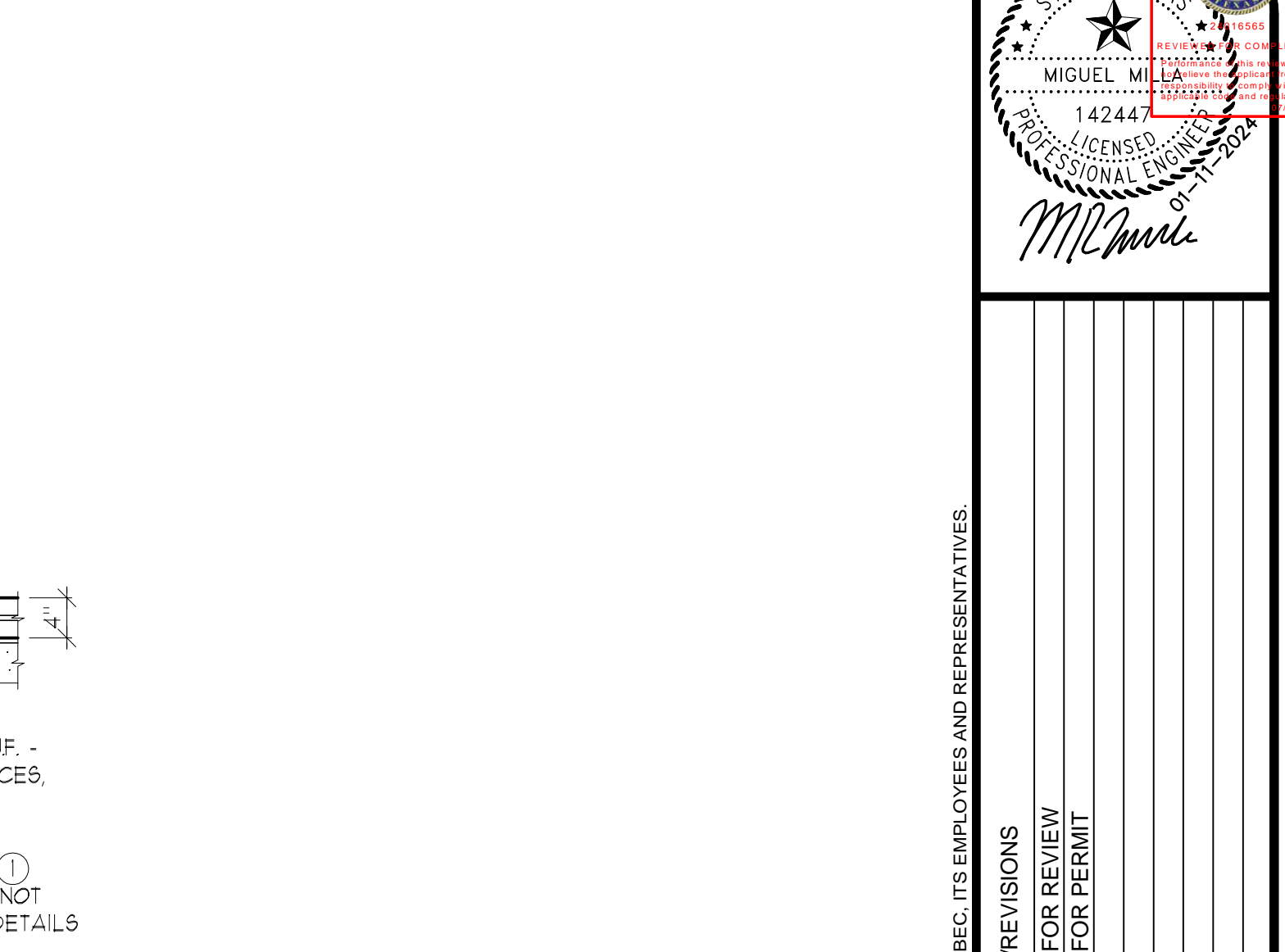
**GENERAL NOTES - CONCRETE**

- CONCRETE SHALL BE SUPPLIED AND CONSTRUCTED IN ACCORDANCE WITH ACI-318 LATEST EDITION AND SHALL HAVE A MIN. 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI. IF MORE WORKABILITY IS NEEDED, CONTRACTOR SHALL SPECIFY.
- REQUIRED SLUMP ON JOB ORDER. THE CONCRETE PLANT CAN INCREASE WORKABILITY BY ADDING UP TO 5% AIR ENTRAINMENT ADDITIONAL CEMENT, OR OTHER APPROVED ADMIXTURES.
- CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED AS ADDITIVES. WHERE FLY ASH IS USED, ONLY TYPE C FLY ASH SHALL BE ACCEPTED.
- CONCRETE SHALL NOT BE PLACED AT TEMPERATURES BELOW 40°F OR RAINY WEATHER OR OTHER ADVERSE WEATHER CONDITIONS.
- CONCRETE SHALL BE WELL CONSOLIDATED, ESPECIALLY IN THE VICINITY OF TENDON ANCHORAGES.
- A 6 MIL POLYETHYLENE VAPOR RETARDING LAYER SHALL BE PLACED UNDER ALL SLABS. ALL LAPS SHALL BE TAPED.
- FORMS TO BE STRIPPED NO LESS THAN 24 HOURS AND NO MORE THAN 6 DAYS AFTER PLACEMENT OF CONCRETE.
- BUILDER SHALL VERIFY ALL DIMENSIONS, DROPS, OFFSETS, BRICKLEDGES, INSERTS AND OPENINGS WITH ARCHITECTURAL DRAWINGS.
- PLACE 5/8" DIA. x 10' LONG ANCHOR BOLTS W/ 2 x 2 SQUARE WASHERS @ 4'-0" O. C. REF. PLAN FOR ADDITIONAL HOLD-DOWNS AND THEIR LOCATIONS.



**GENERAL NOTES - DESIGN**

- THIS FOUNDATION IS DESIGNED IN ACCORDANCE WITH CURRENT ACCEPTABLE ENGINEERING PRACTICES FOR THE SITE SHOWN ON THE PLANS AND MAY NOT BE USED IN ANY OTHER LOCATION.
- AS WITH ALL GROUND SUPPORTED SLABS, THIS FOUNDATION IS DESIGNED TO MOVE WITH THE UNDERLYING SOILS WHILE SUSTAINING A CALCULATED AMOUNT OF FLEXURE. IT MAY ALSO SUSTAIN NORMAL TEMPERATURE AND SHRINKAGE CRACKS AS A RESULT OF THE CONCRETE CURING PROCESS.
- THE DESIGN IS BASED ON THE FOLLOWING ASSUMPTIONS:  
 A. FINAL GRADING IS COMPLETED AS OUTLINED IN THE GENERAL NOTES - SITEWORK.  
 B. FINAL GRADE AND A FAIRLY UNIFORM MOISTURE LEVEL IS MAINTAINED FOR THE LIFE OF THE FOUNDATION.  
 C. THE FOUNDATION IS NOT INSTALLED DURING A DRY OR WET PERIOD WHICH IS CONSIDERED EXTREME OR ABNORMAL FOR THE AREA. IF SUCH IS THE CASE, BUILDER SHALL NOTIFY THE ENGINEER PRIOR TO TRENCHING FOR A POSSIBLE RE-DESIGN.  
 D. A SLAB ON GRADE FOUNDATION MAY NOT BE USED IF EXISTING SITE SLOPE IS GREATER THAN 5%. IF SUCH IS THE CASE, BUILDER SHALL NOTIFY THE ENGINEER PRIOR TO TRENCHING FOR A POSSIBLE RE-DESIGN.  
 E. PERIMETER OF FOUNDATION MUST BE LOCATED A MINIMUM OF 40' FROM THE HIGH BANK OF ANY DRAINAGE DITCH, DETENTION POND, CREEK, OR STEEP EMBANKMENT UNLESS A GREATER DISTANCE IS SPECIFIED IN THE SOIL REPORT.
- THIS FOUNDATION IS DESIGNED BASED ON INFORMATION CONTAINED IN THE FOLLOWING GEOTECHNICAL INVESTIGATION(S):  
 SOIL REPORT NO. : G23-552  
 BY: ARM SOIL TESTING LLC  
 DATED: OCTOBER 9, 2023



**GENERAL NOTES: MISCELLANEOUS & LIMITATIONS**

- BEC ENGINEERS AND CONSULTANTS, LLC ADVISED THE BUILDER AND ALL CLIENTS THAT INSPECTION SERVICES ARE AVAILABLE PRIOR TO CONCRETE POUR, DURING THE POUR AND DURING THE STRESSING OF THE POST TENSIONING STRANDS. IF THESE INSPECTIONS ARE NOT PERFORMED BY BEC, THEN BEC ACCEPTS NO RESPONSIBILITY WHATSOEVER FOR THE PROPER IMPLEMENTATION OF ITS PLANS AND SPECIFICATIONS AND IT HAS NO OBLIGATION TO INSURE THAT THE PLANS AND SPECIFICATIONS PROVIDED BY IT ARE FOLLOWED.
- IN THE EVENT A SOIL REPORT ON THE SPECIFIC TRACT OF LAND UPON WHICH THE PROPOSED STRUCTURE IS TO BE CONSTRUCTED IS PROVIDED BY THE CLIENT TO BEC ENGINEERS AND CONSULTANTS, LLC, BEC WILL RELY ON THE INFORMATION CONTAINED IN THIS SOIL REPORT IN DESIGNING ITS PLANS AND SPECIFICATIONS FOR THE CLIENT. HOWEVER BEC ENGINEERS AND CONSULTANTS, LLC DOES NOT ASSUME OR TAKE RESPONSIBILITY IN ANY WAY FOR THE ACCURACY OF THE SOIL REPORT PROVIDED OR ANY INFORMATION CONTAINED THEREIN WHICH MAY BE RELIED UPON BY BEC IN DESIGNING THE FOUNDATION FOR THE PROPOSED STRUCTURE.
- IF THE SOIL ENGINEER'S REPORT DOES NOT FOLLOW THE GUIDELINES AND RECOMMENDATIONS OF THE POST TENSIONING INSTITUTE, BEC WILL SUBSTITUTE USABLE DESIGN PARAMETERS DERIVED FROM RAW SOIL DATA OBTAINED FROM THE SOIL REPORT IN ACCORDANCE WITH THE POST TENSIONING INSTITUTE'S SLAB ON GROUND RECOMMENDATIONS.
- A CURRENT SOIL REPORT HAS BEEN REQUESTED FROM THE CLIENT BY BEC ENGINEERS AND CONSULTANTS, LLC. IF NO SOIL REPORT IS PROVIDED BY THE CLIENT, BEC ENGINEERS AND CONSULTANTS, LLC DESIGNS WILL BE BASED SOLELY ON THE AVERAGE SOIL CONDITIONS IN THE GENERAL LOCATION OF THE PROPOSED CONSTRUCTION SITE. IN THESE INSTANCES, THE DESIGNS ARE TO BE NOTED AS BEING SUFFICIENT ONLY FOR THE AVERAGE SOIL CONDITIONS IN THE GENERAL LOCATION OF THE PROPOSED CONSTRUCTION SITE. IN THIS CASE THE SOIL REPORTS LISTED HAVE BEEN REFERENCED ONLY FOR THE BORING LOGS AND RAW SOIL DATA CONTAINED THEREIN IN ORDER TO DETERMINE THE AVERAGE SOIL CONDITIONS. ALL SITEWORK, GRADING OR COMPACTION, ETC. SHOULD BE AS PER THE SPECIFICATIONS LISTED ON THIS DETAIL SHEET.
- WARNINGS:  
 A. THE FOUNDATION SYSTEM WILL SLOPE OR TILT AND BEND IF THE BEARING SOILS UNEVENLY SETTLE, SWELL OR SHRINK DUE TO UNEVEN MOISTURE CONTENTS. SOME OVERALL TILTING OF SLAB-ON-GRADE FOUNDATIONS, AS WELL AS SOME FLEXURE OR BENDING, IS EXPECTED AND ALLOWED.  
 B. THE HOMEOWNER MUST INSURE THAT THE MOISTURE CONTENT OF THE SOIL IS MAINTAINED AT A CONSISTENT LEVEL. DRAINAGE SHOULD BE MAINTAINED SUCH THAT PONDING OF WATER DOES NOT DEVELOP. IF WATER IS PONDING, THE BUILDER SHOULD BE CONTACTED TO IMPROVE DRAINAGE.  
 C. THE HOMEOWNER SHOULD NOT PLANT TREES ADJACENT TO THE SLAB SUCH THAT THE ROOT SYSTEMS CAN UNDERMINE THE SLAB.  
 D. THE HOMEOWNER SHOULD CONTINUOUSLY INSPECT THE FOUNDATION PERIMETER OF HIS RESIDENCE DURING HOT AND DRY PERIODS TO INSURE THAT ADEQUATE WATERING IS BEING PERFORMED.  
 E. MINIMUM DISTANCE BETWEEN ANY FUTURE POOL AND THE PERIMETER BEAMS SHOULD BE 15'-0".  
 F. THE CLIENT MUST ADVISE THE ORIGINAL BUYER(S) OF THE LIMITATIONS AND STIPULATIONS PLACED ON THE PROJECT (BY THE CLIENT). THE CLIENT MUST ALSO INFORM THE ORIGINAL BUYER OR OCCUPANT OF THE RESIDENCE OF THE TYPE OF FOUNDATION USED TO SUPPORT THE STRUCTURE, AS WELL AS THE EXPECTED PERFORMANCE PARAMETERS AND STANDARDS (ALLOWABLE SETTLEMENT, DEFLECTION CRITERIA ETC.), AND THE MAINTENANCE AND DRAINAGE REQUIREMENTS AS NOTED HEREIN. (INCLUDING THE HOMEOWNER'S MAINTENANCE RESPONSIBILITIES, AND THE SPECIFICATIONS NOTED.) (ONE OF THE WAYS THIS IS TYPICALLY ACCOMPLISHED IS THROUGH A HOMEOWNER MANUAL, WHICH IS GIVEN BY THE BUILDER TO THE FIRST OWNER. THE MANUAL CONTAINS GENERAL INFORMATION ABOUT THE CONSTRUCTION AND MAINTENANCE OF VARIOUS COMPONENTS OF THE HOME, INCLUDING THE FOUNDATION SYSTEM. THIS MANUAL STAYS WITH THE HOME AND IS PASSED FROM EACH PREVIOUS OWNER TO THE NEXT OR NEW BUYER/OWNER.)
- THE DESIGN PROCEDURES AND CRITERIA USED BY BEC ARE IN ACCORDANCE WITH GENERALLY ACCEPTED STANDARDS AND PRACTICES FOR A STRUCTURE OF THIS TYPE.
- THE SERVICES PROVIDED BY BEC ENGINEERS AND CONSULTANTS, LLC INCLUDE ONLY THE DESIGN AND INSPECTION(S) OF THE STRUCTURAL COMPONENTS (REINFORCEMENT AND MATERIALS) OF THE FOUNDATION SYSTEM AND ARE LIMITED TO THE SCOPE OF SERVICES AS REQUESTED AND ALLOWED BY BEC'S AGREEMENT (VERBAL AND/OR CONTRACTUAL) WITH THE CLIENT. ITEMS AND EXCLUSIONS NOT COVERED WITHIN BEC'S SCOPE OF PROFESSIONAL SERVICES (AND WHICH ARE PROVIDED BY OTHER PROFESSIONAL ENTITIES, CONTRACTORS, OR AGENCIES) INCLUDE BUT ARE NOT LIMITED TO: INSERTS AND EMBEDDED ITEMS (IE. ANCHOR BOLTS, HOLD-DOWNS, CONDUIT SLEEVES, WATERSTOPS ETC.) FILL PLACEMENT, LOT PREPARATION OR VERIFICATION FOR CORRECT DENSITY OF SOILS, TOPOGRAPHY OR SITE SUITABILITY VERIFICATION, BEARING CAPACITY, FINAL LOT DRAINAGE VERIFICATION OR PLUMBING INSTALLATION.
- AS PER AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530) AND SPECIFICATION FOR MASONRY STRUCTURES (ACI 530.1) AND PER LOCAL BUILDING CODES, BUILDER SHOULD LOCATE EXPANSION JOINTS IN BRICK VENEER EVERY 20' - 25' MAXIMUM. PLACEMENT IS RECOMMENDED AT RETURNS AND JAMBS OF WALL OPENINGS. EXPANSION JOINT FILLERS MUST BE COMPRESSIBLE SO THE ANTICIPATED EXPANSION OF THE MASONRY CAN OCCUR WITHOUT IMPOSING STRESS.
- ANY TREES WHICH WERE REMOVED FROM THE BUILDING SITE ITSELF (WITHIN THE FORMS) OR WERE CLOSER THAN THE TREE'S CANOPY OVERHANG TO THE FORM EDGE, MAY HAVE LOWERED THE BEARING SOIL'S MOISTURE CONTENT WITHIN THE TREE ROOT ZONE(S) TO LEVELS BELOW THOSE OF THE SURROUNDING BEARING SOILS. THE EXPANSION POTENTIAL OF THESE LOCALIZED ROOT ZONE SOILS COULD BE LARGER THAN THE VALUES NOTED IN THE SOIL REPORT. IF TREES WERE REMOVED WITHIN THE PROXIMITY NOTED ABOVE, STEPS MAY BE REQUIRED TO STABILIZE OR RE-MOISTURE THESE SOILS TO MATCH THE MOISTURE LEVELS (OR POTENTIAL EXPANSION PROPERTIES) OF THE SOILS OUTSIDE THE ROOT ZONE(S). THE BUILDER SHOULD CONTACT THE GEOTECHNICAL ENGINEER FOR SPECIFIC RECOMMENDATIONS AND PROCEDURES.



NO	DATE	ISSUES/REVISIONS
A	11/22/2023	ISSUED FOR REVIEW
0	01/11/2024	ISSUED FOR PERMIT

**DUNAWAY | BEC**

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| TBP REGIS. #: F-1114

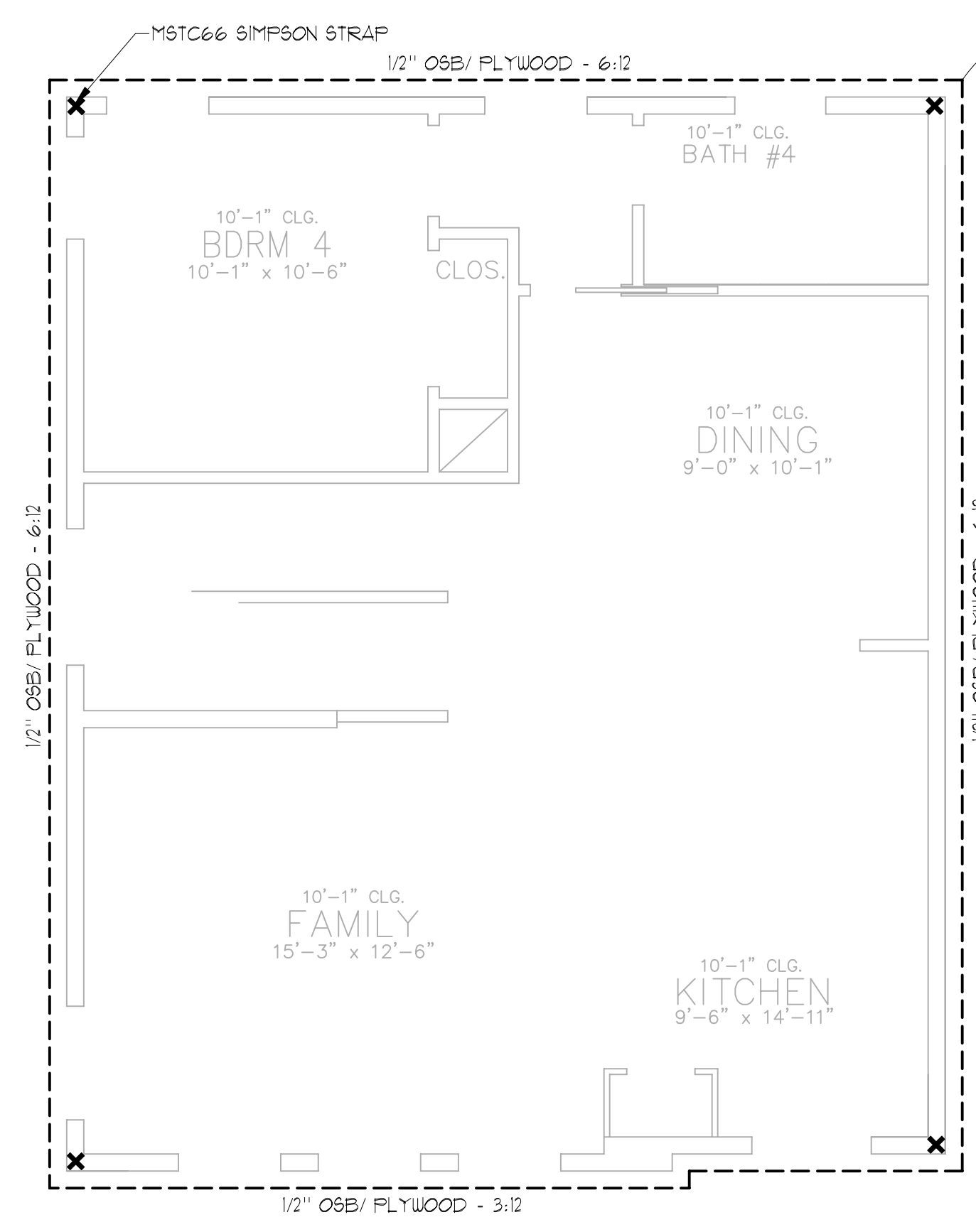
**TREEHOUSE DEVELOPMENT, LLC**

4504 & 4506 TERRY STREET  
HOUSTON, TEXAS 77009

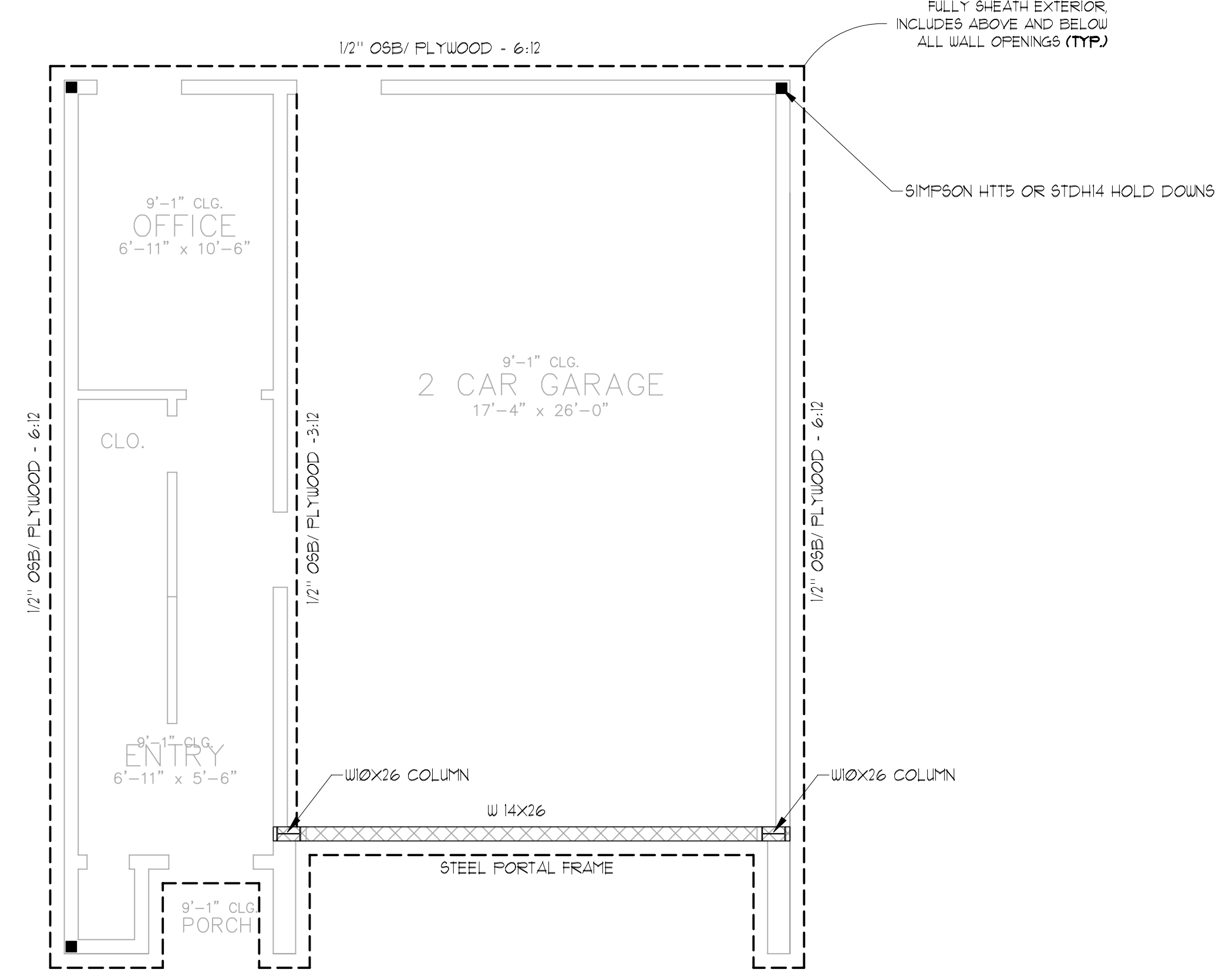
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1ST & 2ND LEVEL FRAMING PLAN

SHEET NO. **S3.0**

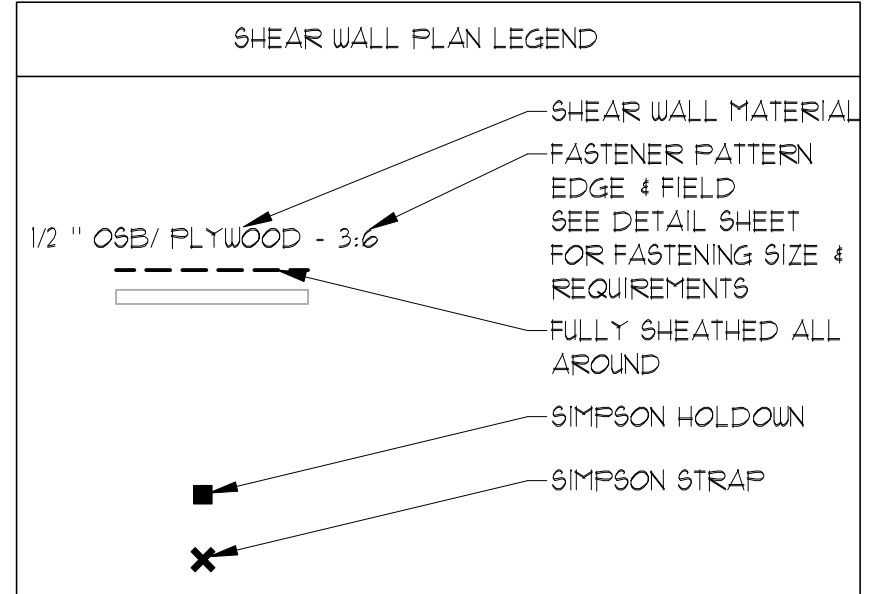


**SECOND FLOOR SHEARWALL PLAN**  
SCALE 1/4" = 1'-0" ON 22X34 SHEET



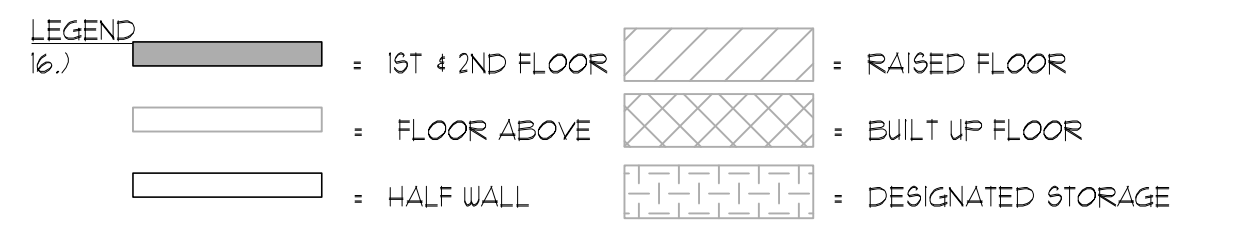
**FIRST FLOOR SHEARWALL PLAN**  
SCALE 1/4" = 1'-0" ON 22X34 SHEET

NOTE: ALL PLYWOOD & OSB SHALL BE FASTENED WITH 8d NAILS PER IRC PROVISIONS, FOR OTHER MATERIALS REF. MANUFACTURE

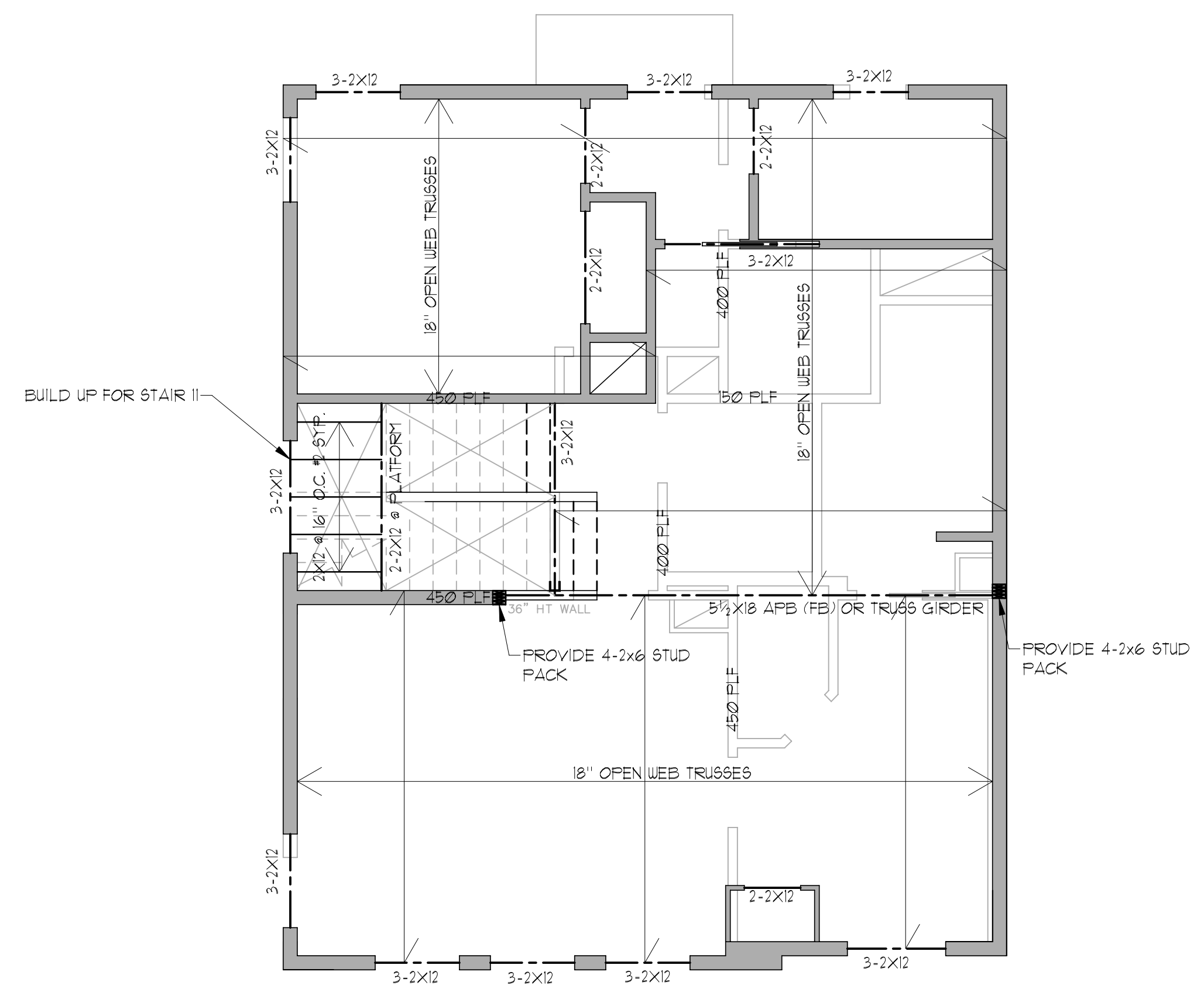


**FIRST & SECOND LEVEL NOTES:**

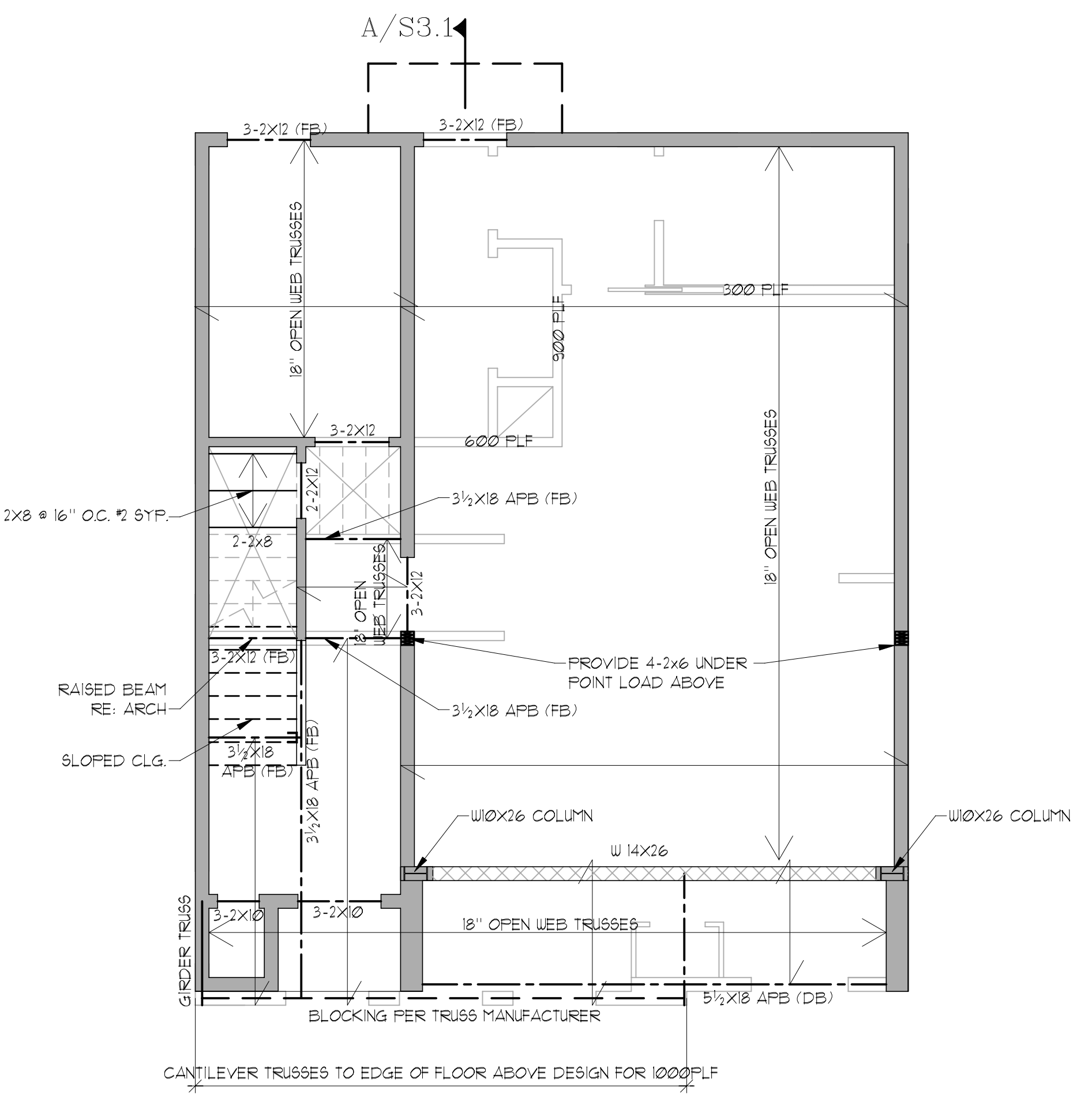
- WALL FRAMING & SHEATHING**
- FOR WALLS 10'-0" TALL OR LESS, ALL EXTERIOR WALLS ARE MINIMUM 2 X 4 STUDS @ 16" O.C. UNO. FOR WALLS TALLER THAN 10'-0", ALL EXTERIOR WALLS ARE 2 X 6 STUDS @ 16" O.C. UNO.
  - ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH 1/2" PLYWOOD (UNO). INTERIOR WALLS TO BE SHEATHED ARE INDICATED BY A DASHED LINE WITH ----SW---- REFER TO SHEARWALL DIAGRAMS, DETAILS, AND NOTES ON DETAIL SHEET FOR NAILING PATTERN, ETC. OSB BOARD WITH EQUIVALENT STRUCTURAL PROPERTIES MAY BE SUBSTITUTED.
  - BEAR ALL BEAMS ON MULTIPLE WALL STUDS GLUED AND NAILED TO ACT AS A SINGLE UNIT. NUMBER OF STUDS AT EACH END MUST EQUAL BEAM WIDTH UNLESS NOTED OTHERWISE.
  - ALL INTERIOR WALL STUDS ARE A MINIMUM OF 2X4 @ 16" O.C. UNO.
  - REFER TO HEADER SCHEDULE BELOW FOR WINDOW HEADER SIZE UNLESS NOTED ON PLAN. 2 - 2 X 12 #2 SYP FOR 2X4 WALLS OR 3 - 2 X 12 FOR 2X6 WALLS, U.N.O. (USE 1/2" DOU BOARD OR PLYWOOD SPACER BETWEEN MEMBERS.)
- CEILING FRAMING**
- ALL ROOF LEVEL CEILING JOISTS (NOT SUPPORTING FLOOR ABOVE) ARE TO BE #2 SYP UNO. ALL ROOF LEVEL CEILING JOISTS ARE TO BE 2 X 6 @ 24" O.C. UNO. (MAX. SPAN = 9'-10")
  - ALL ANTHONY POWER BEAMS ARE AS MANUFACTURED BY ANTHONY FOREST PRODUCTS CO. THE FOLLOWING EQUIVALENT PRODUCT MAY BE SUBSTITUTED WITH ENGINEER'S APPROVAL.
    - PSL BEAMS BY WEYERHAEUSER
    - VERSALLAM BEAMS BY BOISE-CASCADE
    - X-BEAM BY ROSSBORO
  - ALL 'BEAMS' TO BE FLUSH WHERE REQUIRED TO MAINTAIN PROPER CEILING LINE. IF CONDITIONS ALLOW, BEAM MAY BE DROPPED FOR BOTTOM CHORD BEARING TRUSS TRUSS FRAMING NOTES
  - ALL FIRST LEVEL CEILING FRAMING WHICH SUPPORTS THE SECOND-FLOOR AREA TO BE 18" MIN. DEPTH OPEN WEB TRUSSES MAX SPACING 24" O.C. DESIGN PER TRUSS MANUFACTURER'S DRAWINGS (TRUSS LAYOUT AND ENGINEERING BY OTHERS).
  - SOLID BLOCKING REQUIRED BELOW ALL SECOND FLOOR WALLS WHICH RUN PERPENDICULAR TO FLOOR JOIST SPAN.
  - ALL OPEN WEB FLOOR TRUSSES (DESIGN BY MANUFACTURE) DESIGN FOR LIVE LOAD OF 40 PSF, PLUS WALL LOAD: DL+200 PLF LL=100 PLF UNO.
    - \* = POINT LOADS (KIPS)
    - ▲ (1 K) = TRUSS ALIGN W/ POINT LOAD FROM ABOVE (KIPS)
    - \* = TRUSS OR BEAM UNDER WALL ABOVE U.W.A.
    - = SPAN DIRECTION
  - NO TRUSS OR BEAM ALLOWED AT CENTER LINE OF TUB, TOILET, SHOWER DRAINS OR LIGHT FIXTURES.
  - PROVIDE MINIMUM 3" DROP UNDER SHOWERS WHERE SHOWN ON PLANS. TRUSS MANUFACTURE MAY ELECT TO DROP TRUSS SIZE AND FURR UP FOR REMAINING FLOOR OR USE TRUSS GIRDERS TO BOX OUT SHOWER (VERIFY WITH ARCH.)
  - USE TREATED SYP #2 WOOD IN PORCH/BALCONY AREA. REF. ARCH DRAWINGS FOR DECKING, WATERPROOFING, SURFACE MATERIAL AND FLASHING DETAILS, ETC.



- ABBREVIATIONS**
- FB. = FLUSH BEAM U.W.A. = UNDER WALL ABOVE B.O.B. = BOTTOM OF BEAM
  - D.B. = DROP BEAM D.B.L. = DOUBLE T.O.B. = TOP OF BEAM
  - F.R.B. = FOR ROOF BRACE TRP. = TRIPLE B.O.J. = BOTTOM OF JOIST
  - SW = SHEAR WALL
  - PLF = POUNDS PER LINEAR FOOT
  - = HOLD DOWN SEE DETAILS.
  - = SIMPSON OR EQUAL TRUSS, JOIST OR BEAM HANGER
  - S.B. = STRONGBACK TO DISTRIBUTE ROOF LOADS TO ADJACENT JOISTS TYP.



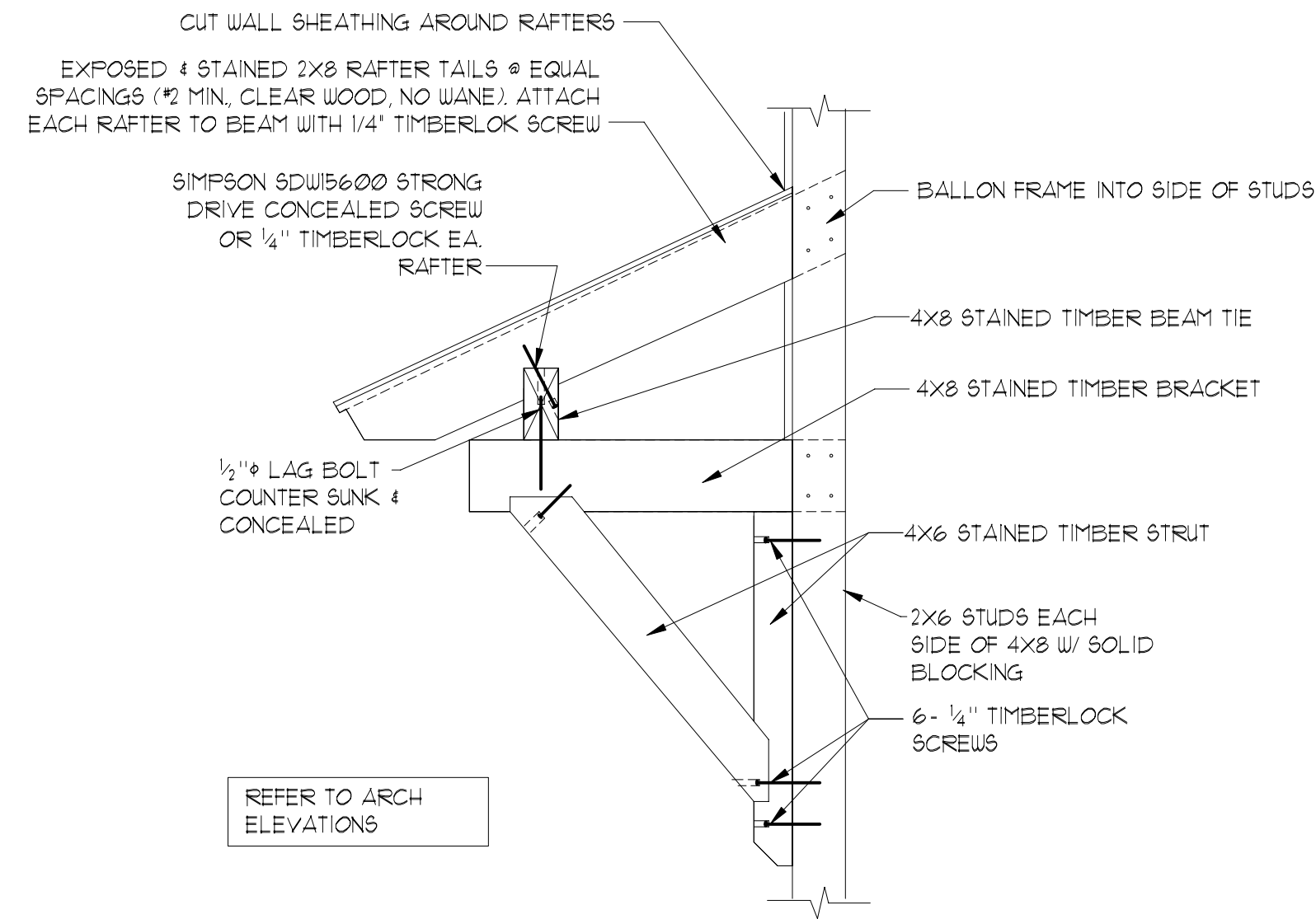
**SECOND LEVEL CEILING FRAMING PLAN**  
SCALE 1/4" = 1'-0" ON 22X34 SHEET



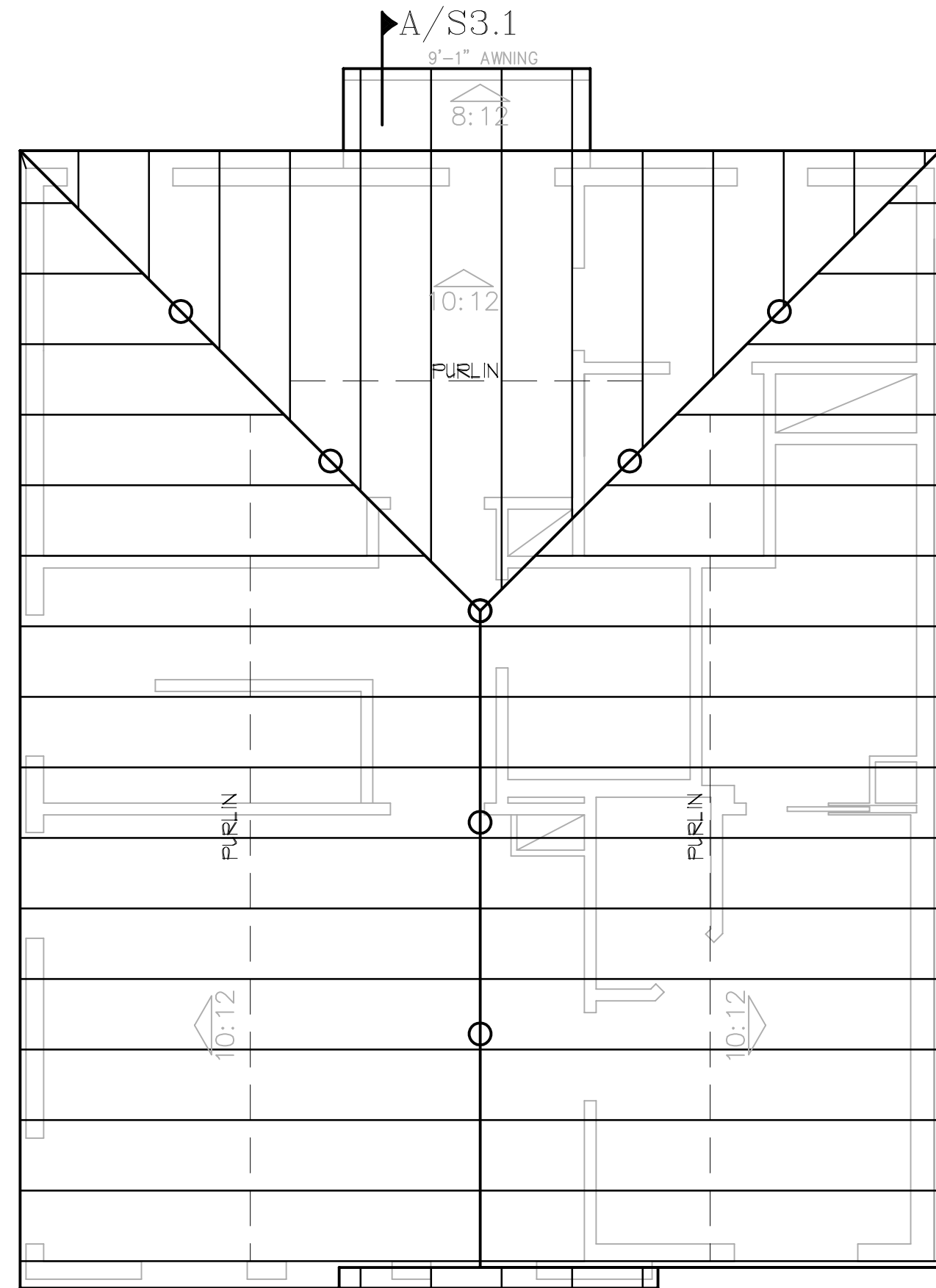
**FIRST FLOOR CEILING FRAMING PLAN**  
SCALE 1/4" = 1'-0" ON 22X34 SHEET

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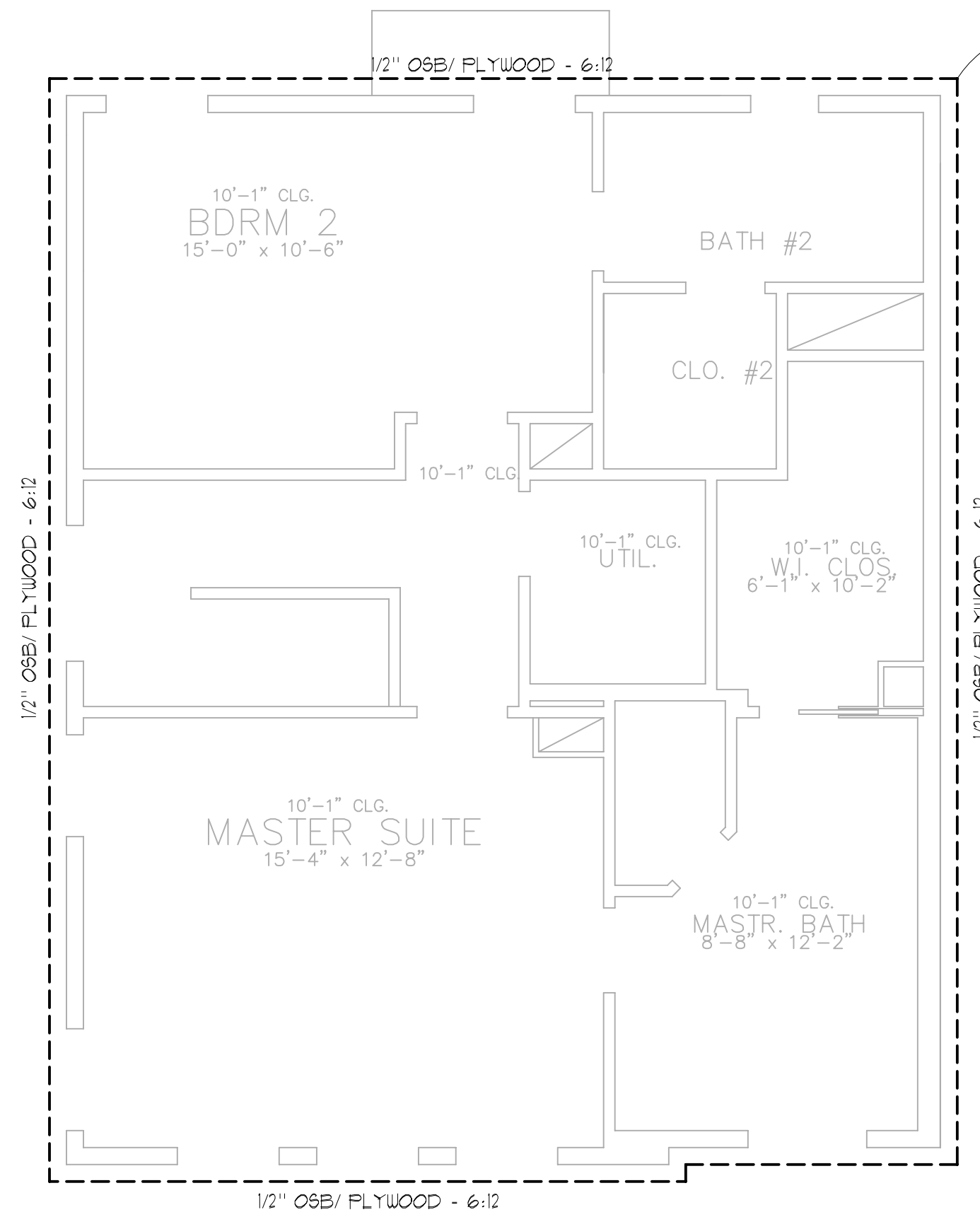
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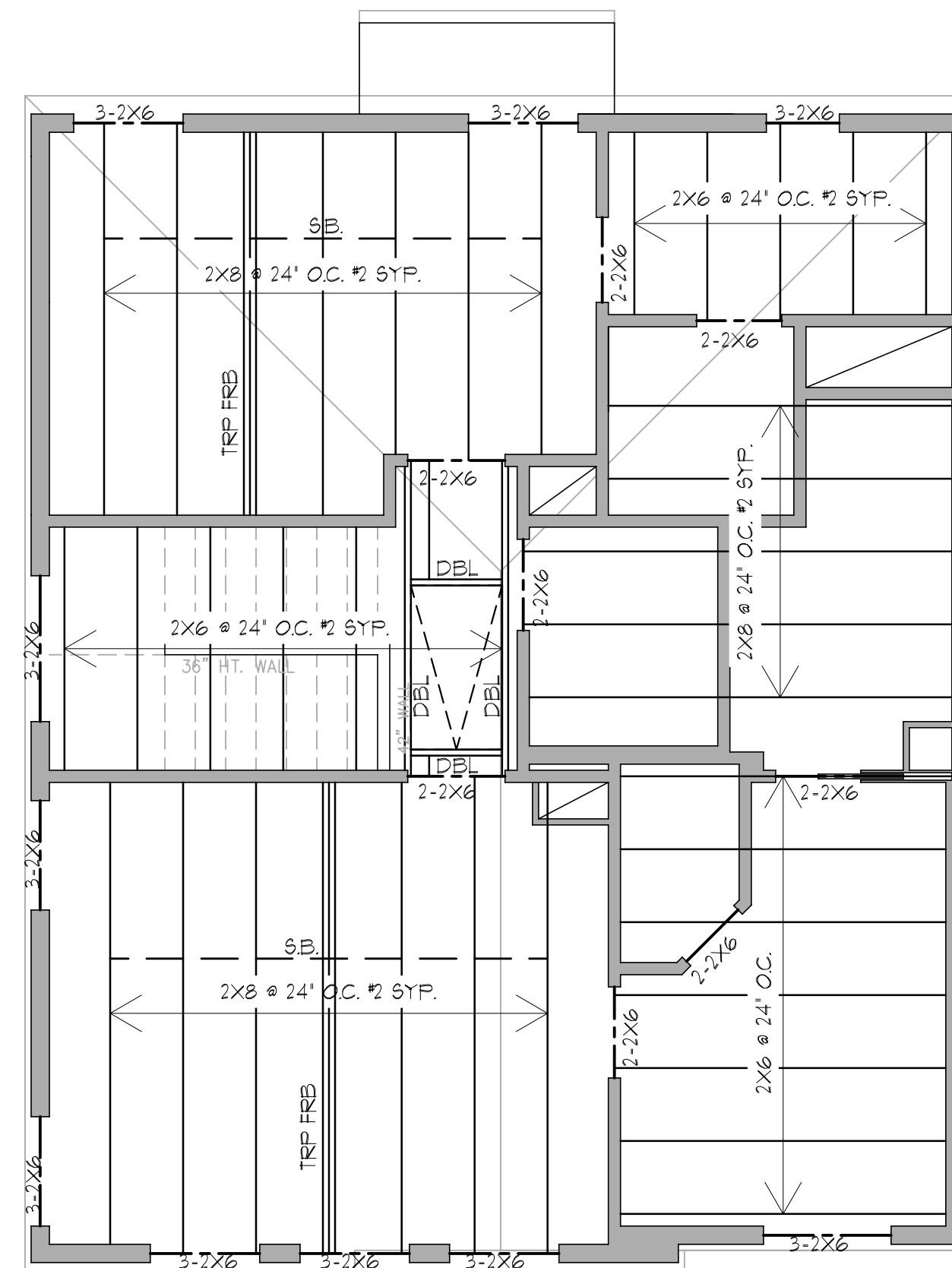
**AWNING OVERHANG**  
S3.1 NOT TO SCALE



**ROOF LEVEL FRAMING PLAN**  
SCALE 1/4" = 1'-0" ON 22x34 SHEET



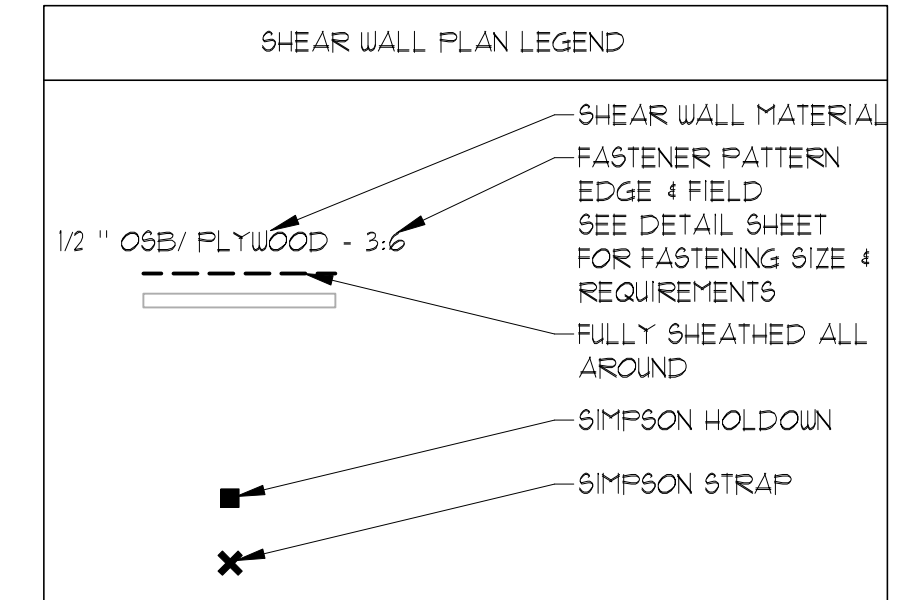
**THIRD FLOOR SHEARWALL PLAN**  
SCALE 1/4" = 1'-0" ON 22x34 SHEET



**THIRD FLOOR CEILING FRAMING PLAN**  
SCALE 1/4" = 1'-0" ON 22x34 SHEET

FULLY SHEATH EXTERIOR INCLUDES ABOVE AND BELOW ALL WALL OPENINGS (TYP)

NOTE: ALL PLYWOOD 4 OSB SHALL BE FASTENED WITH 8d NAILS PER IRC PROVISIONS, FOR OTHER MATERIALS REF. MANUFACTURE



**ROOF LEVEL NOTES:**

- ALL FRAMING TO BE #2 SYP, UNLESS NOTED OTHERWISE.
- ALL RAFTERS TO BE 2x6 @ 24" O.C. UNO, MAXIMUM SPAN 10'-1".
- ALL HIP, VALLEY AND RIDGE MEMBERS ARE TO BE #2 SYP, ONE NOMINAL SIZE LARGER THAN THE SUPPORTED MEMBERS, UNO.
- SEE ARCHITECTURAL DRAWINGS FOR ROOF PITCH AND PLATE HEIGHTS.
- DO NOT BRACE ROOF FRAMING DIRECTLY TO CEILING JOISTS UNO, ON PLAN.
- ATTACH RAFTERS TO TOP FLATES WITH SIMPSON HI OR H25 HURRICANE TIES AT EVERY OTHER ROOF RAFTER UNO.
- ALL ROOF DECKING TO BE 1/2" CDX PLYWOOD OR APPA RATED EQUAL SHEATHING, STANDARD NAILING WITH 8d NAILS SHOULD BE 6" O.C. AT PLYWOOD EDGES AND 10" O.C. AT INTERIOR SUPPORTS, AROUND ROOF PERIMETER AND ROOF RIDGE, A STRIP AREA 3" WIDE SHOULD BE NAILED WITH 8d NAILS @ 4" O.C. ON THE ROOF EDGE AND ALL PLYWOOD SHEET EDGES AND 6" O.C. AT INTERIOR FRAMING SUPPORTS, USE "H" CLIP SPACERS WHEN APPLYING DECK.
- PLACE COLLAR TIES @ EVERY OTHER RAFTER UNO.
- 2x6 FURLIN SUPPORTED AT 4'-0" O.C. MAXIMUM. ALL MULTIPLE JOISTS AND BEAMS USED TO SUPPORT FURLIN BRACES MUST BE BRACED AT THE TOP EDGE TO PREVENT ROLLOVER OR LATERAL SWAY.
- 2x4 TEE BRACE UP TO 8'-0" LONG.
- 2x6 TEE BRACE OVER 8'-0" LONG.
- BRACING LOCATIONS FOR TEE BRACE, BRACE DOWN TO NEAREST WALL (OR FLOAT BEAM, IF SHOWN) AT MAX 45° FROM VERTICAL.
- RAFTER ENDS ON OPPOSITE SIDES OF THE HIP AND VALLEY MEMBERS MAY BE STAGGERED NO MORE THAN 3" FOR OPPOSING RAFTERS, RAFTER ENDS ON OPPOSITE SIDES OF RIDGE MEMBERS SHOULD BE DIRECTLY OPPOSITE OF EACH OTHER.

**THIRD LEVEL NOTES:**

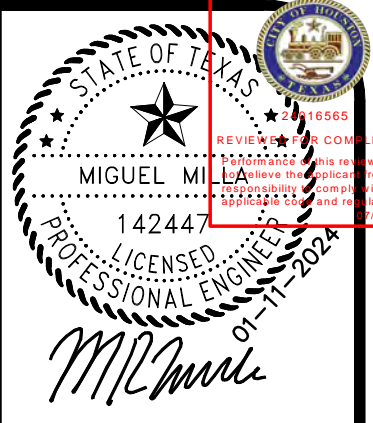
- WALL FRAMING & SHEATHING**
- FOR WALLS 10'-0" TALL OR LESS, ALL EXTERIOR WALLS ARE MINIMUM 2 X 4 STUDS @ 16" O.C. UNO. FOR WALLS TALLER THAN 10'-0", ALL EXTERIOR WALLS ARE 2 X 6 STUDS @ 16" O.C. UNO.
  - ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH 1/2" PLYWOOD (UNO). INTERIOR WALLS TO BE SHEATHED ARE INDICATED BY A DASHED LINE WITH ----SW---- REFER TO SHEARWALL DIAGRAMS, DETAILS, AND NOTES ON DETAIL SHEET FOR NAILING PATTERN, ETC. OSB BOARD WITH EQUIVALENT STRUCTURAL PROPERTIES MAY BE SUBSTITUTED.
  - BEAR ALL BEAMS ON MULTIPLE WALL STUDS GLUED AND NAILED TO ACT AS A SINGLE UNIT. NUMBER OF STUDS AT EACH END MUST EQUAL BEAM WIDTH UNLESS NOTED OTHERWISE.
  - ALL INTERIOR WALL STUDS ARE A MINIMUM OF 2X4'S @ 16" O.C. UNO.
  - REFER TO HEADER SCHEDULE BELOW FOR WINDOW HEADER SIZE UNLESS NOTED ON PLAN. 2 - 2 X 6 #2 SYP FOR 2X4 WALLS OR 3 - 2 X 6 FOR 2X6 WALLS, UNO. (USE 1/2" DOW BOARD OR PLYWOOD SPACER BETWEEN MEMBERS)
- CEILING FRAMING**
- ALL ROOF LEVEL CEILING JOISTS (NOT SUPPORTING FLOOR ABOVE), ARE TO BE #2 SYP, UNO. ALL ROOF LEVEL CEILING JOISTS ARE TO BE 2 X 6'S @ 24" O.C. UNO. (MAX. SPAN = 9'-10")
  - ALL ANTHONY POWER BEAMS ARE AS MANUFACTURED BY ANTHONY FOREST PRODUCTS CO. THE FOLLOWING EQUIVALENT PRODUCT MAY BE SUBSTITUTED WITH ENGINEER'S APPROVAL.
    - P8L BEAMS BY WEYERHAEUSER
    - VERSALLAM BEAMS BY BOISE-CASCADE.
    - X-BEAM BY ROSSBORO
  - ALL 'BEAMS' TO BE FLUSH WHERE REQUIRED TO MAINTAIN PROPER CEILING LINE, IF CONDITIONS ALLOW, BEAM MAY BE DROPPED FOR BOTTOM CHORD BEARING TRUSS
  - USE TREATED SYP #2 WOOD IN PORCH/BALCONY AREA, REF. ARCH DRAWINGS FOR DECKING, WATERPROOFING, SURFACE MATERIAL AND FLASHING DETAILS, ETC.

**LEGEND**

- 10.) = THIRD FLOOR = RAISED FLOOR  
 = ROOF = BUILT UP FLOOR  
 = HALF WALL = DESIGNATED STORAGE

**ABBREVIATIONS**

- 11.) F.B. = FLUSH BEAM U.W.A. = UNDER WALL ABOVE B.O.B. = BOTTOM OF BEAM  
 D.B. = DROP BEAM D.B.L. = DOUBLE T.O.B. = TOP OF BEAM  
 F.R.B. = FOR ROOF BRACE TRP = TRIPLE B.O.J. = BOTTOM OF JOIST  
 SW = SHEAR WALL  
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 S.B. = STRONGBACK TO DISTRIBUTE ROOF LOADS TO ADJACENT JOISTS TYP.



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**DUNAWAY | BEC**

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 (TBE REGIS. #: F-1114)

**TREEHOUSE DEVELOPMENT, LLC**

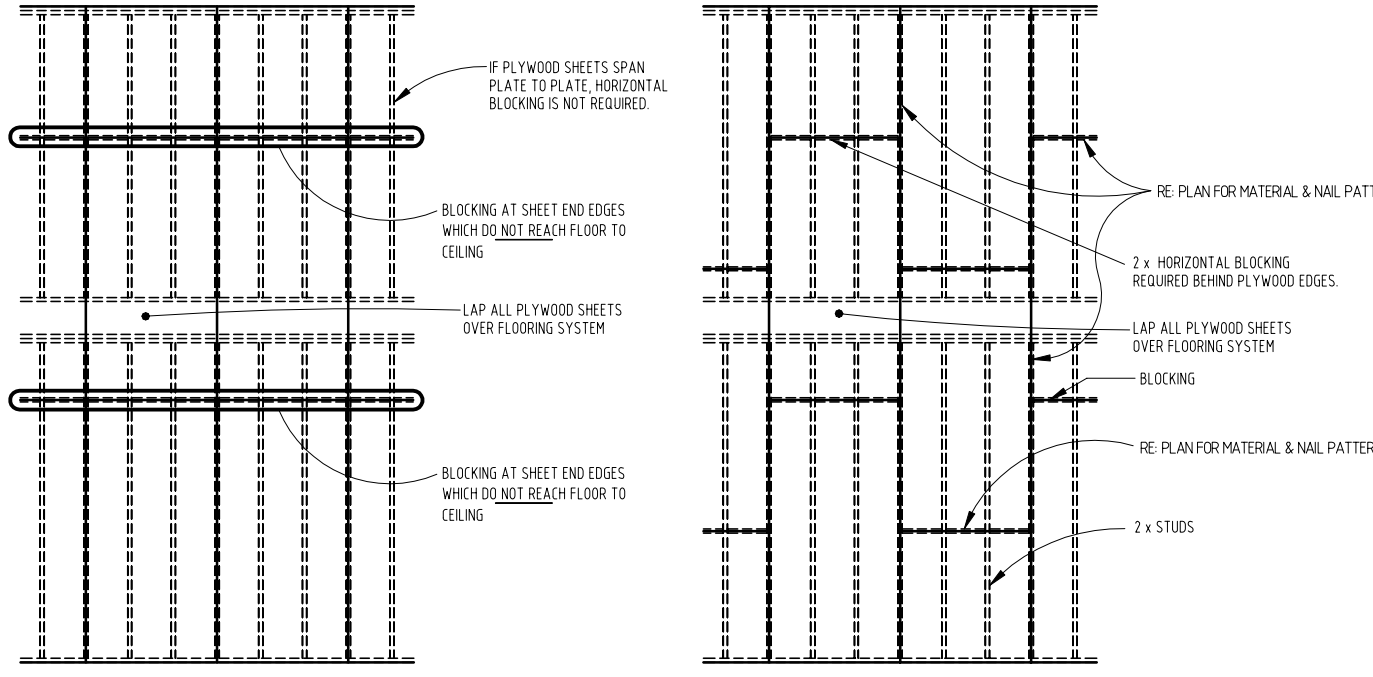
**4504 & 4506 TERRY STREET  
HOUSTON, TEXAS 77009**

REF#: B-10508

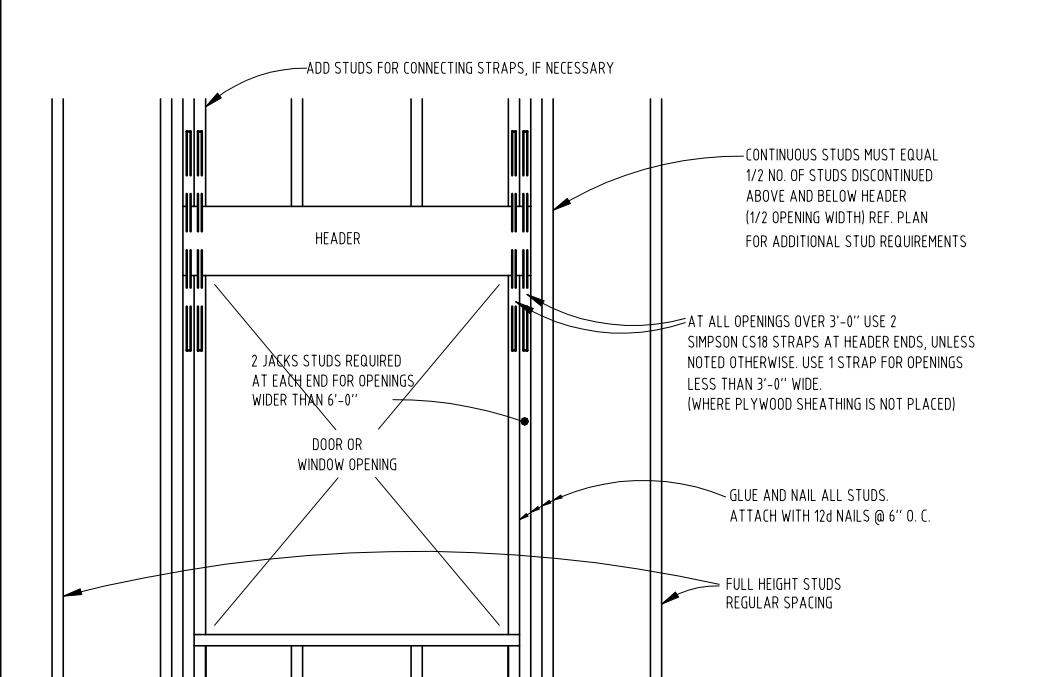
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**ROOF & 3RD FLOOR FRAMING PLAN**

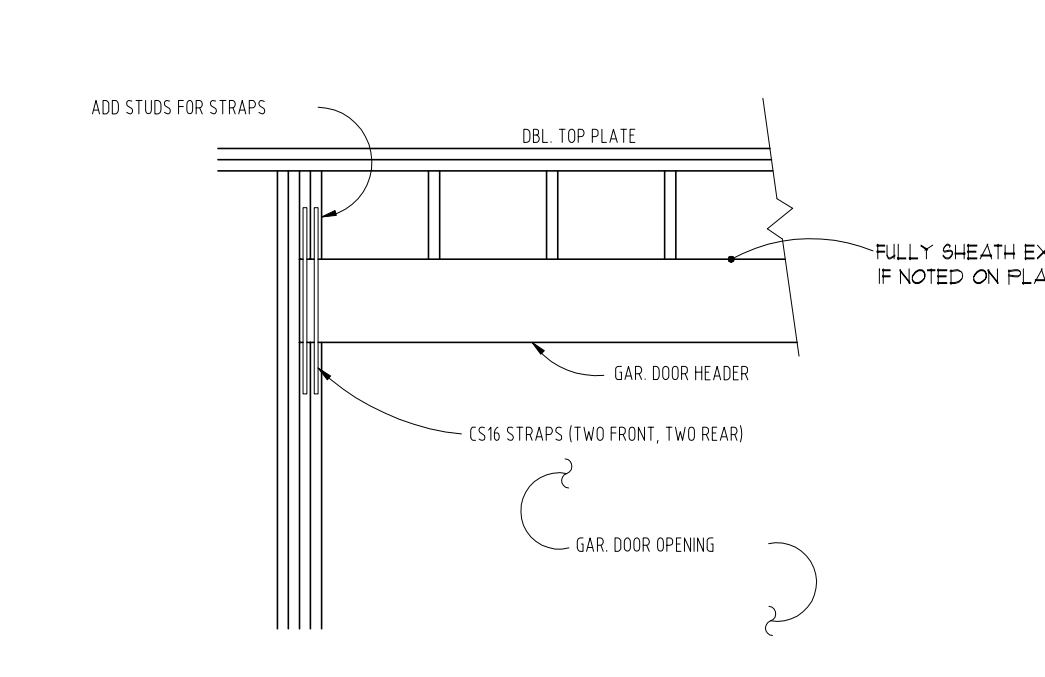
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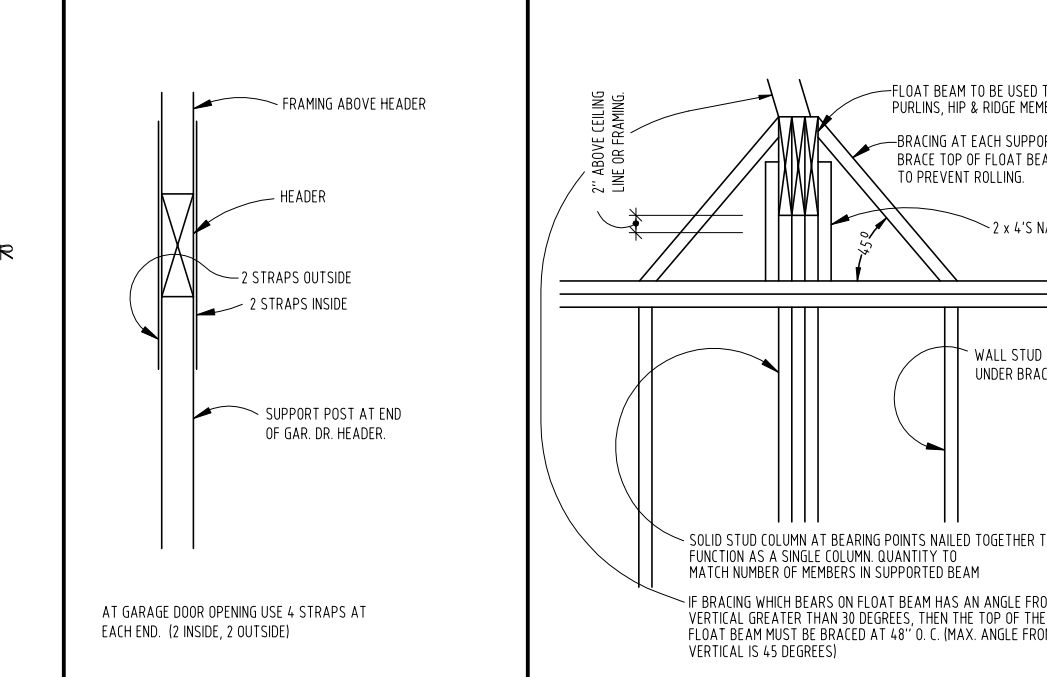
PLYWOOD BLOCKING AND NAILING PATTERN FOR EXTERIOR WALLS



WALL REINF. AROUND WINDOW OPENINGS

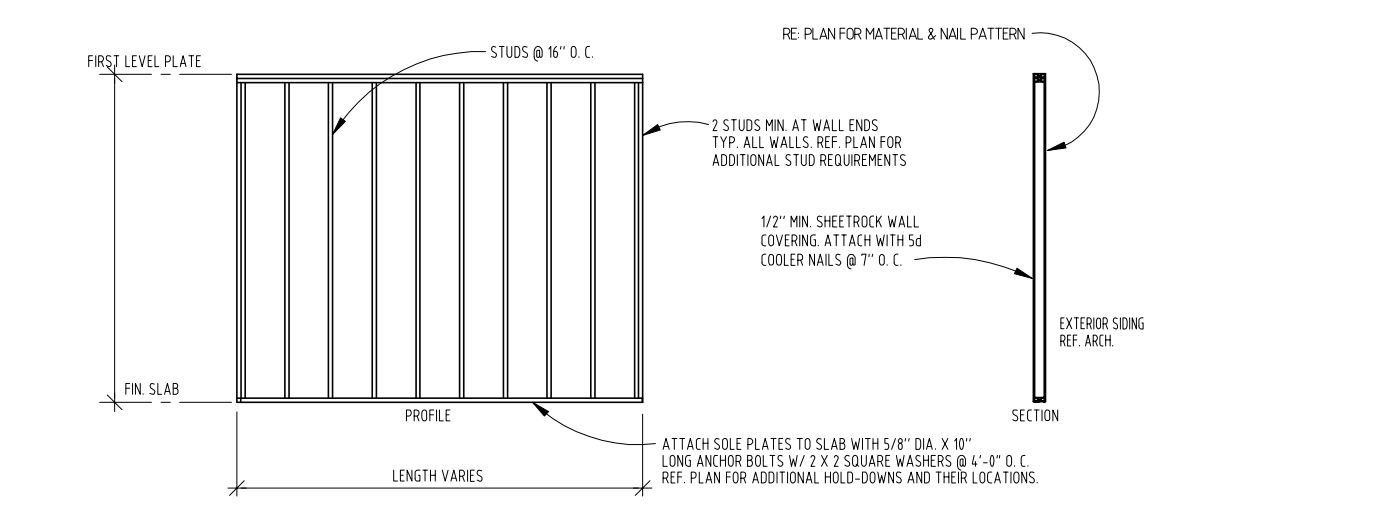


GARAGE DOOR OPENING REINF.

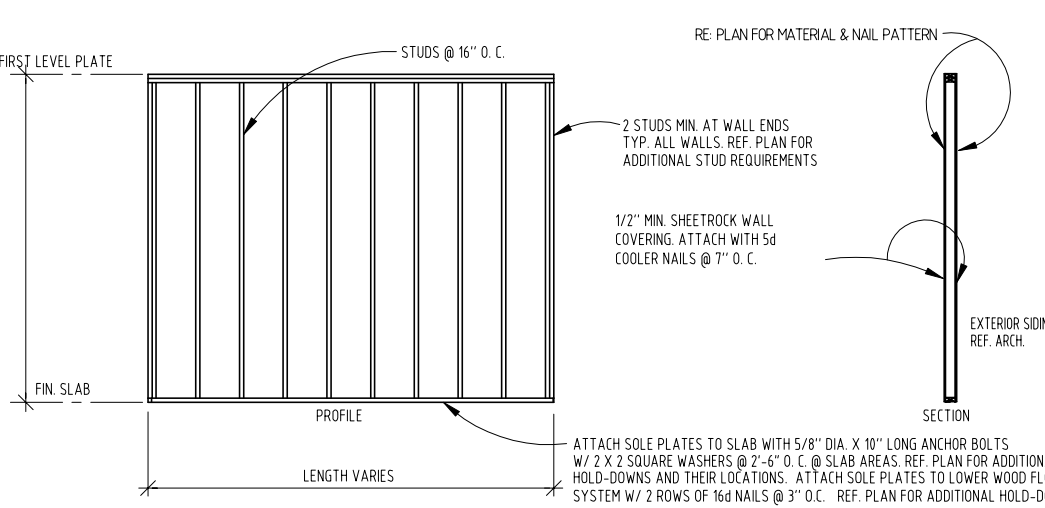


WALL REINF. AROUND GARAGE DOOR OPENINGS

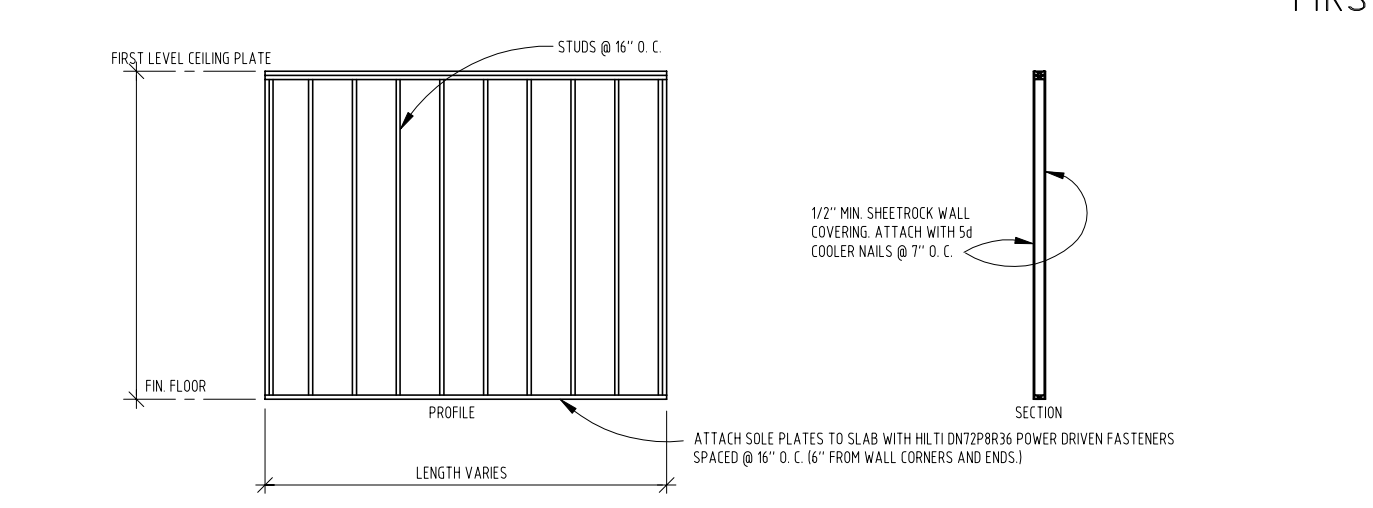
FLOAT BEAM DETAIL



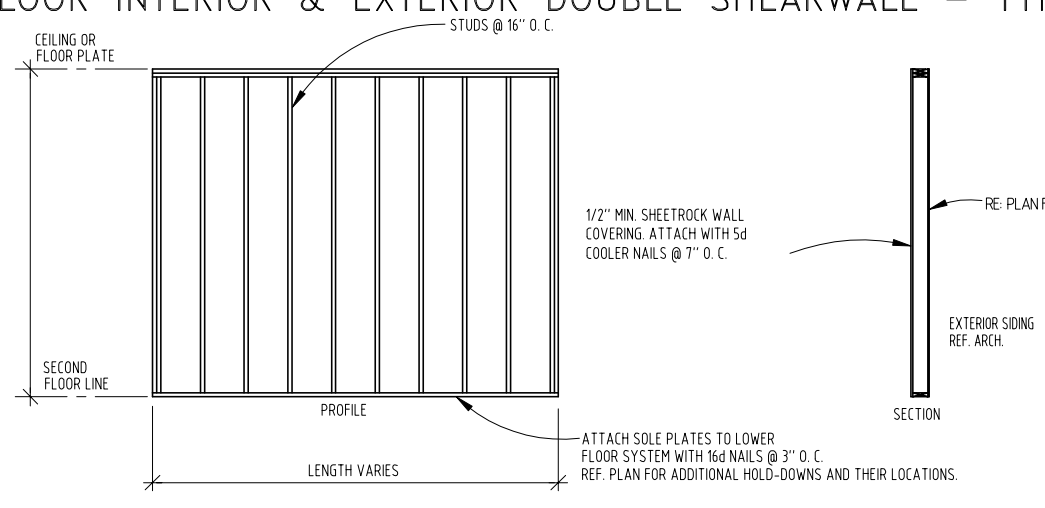
FIRST FLOOR EXTERIOR SHEARWALL - TYPICAL DETAIL



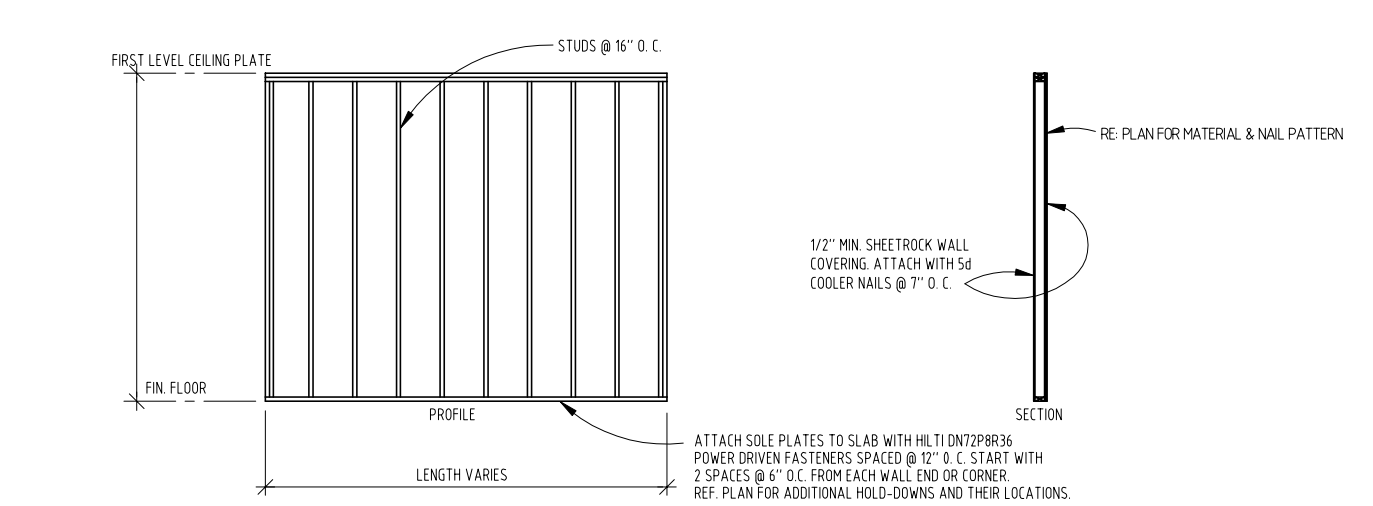
FIRST FLOOR INTERIOR & EXTERIOR DOUBLE SHEARWALL - TYPICAL DETAIL



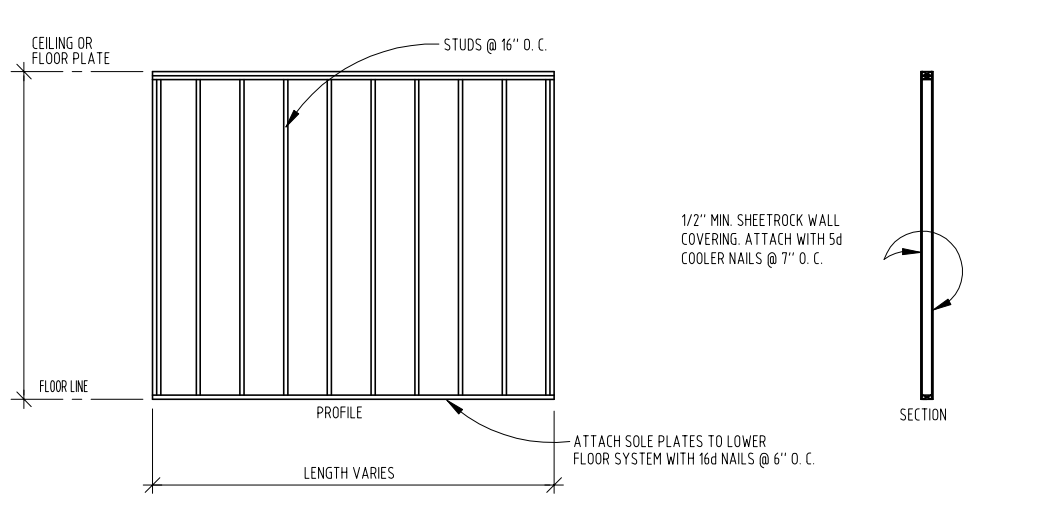
FIRST FLOOR INTERIOR WALL - TYPICAL DETAIL



SECOND OR THIRD FLOOR EXTERIOR SHEARWALL

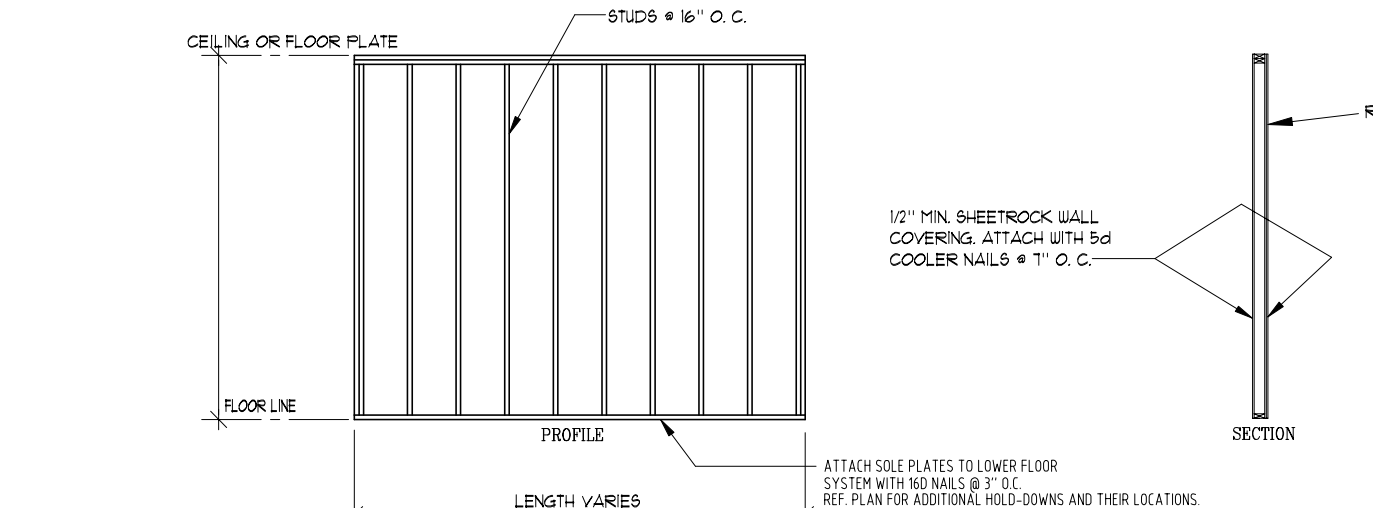


FIRST FLOOR INTERIOR SHEARWALL - TYPICAL DETAIL INDICATED BY "SW" ON PLAN.



SECOND OR THIRD FLOOR INTERIOR WALL TYPICAL DETAIL

PLYWOOD AND SHEETROCK NAILING DIAGRAMS INDICATED BY "SW". LENGTH SPECIFIED WHERE REQUIRED IS GIVEN IN FEET.



SECOND OR THIRD FLOOR INTERIOR SHEARWALL - TYPICAL DETAIL INDICATED BY "SW" ON PLAN.

GENERAL NOTES - WOOD

- All joists and rafters shall be #3 SYP unless otherwise noted. Multiple 2 x 12 beams shall be at #3 SYP. All wall studs to be stud grade or #3 SYP. Attach all rafter ends to exterior wall framing with Simpson H1 connectors. Use Simpson HCP for Hip & Valley connectors. In lieu of 3 - 8d nails as noted in the I.R.C., attach ceiling and floor joists to top plates w/ 3 - 10d common nails (toe-nailed) at each end where a connector is not used.
- Both holes through wood shall be drilled 1/8" maximum larger than the diameter of the bolts to be installed. Bolts through wood shall be fitted with standard washers.
- Wood framing members and connections shall be constructed and nailed in accordance with the I.R.C. Building Code, latest edition, unless otherwise noted, detailed or specified.
- Wall studs to be 2 X 4 or 2 X 6 studs @ 16" O.C. Attach each stud to top and sole plates with 2 - 5d nails each end. At exterior walls without plywood sheathing attach studs to the bottom sole plate with an additional Simpson H3 Hurricane anchor at 32" O.C. See plan notes for additional connections.
- Joists under non-load bearing partitions shall be doubled.
- Provide Simpson Galvanized "LU & LUS" standard joist hangers at solid saw flush joint connections, and for trusses at flush beam connections, or use Simpson LSH hangers. All flush beam - to - beam connections are to be made with Simpson "MCI" & "M1" connectors, U.N.O. All Simpson specifications and recommendations are to be followed, unless noted otherwise.
- Let-in diagonal wood frame bracing shall be continuous #2 KD 1 x 6, well anchored to head and sill plates and attached to each wall stud along diagonal.
- Plywood or sheathing shall bear an AFPA Trademark and be stamped performance rated for application and exposure on gable. Face grain to run perpendicular to support members for horizontal (floor and roof) sheathing.
- Provide the same number of wall studs under beams as the number of members in the beams unless noted otherwise (3 - 2 X 4 studs under each end of a beam made of 2 - 2 X 6 members). Studs to be glued and nailed to function as a single column.
- Wood in direct contact with concrete or masonry shall be treated lumber.
- Wood columns and posts shall be framed to true end bearings, and shall be positively anchored to foundation with approved post bases. Support columns and post securely in position and protect base from deterioration. Columns and posts of treated wood may be placed directly on concrete or masonry. Use treated wood for all floor joists which are exposed or within 18" of the ground, or in permanent contact with earth.
- Joists shall be laterally supported at the ends, at each support and at 8'-0" O.C. maximum by solid blocking. Where the ends of joists are nailed to a flush header, band or rim joist or to an adjoining stud, end blocking may be omitted. UNLTD. at shearwalls. Solid blocking shall be not less than two inches (2") in thickness and shall match the depth of the joist.
- At exterior sole plates provide 5/8" dia. x 10" long anchor bolts with 2 x 2 square washers at 4'-0" O.C. in line with bolts at 12" maximum from wall ends. Bolts shall be embedded 7" minimum into concrete. As an alternate Simpson "IMS" hold - downs may be used. Place 8" from wall ends and space at 2'-8" O.C. See plans for any additional spacing and hold-down and anchoring requirements.
- All beams made up of multiple 2 X joists shall be connected in per the IRC Code requirements, or local code, whichever is stricter.
- Finish beam bolts shall be 3/4" diameter, U.N.O., located 2" from steel plate edges and shall be staggered. Provide two (2) standard washers per bolt, one (1) washer installed on each side of beam.
- Floor decking to be min. 3/4" 1&G plywood nailed to floor framing with 10d nails spaced at 4" o.c. at plywood sheet edges and 10" o.c. at interior supports. (8 gauge screws 1 1/4" min. penetration into support member may be used in lieu of 10d nails for decking attachment, same spacing as nails.)
- If not specified by applicable building codes, wood members, connections and construction shall comply with AITC Timber Construction Manual requirements, latest edition.
- All Simpson connectors used with treated wood members treated with chromated copper arsenate (CCA-C) or DDT sodium borate (SBC) should be coated with standard GPO galvanizing and connected with nails, screws, or bolts that are preservative galvanized. All Simpson connectors used with wood members treated with alkaline copper quat (ACQ-C) and ACQ-D) or copper azole (EBA-A and EBA-B) or any other "non-DDT" preservative should be coated with Simpson Z max (ZM3) or post hot dip galvanized (HDG) and connected with nails, screws, or bolts that are post hot dip galvanized (HDG) or are stainless steel (SS316). Wood treated with ammoniacal copper zinc arsenate (ACZA) or any other preservative treatment not noted above is NOT ALLOWED for construction.
- For engineered wood products noted on plans, all manufacturer specifications and installation requirements must be followed UNLTD.
- Temporary bracing is strictly the responsibility of the Contractor. The structural elements of this project were designed by the Engineer of Record to resist the code specified loads that could occur in the final completed structure only, possibly relying upon other architectural and structural elements for bracing. The contractor is responsible to provide the design and construction of all temporary construction bracing needed to maintain the safety and integrity of all structural elements during construction until all architectural and structural elements are erected, fastened and otherwise completed as detailed on the design drawings.

GENERAL NOTES - STRUCTURAL STEEL

- Structural steel shall conform to ASTM A36 and be detailed, fabricated and erected per AISC Manual of Steel Construction, latest edition. Pipe columns shall be ASTM A501 or A53 types E or S Grade B. Tube columns shall be ASTM A500 Grade B. Paint one S/C Zinc Chromate.
- Field connections may be welded or bolted. If bolted, use 3/4" minimum A325-N bolts unless otherwise shown. Unless noted, connections should develop the tabulated uniform load for the actual span from the AISC beam tables (two bolts minimum). Provide web connections for beams to columns unless noted otherwise.
- Splicing of members is prohibited without prior approval by engineer. Connection plates are to be 3/8" thick unless noted otherwise.
- All welding shall conform to the AWS code. Weld electrodes are to be E70XX series. Provide back-up strips as required.
- Where wood blocking is indicated attached to steel, provide 9/16" holes at 24" O.C. staggered for 1/2" machine bolts. Field applied fasteners may be used.
- Loss limits shall be as scheduled on the structural drawings, or as noted in table below.

CLEAR SPAN	LOSS LIMITS
1'-0" OR LESS	L3 1/2 X 3 1/2 X 5/16
4'-0"	L4 X 3 1/2 X 5/16
8'-0"	LS 3 1/2 X 5/16
10'-0"	L6 X 3 1/2 X 5/8
16'-0" @ GARAGE DOORS (No story above)	L8 X 3 1/2 X 5/8

Note: All limits to be Long Leg Vertical (LLV), UNLTD.

- NOTES:
- Listed steel shall be per ASTM A36.
  - Listings shall bear 6" min. in masonry at each end.
  - Listings shall not be connected to wood framing, UNLTD.
  - Listings shall be coated in accordance with local building code requirements for corrosion resistance.
  - See structural drawings for special listings with spans greater than 10'-0" or @ garage doors w/ 2nd floor veneer above.

TYPICAL BEAM (MEMBER SIZE)	SIZES	SIZE SIMPSON HANGER
3 1/2" X 11 1/4"	HUGS42	
3 1/2" X 11 7/8"	HUGS44	
3 1/2" X 14"	HUGS46	
3 1/2" X 16"	HUGS48	
3 1/2" X 18"	HUGS50	
3 1/2" X 19 1/4"	HUGS52	
3 1/2" X 19 7/8"	HUGS54	
3 1/2" X 21"	HUGS56	
3 1/2" X 22"	HUGS58	
3 1/2" X 24"	HUGS60	
3 1/2" X 26"	HUGS62	
3 1/2" X 28"	HUGS64	
3 1/2" X 30"	HUGS66	
3 1/2" X 32"	HUGS68	
3 1/2" X 34"	HUGS70	
3 1/2" X 36"	HUGS72	
3 1/2" X 38"	HUGS74	
3 1/2" X 40"	HUGS76	
3 1/2" X 42"	HUGS78	
3 1/2" X 44"	HUGS80	
3 1/2" X 46"	HUGS82	
3 1/2" X 48"	HUGS84	
3 1/2" X 50"	HUGS86	
3 1/2" X 52"	HUGS88	
3 1/2" X 54"	HUGS90	
3 1/2" X 56"	HUGS92	
3 1/2" X 58"	HUGS94	
3 1/2" X 60"	HUGS96	
3 1/2" X 62"	HUGS98	
3 1/2" X 64"	HUGS100	

- NOTES:
- SAW TREES - SOUTHERN YELLOW PINE SHALL BE THE GRADE SPECIFIED ON THE FRAMING DRAWINGS AND SHALL HAVE A MOISTURE CONTENT OF 55% MAXIMUM.
  - SAW TREES BEAMS USED AS HEADERS SHALL HAVE A 1/2" MIN PLYWOOD OR OSB PANEL PLACED BETWEEN THE TWO MEMBERS.
  - PARALLEL BEAMS SHALL BE AS MANUFACTURED BY MEYERHUISER, BOISE, IDAHO.
  - PROVIDE 3" BEARINGS AT EACH END OF ANY TIMBER BEAM LISTED ABOVE.
  - HANGERS SHALL BE INSTALLED PER MANUFACTURER'S MOST RECENTLY PRINTED LITERATURE.
  - SEE MANUFACTURER'S DETAIL SHEETS FOR TAPERED END CUTS.

DESIGN LOADS:

2021 IRC WITH COH ADJUSTMENTS	LIVE LOADS:	FLOORS:	- 40 PSF
	CEILING: <td>- 20 PSF</td>	- 20 PSF	
	ROOF: <td>20 PSF</td>	20 PSF	
	SOLAR READY ZONE: <td>5 PSF</td>	5 PSF	
	ATTIC ACCESS STAIR CAPACITY: <td>350 LBS.</td>	350 LBS.	
	HANDRAIL AND GUARDRAIL DESIGN LOADS: <td></td>		
	HANDRAILS AND GUARDRAILS SHALL SUPPORT A MINIMUM 200 LB LIVE LOAD IN ANY DIRECTION AT ANY POINT ALONG THE TOP.		
	WIND: <td>Veloc: 95 MPH</td>	Veloc: 95 MPH	
	RISK CAT II		
	EXPOSURE "B" HEIGHT 30'		

HEADERS:

ALL FIRST FLOOR HEADERS AND SECOND FLOOR LOAD BEARING HEADERS TO BE A MIN. OF 2 - 2 X 12 ON EDGE UNLESS NOTED OTHERWISE. 10'-0" MAX.	ALL OTHER HEADERS
	3'-0" MAX
	2 - 2 X 4's on Edge
	4'-0" MAX
	2 - 2 X 6's on Edge
	6'-0" MAX
	2 - 2 X 8's on Edge
	8'-0" MAX
	2 - 2 X 10's on Edge
	10'-0" MAX

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NO	DATE	ISSUES/REVISIONS
A	11/22/2023	ISSUED FOR REVIEW
0	01/11/2024	ISSUED FOR PERMIT

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**TREEHOUSE DEVELOPMENT, LLC**

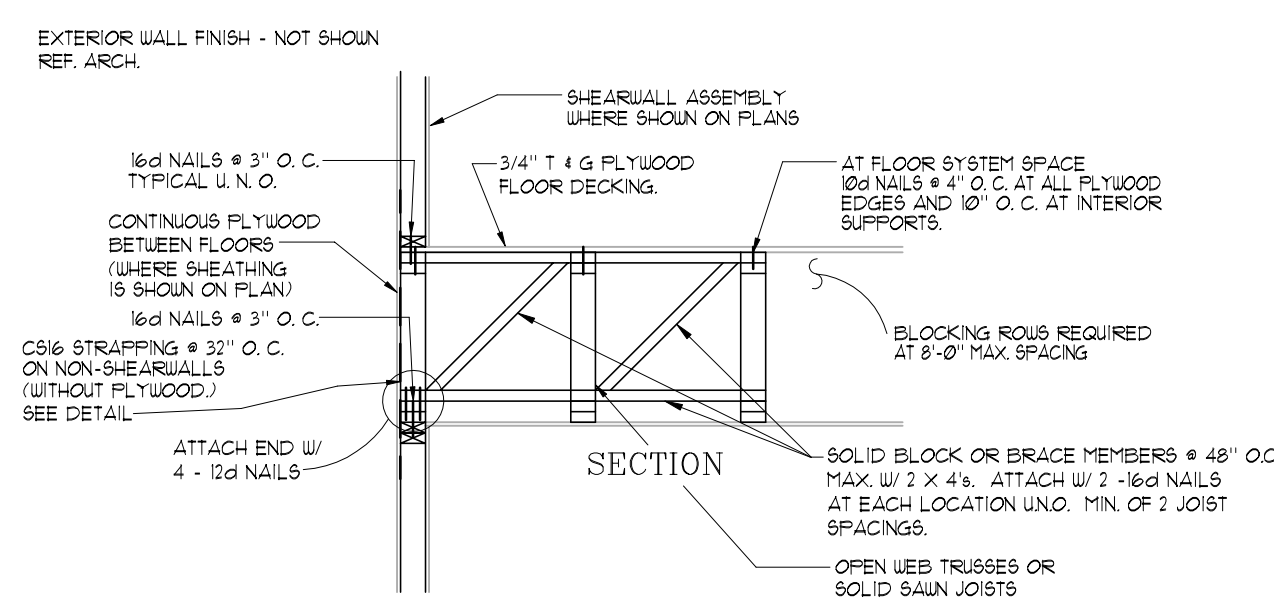
4504 & 4506 TERRY STREET  
HOUSTON, TEXAS 77009

REF#: B-10508

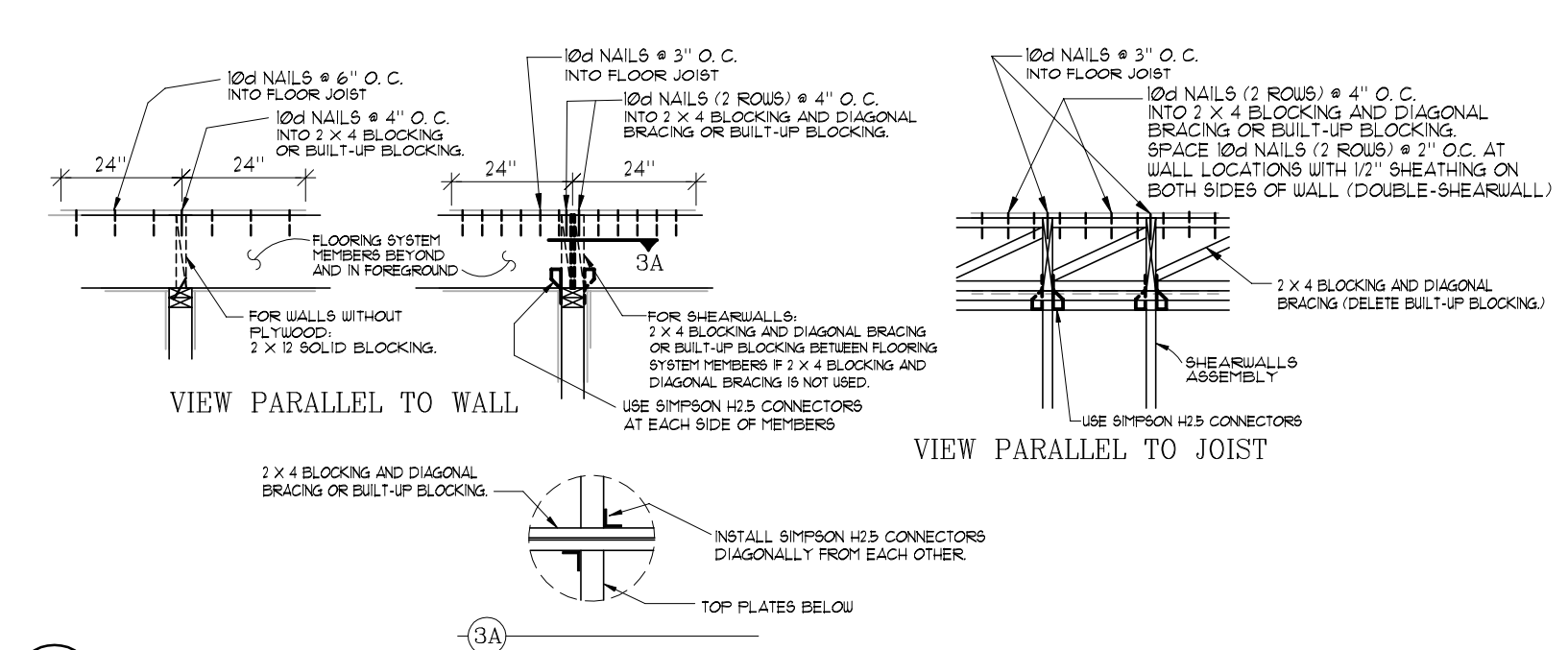
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**FRAMING DETAILS SHEET 1**

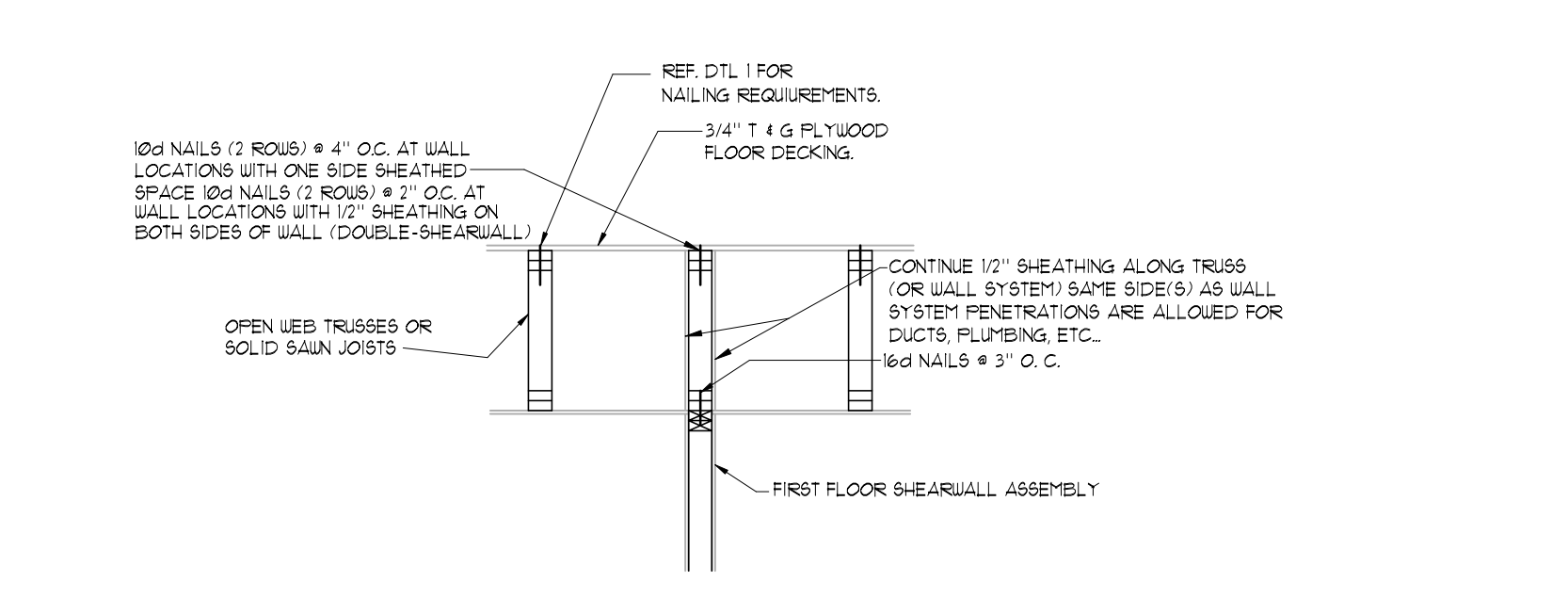
SHEET NO. **S4.0**



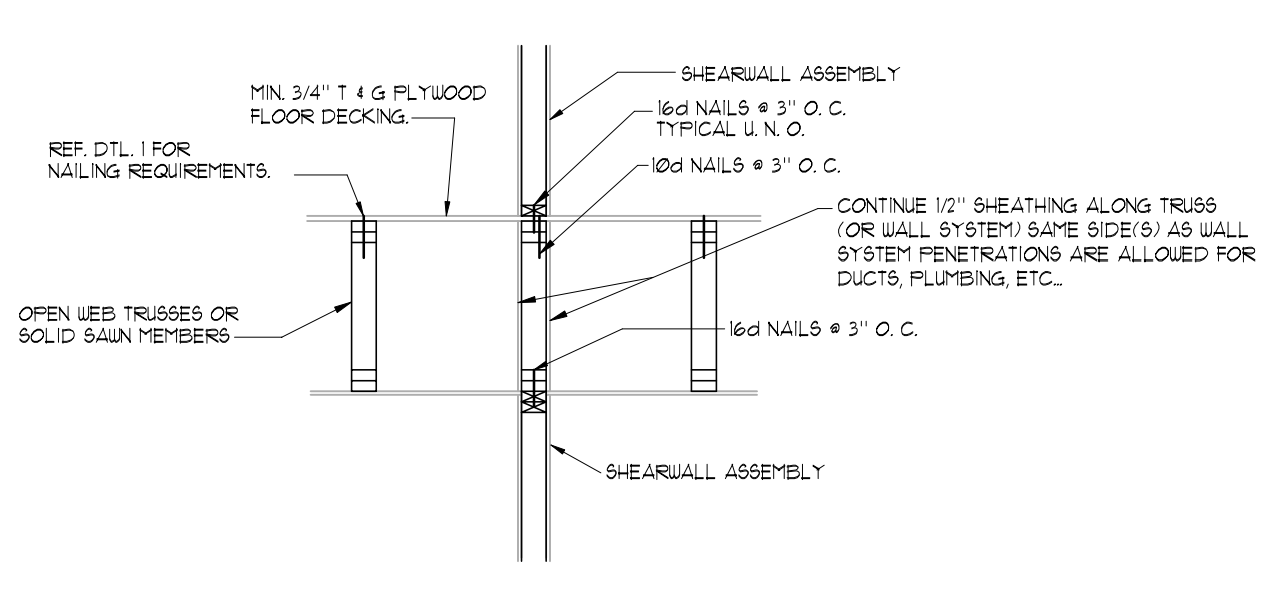
1 TYPICAL PERIMETER WALL FLOOR-TO-FLOOR CONNECTION FOR WALLS RUNNING PARALLEL TO FLOOR MEMBERS



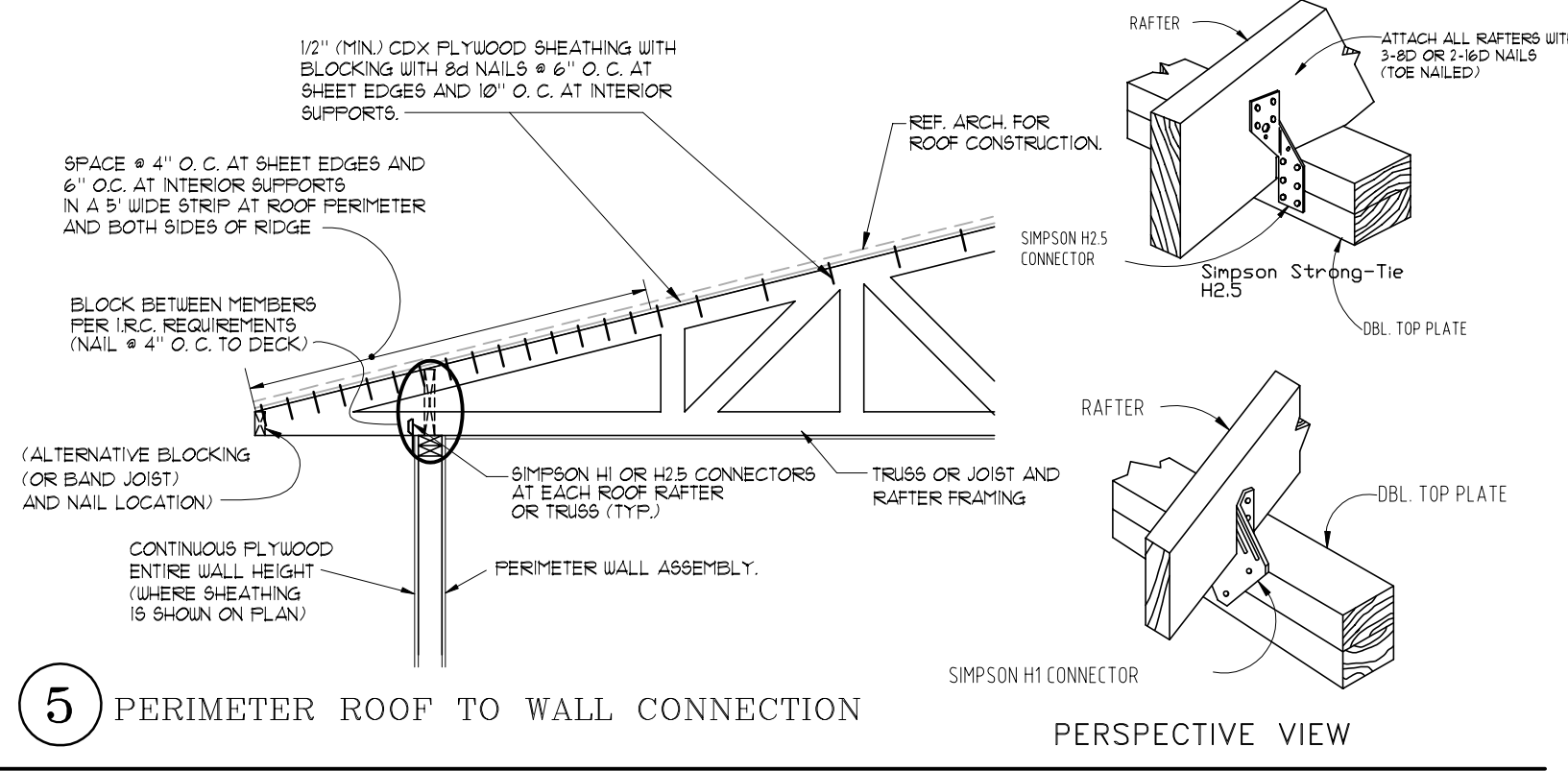
2 WALL AND SHEARWALL CONNECTION TO PERPENDICULAR FLOORING SYSTEM MEMBERS



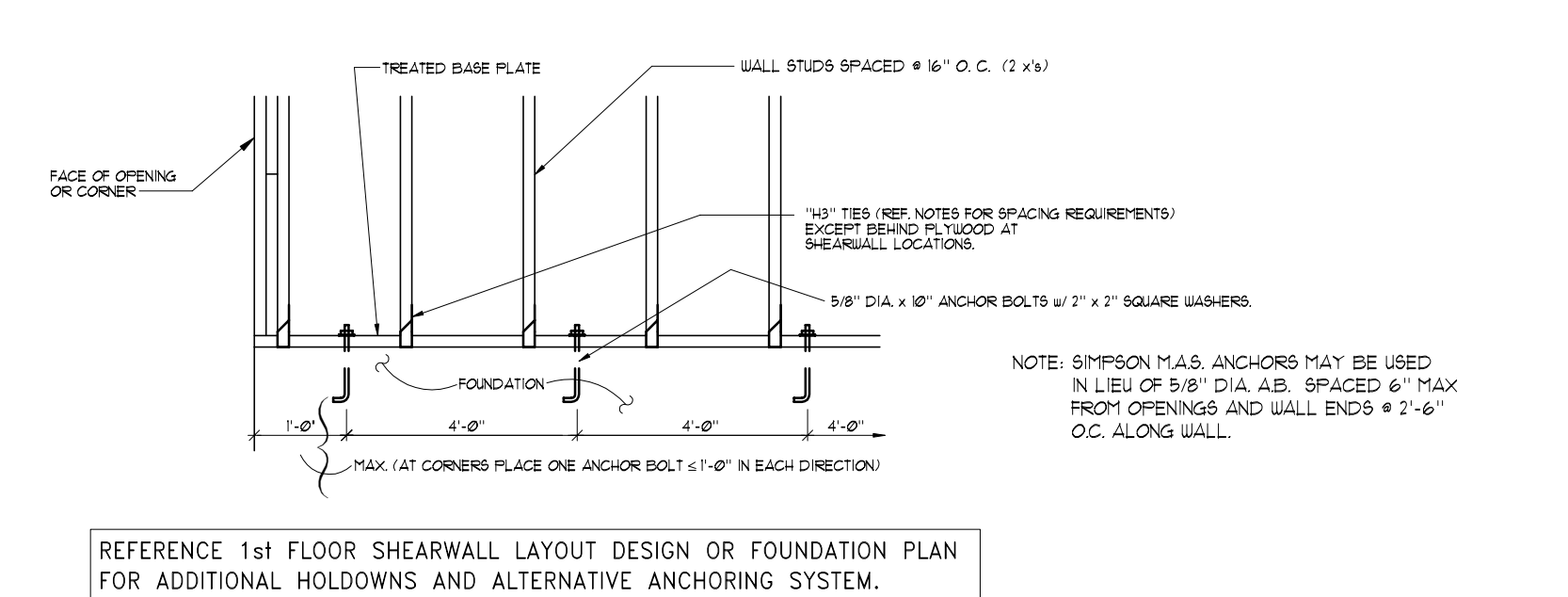
3 TYPICAL INTERIOR SHEARWALL DIRECTLY BELOW TRUSS FOR WALLS RUNNING PARALLEL TO FLOOR MEMBERS



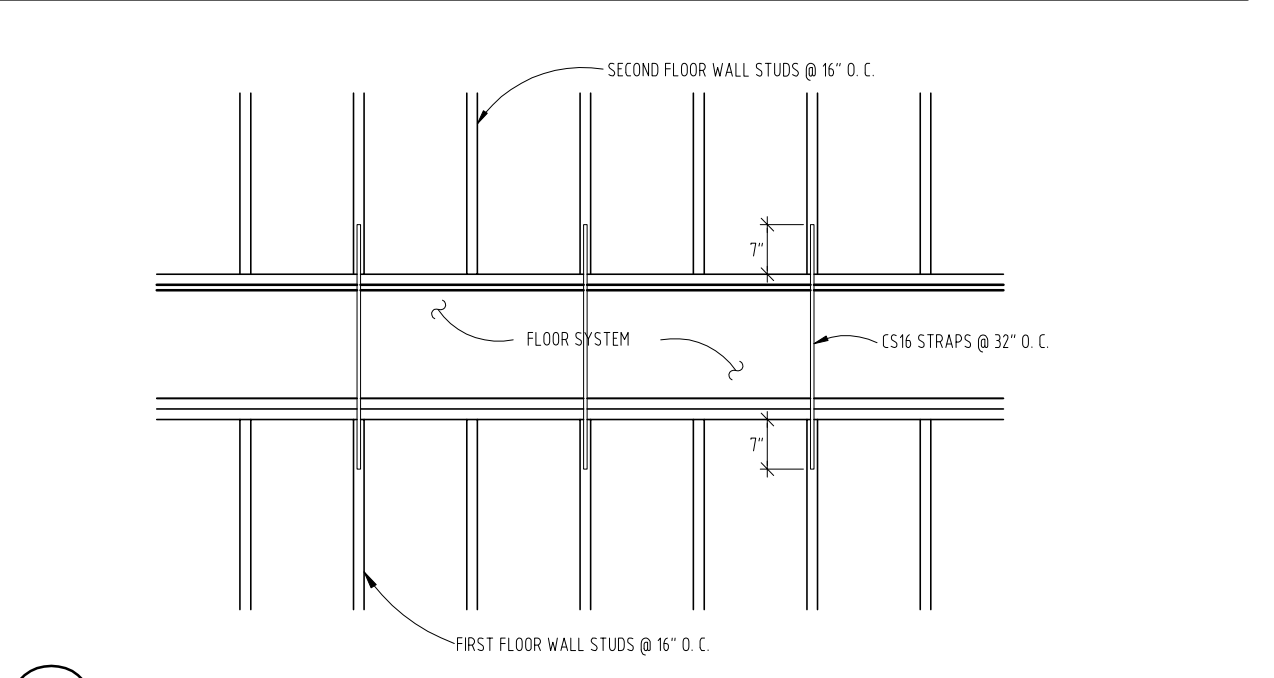
4 TYPICAL FLOOR MEMBERS DIRECTLY BETWEEN FLOOR TO FLOOR SHEARWALLS FOR WALLS RUNNING PARALLEL TO FLOOR MEMBERS



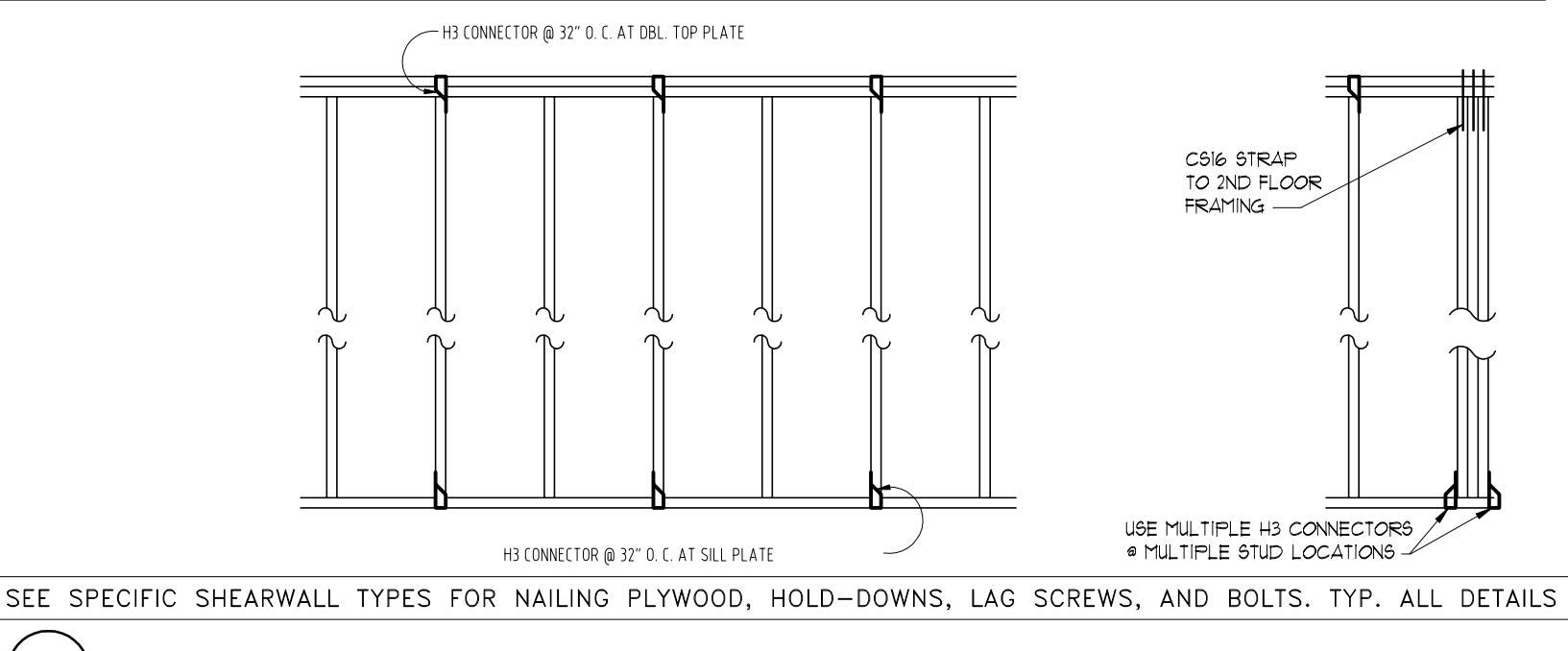
5 PERIMETER ROOF TO WALL CONNECTION



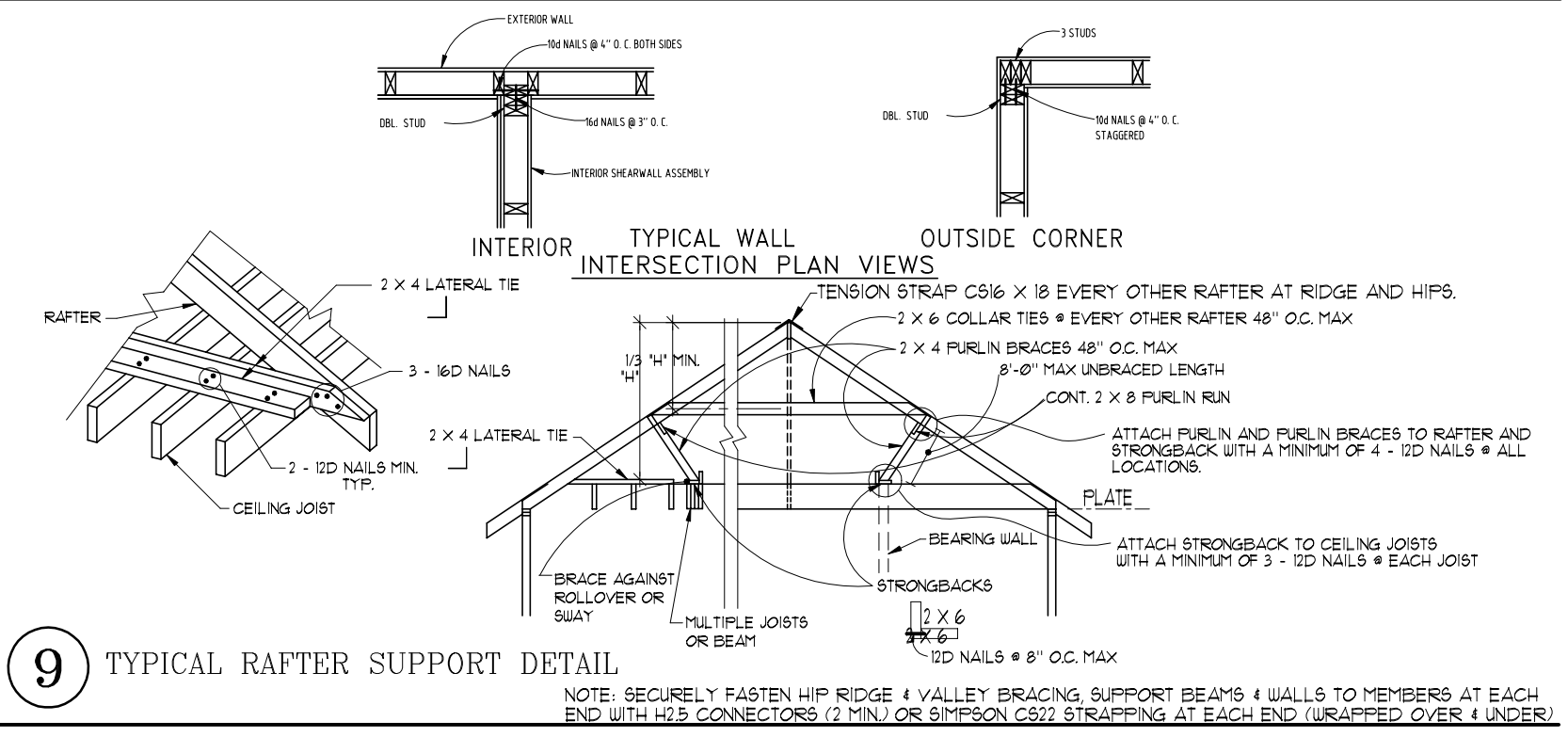
6 FIRST FLOOR PERIMETER WALL CONNECTION TO FOUNDATION. TYPICAL ALL WALLS.



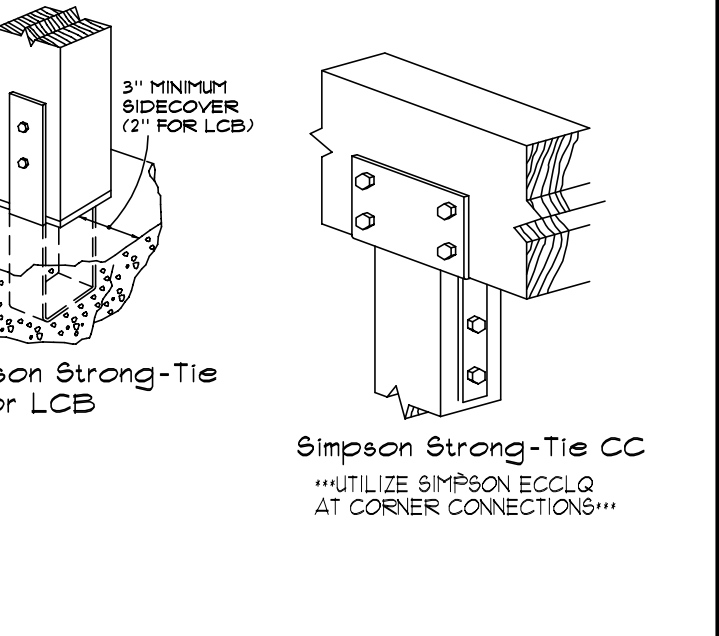
7 ALIGNED FIRST AND SECOND FLOOR EXTERIOR WALLS (UNSHEATHED WALLS)



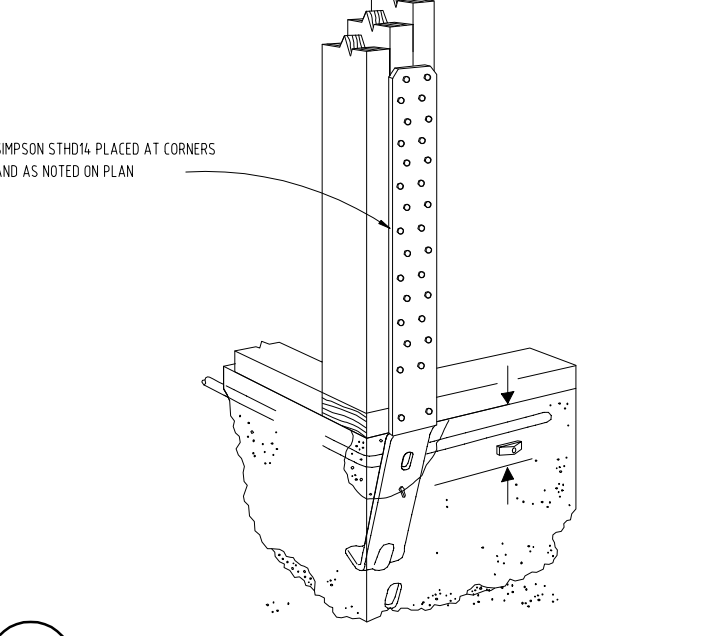
8 TYPICAL STUD - TO - PLATE CONNECTIONS (UNSHEATHED EXTERIOR WALLS-NON PLYWOOD)



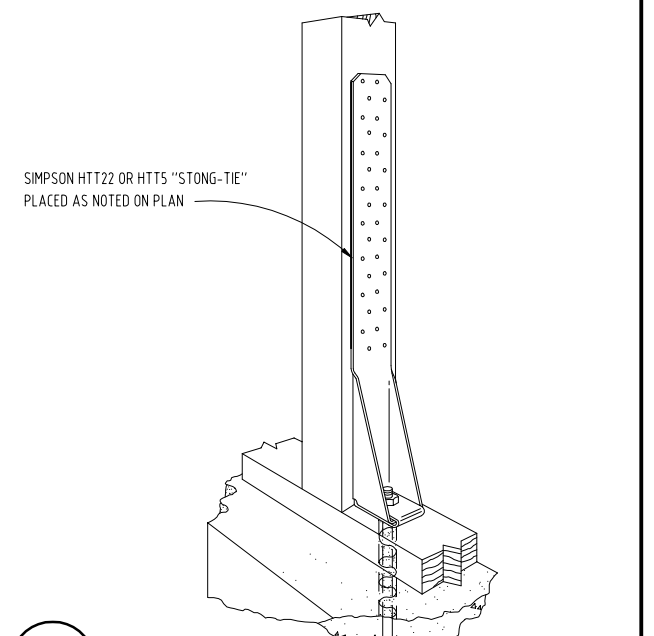
9 TYPICAL RAFTER SUPPORT DETAIL



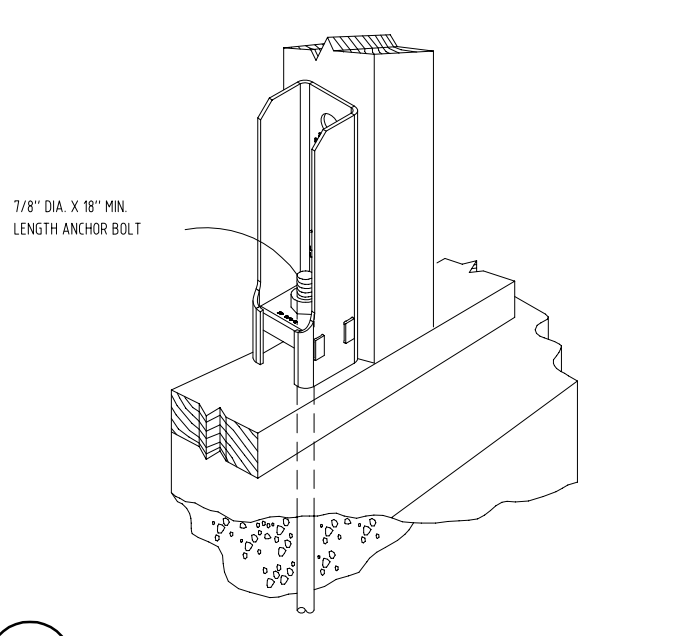
10 TYPICAL POST BASE AND CAP CONNECTIONS



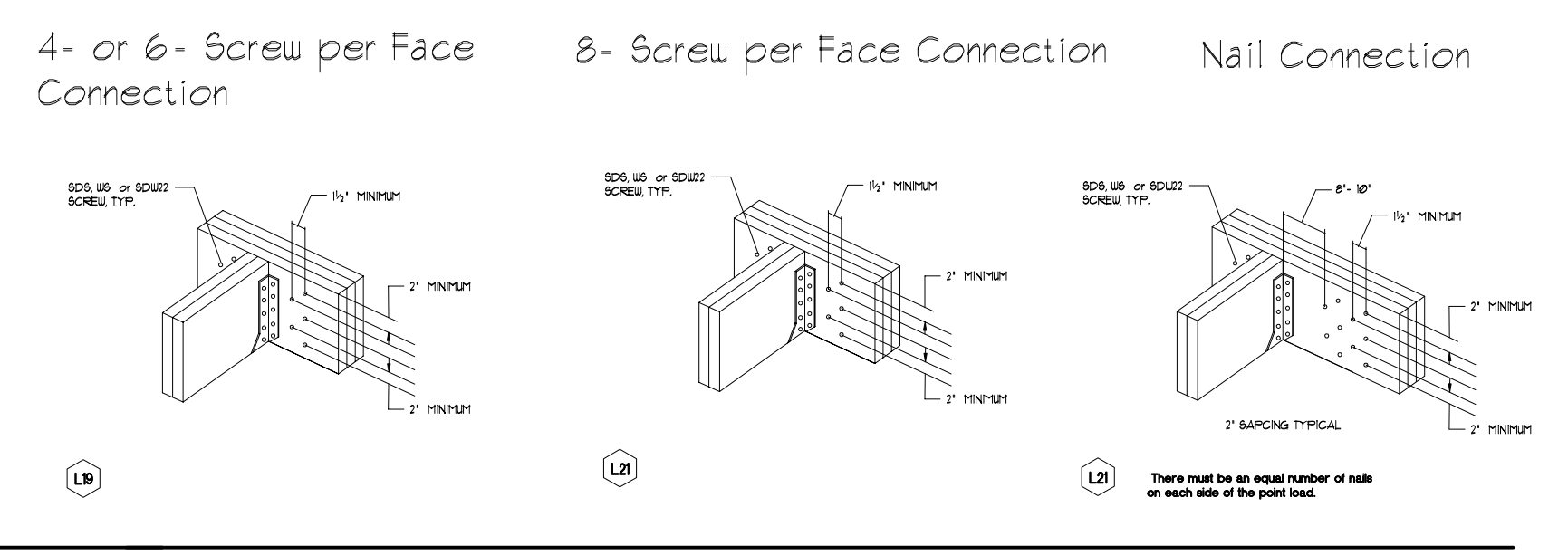
11 ANTI-SPALLING STRAP TIE HOLD-DOWN



12 HOLD-DOWN



13 HD5B, HD7B AND HD9B HOLD-DOWN



CONNECTION DETAILS

SEE SPECIFIC SHEARWALL TYPES AND LAYOUT FOR NAILING PLYWOOD, HOLD-DOWNS.

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| TBE REGS #: F-1114

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HOUSTON, TEXAS 77009

REF#: B-10508  
DRN: GT CHK: MM DES: MM  
**FRAMING DETAILS SHEET 2**  
SHEET NO. **S4.1**



# Design No. U303 BXUV.U303 Fire Resistance Ratings - ANSI/UL 263

Page Bottom

## Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

## Fire Resistance Ratings - ANSI/UL 263

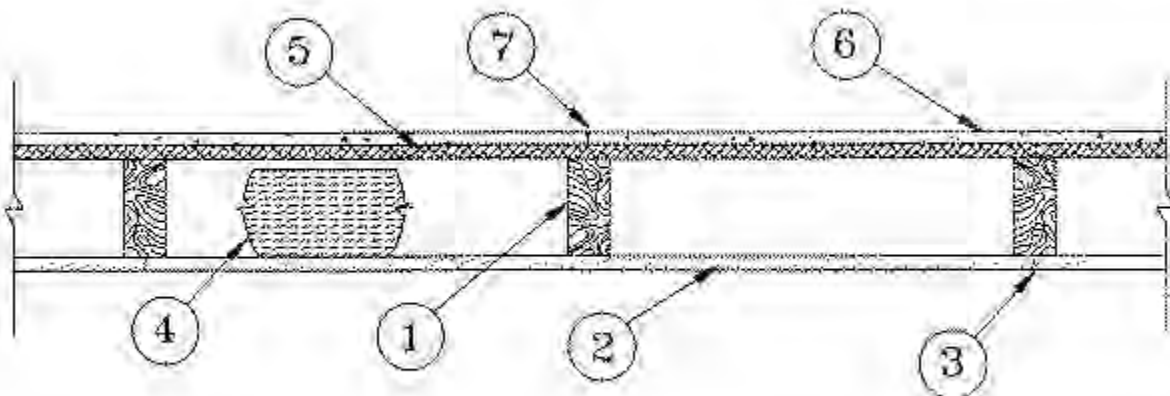
See General Information for Fire Resistance Ratings - ANSI/UL263

### Design No. U303

December 08, 2011

**Bearing Wall Rating — 1 Hr**

**Load Restricted for Canadian Applications — See Guide BXUV7**



1. **Wood Studs** — Nom 2 by 4 in. spaced 16 in. OC, effectively cross-braced.



2. **Gypsum Board\*** — 5/8 in. thick, with square or tapered edges, applied vertically or horizontally with vertical joints centered over studs. Horizontal joints need not be backed by framing. Fastened to studs and plates with 1-7/8 in. long 6d cement coated nails spaced 7 in. OC or with 1-7/8 in. long Type S screws spaced 8 in. OC, or 1-1/4 in. long Type coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. 54 n. widths applied horizontally.

**CGC INC** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, ULX, WRC, WRX.

**UNITED STATES GYPSUM CO** — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, ULX, WRC or WRX.

**USG MEXICO S A DE C V** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, ULX, WRC or WRX.

3. **Joints** — When tapered edge gypsum board is used, joints covered with joint compound and paper tape. As an alternate, gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with joints reinforced with paper tape. When square-edge gypsum board is used, treatment of joints is optional.

4. **Batts and Blankets\*** — Min 3 in. thick mineral wool batts, friction fit between studs.

**THERMAFIBER INC** — Type SAFB

5. **Sheathing** — Min 15/32 in. thick, 4 ft wide, wood structural panels, min grade "sheathing" applied vertically, with vertical joints centered over studs. Attached to studs with 10d galv nails 6 in. OC at the perimeter and 12 in. OC in the field. Sheathing fully covered with a weather resistive barrier.

6. **Cementitious Backer Units\*** — 1/2 or 5/8 in. thick, installed vertically or horizontally over the sheathing with vertical joints centered over studs. All joints offset min 12 in. from underlying sheathing joints. Fastened to studs and plates with corrosion resistant 2-1/4 in. long chamfered, ribbed wafer head screws with a minimum head diameter of .400 inches or 2-1/4 in. hot-dipped galvanized roofing nails spaced 8 in. OC.

**UNITED STATES GYPSUM CO** — Type DCB, DUROCK Exterior Cement Board or DUROCK Brand Cement Board.

**USG MEXICO S A DE C V** — Type DCB.

7. **Joints** — Cement board joints need not be treated.

8. **Vapor Retarder , Water Barrier or Weather Resistive Barrier** — (Optional, not shown) — As required

\* Bearing the UL Classification Mark

Last Updated on 2011-12-08

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BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

[See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances](#)

[See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances](#)

## Design No. **U344**

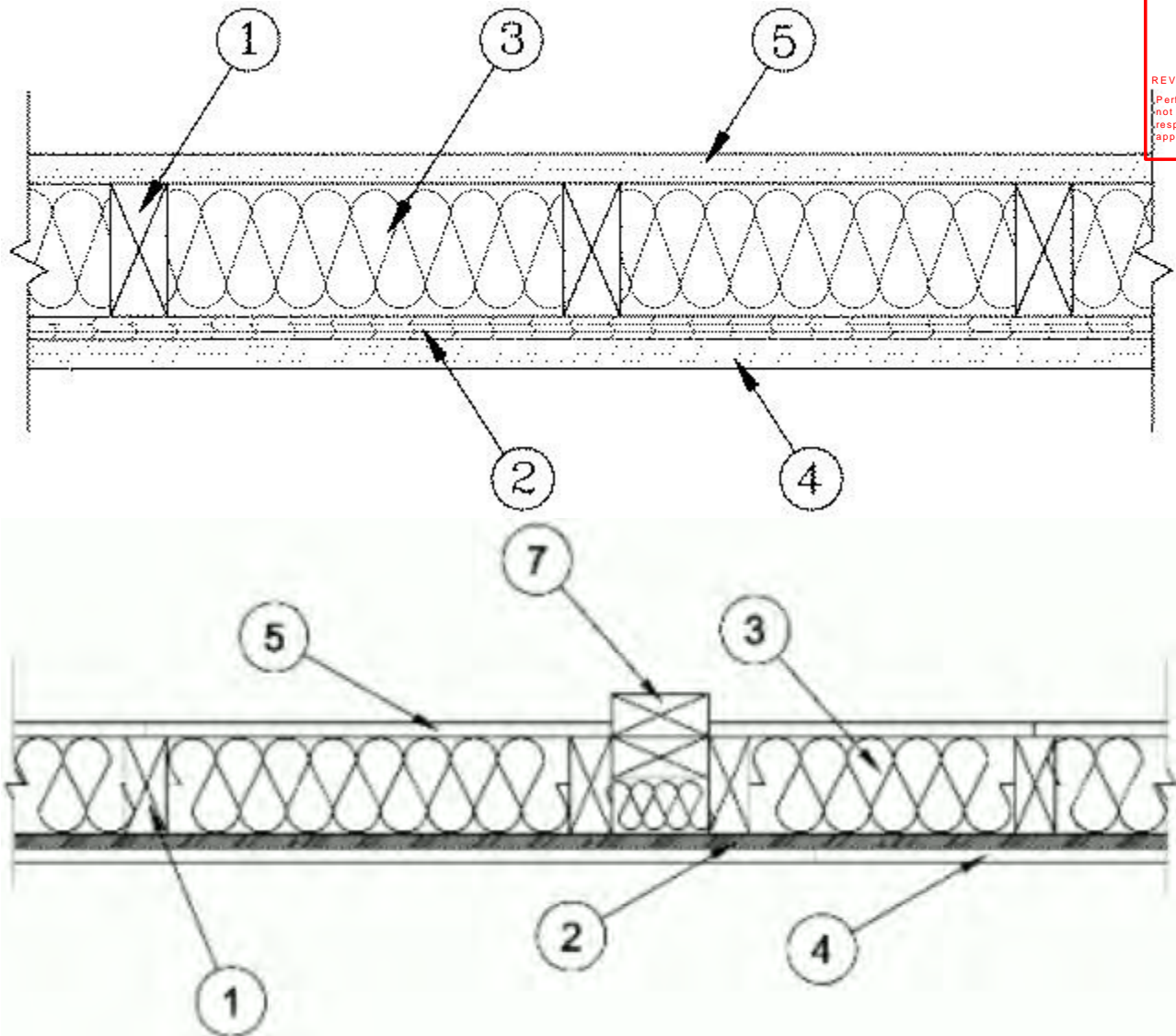
August 4, 2023

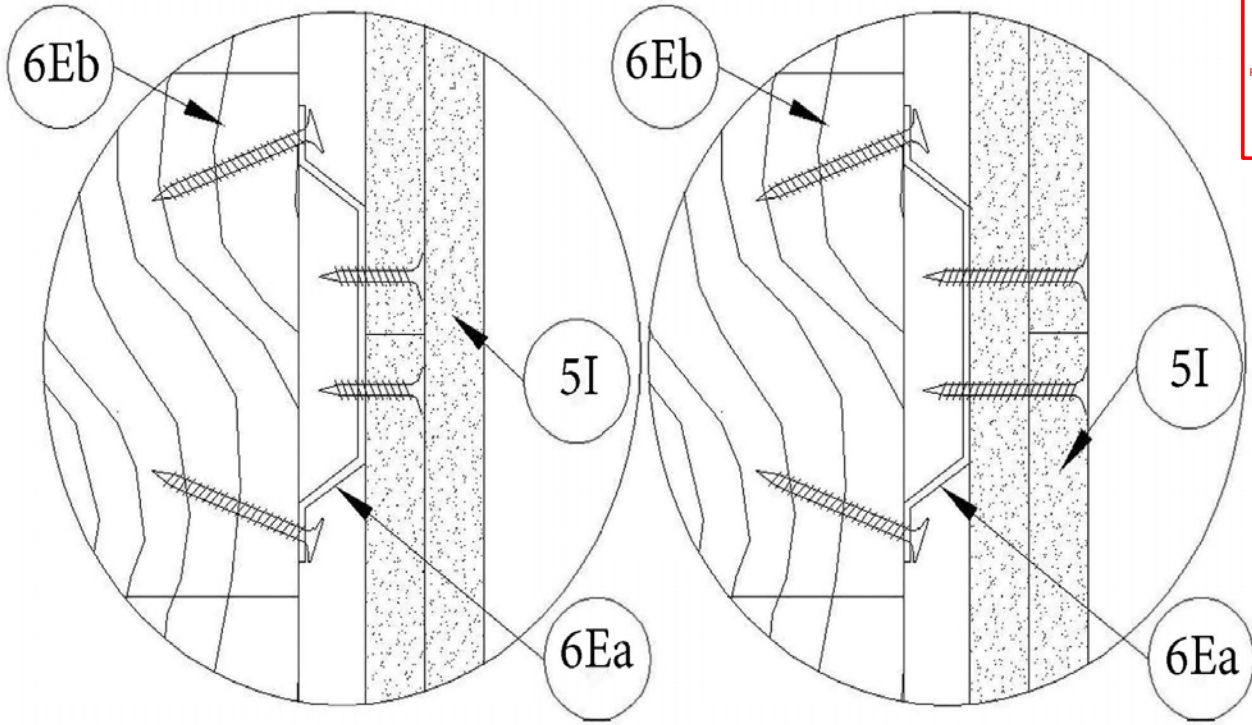
**Bearing Wall Rating — 1 Hr.**

**Finish Rating — 26 Min.**

**This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide [BXUV](#) or [BXUV7](#)**

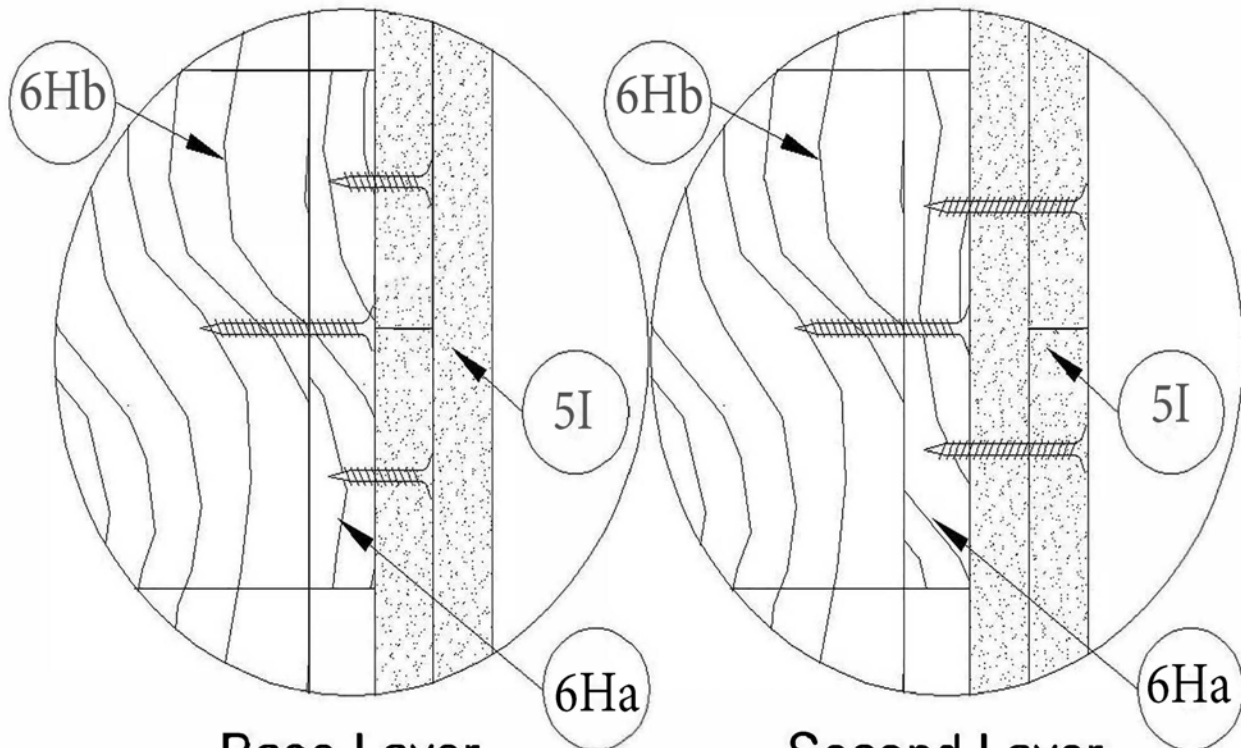
**\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**





Base Layer  
End Joint Detail

Second Layer  
End Joint Detail



Base Layer  
End Joint Detail

Second Layer  
End Joint Detail

1. **Wood Studs** — Nom 2 by 4 in. spaced 24 in. OC, laterally braced, and effectively fire stopped at top and bottom.

2. **Wood Structural Panel Sheathing** — Nom 15/32 in. thick, 4 ft wide APA Rated Sheathing 32/16. Exposure 1, plywood or oriented strand board (OSB) per PS1, PS2 or APA Standard PRP-108. Installed with long dimension of sheet (strength axis) or face



grain of plywood, parallel with studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Horizontal joints backed with nom 2 by 4 in. wood backing. Attached to studs on exterior side of wall with 6d cement coated steel box nails spaced 12 in. OC along interior studs and 6 in. OC at perimeter of panels.

3. **Batts and Blankets\*** — 3-1/2 in. thick foil-faced glass fiber batts. Supplied in rolls 23 in. wide. Density to be nom 0.70 pcf. Friction-fitted to completely fill the stud cavity.

See **Batts and Blankets\*** (BZJZ) category for names of Classified Companies.

3A. **Fiber, Sprayed\*** — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft<sup>3</sup>. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied with the product.

**Applegate Greenfiber Acquisition LLC** — Insulmax and SANCTUARY for use with wet or dry application. INS515LD and INS541LD are to be used for dry application only.

3B. **Fiber, Sprayed\*** — As an alternate to Item 3 and 3A — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.58 lb/ft<sup>3</sup>.

**NU-WOOL CO INC** — Cellulose Insulation

3C. **Fiber, Sprayed\*** — As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft<sup>3</sup>.

**INTERNATIONAL CELLULOSE CORP** — Celbar-RL

4. **Gypsum Board\*** — 5/8 in. thick, 4 ft wide, applied horizontally or vertically. Attached to studs through plywood sheathing with 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam head nails spaced 7 in. OC along studs and at perimeter of panels. When used in widths other than 48 in., wallboard is to be installed horizontally. Joints exposed or covered with tape and compound.

**Steel Framing Members\*** (Items 6 or any alternate clips) is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

**AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRoc.

**CABOT MANUFACTURING ULC** — 5/8 Type X, Type Blueglass Exterior Sheathing

**CERTAINTED GYPSUM INC** — Type C or Type X-1 (Finished Rating is 23 minutes); Type EGRG, Type GlasRoc, GlasRoc-2, Easi-Lite Type X-2, SilentFX.

**CGC INC** — Type AR, C, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX.

**CERTAINTED GYPSUM INC** — Types LGFC6, LGFC6A, LGFC-C, LGFC-C/A.

**GEORGIA-PACIFIC GYPSUM L L C** — Types TG-C, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, GreenGlas Type X, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W, Type DGG, Type DAP, Type DS.

**NATIONAL GYPSUM CO** — Types FSK, FSK-G, FSW, FSW-3, FSW-5, FSW-G, FSK-C, FSW-C, FSMR-C, FSW-6, FSL, FSW-8

**NATIONAL GYPSUM CO** — Riyadh, Saudi Arabia — Type FR, or WR.



**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Types PG-11, PGS-WRS, PGI

**THAI GYPSUM PRODUCTS PCL** — Type C or Type X

**UNITED STATES GYPSUM CO** — Types AR, C, FRX-G, IP-X2, IPC-AR, WRC, SCX, SHX, ULIX, ULX, USGX or WRX

**USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX

**USG MEXICO S A DE C V** — Type AR, C, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC or WRX.

4A. **Gypsum Board\*** — (As an alternate to Item 4) — 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically and secured as described in Item 4.

**GEORGIA-PACIFIC GYPSUM L L C** — Type X ComfortGuard Sound Deadening Gypsum Board (finish rating 27 min).

4B. **Gypsum Board\*** — (As an alternate to Items 4, 4A) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 4.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock ES.

4C. **Wall and Partition Facings and Accessories\*** — (As an alternate to Items 4, 4A, 4B) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 4.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock 527.

4D. **Gypsum Board\*** — (As an alternate to Item 4) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

**CERTAINTED GYPSUM INC** — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

4E. **Gypsum Board\*** — (As an alternate to Item 4) - 5/8 in. thick, 4 ft wide, applied horizontally or vertically. Attached to studs through plywood sheathing with 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam head nails spaced 7 in. OC along studs and at perimeter of panels. When used in widths other than 48 in., wallboard is to be installed horizontally. Joints exposed or covered with tape and compound. **Steel Framing Members\*** (Items 6 or any alternate clips) is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 7 in. OC.

**PANEL REY S A** — Type PRX2

5. **Gypsum Board\*** — 5/8 in. thick, 4 ft wide applied horizontally or vertically. Attached to studs or blocking at 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam heads. When used in widths other than 48 in., wallboard to be installed horizontally. Joints exposed or covered with tape and compound.

When Item 6-6D, **Steel Framing Members\***, is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

**AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRoc

**CABOT MANUFACTURING ULC** — 5/8 Type X, Type Blueglass Exterior Sheathing

**CGC INC** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX, WRX

**CERTAINTED GYPSUM INC** — Types LGFC6, LGFC6A, LGFC-C, LGFC-C/A

**GEORGIA-PACIFIC GYPSUM L L C** — Type TG-C, GreenGlass Type X, Type DGG



**NATIONAL GYPSUM CO** — Types FSK, FSK-G, FSW, FSW-3, FSW-5, FSW-G, FSK-C, FSW-C, FSMR-C, FSW-6, FSL, FSW-8

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Types PG-11, PGS-WRS, PGI

**UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, IP-X1, IP-X2, IPC-AR, SCX, ULIX, ULX, USGX or WRX

**USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX

**USG MEXICO S A DE C V** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX or WRX

5A. **Gypsum Board\*** — As an alternate to Item 5 — (not shown) - 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths of other than 48 in., gypsum boards are to be installed horizontally. Joints exposed or covered with tape and compound.

**AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C (Finished Rating is 25 minutes), LightRoc.

**CERTAINTED GYPSUM INC** — Type C or Type X-1 (Finished Rating is 23 minutes); Type EGRG, Type GlasRoc, GlasRoc-2.

**CGC INC** — Type AR, C, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC or WRX. (Finished Rating is 24 minutes).

**NATIONAL GYPSUM CO** — Type FSK, Type FSK-G, Type FSW, Type FSW-3, Type FSW-5, Type FSW-G, Type FSK-C, Type FSW-C, Type FSMR-C, Type FSW-6, Type FSL

**THAI GYPSUM PRODUCTS PCL** — Type C or Type X

**UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX or WRX. (Finished Rating is 24 minutes)

**USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX

**USG MEXICO S A DE C V** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX or WRX. (Finished Rating is 24 minutes)

5B. **Gypsum Board\*** — (As an alternate to Items 5 and 5A) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last 2 screws 1 and 4 in. from edge of board or nailed as described in Item 5. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.

**GEORGIA-PACIFIC GYPSUM L L C** — GreenGlas Type X, Type DGG.

5C. **Gypsum Board\*** — (As an alternate to Items 5 through 5B) — 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically and secured as described in Item 5.

**GEORGIA-PACIFIC GYPSUM L L C** — Type X ComfortGuard Sound Deadening Gypsum Board (finish rating 27 min)

5D. **Gypsum Board\*** — (As an alternate to Items 5 through 5C) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock ES.

5E. **Wall and Partition Facings and Accessories\*** — (As an alternate to Items 5 through 5D) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock 527



5F. **Gypsum Board\*** — (As an alternate to Items 5 through 5E) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.

**NATIONAL GYPSUM CO** — Type SBWB

5G. **Gypsum Board\*** — (As an alternate to Item 5) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

**CERTAINTED GYPSUM INC** — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

5H. **Gypsum Board\*** — — (As an alternate to Item 5-5G) — 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically or horizontally and secured with 1-1/4 in. Type W coarse thread gypsum panel steel screws spaced a maximum of 12 in. OC.

**CERTAINTED GYPSUM INC** — Type SilentFX

5I. **Gypsum Board\*** — (As an alternate to Item 5. For use with Item 6E and 6H) - Any 5/8 in. thick, 4 ft. wide, Gypsum Board UL Classified for Fire Resistance (CKNX) eligible for use in Design No. G512. Two layers, applied vertically, and attached to wood studs (Item 1) and furring (Item 6Ea OR 6Ha). Vertical gypsum board side joints offset 24 inches between layers. Vertical joints staggered one stud cavity on opposite sides of studs. Type W steel screws used for wood framing. Type S steel screws used for steel framing. Attachment to furring channels - First layer – 1-1/4 in. long, 3, 6 and 18 inches from each board edge. Second layer - 1-7/8 in. long (2 in. with wood framing), spaced 12 inch OC with first fastener 2 in. from vertical board edge. Direct attachment to framing - First layer (to plates) – 1-1/4 in. long, 3, 6 and 18 inches from each board edge. First layer (to studs) – 1-1/4 in. long, 3, 6 and 18 inches board ends and 24 in. OC thereafter. Second layer - 1-7/8 in. long, spaced 2 inch from each board edge and 12 in. OC thereafter.

5J. **Gypsum Board\*** — 5/8 in. thick, 4 ft wide applied horizontally or vertically. Attached to studs or blocking at 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam heads. When used in widths other than 48 in., wallboard to be installed horizontally. Joints exposed or covered with tape and compound.

When Item 6-6D, **Steel Framing Members\***, is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 7 in. OC.

**PANEL REY S A** — Type PRX2

6. **Steel Framing Members\*** — (Optional, Not Shown) — Furring Channels and Steel Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Items 4 and 5.

b. **Steel Framing Members\*** — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. . RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-1 (2.75).

6A. **Steel Framing Members\*** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 5.

b. **Steel Framing Members\*** — Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**PLITEQ INC** — Type Genie Clip



6B. **Steel Framing Members\*** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 5.

b. **Steel Framing Members\*** — Used to attach furring channels (Item 6Ba) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.

**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

6C. **Steel Framing Members\*** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 5.

b. **Steel Framing Members\*** — Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**REGUPOL AMERICA** — Type SonusClip

6D. **Steel Framing Members\*** — (Optional, Not Shown, As an alternate to Item 6) — Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5.

b. **Steel Framing Members\*** — Used to attach resilient channels (Item 6Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.

**KEENE BUILDING PRODUCTS CO INC** — Type RC+ Assurance Clip

6E. **Steel Framing Members\*** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. First channel centered max. 3 in. from end of studs. Channels secured to rafts with two angled 1-1/4 inch (No. 6) Type W drywall screws. One on each side of the channel. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Two layers of gypsum board attached to furring channels as described in 5I.

b. **Framing Members\*** — Used to attach furring channels (Item 6Ea) to studs (Item 1). Rafts secured to each stud, spaced a maximum of 48 in. OC. vertically. Staggered 24 inch on center vertically on each adjacent stud. At the beginning or end of furring channel runs, additional rafts installed to support the ends of all furring channels. At stud ends, rafts may be installed on plates to achieve required furring channel spacing. Secured with two 1-5/8 inch (No. 6) Type W drywall screws. One on each side of the core. Fasteners should not be placed closer than 1/4 inch to the edges of the mounts.

**BCD LLC** — Type HushFrame Raft Connector

6F. **Steel Framing Members\*** — (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members\*** - Used to attach resilient channels to wall studs. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels to the studs. Channel ends butted and centered under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the gypsum board end



joints. The accessory envelops the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the studs with the screws supplied with the accessory and per the accessory manufacturer's installation instructions.

**PAC INTERNATIONAL L L C** — Type RC-1 Boost

**6G Steel Framing Members\*** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:

**a Furring Channels** — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 5.

**b Steel Framing Members\*** — Used to attach furring channels (Item 6Ga) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

**CLARKDIETRICH BUILDING SYSTEMS** — Type ClarkDietrich Sound Clip

**2l. Framing Members** - (Optional, Not Shown, As an alternative to Item 2) — Furring channels and Framing Members as described below:

**a. Furring Strips** — Nominal 1 in. deep by 3 in. wide wooden furring strips, spaced 24 in. OC perpendicular to studs. First channel centered max. 3 in. from end of studs. Furring secured with one 2 in. long, Type W screw into the rafts. Ends of adjoining furring butted, between studs, and joined with an overlapping 12 in. furring strip fastened with two 2 in. long Type W screws equally spaced on both sides of the butt joint. Two layers of gypsum board attached to furring strips as described in Item 3A.

**b. Framing Members\*** — Used to attach furring channels (Item 2la) to studs (Item 1). Rafts secured to each stud, spaced a maximum of 48 in. OC. vertically. Staggered 24 inch on center vertically on each adjacent stud. At the beginning or end of furring channel runs, additional rafts installed to support the ends of all furring channels. At stud ends, rafts may be installed on plates to achieve required furring channel spacing. Secured with two 1-5/8 inch (No. 6) Type W drywall screws. One on each side of the core. Fasteners should not be placed closer than 1/4 inch to the edges of the mounts.

**BCD LLC** — Type HushFrame Raft Connector

**7. Non-Bearing Wall Partition Intersection** — (Optional) — Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud nailed together with two 3-1/2 in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

**8. Building Units** – (Optional Item Not Shown – For use over Gypsum Board, Item 4) 1 in., 2 in. or 3 in. thick, 4 ft. wide – Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with wafer head screws of adequate length to penetrate framing by a minimum of of 3/4 in., spaced a max 8 in. o.c.

**NATIONAL GYPSUM CO** – Type PBCI

**\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2023-08-04

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REVIEWED FOR COMPLIANCE  
Performance of this review does not relieve the applicant from full responsibility to comply with all applicable code and regulations.  
07/02/24



Table with 2 columns: Category (e.g., UNINHABITABLE ATTICS, HABITABLE ATTICS) and Value (e.g., 10, 20, 40, 50, 60, 80, 100).

BATHROOM AND SHOWER FLOORS AND WALLS ABOVE BATHROOMS WITH INSTALLED SHOWER HEADS...

- PROVIDE A METHOD OR A COMBINATION OF METHODS FOR TERMITE PROTECTION AS FOLLOWS: a) ELECTRICAL TERMINITE DETECTION...

- 1. APPLY 5/8" TYPE 'X' GYPSUM BOARD TO THE GARAGE SIDE OF WALL STUDS AND CEILING JOISTS...

- 1. ALL FRAMING LUMBER SHALL BE SOUTHERN YELLOW PINE #2 OR BETTER, UNLESS OTHERWISE NOTED ON PLAN...

- 1. THROUGH PENETRATIONS AND UNPROTECTED OPENINGS ARE NOT ALLOWED ON THE EXTERIOR SIDE OF FIRE-RESISTANCE RATED EXTERIOR WALLS...

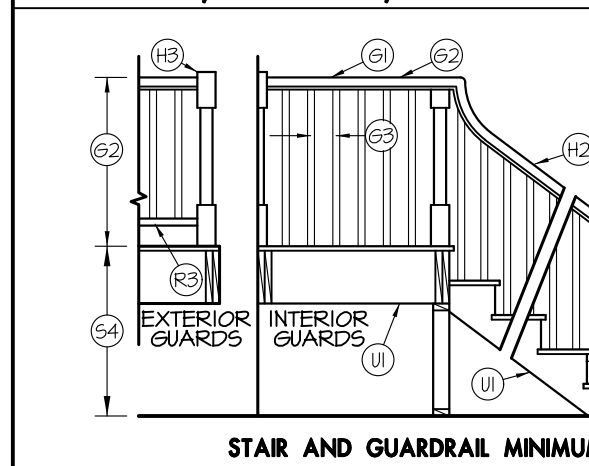
EGRESS/ESCAPE & RESCUE NOTES

- 1. PROVIDE ONE EGRESS DOOR PER DWELLING UNIT, SIDE HINGED, 32 IN. CLEAR OPENING WIDTH...

SAFETY GLAZING NOTES

- PROVIDE SAFETY GLAZING IN THE FOLLOWING LOCATIONS: 1. ALL FIXED AND/OR OPERABLE DOORS...

STAIRWAY, HANDRAIL, GUARDRAIL AND WINDOW FALL NOTES



STAIR AND GUARDRAIL MINIMUMS NO SCALE

CURVED STAIR MINIMUMS NO SCALE

STAIRWAYS:

- 51. STAIRWAY SHALL NOT BE LESS THAN 36 INCHES IN CLEAR WIDTH ABOVE THE HANDRAIL AND NOT BE LESS THAN 31-1/2 INCHES BELOW THE HANDRAIL...

WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING

Table with columns: Item, Building Elements Description, Fastener Number and Type, Spacing and Location.

SMOKE & CARBON MONOXIDE ALARM NOTES

- SMOKE ALARMS: 1. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS: a. IN EACH SLEEPING ROOM...

HEADER SPAN TABLE

Table with columns: ROOF SLOPE (X), HEIGHT, ROOF SLOPE (X), HEIGHT.

FASTENING SCHEDULE

Table with columns: Item, Building Elements Description, Fastener Number and Type, Spacing and Location.

FLOOR

Table with columns: Item, Building Elements Description, Fastener Number and Type, Spacing and Location.

WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING

Table with columns: Item, Building Elements Description, Fastener Number and Type, Spacing and Location.

FLOOR/CEILING/RAFTER SPAN TABLES

Table with columns: SIZE, SELECT VALUES FOR SOUTHERN YELLOW PINE (S.Y.P.), GRADE S.Y.P., #3 GRADE S.Y.P., #3 GRADE M.C.

CEILING JOIST DL

Table with columns: CEILING JOIST DL, 5 PSF, 10 PSF, 15 PSF, 20 PSF, 24 PSF, 30 PSF, 40 PSF, 50 PSF.

RAFTER DL

Table with columns: RAFTER DL, 10 PSF, 15 PSF, 20 PSF, 24 PSF, 30 PSF, 40 PSF, 50 PSF.

RAFTER SPAN DL

Table with columns: RAFTER SPAN DL, 10 PSF, 15 PSF, 20 PSF, 24 PSF, 30 PSF, 40 PSF, 50 PSF.

HEADER SPAN TABLE

Table with columns: ROOF SLOPE (X), HEIGHT, ROOF SLOPE (X), HEIGHT.

STUD NOTCHING AND BORED HOLE LIMITATIONS

- BEARING WALLS: 1. BORED HOLE MAXIMUM DIAMETER 40% OF STUD DEPTH. 2. BORED HOLE LOCATION NO CLOSER THAN 5/8-INCH TO EDGE...

INSULATION MINIMUMS - CLIMATE ZONE 2A

ALL INSULATION SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY RATING NOT TO EXCEED 450.

CLOTHES DRYER AND HOOD VENT EXHAUSTS

- CLOTHES DRYER: 1. CLOTHES DRYER DUCTS SHALL TERMINATE NOT LESS THAN 3 FEET IN ANY DIRECTION FROM OPENINGS INTO BUILDINGS...

MECHANICAL ACCESS AND HVAC NOTES

- 1. LOCATE H.V.A.C. EQUIPMENT IN ATTIC. SUPPLY DUCTS IN ATTICS SHALL BE INSULATED TO A MINIMUM R-8 AND ALL OTHER DUCTS TO R-6 EXCEPT DUCTS THAT ARE LOCATED COMPLETELY WITHIN THE BUILDING THERMAL ENVELOPE...

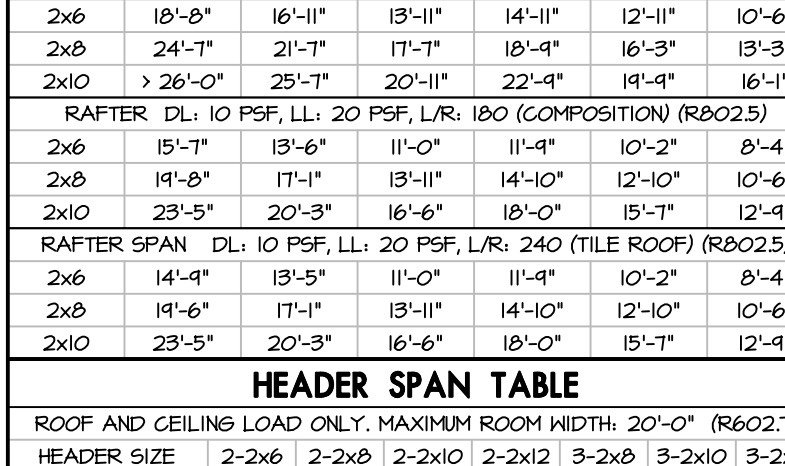
PLUMBING AND WATER HEATER NOTES

- 1. ALL FLOOR DRAINS TO HAVE OVERFLOW PAN WITH RELIEF LINE TO STAIRWELL OR NOT CONNECT TO SANITARY SEWER, ONE CONNECTION TO A LAVATORY TAILPIPE IS ALLOWED...

FIREPLACE AND CHIMNEY NOTES

- 1. ALL BRICK OR PREFAB FIREPLACES TO BE BUILT AND INSTALLED PER CURRENT BUILDING CODE EDITION AND BE UL AND I.C.B.O. APPROVED. A COPY OF THE MANUFACTURER INSTALLATION MANUAL WILL BE PROVIDED TO THE HOMEOWNER...

GAS APPLIANCE VENT TERMINATION NOTES



LISTED GAS VENT TERMINATION (SEE TABLE)

HEADER SPAN TABLE

Table with columns: ROOF SLOPE (X), HEIGHT, ROOF SLOPE (X), HEIGHT.

MASONRY VENEER LINTEL SPANS

Table with columns: Angle Size (inches) (I), No Story, One Story Above, Two Stories Above, Reinforcing Bars (2).

ATTIC ACCESS NOTES

- 1. PROVIDE ATTIC ACCESS WHEN AN ATTIC AREA EXCEEDS 30 SQ. FT. AT A HEIGHT OF 30 INCHES OR GREATER. THE ACCESS OPENING IS TO BE 22 IN. BY 30 IN. WITH A MINIMUM ATTIC HEADROOM CLEARANCE OF 30 IN.

ATTIC VENTILATION NOTES

- THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/800 OF THE VENTED SPACE PROVIDED. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE.

UNDER FLOOR SPACE VENTILATION NOTES

- PROVIDE ONE SQUARE FOOT NET AREA OF OPENING FOR EACH 150 SQUARE FEET OF UNDER FLOOR SPACE. WHERE A CLASS I VAPOR RETARDER MATERIAL IS USED, THE MINIMUM NET AREA OPENING SHALL NOT BE LESS THAN 1 SQUARE FOOT FOR EACH 500 SQUARE FEET OF UNDER FLOOR AREA.

ELECTRICAL AND VENTILATION NOTES

- 1. ELECTRICAL PLANS ARE PROVIDED FOR DESIGN INTENT ONLY. VERIFY LOCATIONS OF FIXTURES, SWITCHES, OUTLETS, AND EQUIPMENT WITH A LICENSED PROFESSIONAL ELECTRICIAN.

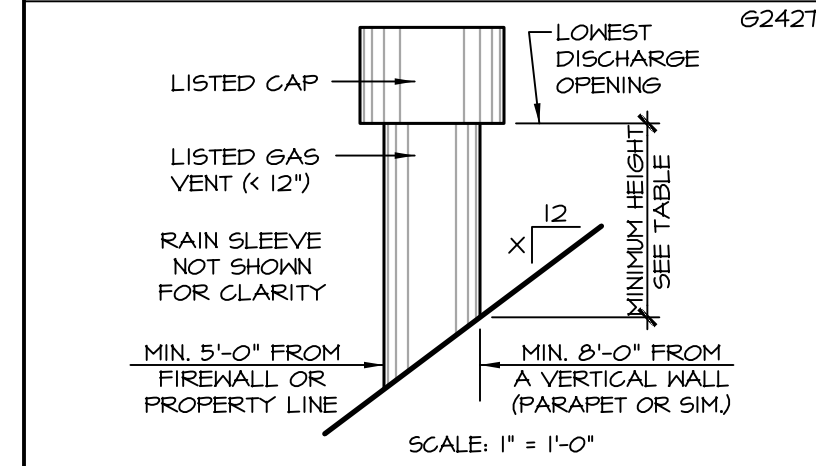
EXTERIOR COVERING & WEEP SCREEDS NOTES

- 1. AN APPROVED WATER-RESISTIVE BARRIER, MINIMUM ONE LAYER 1/8 IN. FELT, SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS.

FIREPLACE AND CHIMNEY NOTES

- 1. ALL BRICK OR PREFAB FIREPLACES TO BE BUILT AND INSTALLED PER CURRENT BUILDING CODE EDITION AND BE UL AND I.C.B.O. APPROVED. A COPY OF THE MANUFACTURER INSTALLATION MANUAL WILL BE PROVIDED TO THE HOMEOWNER...

GAS APPLIANCE VENT TERMINATION NOTES



LISTED GAS VENT TERMINATION (SEE TABLE)

HEADER SPAN TABLE

Table with columns: ROOF SLOPE (X), HEIGHT, ROOF SLOPE (X), HEIGHT.

BRICK VENEER NOTES

- VENEER TIES: 1. STRAND WIRE SHALL BE NO LESS THAN 4 U.S. GAGE AND SHALL HAVE A HOOK ENDED END IN THE MORTAR JOINT.

FLASHING

- FLASHING SHALL BE LOCATED BENEATH THE FIRST COURSE OF MASONRY ABOVE FINISHED GROUND LEVEL ABOVE THE FOUNDATION WALL OR SLAB AND AT OTHER POINTS OF SUPPORT, INCLUDING STRUCTURAL FLOORS, SHELF ANGLES AND LINTELS.

KEEPHOLES

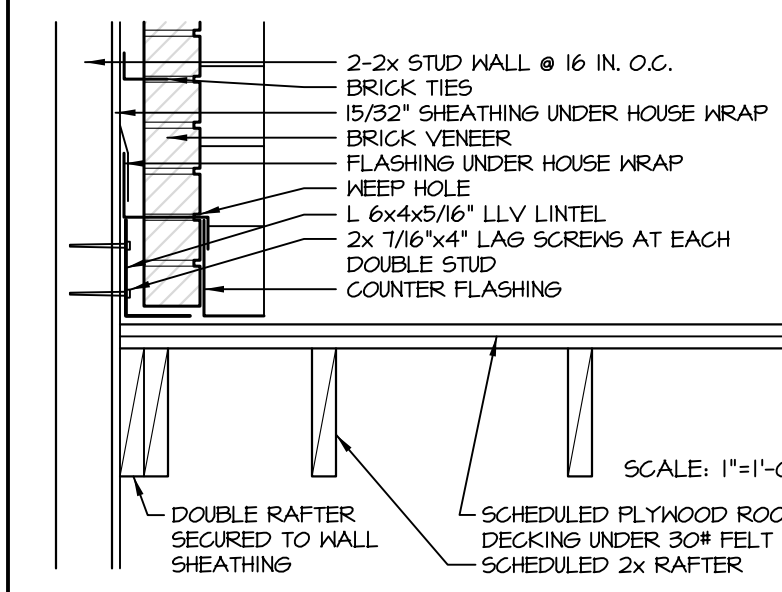
- PROVIDE KEEPHOLES IN THE OUTSIDE RYTHME OF MASONRY WALLS AT A MAXIMUM SPACING OF 36 INCHES ON CENTER. KEEPHOLES SHALL NOT BE LESS THAN 3/8 INCH IN DIAMETER. KEEPHOLES SHALL BE LOCATED IMMEDIATELY ABOVE THE FLASHING.

LINTELS

- MASONRY VENEER SHALL NOT SUPPORT ANY VERTICAL LOAD OTHER THAN THE DEAD LOAD OF THE VENEER ABOVE. VENEER ABOVE OPENINGS SHALL BE SUPPORTED ON LINTELS OF NON-COMBUSTIBLE MATERIALS.

LINTEL w/BRICK VENEER ON LOWER ROOF

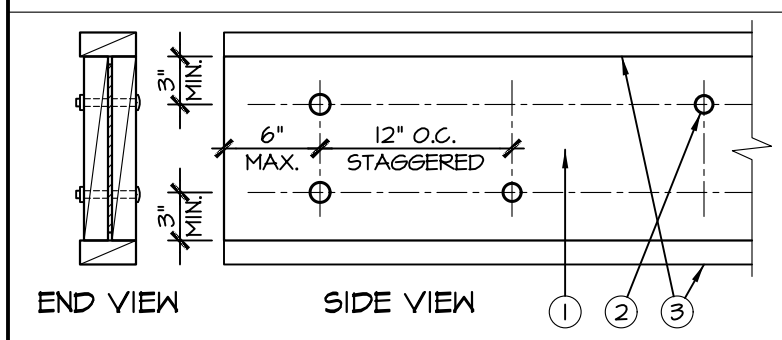
- PROVIDE MINIMUM 6"x4"x8" LVL STEEL ANGLE ANCHORED TO DOUBLE 2x4 STUDS AT MAXIMUM 24 INCH O.C. SPACING. STEEL ANGLE SHALL BE ANCHORED AT EACH DOUBLE STUD WITH NO LESS THAN TWO 7/8 INCH DIA. BY 4 INCH LAG SCREWS. MINIMUM CLEARANCE UNDER LINTEL SHALL BE 1 1/8 INCH.



LINTEL w/BRICK VENEER ON LOWER ROOF

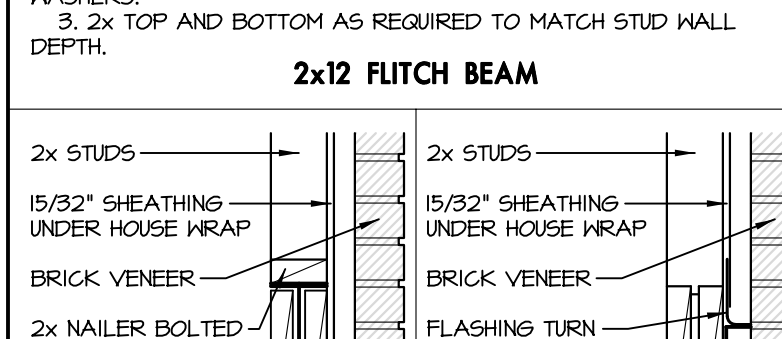
STEEL NOTES AND DETAILS

- 1. ALL MISCELLANEOUS STRUCTURAL STEEL PLATES AND SECTIONS SHALL CONFORM TO ASTM A-36.

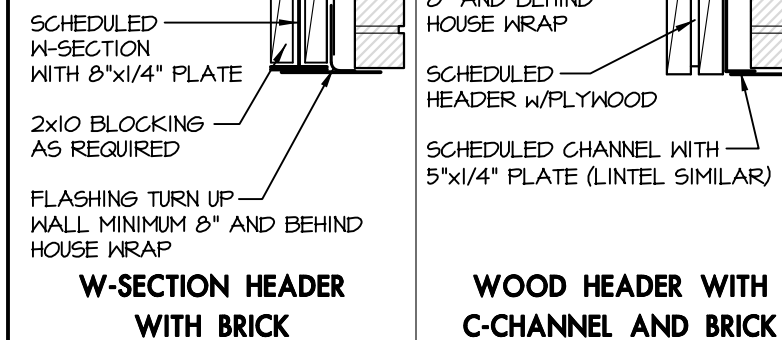


END VIEW SIDE VIEW

2x12 FLITCH BEAM



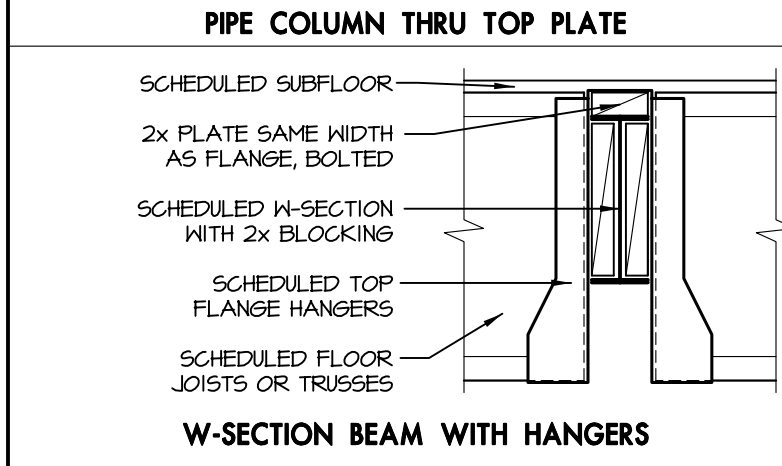
2x12 FLITCH BEAM



W-SECTION HEADER WITH BRICK WOOD HEADER WITH C-CHANNEL AND BRICK



PIPE COLUMN THRU TOP PLATE



W-SECTION BEAM WITH HANGERS