PRESTON WOOD & ASSOCIATES, L. L. C.
3217 Mercer St., Houston, TX 77027

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AMERICAN INSTITUTE OF BUILDING DESIGN

REDRAW # E9016-A1.1

DESIGNER: XXX	DATE: X-X-XX	PRODUCTION 4 : XXX	DATE: X-X-XX
PRODUCTION 1 : XXX	DATE: X-X-XX	SENT TO ENGINEER: XXX	DATE: X-X-XX
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CODE INFORMATION

BUILDING CODE: 2021 I.R.C. WITH CITY OF HOUSTON AMENDMENTS

OCCUPANCY: GROUP R-3
SINGLE FAMILY HOME

BUILDING CONSTRUCTION TYPE: TYPE V-B NON-RATED

FIRE PROTECTION: GROUP R-3
LESS THAN 4-STORIES
NO FIRE SPRINKLER SYSTEM REQUIRED

ALLOWABLE HEIGHT: 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

TABLE OF CONTENTS

SQUARE FOOTAGES

FIRST FLOOR:	233	
SECOND FLOOR:	807	
THIRD FLOOR:	744	
TOTAL LIVING AREA:	1784	S.F.
GARAGE:	482	
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TOTAL SLAB:	798	S.F.
TOTAL AREA:	2349	S.F.

TREEHOUSE DEVELOPMENT
AMUNDSEN PALMS REPLAT NO 1 LT 3 BLK 1
4502 TERRY ST
HOUSTON, TX 77009

PWA Project Number:
F2212-A1.1-R-v1

REVIEW SET
NOT FOR CONSTRUCTION

Date: 12 April 2024

EGRESS REQUIREMENTS 2021I.R.C.

R310.1 IRC 2021 EMERGENCY ESCAPE AND RESCUE REQUIRED
BASEMENTS W/ HABITABLE SPACE AND EVERY SLEEPING ROOM SHALL HAVE ATLEAST 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.

R310.1.1 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 m2).

R310.1.2 IRC 2021 MINIMUM OPENING HEIGHT
THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24 INCHES (610 mm).

R310.1.3 IRC 2021 MINIMUM OPENING WIDTH
THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20 INCHES (508 mm).

R310.1.4 IRC 2021OPERATIONAL 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.

**GAS LINE IN CABINET BASE:

VERTICAL RUN OF GAS LINE DOWN A NON-FIRE RATED WALL ASSEMBLY. HORIZONTAL RUN OF GAS LINE IN "TOE SPACE" OF CABINET WHERE CONCRETE SLAB, OR IN FLOOR JOIST SYSTEM.

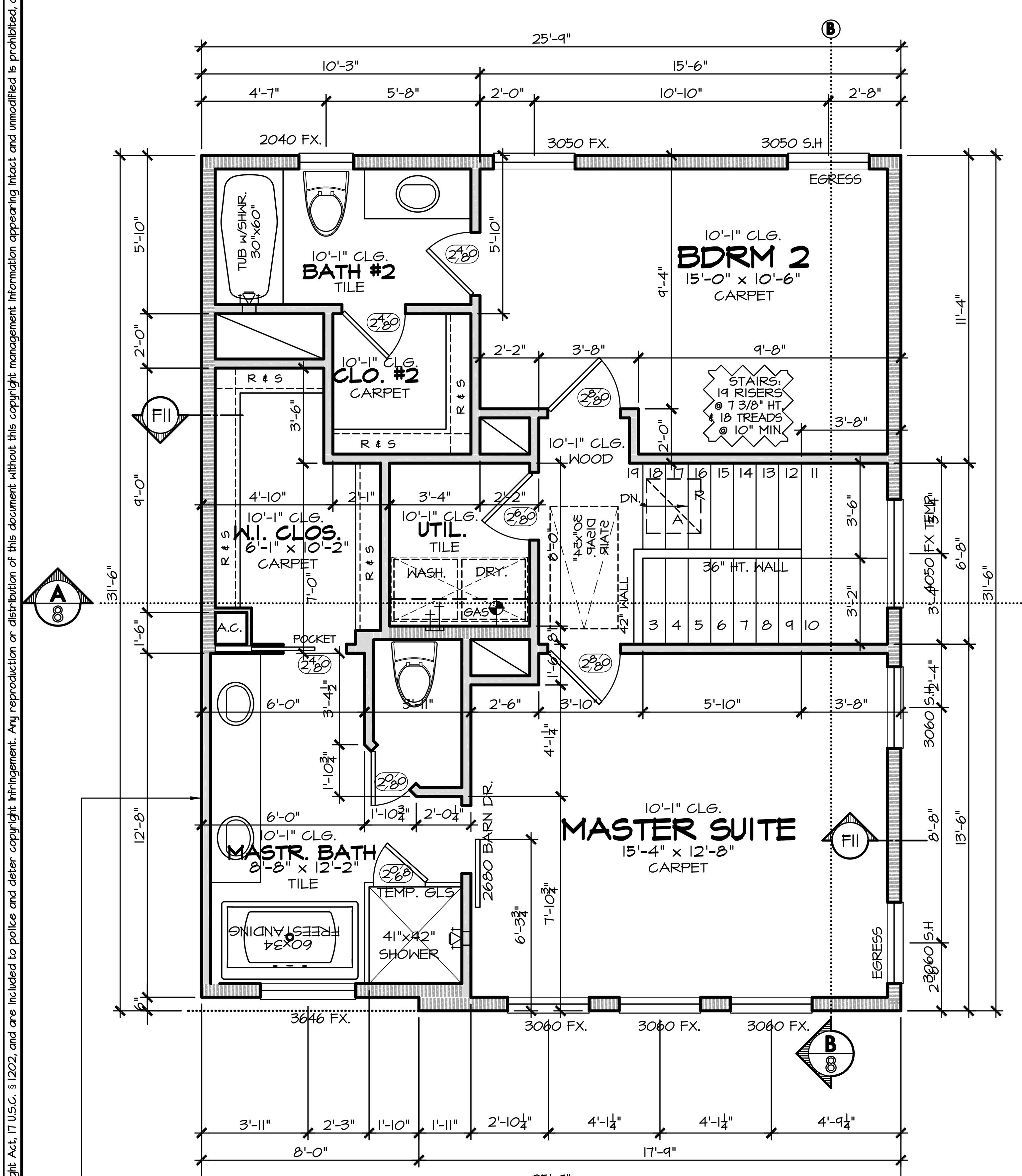
FIRE RATED WALL ASSEMBLY. (GAS LINE PENETRATION NOT ALLOWED)

HORIZONTAL RUN OF GAS LINE (END VIEW SHOWN), CONCR. SLAB.

"TOE SPACE" OF CABINET.

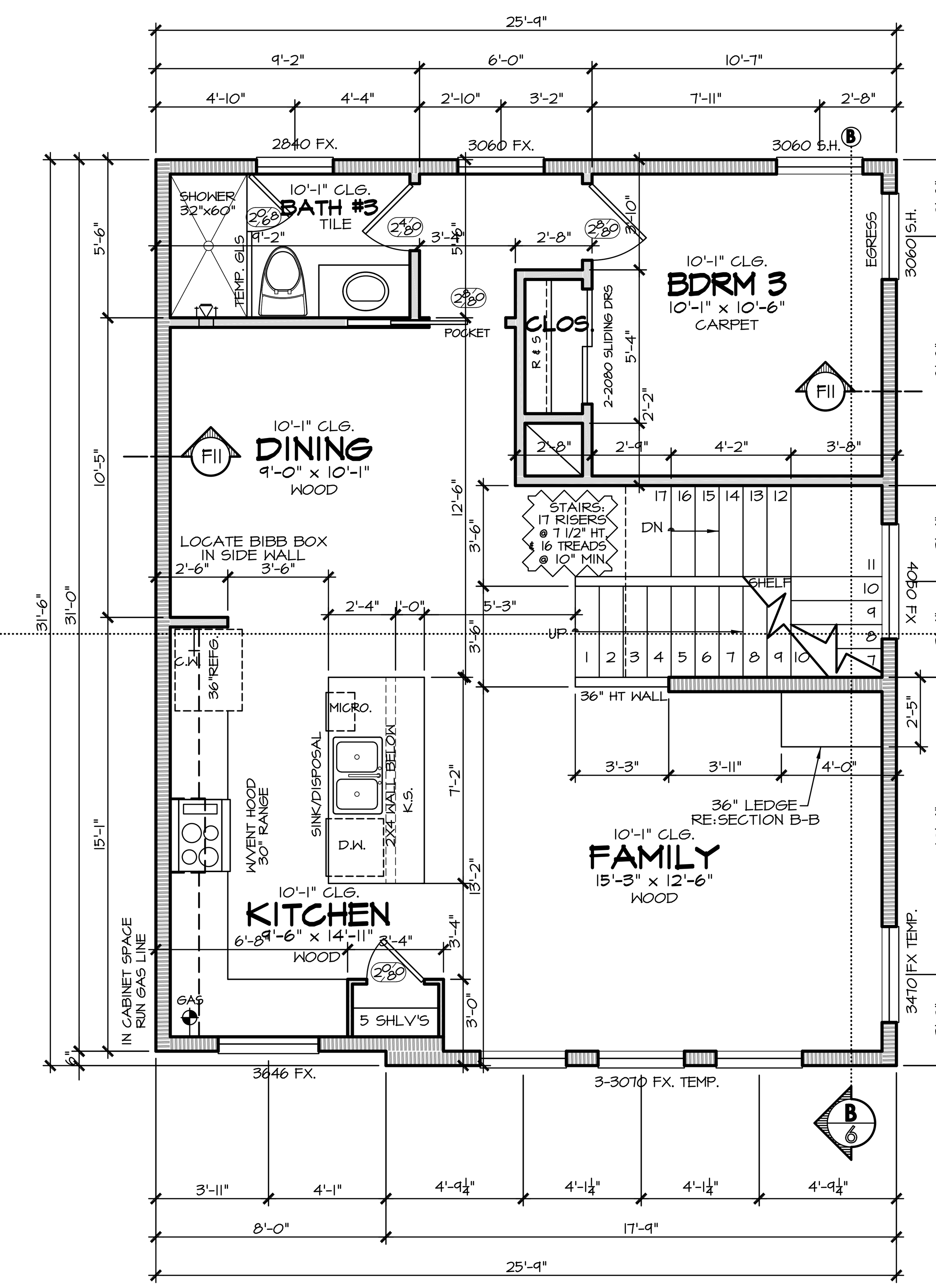
FIRE NOTE

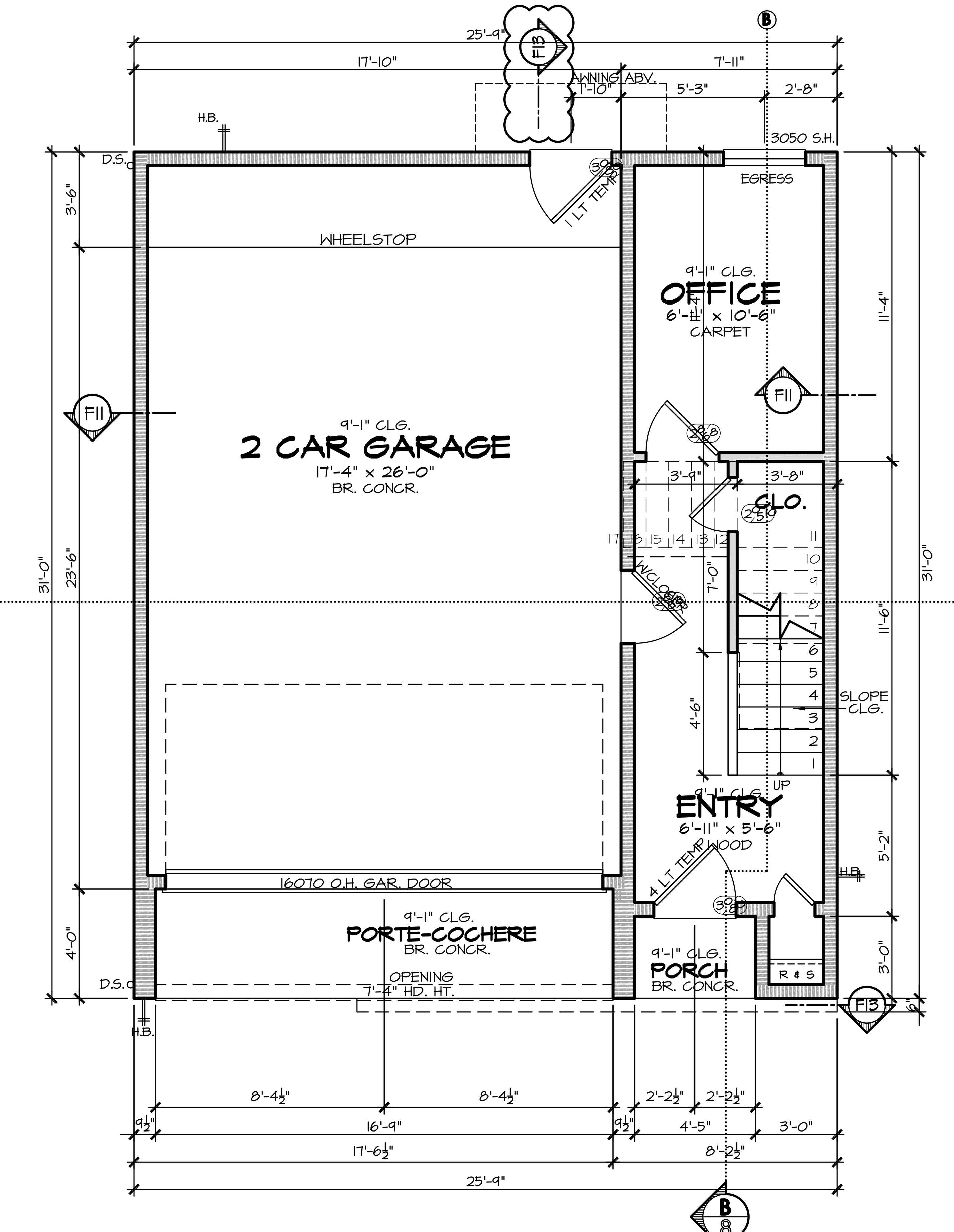
1) PROVIDE 5/8" TYPE 'X' GYPSUM BOARD TO THE GARAGE (& CARPORT) SIDE OF STUDS AND JOISTS.
2) INSTALL MINIMUM 1-3/8 IN. SOLID CORE DOOR, OR SOLID OR HONEYCOMB STEEL DOOR 1-3/8 IN. THICK, OR 20 MIN. FIRE RATED DOOR WITH SELF CLOSING HARDWARE FROM GARAGE AREA TO CONDITIONED AREA. (R309.1)
3) UNRATED DISAPPEARING STAIRS IN GARAGES TO HAVE MIN. 3/8" THICK FIRE RETARDANT PLYWOOD OR MIN. 16 GA. SHEET METAL.
4) PROVIDE 5/8" TYPE 'X' GYPSUM BOARD TO ENCLOSED AREAS LOCATED UNDER ALL STAIRS.



FIRE RESISTIVE CONSTRUCTION:

BEFORE INSTALLING SECONDARY (FURR) 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

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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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.
WINDOW SCHEDULE: SIZE AS NOTED ON PLANS.
FRAME TYPE: ____
FRAME COLOR: ____
GLAZING: ____
EXTERIOR TRIM: ____
INTERIOR TRIM: ____
ROOM FINISH SCHEDULE:
TILE FLOORS AT ALL WET AREAS. TILE WALLS AT TUB. FULL TILE WALLS AND FLOOR IN SHOWER STALL. SYNTHETIC MARBLE OR SIM. COUNTER TOPS AND SPLASHES.
ALL CASED OPENINGS TO HAVE SHEETROCK RETURNS.
RE: BUILDER/OWNER FOR USE OF WOOD C.O. RETURNS.
- OR - AS NOTED ON PLANS.
- OR - AS NOTED IN DETAILED SPECS. BETWEEN OWNER & BUILDER.

PLAN NOTES

REFERENCING THE 2021IRC 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 AND ASSOCIATES, LLC 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 BATHTUBS PER IRC 2021SECT. P2704.1.
6) ALL GLASS AT TUBS AND SHOWERS SHALL BE TEMPERED SAFETY GLASS AND TO COMPLY WITH IRC 2021SECT. 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 1003.3.3.11, EXCEPTION 4: PROVIDE CONTINUOUS RAILING 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 SERVICING MECHANICAL EQUIPMENT, THE MINIMUM SIZE OF A PULL-DOWN STAIRS IS 30"x54", AND HAVE A MINIMUM LOAD CAPACITY OF 350 LBS. SEE IRC 2021SECT. R807 AND SECT. M1305.1.3.
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. R320.1.
13) PROVIDE ADEQUATE FURRING SO VENT AND SOIL PIPES DO NOT PENETRATE PLATES. ALL PLUMBING VENTS SHALL EXIT THROUGH A ROOF PLANE THAT SLOPES TO THE BACK.

SYMBOLS

SECTION CUTS — SHEET LOCATION
CABINET & WALL ELEVATIONS — SHEET LOCATION
FIRE WALL TYPE — DETAIL LOCATED LAST SHEET (U.N.O.)

LINE LEGEND

WALLS:
4" STUD WALL
6" STUD WALL

CEILINGS
DESIGNATION FOR FURRED DOWN CLG.
DESIGNATION FOR OPEN FRAMING ABOVE, (STAIR VOIDS & OPENINGS).

CLOSETS: WALL
ROD & SHELF
WALL
DOUBLE ROD & SHELF

CABINETS: WALL
UPPER CABINET 18" ABOVE COUNTERTOP TYP.
COUNTERTOP @ 36" HT. TYP.

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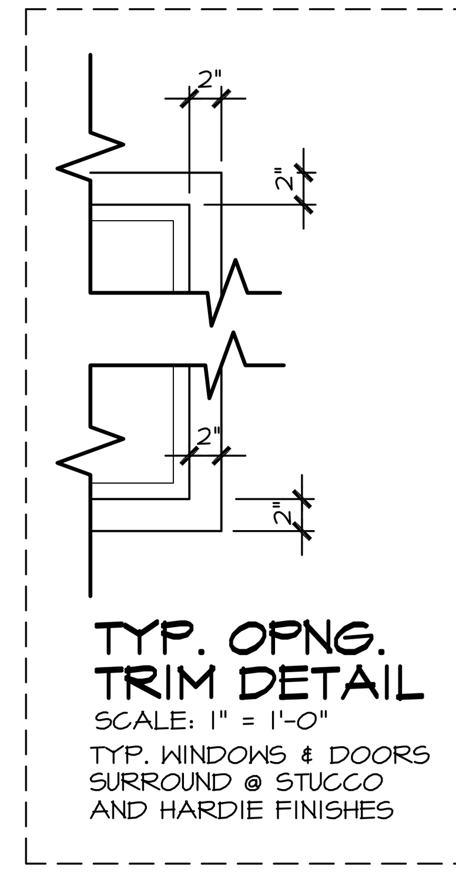
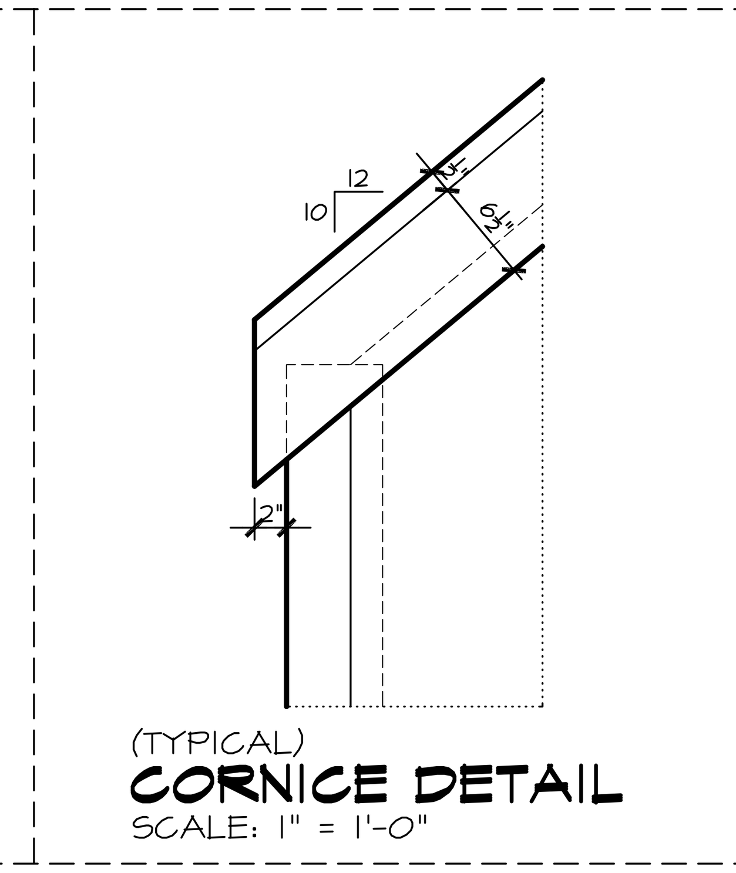
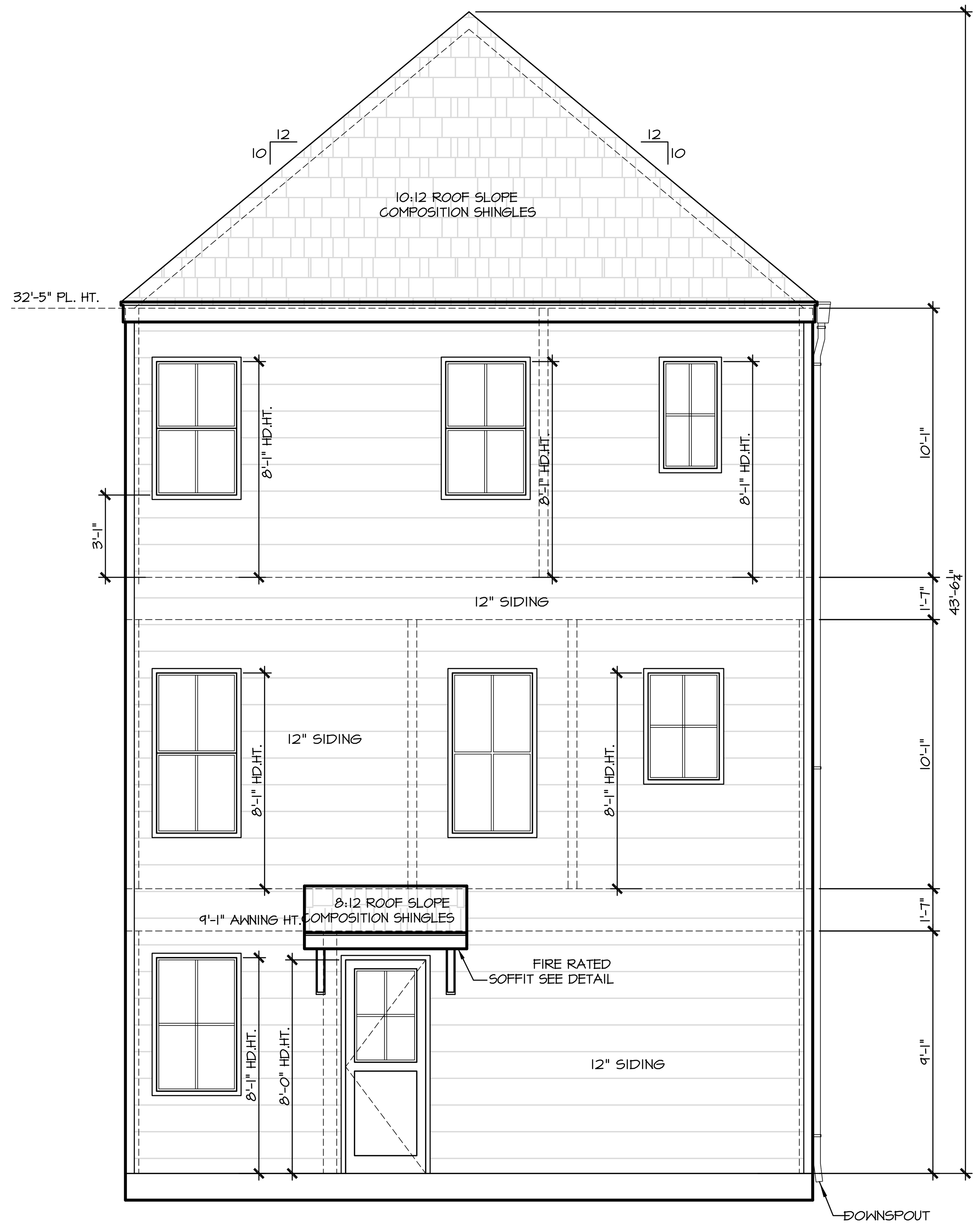
PWA Project Number: F2212-A1.1-R-v1 3 of 10

REVIEW SET NOT FOR CONSTRUCTION Date: 12 April 2024

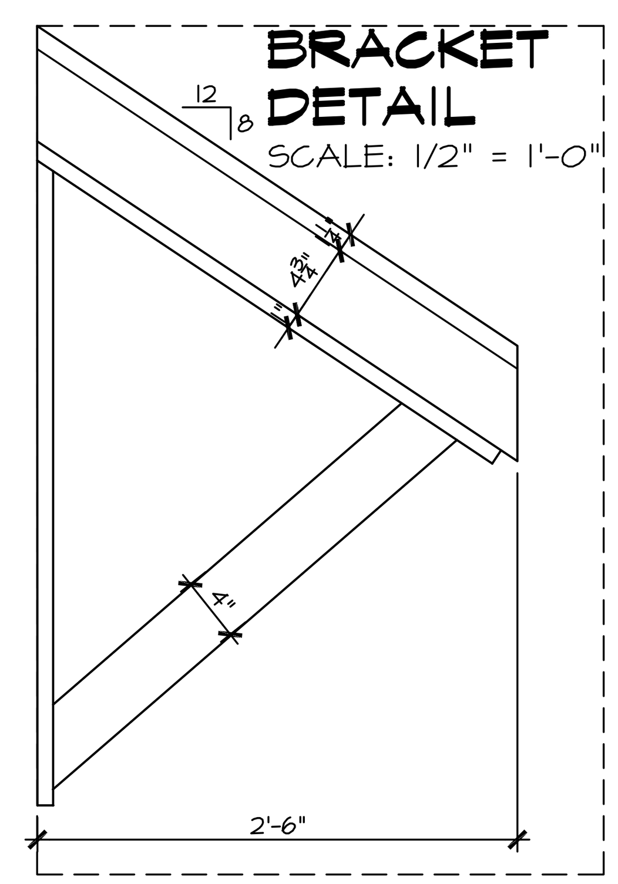


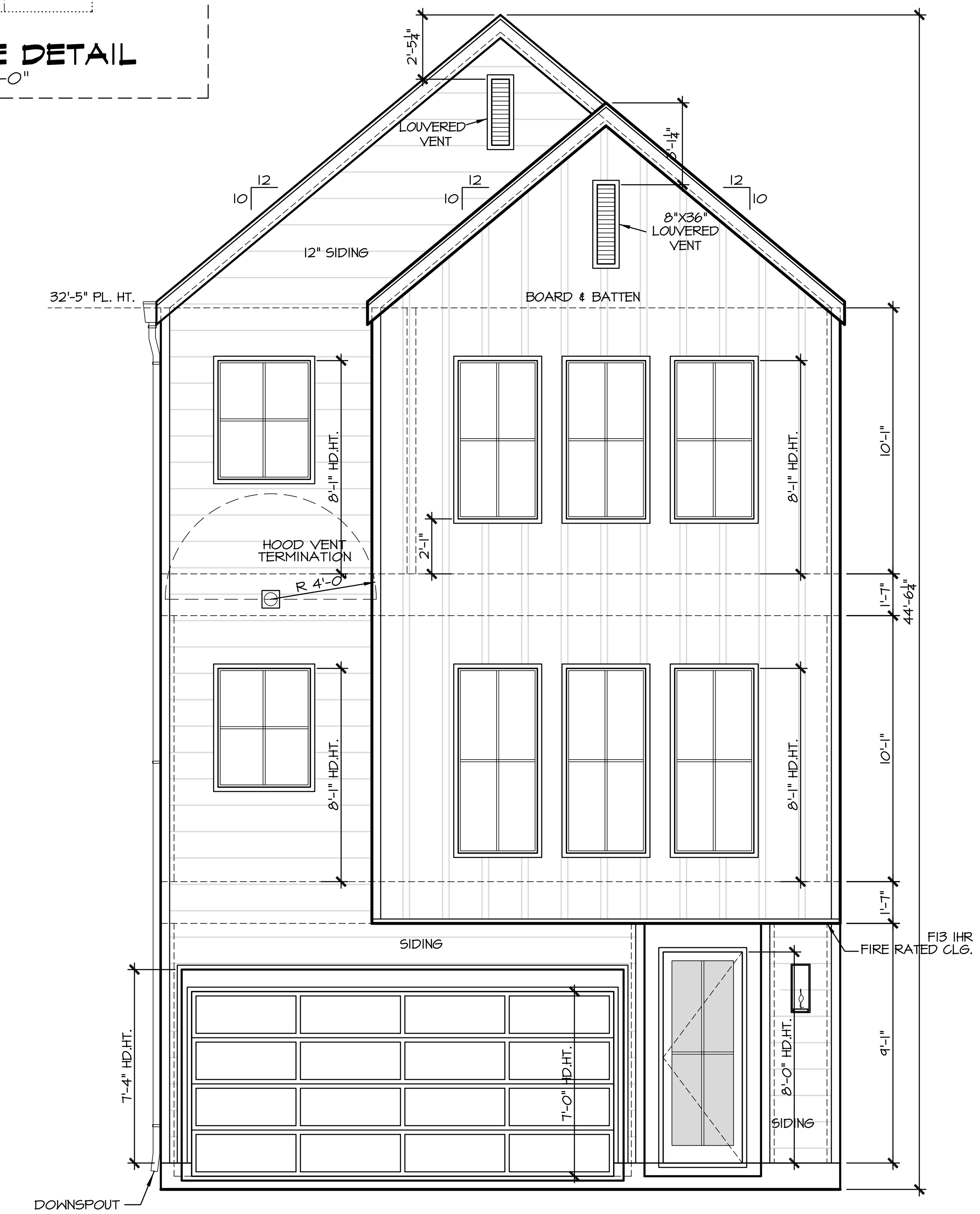




BACK ELEVATION

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





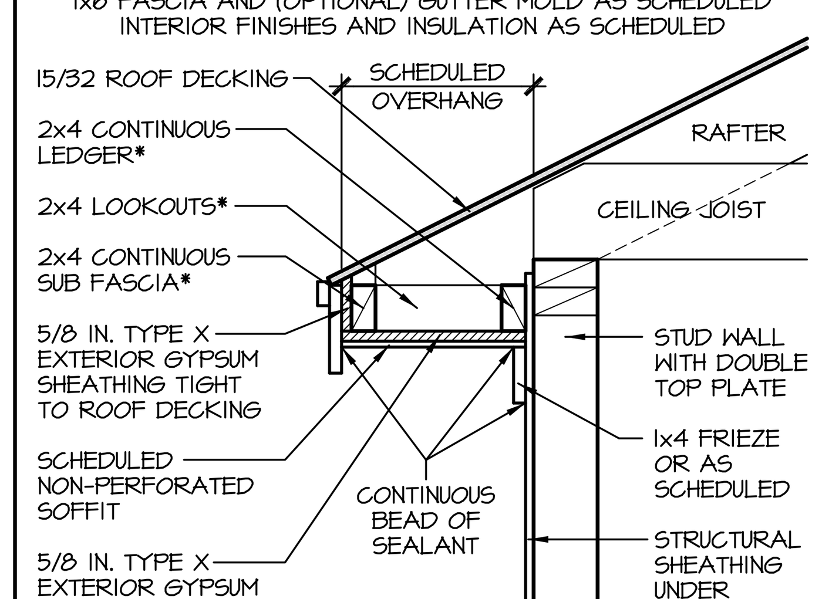
FRONT ELEVATION

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

ONE-HOUR FIRE-RESISTIVE SOFFIT

1" = 1'-0"

1x6 FASCIA AND (OPTIONAL) GUTTER MOLD AS SCHEDULED
INTERIOR FINISHES AND INSULATION AS SCHEDULED



* LEDGER, LOOKOUTS AND SUB-FASCIA ARE ADJUSTED BY 5/8 INCH FOR THE GYPSUM BOARD SO SOFFIT ELEVATION AND FASCIA DISTANCE FROM STUD WALL MATCHES ADJACENT EAVES THAT DO NOT HAVE THIS RATED SOFFIT.

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5) ALL WINDOW HEAD HEIGHTS TAKEN FROM IMMEDIATE INTERIOR FLOOR LEVEL. HEAD HEIGHTS IN STAIRWELLS TAKEN FROM (FIRST) FLOOR LEVEL (AT THE STAIRWELL).
6) OPENINGS ON A ONE-HOUR FIRE-RATED EXTERIOR WALL SHALL BE PROTECTED WITH AN ASSEMBLY HAVING A FIRE-PROTECTION RATING OF NOT LESS THAN 3/4 HOUR. SEE IBC 2012, SECTIONS 714.3.7 AND 714.3.9 AND TABLE 714.2 (EXTERIOR WALLS). PENETRATIONS INTO OR THROUGH FIRE-RATED WALLS SHALL CONFORM WITH IBC 2012, SECTION 711.3. BUILDER TO DETERMINE FINAL MATERIAL AND PROVIDE APPROPRIATE TEST CRITERIA TO THE LOCAL AUTHORITY (GLASS BLOCK SELECTION OF YOUR CHOICE).
7) PROVIDE SAFETY GLAZING IN THESE HAZARDOUS LOCATIONS (R308.4):
   a. GLAZING IN TUBS AND SHOWERS WHERE THE BOTTOM EDGE OF A PANE IS LESS THAN 60" FROM ANY WALKING SURFACE.
   b. GLAZING IN SIDE HINGED DOORS EXCEPT JALOUSIES.
   c. GLAZING WITHIN 24" FROM A DOOR AND BOTTOM OF PANE IS LESS THAN 60" FROM THE FLOOR.
   d. EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQ. FT.
   e. BOTTOM EDGE OF A PANE IS LESS THAN 18" FROM FLOOR.
   f. TOP EDGE OF A PANE IS GREATER THAN 36" FROM FLOOR (WHEN BOTTOM OF THIS SAME PANE IS LOWER THAN 36" FROM THE FLOOR).
   g. ONE OR MORE WALKING SURFACES WITHIN 36" HORIZONTALLY OF THE GLAZING.
   h. GLAZING IN STAIRWELLS WHERE THE BOTTOM EDGE OF A PANE IS LESS THAN 60" VERTICALLY FROM ANY NOSING, AND 60" HORIZONTALLY FROM ANY STAIR NOSING, WHERE THE EDGE OF PANE IS LESS THAN 60" ABOVE THE FLOOR.
8) ALL RAILING (WOOD, METAL OR PRECAST) TO HAVE <4" MAXIMUM SPACING BETWEEN BALUSTERS (SPINDLES) AND TO CONFORM WITH IRC 2012, SECTION R316. HANDRAILS AND GUARDRAILS SHALL BE DESIGNED FOR MINIMUM LIVE LOAD FOUND IN IRC 2021TABLE R301.4; AND ON THE LAST SHEET OF THIS DOCUMENT.
   a. INTERIOR GUARDS SHALL NOT BE CONSTRUCTED WITH HORIZONTAL RAILS OR OTHER ORNAMENTAL PATTERN THAT RESULTS IN A LADDER EFFECT (SECT. R316.2).
   b. EXTERIOR GUARDS TO HAVE RAILING NO LOWER THAN 42" FROM FINISHED FLOOR, WITH NO LESS THAN 36" DISTANCE FROM TOP OF GUARD TO BOTTOM OF LOWEST RUNNER. MAXIMUM UNSUPPORTED SPAN OF LOWEST RUNNER SHALL BE 6'-0".
9) ROOF PLATE HEIGHTS TAKEN FROM NOMINAL (FIRST) FLOOR (SLAB) LEVEL. U.O.N.
10) ALL BRICK OR PREFAB FIREPLACES TO BE BUILT AND INSTALLED PER IRC 2012, CHAPTER 10, AND BE U.L. AND I.C.B.O. APPROVED (#_______________). A COPY OF THE MANUFACTURER INSTALLATION MANUAL WILL BE AVAILABLE ON SITE FOR INSPECTOR REVIEW.
11) CHIMNEYS TO BE A MINIMUM 2'-0" ABOVE ANY ROOF LINE WITHIN A 10'-0" RADIUS, OR 3'-0" FROM ANY ROOF LINE (RIDGE); SEE IRC 2012, SECTION R1001.6. CHIMNEY PIPE(S) SHALL EXIT THROUGH THE ROOF DECKING INSIDE ALL BUILDING AND SETBACK LINES.
12) PROVIDE SPARK ARRESTORS AT CHIMNEY. MESH TO HAVE MAXIMUM GAP OF 1/2", MINIMUM GAP OF 3/8" AND TO CONFORM WITH IRC 2021CHAPTER 10.
13) ALL GAS APPLIANCE VENTS TO EXIT AN EXTERIOR WALL LOCATED NO LESS THAN 4'-0" FROM ANY PROPERTY LINE OR COMMON WALL. DISTANCE OF GAS VENT PIPES THROUGH A EXTERIOR WALL PERPENDICULAR TO A PROPERTY LINE OR COMMON WALL TO BE MINIMUM OF 4'-0" FROM THE PROPERTY LINE OR COMMON WALL.

PRIMARY EXTERIOR MATERIAL:	**4'X8' SMOOTH PANEL SIDING**
SECONDARY EXTERIOR MATERIAL:	**12" SIDING**
ROOF MATERIAL:	**COMPOSITION SHINGLE/METAL ROOF**

ALL DOOR AND WINDOW ASSEMBLIES TO HAVE MATCHING BRICK MOLD OR EQUAL SURROUNDS.
MATCH TRANSOMS TO UNITS BELOW.
HEAD HEIGHTS TAKEN FROM IMMEDIATE INTERIOR FLOOR LEVEL.
SOFFIT AND RIDGE VENTING PER BUILDER SPEC'S.

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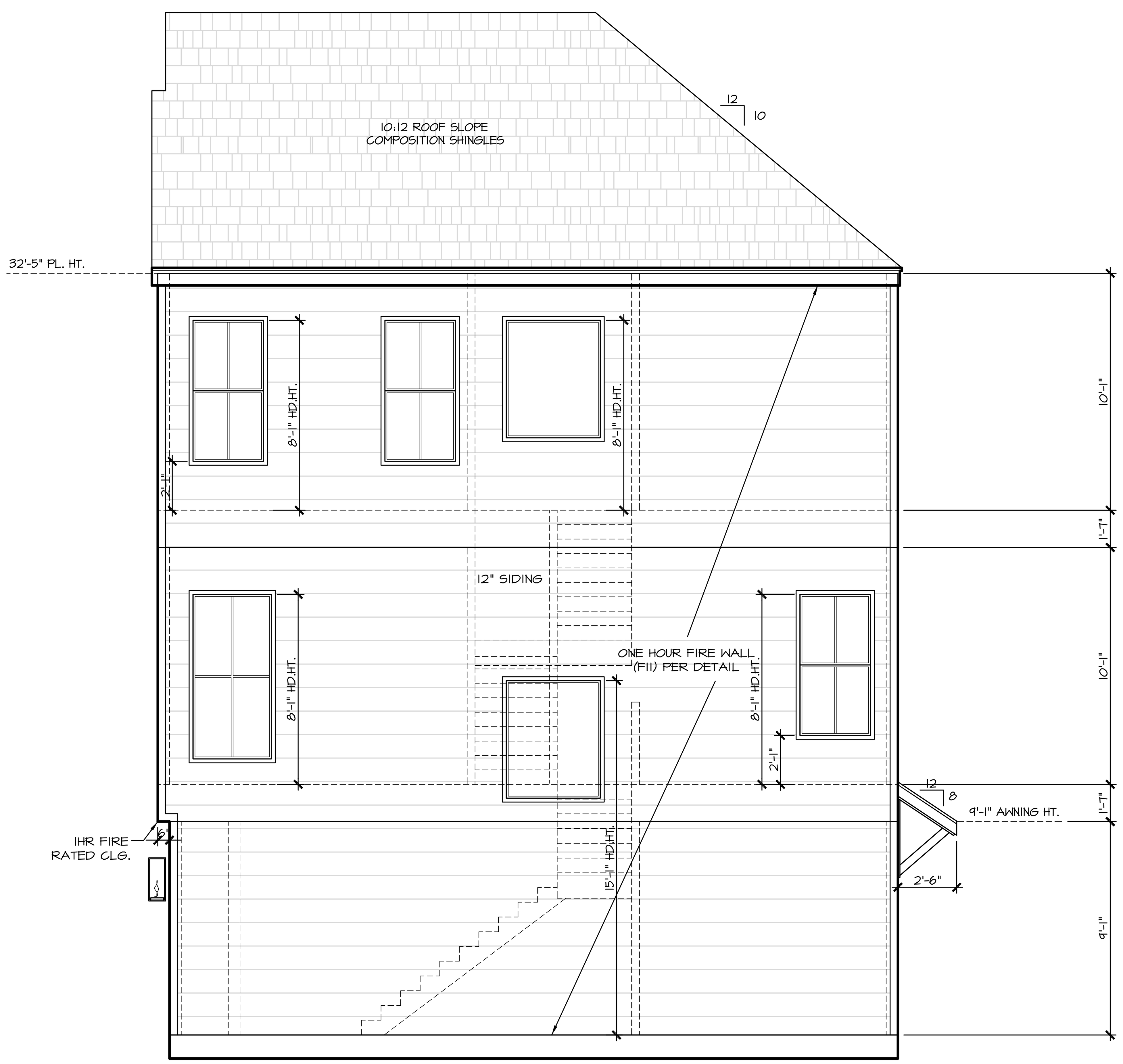

RIGHT ELEVATION

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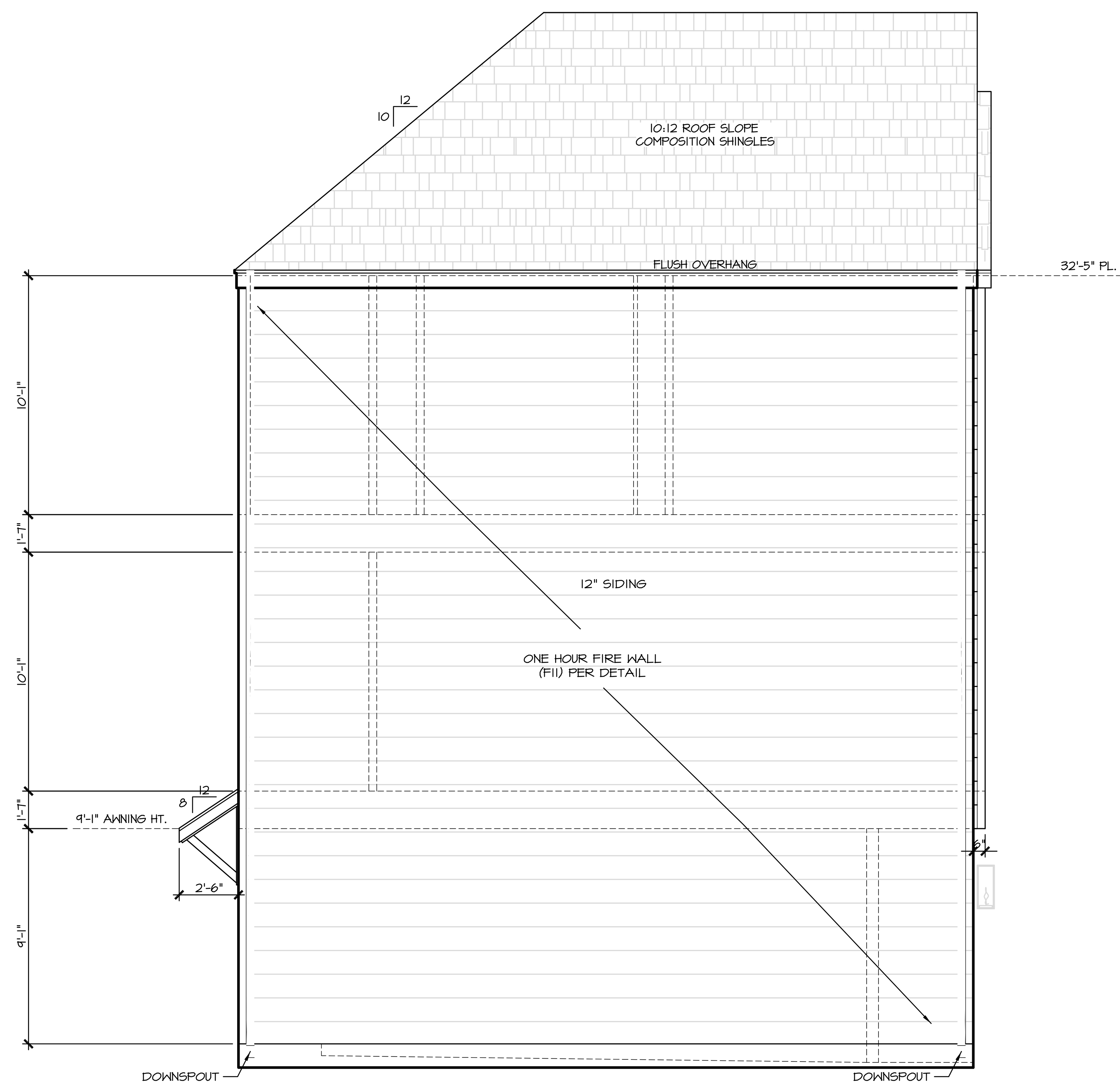

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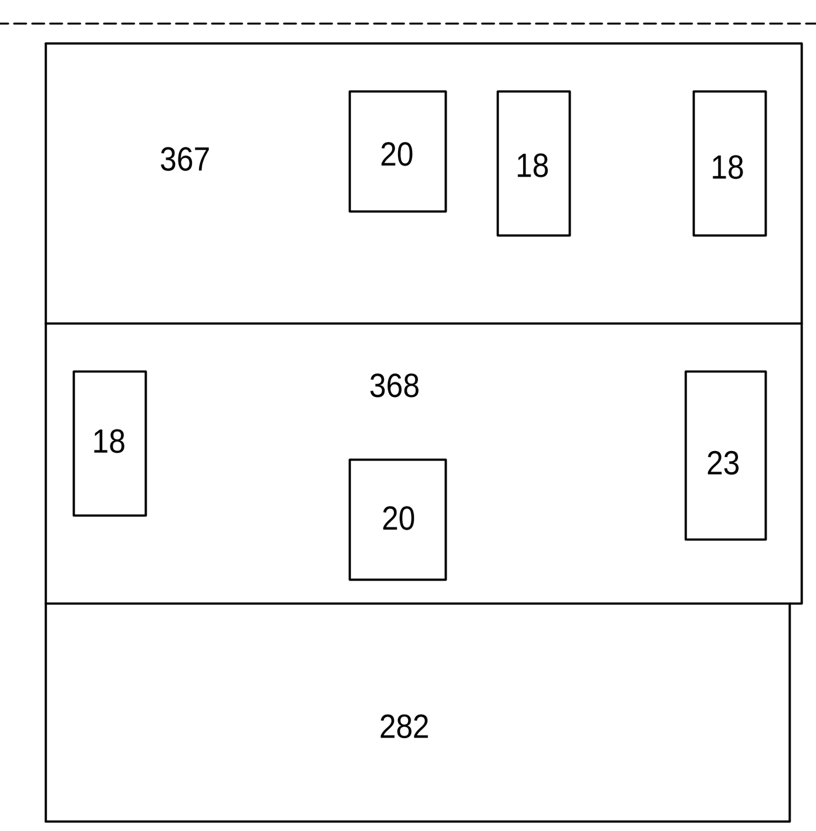

THIRD FLOOR
TOTAL WALL OPENING AREA: 56 #
TOTAL WALL AREA: 367 #
PERCENT OPENING TO WALL: 15.25%

SECOND FLOOR
TOTAL WALL OPENING AREA: 61 #
TOTAL WALL AREA: 368 #
PERCENT OPENING TO WALL: 16.57%

FIRST FLOOR
TOTAL WALL OPENING AREA: 0 #
TOTAL WALL AREA: 282 #
PERCENT OPENING TO WALL: 0.00%

UNPROTECTED WALL OPENING PERCENTAGE

SCALE: 1/8"=1'-0" MAXIMUM WALL OPENING PERCENTAGE ALLOWED IS 25%

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6) OPENINGS ON A ONE-HOUR FIRE-RATED EXTERIOR WALL SHALL BE PROTECTED WITH AN ASSEMBLY HAVING A FIRE-PROTECTION RATING OF NOT LESS THAN 3/4 HOUR. SEE IBC 2012, SECTIONS 714.3.7 AND 714.3.9 AND TABLE 714.2 (EXTERIOR WALLS). PENETRATIONS INTO OR THROUGH FIRE-RATED WALLS SHALL CONFORM WITH IBC 2012, SECTION 711.3. BUILDER TO DETERMINE FINAL MATERIAL AND PROVIDE APPROPRIATE TEST CRITERIA TO THE LOCAL AUTHORITY (GLASS BLOCK SELECTION OF YOUR CHOICE).
7) PROVIDE SAFETY GLAZING IN THESE HAZARDOUS LOCATIONS (R308.4):
   a. GLAZING IN TUBS AND SHOWERS WHERE THE BOTTOM EDGE OF A PANE IS LESS THAN 60" FROM ANY WALKING SURFACE.
   b. GLAZING IN SIDE HINGED DOORS EXCEPT JALOUSIES.
   c. GLAZING WITHIN 24" FROM A DOOR AND BOTTOM OF PANE IS LESS THAN 60" FROM THE FLOOR.
   d. EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQ. FT.
   e. BOTTOM EDGE OF A PANE IS LESS THAN 18" FROM FLOOR.
   f. TOP EDGE OF A PANE IS GREATER THAN 36" FROM FLOOR (WHEN BOTTOM OF THIS SAME PANE IS LOWER THAN 36" FROM THE FLOOR).
   g. ONE OR MORE WALKING SURFACES WITHIN 36" HORIZONTALLY OF THE GLAZING.
   h. GLAZING IN STAIRWELLS WHERE THE BOTTOM EDGE OF A PANE IS LESS THAN 60" VERTICALLY FROM ANY NOSING, AND 60" HORIZONTALLY FROM ANY STAIR NOSING, WHERE THE EDGE OF PANE IS LESS THAN 60" ABOVE THE FLOOR.
8) ALL RAILING (WOOD, METAL OR PRECAST) TO HAVE <4" MAXIMUM SPACING BETWEEN BALUSTERS (SPINDLES) AND TO CONFORM WITH IRC 2012, SECTION R316. HANDRAILS AND GUARDRAILS SHALL BE DESIGNED FOR MINIMUM LIVE LOAD FOUND IN IRC 2021TABLE R301.4; AND ON THE LAST SHEET OF THIS DOCUMENT.
   a. INTERIOR GUARDS SHALL NOT BE CONSTRUCTED WITH HORIZONTAL RAILS OR OTHER ORNAMENTAL PATTERN THAT RESULTS IN A LADDER EFFECT (SECT. R316.2).
   b. EXTERIOR GUARDS TO HAVE RAILING NO LOWER THAN 42" FROM FINISHED FLOOR, WITH NO LESS THAN 36" DISTANCE FROM TOP OF GUARD TO BOTTOM OF LOWEST RUNNER. MAXIMUM UNSUPPORTED SPAN OF LOWEST RUNNER SHALL BE 6'-0".
9) ROOF PLATE HEIGHTS TAKEN FROM NOMINAL (FIRST) FLOOR (SLAB) LEVEL. U.O.N.
10) ALL BRICK OR PREFAB FIREPLACES TO BE BUILT AND INSTALLED PER IRC 2012, CHAPTER 10, AND BE U.L. AND I.C.B.O. APPROVED (#______________). A COPY OF THE MANUFACTURER INSTALLATION MANUAL WILL BE AVAILABLE ON SITE FOR INSPECTOR REVIEW.
11) CHIMNEYS TO BE A MINIMUM 2'-0" ABOVE ANY ROOF LINE WITHIN A 10'-0" RADIUS, OR 3'-0" FROM ANY ROOF LINE (RIDGE); SEE IRC 2012, SECTION R1001.6. CHIMNEY PIPE(S) SHALL EXIT THROUGH THE ROOF DECKING INSIDE ALL BUILDING AND SETBACK LINES.
12) PROVIDE SPARK ARRESTORS AT CHIMNEY. MESH TO HAVE MAXIMUM GAP OF 1/2", MINIMUM GAP OF 3/8" AND TO CONFORM WITH IRC 2021CHAPTER 10.
13) ALL GAS APPLIANCE VENTS TO EXIT AN EXTERIOR WALL LOCATED NO LESS THAN 4'-0" FROM ANY PROPERTY LINE OR COMMON WALL. DISTANCE OF GAS VENT PIPES THROUGH A EXTERIOR WALL PERPENDICULAR TO A PROPERTY LINE OR COMMON WALL TO BE MINIMUM OF 4'-0" FROM THE PROPERTY LINE OR COMMON WALL.

PRIMARY EXTERIOR MATERIAL: **4'X8' SMOOTH PANEL SIDING**
SECONDARY EXTERIOR MATERIAL: **12" SIDING**
ROOF MATERIAL: **COMPOSITION SHINGLE/METAL ROOF**

ALL DOOR AND WINDOW ASSEMBLIES TO HAVE MATCHING BRICK MOLD OR EQUAL SURROUNDS.
MATCH TRANSOMS TO UNITS BELOW.
HEAD HEIGHTS TAKEN FROM IMMEDIATE INTERIOR FLOOR LEVEL.
SOFFIT AND RIDGE VENTING PER BUILDER SPEC'S.

SQUARE FOOTAGES

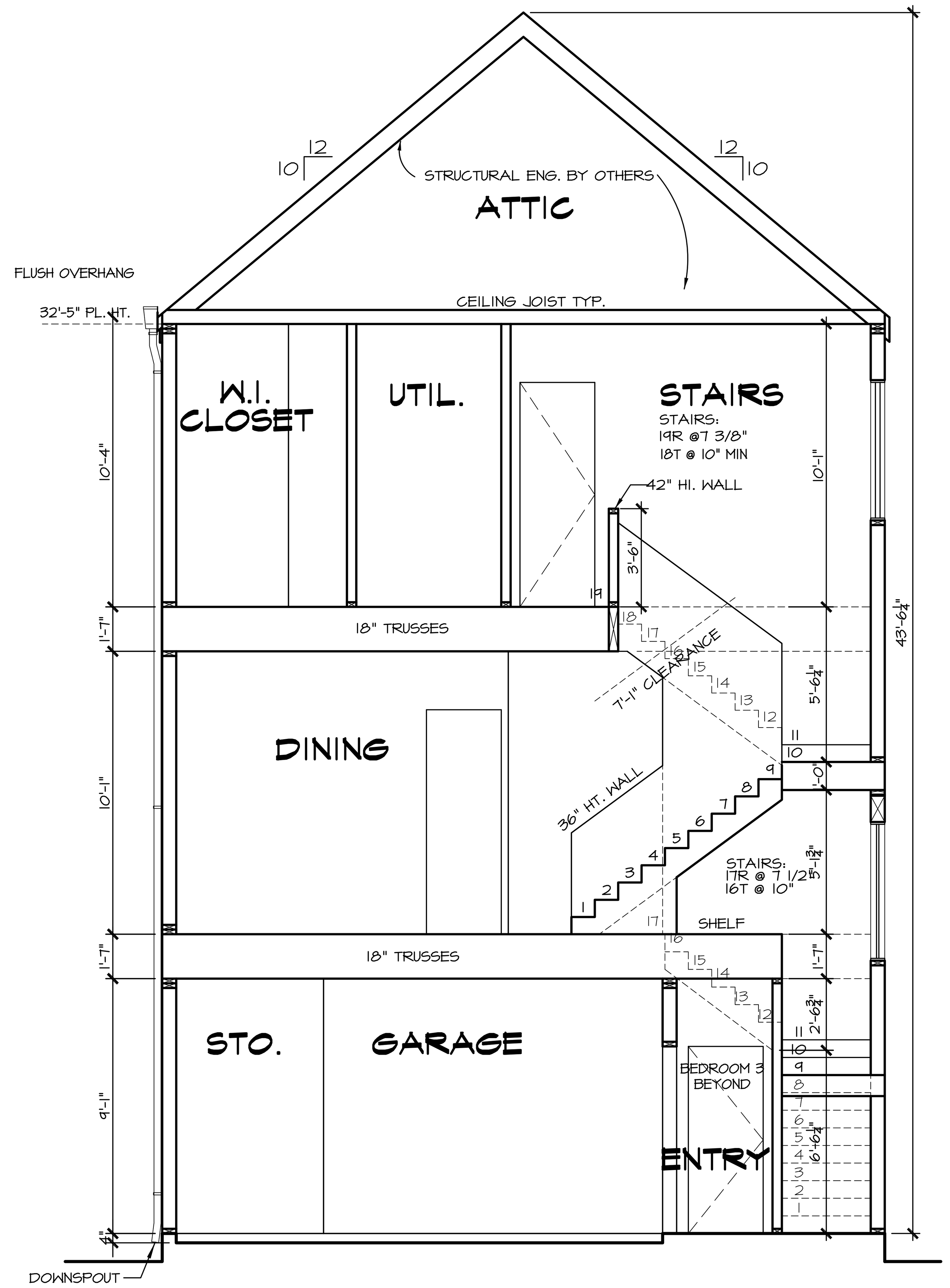
FIRST FLOOR:	233	
SECOND FLOOR:	807	
THIRD FLOOR:	744	
TOTAL LIVING AREA:	1784	S.F.
GARAGE:	482	
PORCH:	12	
PORTE-COCHERE:	71	
TOTAL SLAB:	798	S.F.
TOTAL AREA:	2349	S.F.

TREEHOUSE DEVELOPMENT
AMUNDSEN PALMS REPLAT NO 1 LT 3 BLK 1
4502 TERRY ST
HOUSTON, TX 77009

PWA Project Number: F2212-A1.1-R-v1

REVIEW SET
NOT FOR CONSTRUCTION

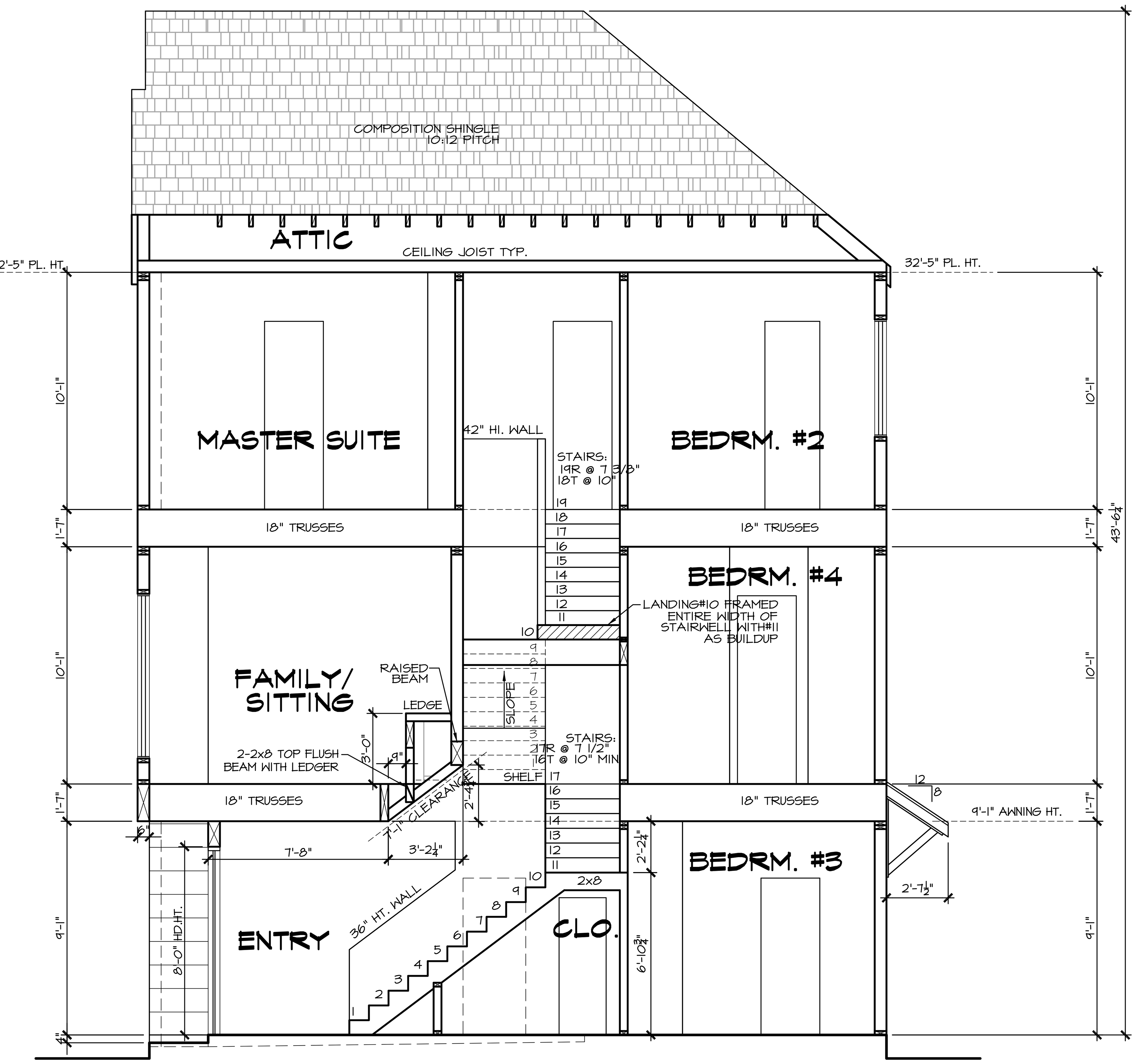
Date: 12 April 2024



STRUCTURAL ENG. BY OTHERS
ATTIC
FLUSH OVERHANG
CEILING JOIST TYP.
32'-5" PL. HT.
W.I. CLOSET
UTIL.
STAIRS
STAIRS: 19R @7 3/8" 18T @ 10" MIN
42" HI. WALL
18" TRUSSES
7'-1" CLEARANCE
DINING
36" HT. WALL
STAIRS: 17R @ 7 1/2" 16T @ 10"
SHELF
STO.
GARAGE
BEDROOM 3 BEYOND
ENTRY
DOWNSPOUT
43'-6 1/4"

SECTION "A-A"

SCALE: 1/4" = 1'-0"
SUGGESTED FLOOR AND CEILING SYSTEM AS NOTED ON DRAWING.

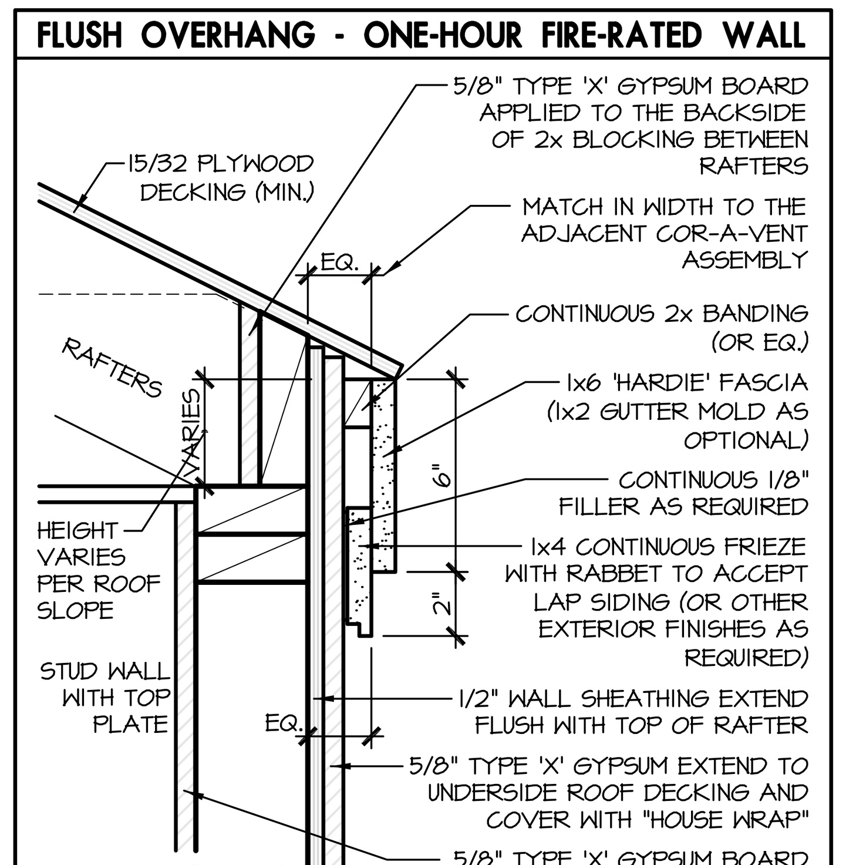


COMPOSITION SHINGLE 10:12 PITCH
ATTIC
CEILING JOIST TYP.
32'-5" PL. HT.
MASTER SUITE
42" HI. WALL
STAIRS: 19R @ 7 3/8" 18T @ 10"
BEDRM. #2
18" TRUSSES
FAMILY/ SITTING
RAISED BEAM
LEDGE
2-2x8 TOP FLUSH BEAM WITH LEDGER
BEDRM. #4
LANDING#10 FRAMED ENTIRE WIDTH OF STAIRWELL WITH#11 AS BUILDUP
STAIRS: 17R @ 7 1/2" 16T @ 10" MIN
SHELF
7'-1" CLEARANCE
9'-1" AWNING HT.
ENTRY
36" HT. WALL
CLO.
BEDRM. #3
43'-6 1/4"

SECTION "B-B"

SCALE: 1/4" = 1'-0"
SUGGESTED FLOOR AND CEILING SYSTEM AS NOTED ON DRAWING.

FLUSH OVERHANG - ONE-HOUR FIRE-RATED WALL

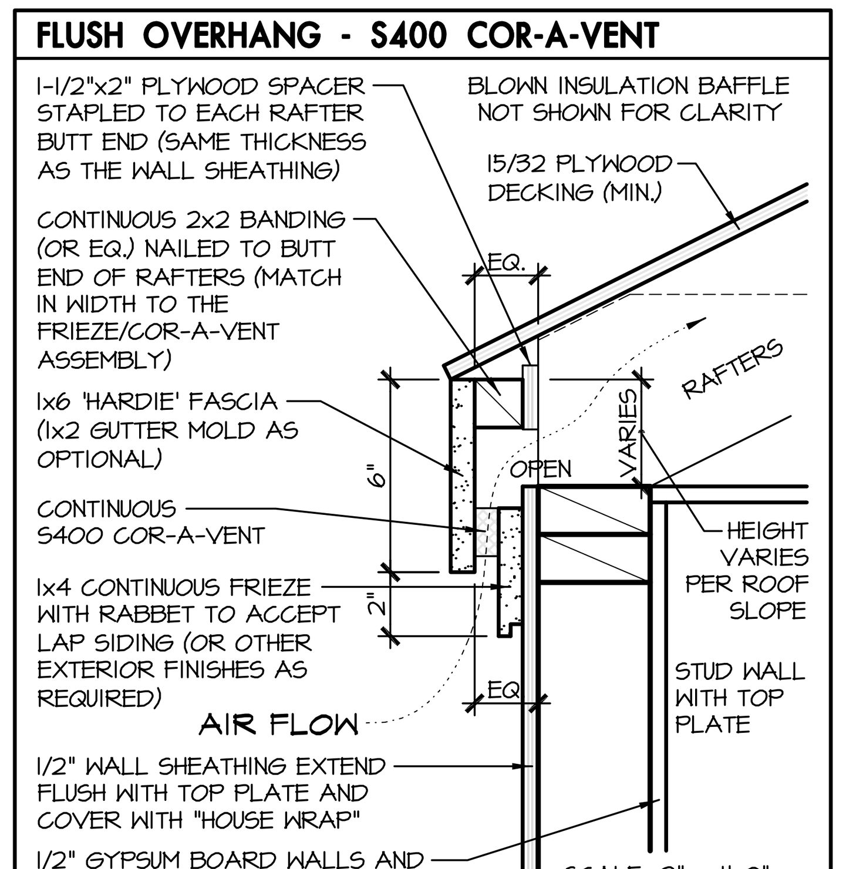


5/8" TYPE 'X' GYPSUM BOARD APPLIED TO THE BACKSIDE OF 2x BLOCKING BETWEEN RAFTERS
15/32 PLYWOOD DECKING (MIN.)
MATCH IN WIDTH TO THE ADJACENT COR-A-VENT ASSEMBLY
CONTINUOUS 2x BANDING (OR EQ.)
1x6 'HARDIE' FASCIA (1x2 GUTTER MOLD AS OPTIONAL)
CONTINUOUS 1/8" FILLER AS REQUIRED
1x4 CONTINUOUS FRIEZE WITH RABBET TO ACCEPT LAP SIDING (OR OTHER EXTERIOR FINISHES AS REQUIRED)
RAFTERS
HEIGHT VARIES PER ROOF SLOPE
STUD WALL WITH TOP PLATE
1/2" WALL SHEATHING EXTEND FLUSH WITH TOP OF RAFTER
5/8" TYPE 'X' GYPSUM EXTEND TO UNDERSIDE ROOF DECKING AND COVER WITH "HOUSE WRAP"
5/8" TYPE 'X' GYPSUM BOARD INTERIOR SIDE OF EXTERIOR WALL

SCALE: 2" = 1'-0"

NOTE: USE THIS DETAIL WHEN ADJACENT FASCIA EMPLOYS COR-A-VENT

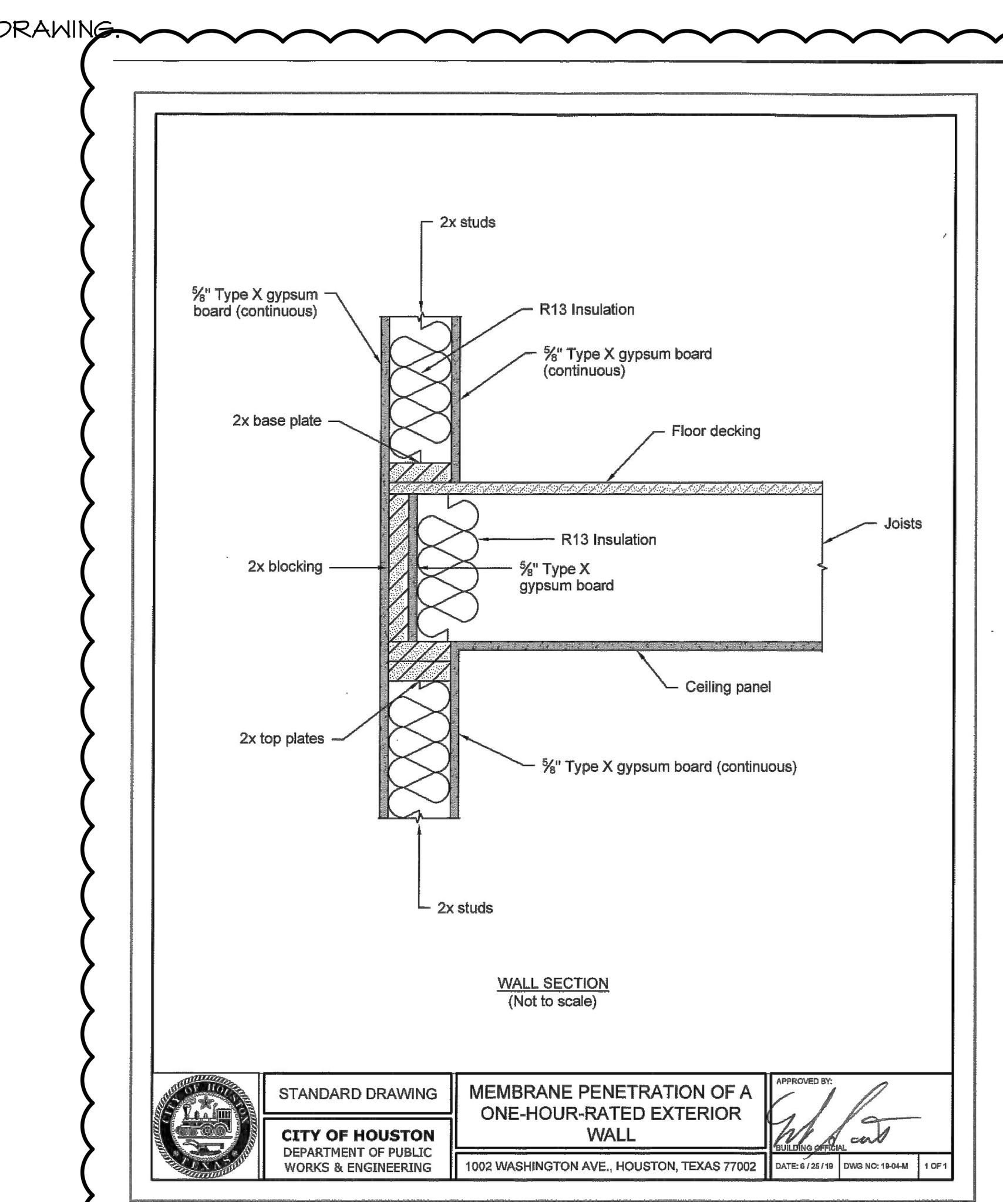
FLUSH OVERHANG - S400 COR-A-VENT



1-1/2"x2" PLYWOOD SPACER STAPLED TO EACH RAFTER BUTT END (SAME THICKNESS AS THE WALL SHEATHING)
BLOWN INSULATION BAFFLE NOT SHOWN FOR CLARITY
15/32 PLYWOOD DECKING (MIN.)
CONTINUOUS 2x2 BANDING (OR EQ.) NAILED TO BUTT END OF RAFTERS (MATCH IN WIDTH TO THE FRIEZE/COR-A-VENT ASSEMBLY)
1x6 'HARDIE' FASCIA (1x2 GUTTER MOLD AS OPTIONAL)
CONTINUOUS S400 COR-A-VENT
1x4 CONTINUOUS FRIEZE WITH RABBET TO ACCEPT LAP SIDING (OR OTHER EXTERIOR FINISHES AS REQUIRED)
AIR FLOW
OPEN
RAFTERS
HEIGHT VARIES PER ROOF SLOPE
STUD WALL WITH TOP PLATE
1/2" WALL SHEATHING EXTEND FLUSH WITH TOP PLATE AND COVER WITH "HOUSE WRAP"
1/2" GYPSUM BOARD WALLS AND CEILINGS

SCALE: 2" = 1'-0"

NOTE: USE THIS DETAIL WHEN STUD WALL IS GREATER THAN 36" TO A PROPERTY LINE



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REDRAW # E9016-A1.1

DESIGNER:	DATE:	PRODUCTION 4 :	DATE:
XXX	X-X-XX	XXX	X-X-XX
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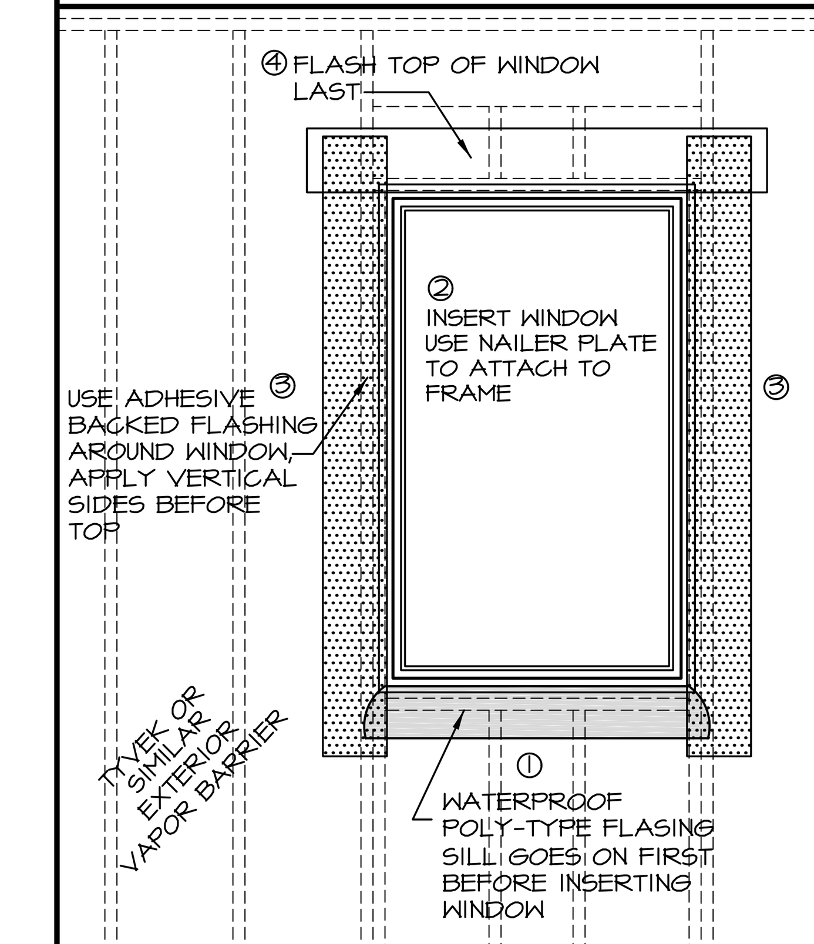
XXX	X-X-XX	XXX	X-X-XX
PRODUCTION 3 :	DATE:	CHECKED:	DATE:
XXX	X-X-XX	XXX	X-X-XX

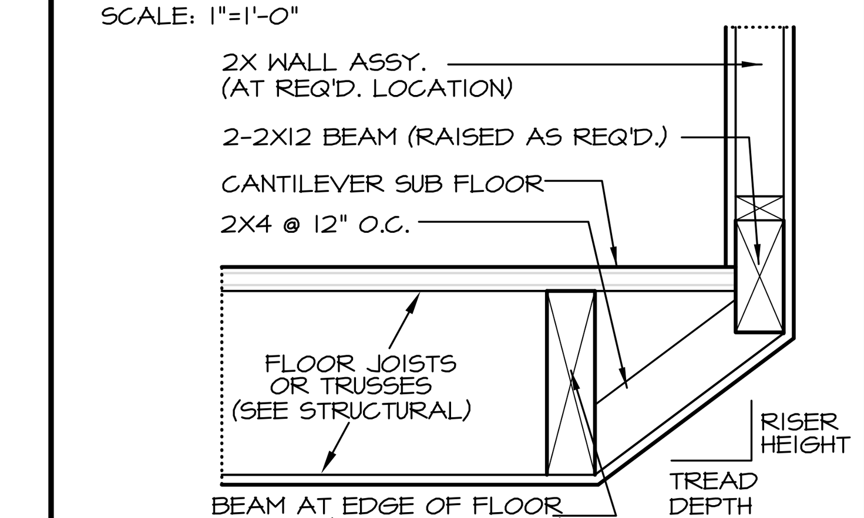
WINDOW FLASHING DETAIL



4 FLASH TOP OF WINDOW LAST
2 INSERT WINDOW USE NAILER PLATE TO ATTACH TO FRAME
3 USE ADHESIVE BACKED FLASHING AROUND WINDOW. APPLY VERTICAL SIDES BEFORE TOP
TYVEK OR SIMILAR EXTERIOR VAPOR BARRIER
1 WATERPROOF POLY-TYPE FLASING SILL GOES ON FIRST BEFORE INSERTING WINDOW

STAIR HEAD CLEARANCE DETAIL

SCALE: 1"=1'-0"



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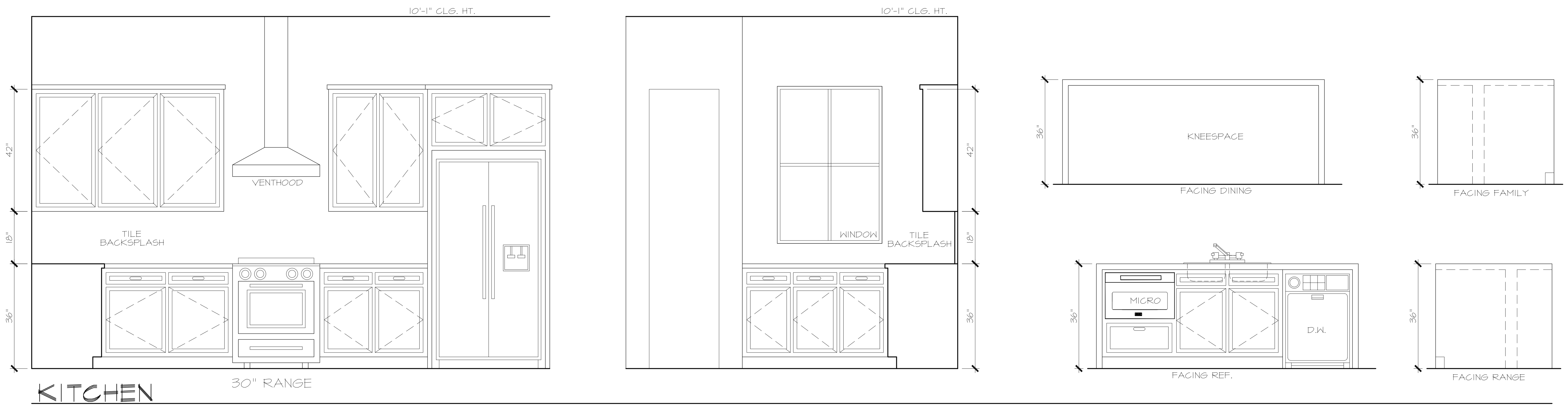

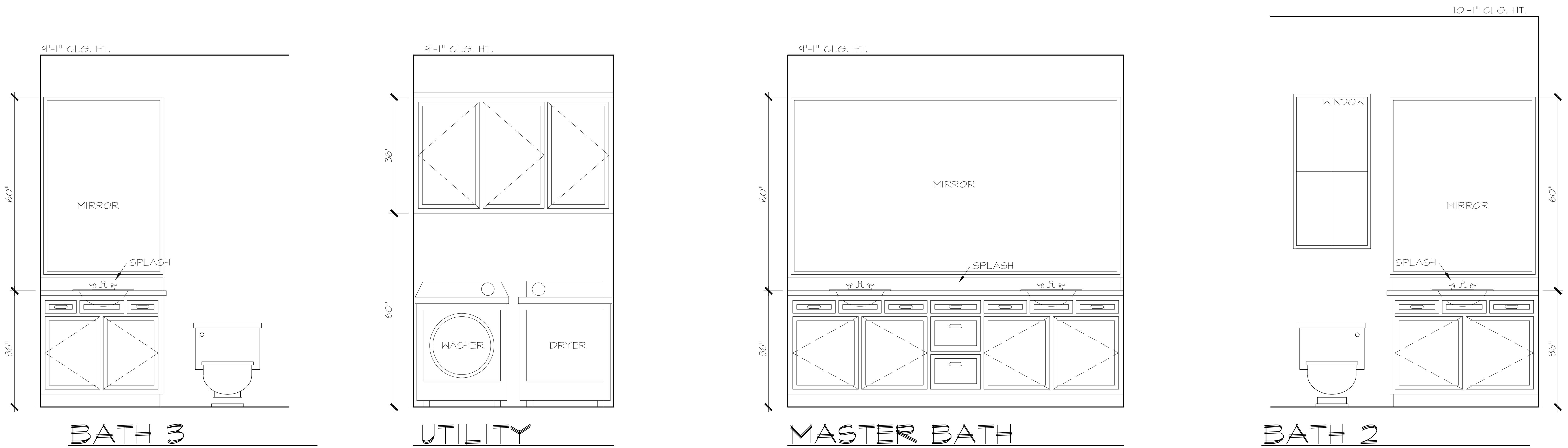

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REDRAW #

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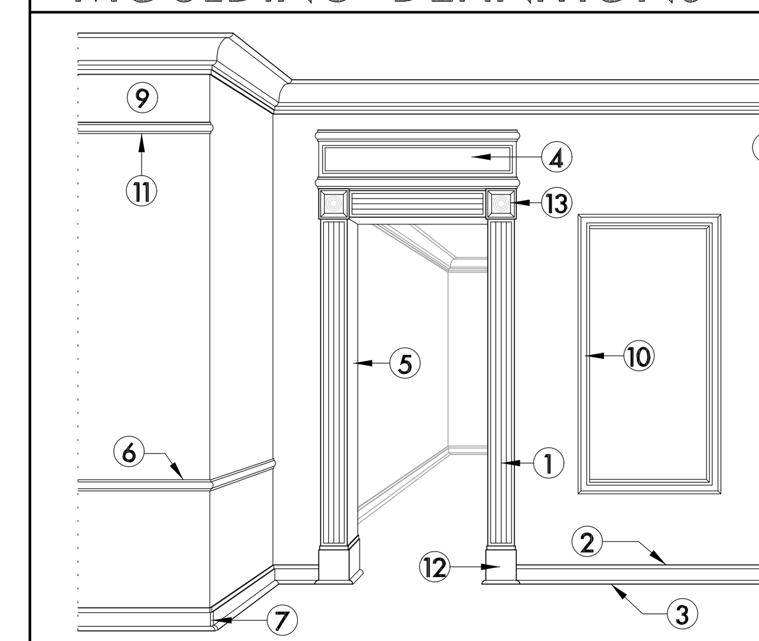
MOULDING DEFINITIONS



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 IF THE FRAME IN WHICH THE DOOR OR WINDOW IS HUNG. IT IS ALSO WHERE TGE 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 BOCK (PLAIN OR MOULDED) FOR I NSIDE 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 STURCTURE, MOST COMMONLY USED IN HIGH CORNERS (WALL & CLG.).
9. FRIEZE - THE SPACE BETWEN 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. PLINTH 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 ARCHITRACE CORNERS.

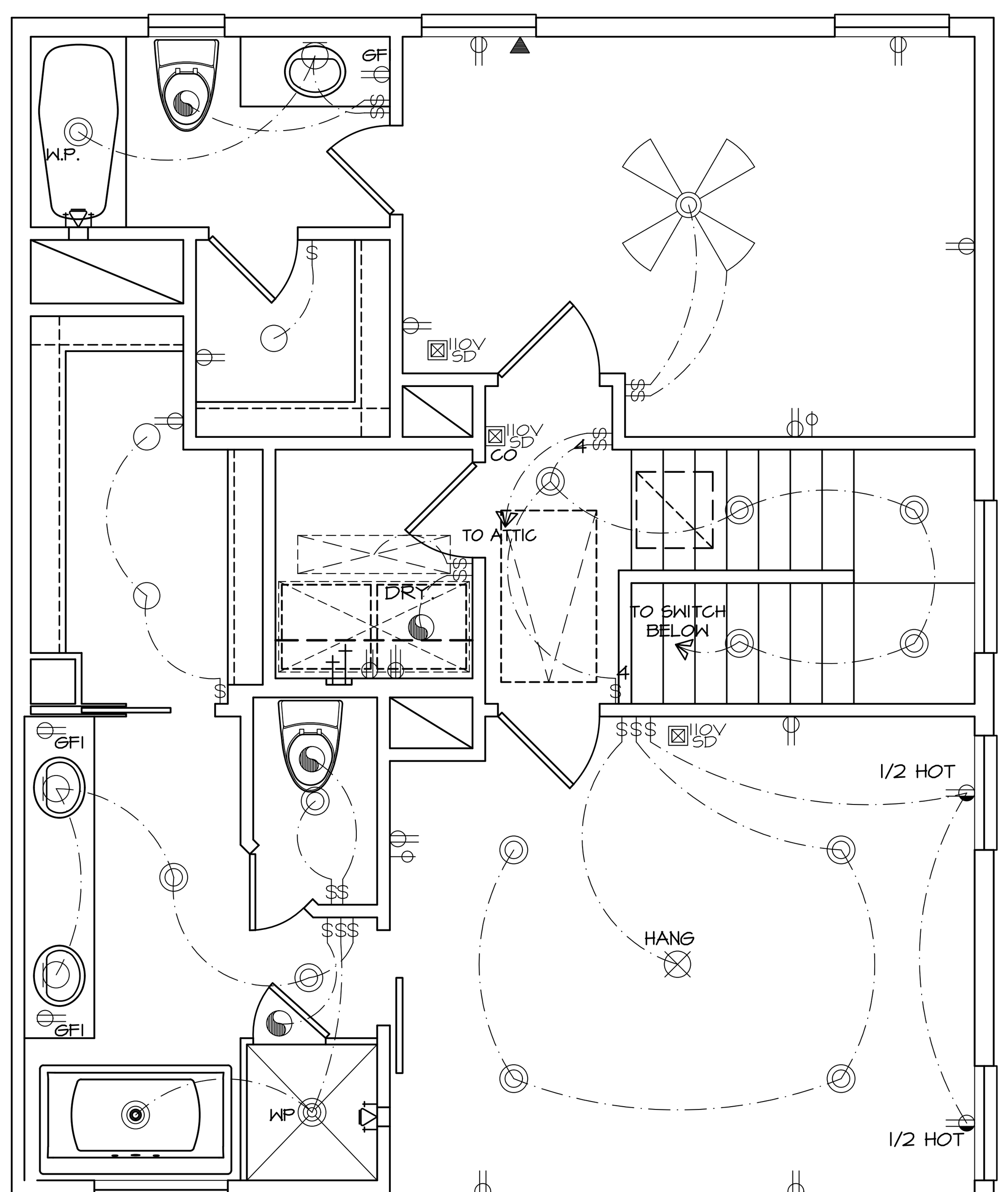
MILLWORK

SCALE: 1/2" = 1'-0"

THE OWNER AND BUILDER TO DETERMINE FINAL MATERIAL MAKEUP AND FINISHES. ALL VIEWS SHOWN ARE SIMPLIFIED FOR CLARITY.

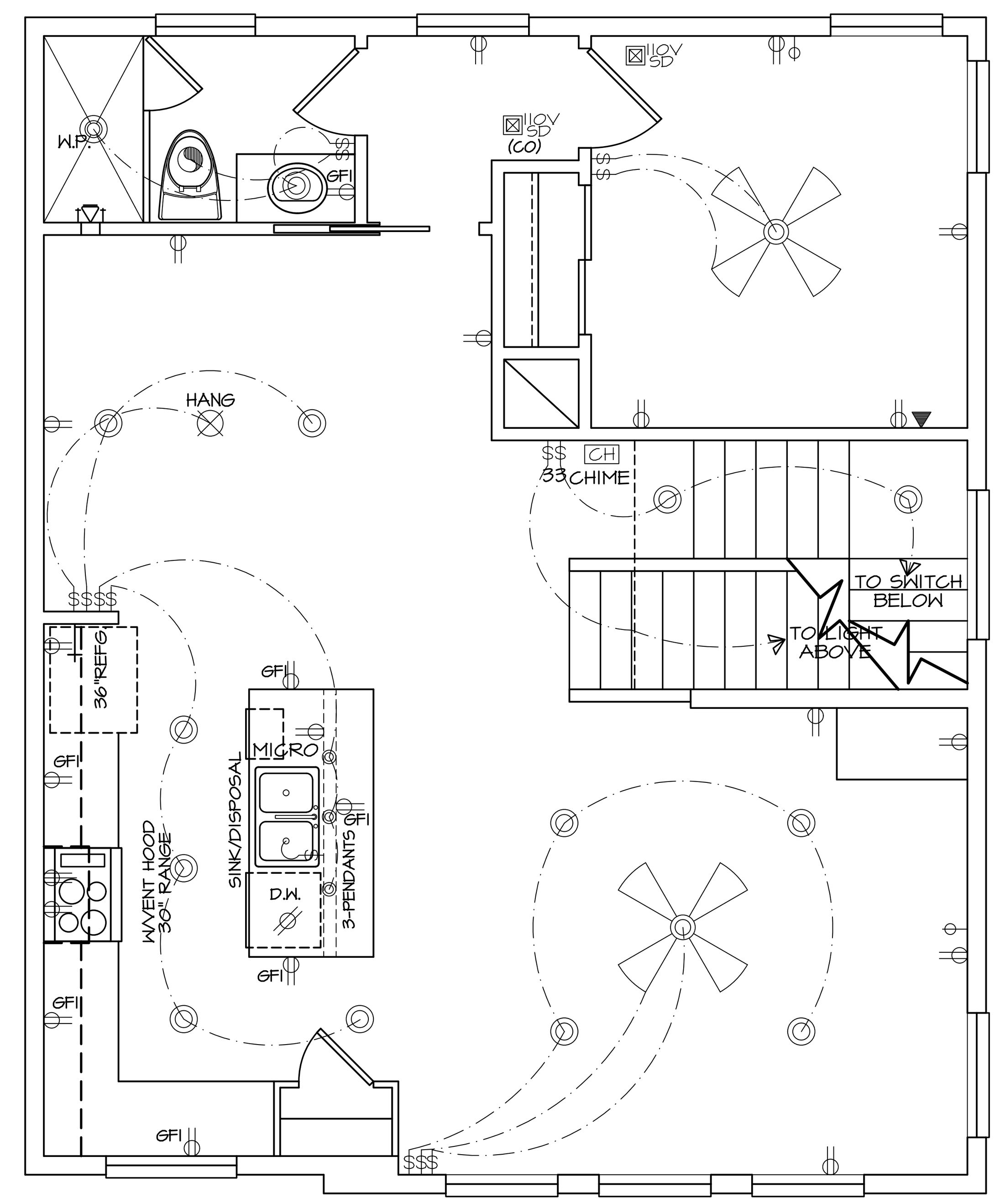
JOB #

ISSUE DATE: 11 January 2024



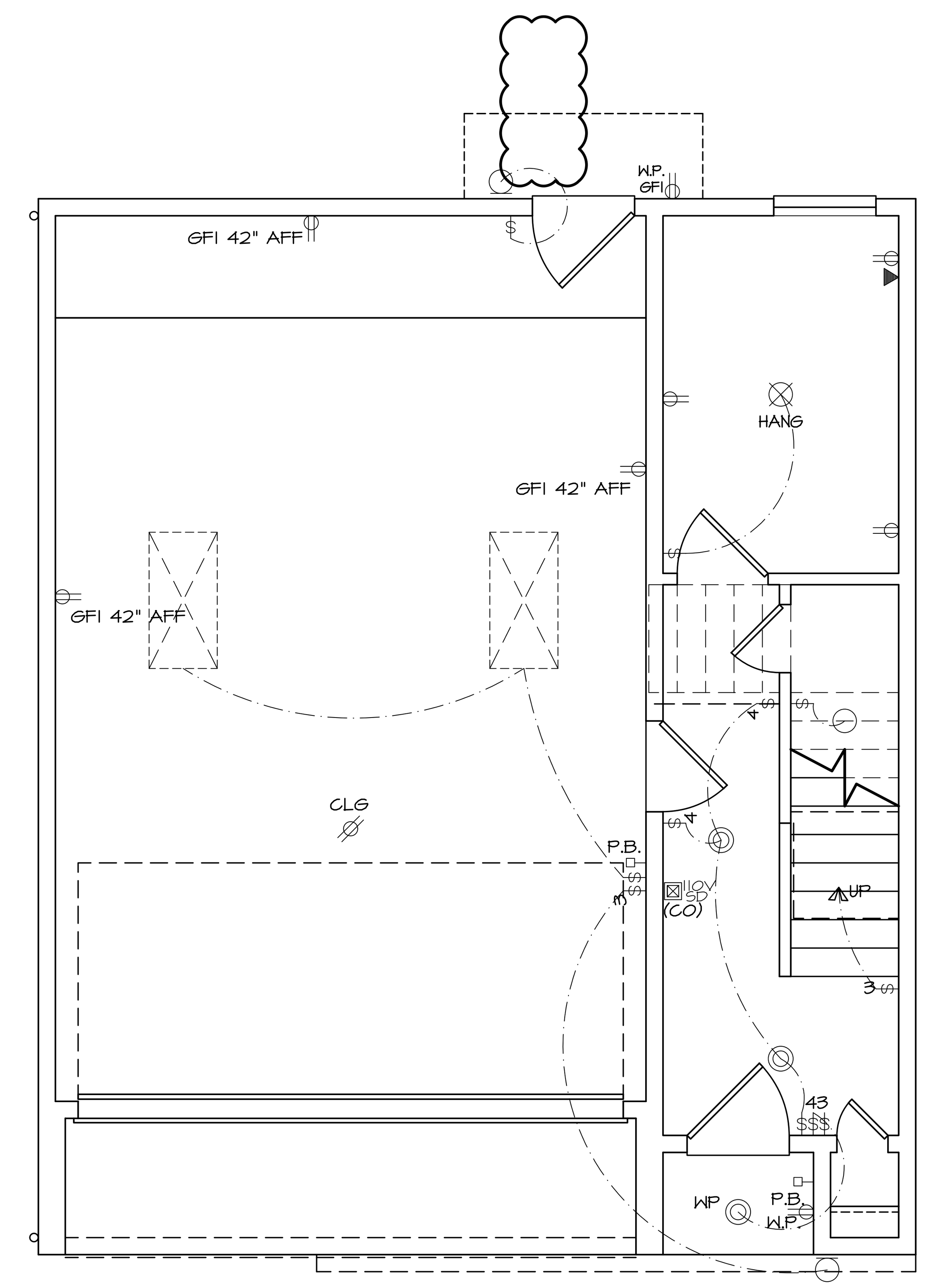
THIRD FLOOR ELECTRICAL

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



SECOND FLOOR ELECTRICAL

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



FIRST FLOOR ELECTRICAL

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

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ELECTRICAL SYMBOLS & NOTES

- 110 VOLT RECEPTACLE
- GFI 110 VOLT W/ GROUND FAULT INTERRUPTOR
- CLG. 110 VOLT IN CEILING
- WP WATERPROOF G.F.I.
- 110 VOLT IN FLOOR
- 110 VOLT 1/2 SWITCHED
- 220 VOLT RECEPTACLE
- RG-6 CABLE RECEPTACLE (TV CABLE/SATELLITE)
- TELEPHONE OUTLET
- NETWORK
- SINGLE POLE SWITCH
- $3 THREE WAY SWITCH
- $4 FOUR WAY SWITCH
- $R DIMMER SWITCH (RHEOSTAT)
- PB PUSH BUTTON SWITCH
- 110V SD CO CARBON MONOXIDE/ SMOKE DETECTOR W/ BATTERY BACKUP
- 110V SD SMOKE DETECTOR W/ BATTERY BACKUP
- THERMOSTAT
- CH CHIMES
- S SPEAKER
- CEILING MOUNTED FIXTURE
- HANGING LIGHT
- RECESSED CAN
- WP WATERPROOF RECESSED CAN
- RECESSED EYEBALL SPOT
- WALL MOUNTED FIXTURE
- PC PORCELAIN FIXTURE W/ PULL CORD
- EXHAUST FAN
- PENDANT PENDANT LIGHT
- FLOOD LIGHTS
- UNDER CABINET LIGHT
- OVER CABINET LIGHT
- IN CABINET LIGHT
- 2'X4' FLUORESCENT LIGHT BOX (1'X4' AND 4'X4' SIMILAR)
- ELECT. PANEL
- ELECT. METER
- IC INTERCOM
- KP SECURITY KEYPAD
- SECURITY CAMERA
- CEILING FAN
- CEILING FAN W/ LIGHT
- CEILING LIGHT W/ OPTIONAL FAN (PREWIRE AND BLOCK)

ELECTRICAL NOTES

1) SMOKE DETECTORS REQUIRE A 110v CONNECTION TO HOUSE WITH BATTERY BACKUP. ALL SMOKE DETECTORS SHALL BE WIRED IN SERIES (INTERCONNECTED).
2) PROVIDE G.F.C.I. OUTLETS WITHIN 6'-0" OF SINKS, IN GARAGES AND ALL EXTERIOR WATERPROOF OUTLETS.
3) RECESS LIGHTS IN INSULATED CEILINGS TO BE LIGHTOLIER 1102 IC - 1105 OR EQUAL.
4) PROVIDE 110v OUTLET AND SWITCHED LIGHT IN ATTIC NEAR H.V.A.C. EQUIPTMENT. LOCATE SWITCH NEAR (IF NOT OUTSIDE) ATTIC ACCESS.
5) PROVIDE VENTILATION AT ALL BATHS AND UTILITY ROOMS. IF UTILITY ROOM HAS A MEANS OF NATURAL VENTILATION TO OUTSIDE, A VENT IS NOT REQUIRED.
6) ALL EXHAUST VENTS SHALL EXIT THROUGH THE ROOF DECKING AT A MINIMUM DISTANCE OF 5'-0" FROM ANY PROPERTY LINE. DRYER VENTS MAY EXIT A NON-FIRE RATED EXTERIOR WALL.
7) WHEN GARAGE DOOR OPENERS ARE INSTALLED, PROVIDE LOW VOLTAGE FOR SHUTOFF 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.

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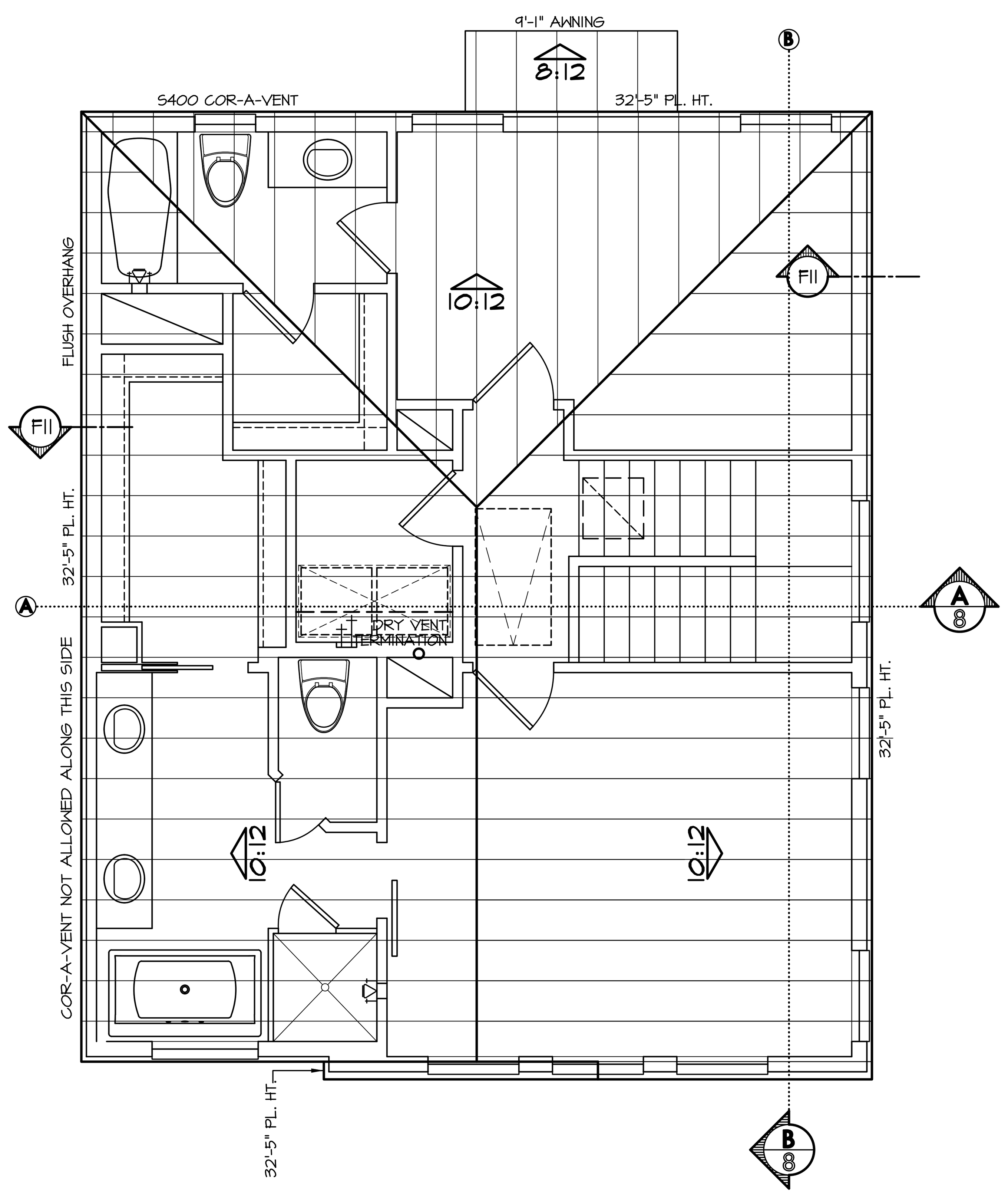
MINIMUM ROOF/ATTIC VENTILATION	
R806.2 EXCEPTION: THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE.	
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:
1. THERE IS NO INDIVIDUAL PROJECTED ROOF PLANE AREA GREATER THAN 600 SQUARE FEET.
2. THE QUALIFIED PROJECTED ROOF PLANE IS UNABLE TO PROVIDE FOR A MINIMUM 300 SQUARE FEET CONTIGUOUS SOLAR READY AREA.

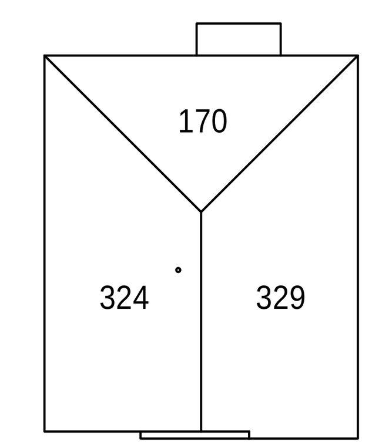


BUBBLE NOTES:
1) ADJUST SLOPES TO MATCH RIDGES.
2) ADJUST OVERHANGS TO MATCH FASCIA.
3) ADJUST PLATE HEIGHT TO MATCH FASCIA.

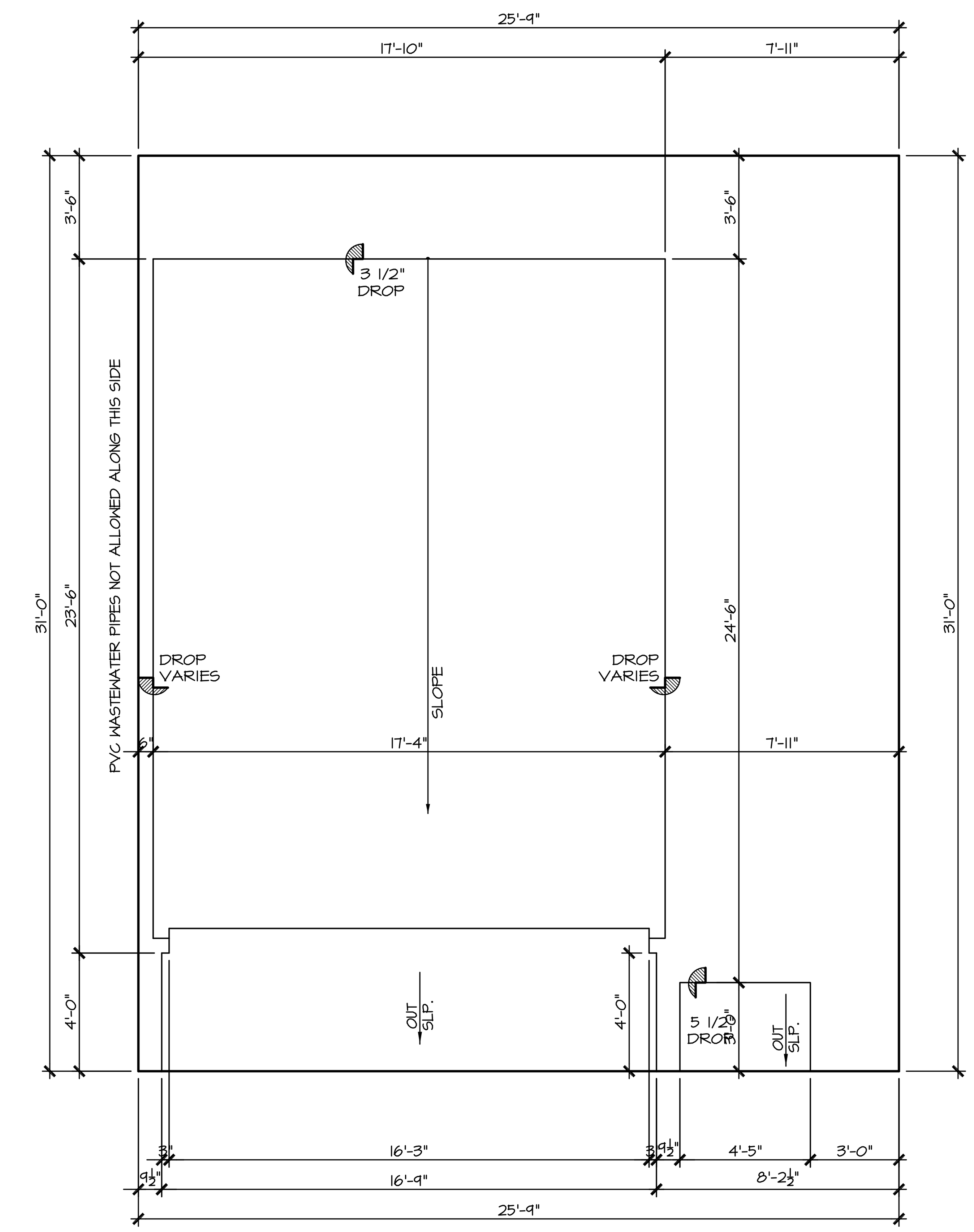
ROOF PLAN

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.



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



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

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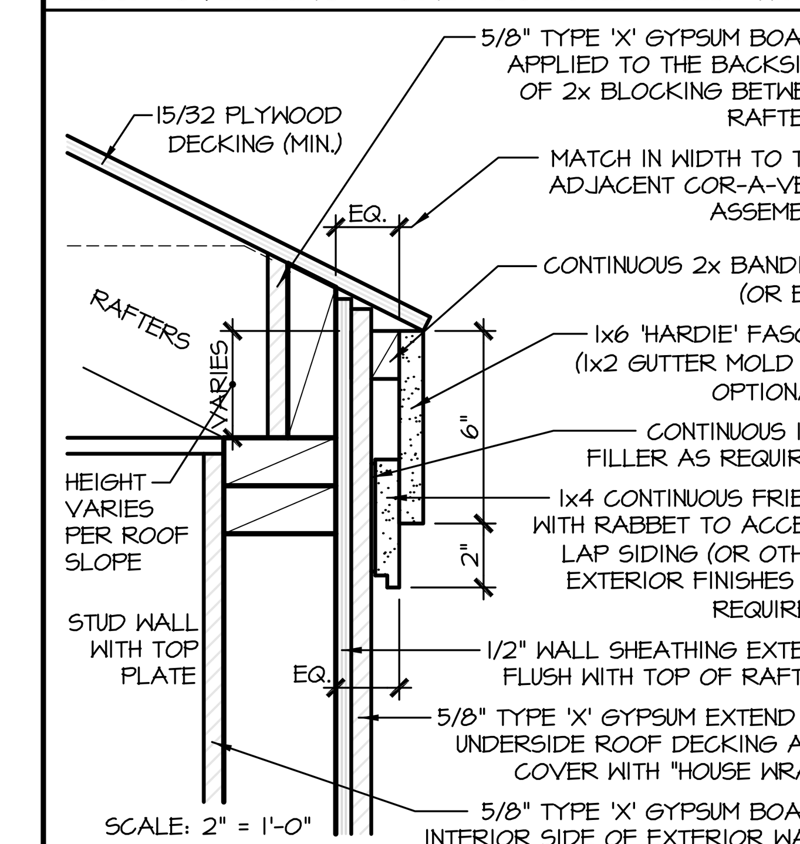
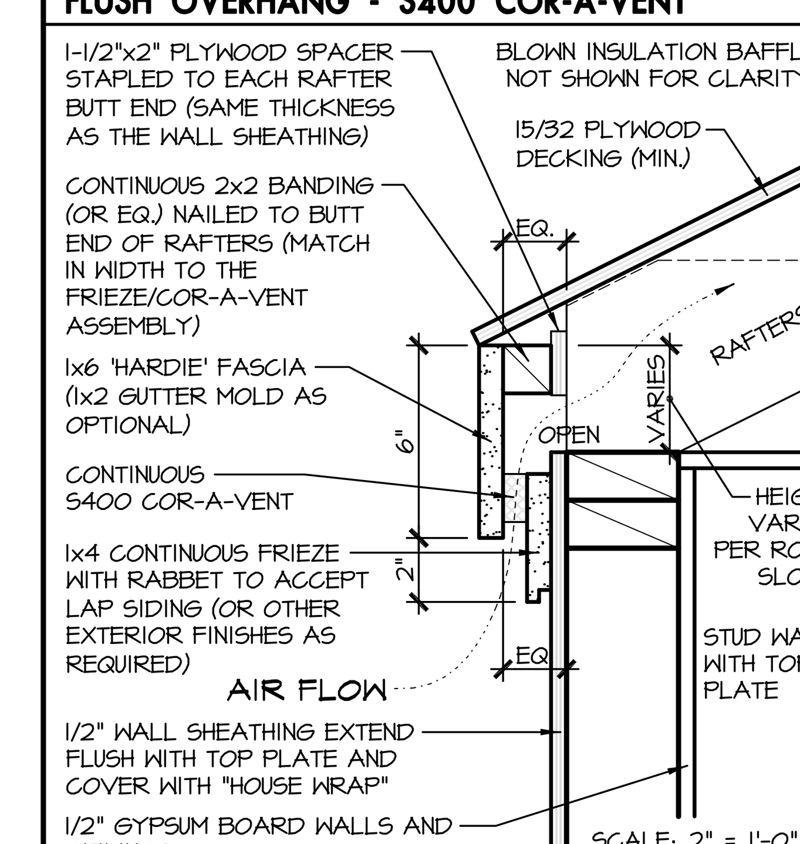
XXX	X–X–XX	XXX	X–X–XX
PRODUCTION 2 :	DATE:	CORRECTIONS:	DATE:
XXX	X–X–XX	XXX	X–X–XX
PRODUCTION 3 :	DATE:	CHECKED:	DATE:
XXX	X–X–XX	XXX	X–X–XX

FLUSH OVERHANG - ONE-HOUR FIRE-RATED WALL


5/8" TYPE 'X' GYPSUM BOARD APPLIED TO THE BACKSIDE OF 2x BLOCKING BETWEEN RAFTERS
15/32 PLYWOOD DECKING (MIN.)
MATCH IN WIDTH TO THE ADJACENT COR-A-VENT ASSEMBLY
EQ.
CONTINUOUS 2x BANDING (OR EQ.)
RAFTERS
VARIES
1x6 'HARDIE' FASCIA (1x2 GUTTER MOLD AS OPTIONAL)
6"
CONTINUOUS 1/8" FILLER AS REQUIRED
HEIGHT VARIES PER ROOF SLOPE
1x4 CONTINUOUS FRIEZE WITH RABBET TO ACCEPT LAP SIDING (OR OTHER EXTERIOR FINISHES AS REQUIRED)
2"
STUD WALL WITH TOP PLATE
1/2" WALL SHEATHING EXTEND FLUSH WITH TOP OF RAFTER
EQ.
5/8" TYPE 'X' GYPSUM EXTEND TO UNDERSIDE ROOF DECKING AND COVER WITH "HOUSE WRAP"
SCALE: 2" = 1'-0"
5/8" TYPE 'X' GYPSUM BOARD INTERIOR SIDE OF EXTERIOR WALL

NOTE: USE THIS DETAIL WHEN ADJACENT FASCIA EMPLOYS COR-A-VENT

FLUSH OVERHANG - S400 COR-A-VENT


1-1/2"x2" PLYWOOD SPACER STAPLED TO EACH RAFTER BUTT END (SAME THICKNESS AS THE WALL SHEATHING)
BLOWN INSULATION BAFFLE NOT SHOWN FOR CLARITY
15/32 PLYWOOD DECKING (MIN.)
CONTINUOUS 2x2 BANDING (OR EQ.) NAILED TO BUTT END OF RAFTERS (MATCH IN WIDTH TO THE FRIEZE/COR-A-VENT ASSEMBLY)
EQ.
RAFTERS
1x6 'HARDIE' FASCIA (1x2 GUTTER MOLD AS OPTIONAL)
VARIES
6"
OPEN
CONTINUOUS S400 COR-A-VENT
HEIGHT VARIES PER ROOF SLOPE
1x4 CONTINUOUS FRIEZE WITH RABBET TO ACCEPT LAP SIDING (OR OTHER EXTERIOR FINISHES AS REQUIRED)
2"
STUD WALL WITH TOP PLATE
EQ
AIR FLOW
1/2" WALL SHEATHING EXTEND FLUSH WITH TOP PLATE AND COVER WITH "HOUSE WRAP"
1/2" GYPSUM BOARD WALLS AND CEILINGS
SCALE: 2" = 1'-0"

NOTE: USE THIS DETAIL WHEN STUD WALL IS GREATER THAN 36" TO A PROPERTY LINE

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:	2349	S.F.

TREEHOUSE DEVELOPMENT
AMUNDSEN PALMS REPLAT NO 1 LT 3 BLK 1
4502 TERRY ST
HOUSTON, TX 77009

PWA Project Number: **F2212-A1.1-R-v1**

REVIEW SET
NOT FOR CONSTRUCTION
Date: 12 April 2024

L:\2022 Acad Drawings\F2212 Steve Kordish- 1501 Amundsen\F2212-A1.1-R-v1.dwg, 4/12/2024 9:28:26 AM, Eric, 0.25:12

TENDON TAKEOFF

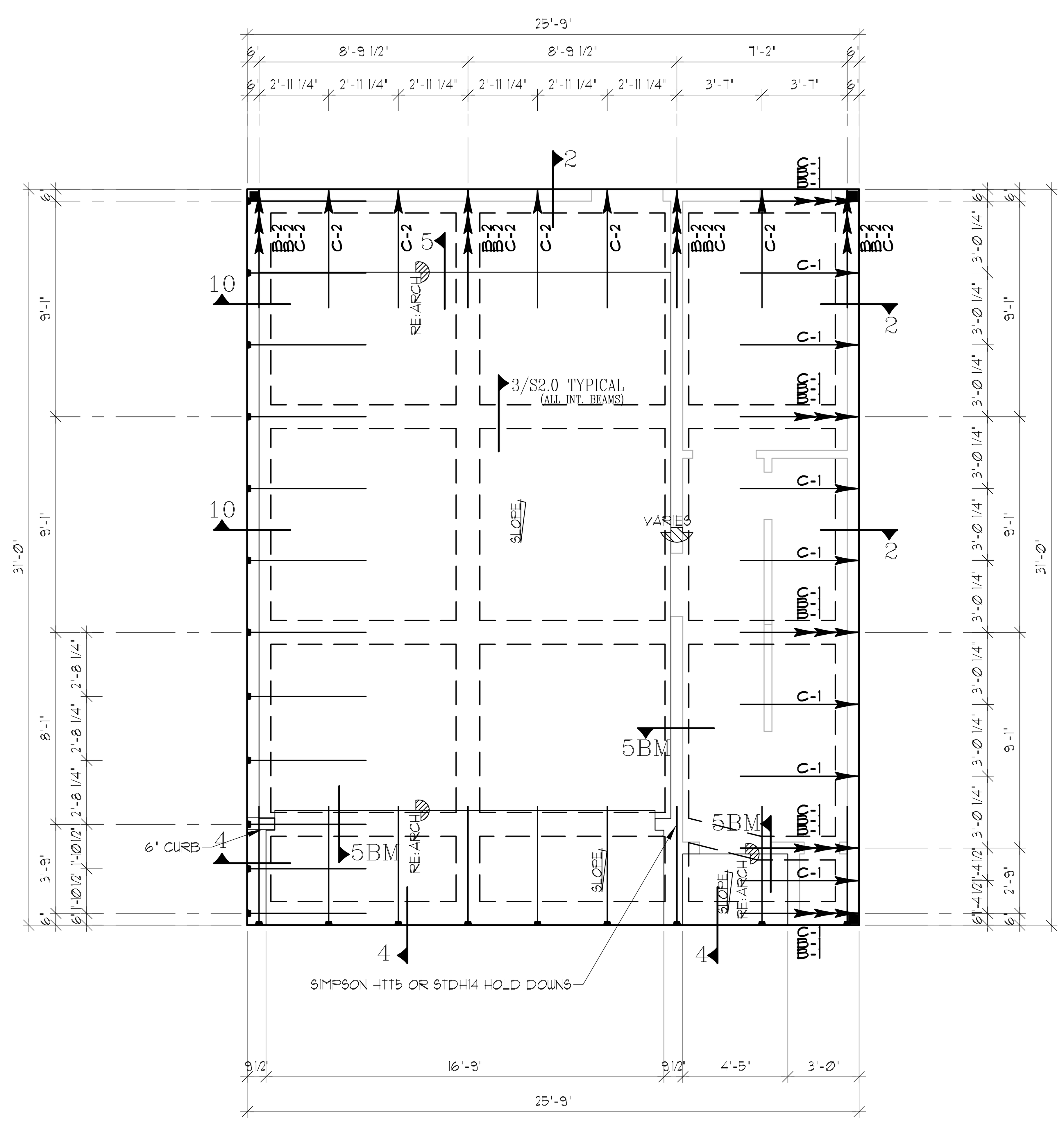
Tag	Qty	Cut Length
C-1	12	28'
C-2	9	33'
B-1	10	28'
B-2	8	33'
Total:	39	1177'

Slab Area = 798.25 Sq. Ft.

Perimeter Length = 113'-6"

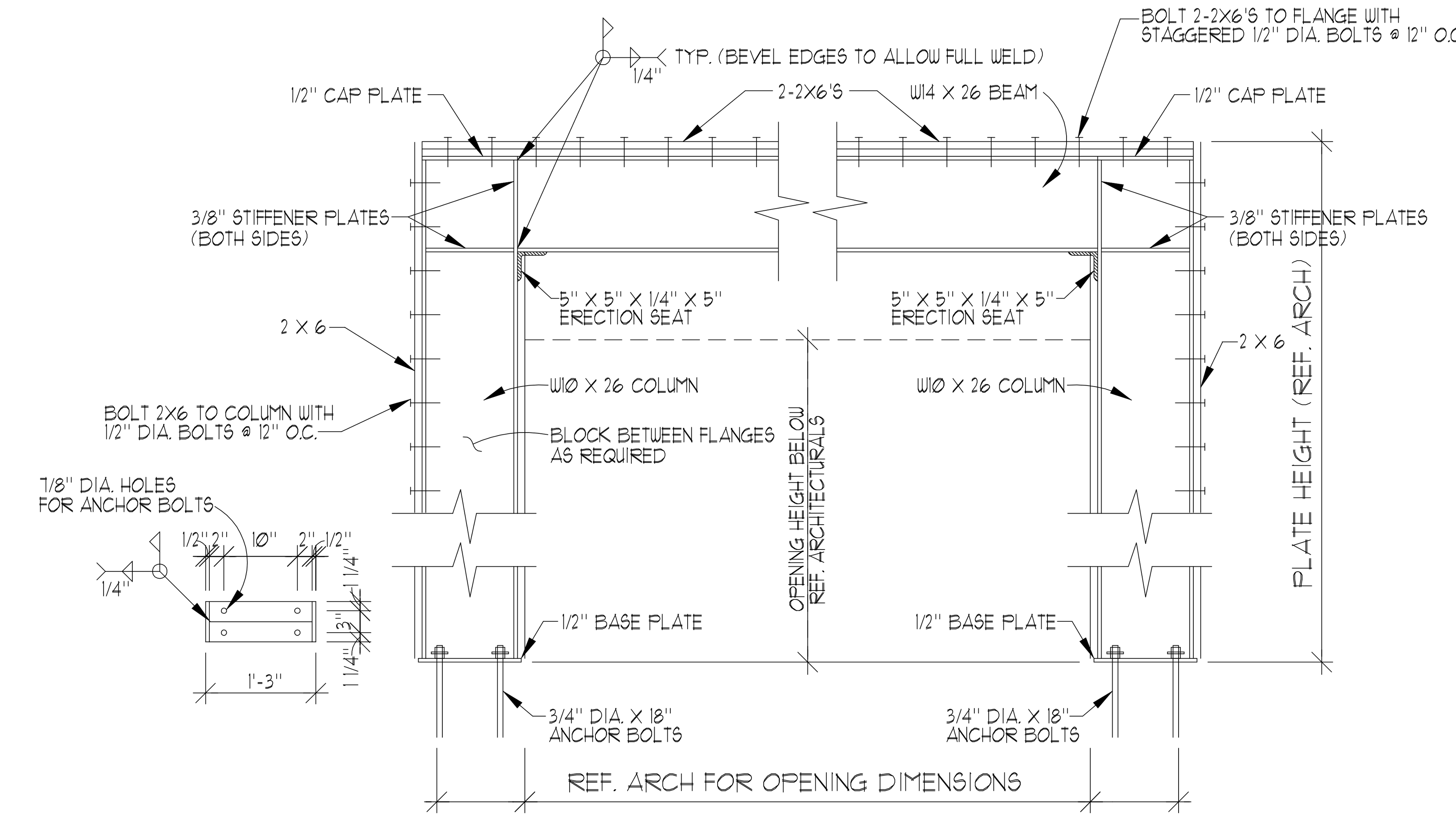
Concrete Volume = 29Cu.Yds

Concrete Volume Indicated Is An Analytical Quantity And "Does Not" Include 10% Additional Concrete To Allow For Normal Construction Tolerances



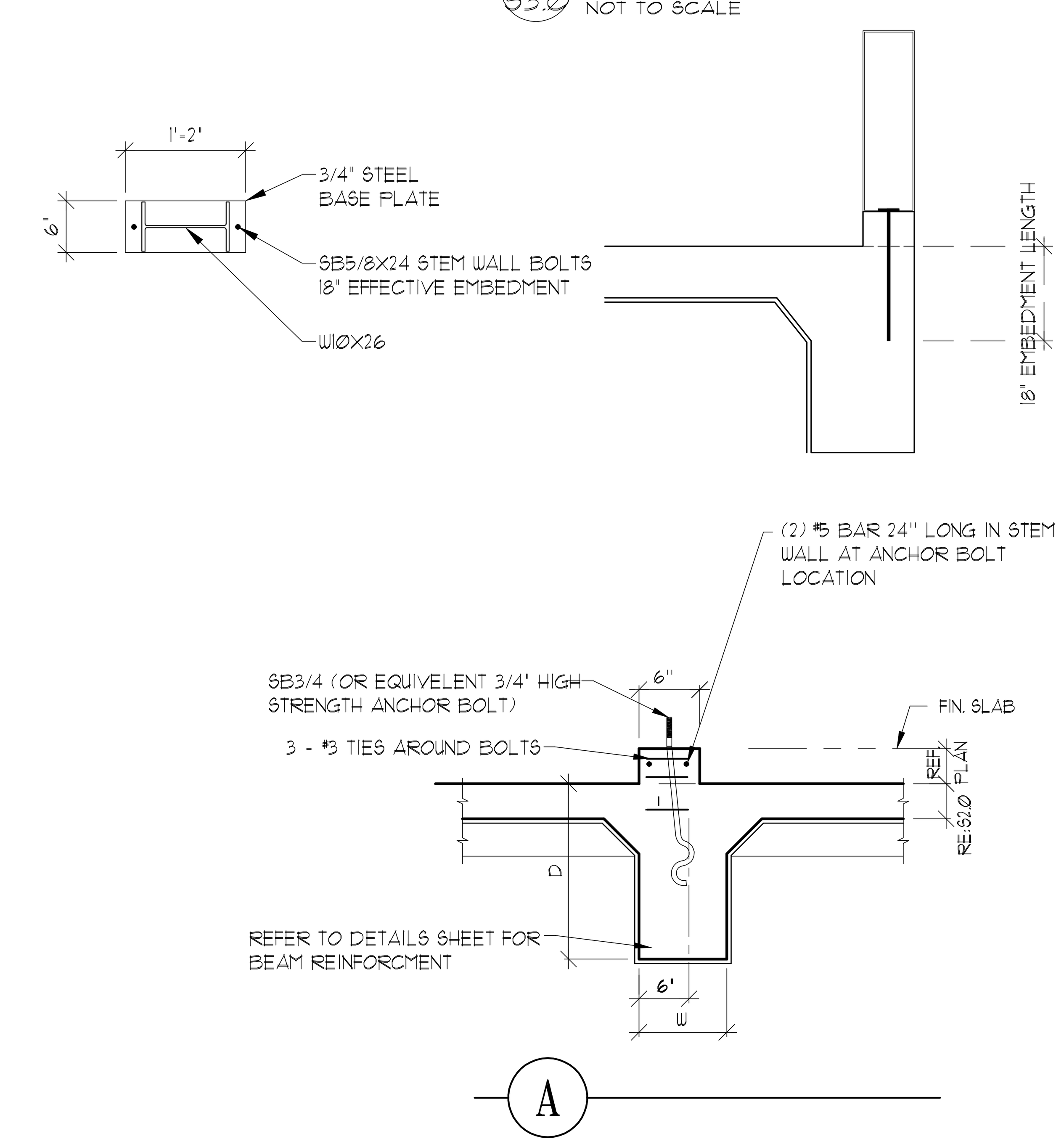
FOUNDATION PLAN

SCALE 1/4" = 1'-0" ON 22X34 SHEET



A S3.0 STEEL PORTAL FRAME DETAIL

NOT TO SCALE



FOUNDATION NOTES:

1.) BUILDER MUST VERIFY ALL RAISE, DROPS, INSERTS, AND BLOCKOUTS & ENSURE DIMENSIONS AGREE WITH ARCHITECTURAL PLANS AND SPECIFICATIONS.
2.) AN UNDERLAYMENT OR EQUIVALENT MATERIAL SHOULD BE PLACED AT CERAMIC, BRICK OR CLAY TILE AREAS TO PREVENT DIRECT BONDING OF FLOOR COVERING TO CONCRETE SLAB. A6x6xW2.9xW2.9 WWF IS RECOMMENDED AT ALL PORCHES AND AT CERAMIC, BRICK OR CLAY TILE AREAS FOR CRACK CONTROL.
3.) DUE TO DIMENSIONAL DISCREPANCIES AND/OR OMISSIONS IN ARCHITECTURAL DRAWINGS, SOME DIMENSIONS MAY NOT AGREE WITH FLOOR PLAN. BUILDER SHALL BE RESPONSIBLE FOR FINAL VERIFICATION OF ALL SLAB DIMENSIONS. IF IT IS DETERMINED THAT ANY DIMENSIONS ON THIS FOUNDATION DO NOT CONFORM WITH THE ARCHITECTURAL PLAN, THEN DUNAWAY|BEC SHOULD BE NOTIFIED AND ALLOWED TO REVIEW THE DRAWING AND MAKE REVISIONS AS REQUIRED.
4.) REFER TO DETAIL SHEET FOR CLIENT/HOMEOWNER MAINTENANCE RESPONSIBILITIES.
5.) REFER TO DETAIL SHEET FOR ACI REQUIREMENTS FOR BRICK VENEER EXPANSION CONTROL JOINTS.
6.) SEE SHEET S2.0
7.) ■ = HOLD DOWN SIMPSON STHD14, HTT5 OR HD5B OR EQUIVALENT SEE DETAILS.
8.) TERMITE PROTECTION SHALL BE PROVIDED IN ONE OF THE FOLLOWING WAYS:
    A. CHEMICAL TERMITICIDE TREATEMENT
    B. TERMITE BATING
    C. PRESSURE-PRESERVATIVE-TREATED WOOD
    D. NATURALLY DURABLE TERMITE RESISTANT WOOD
    E. PHYSICAL BARRIERS
    F. COLD FORMED STEEL FRAMING

STATE OF TEXAS — MIGUEL MILLA — 142447 — LICENSED PROFESSIONAL ENGINEER — 01-11-2024

City of Houston

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

DUNAWAY | BEC
DUNAWAY | BEC
3200 Wilcrest Dr, Suite 440 | Houston, Texas 77042
Ph: 832-240-3771 | Fax: 832-240-2724
TBPE REGIS. #: F-1114

TREEHOUSE DEVELOPMENT, LLC

4502 TERRY STREET
HOUSTON, TEXAS 77009

REF#: B-10508

DRN: GT | CHK: MM | DES: MM

FOUNDATION PLAN

SHEET NO. S1.0

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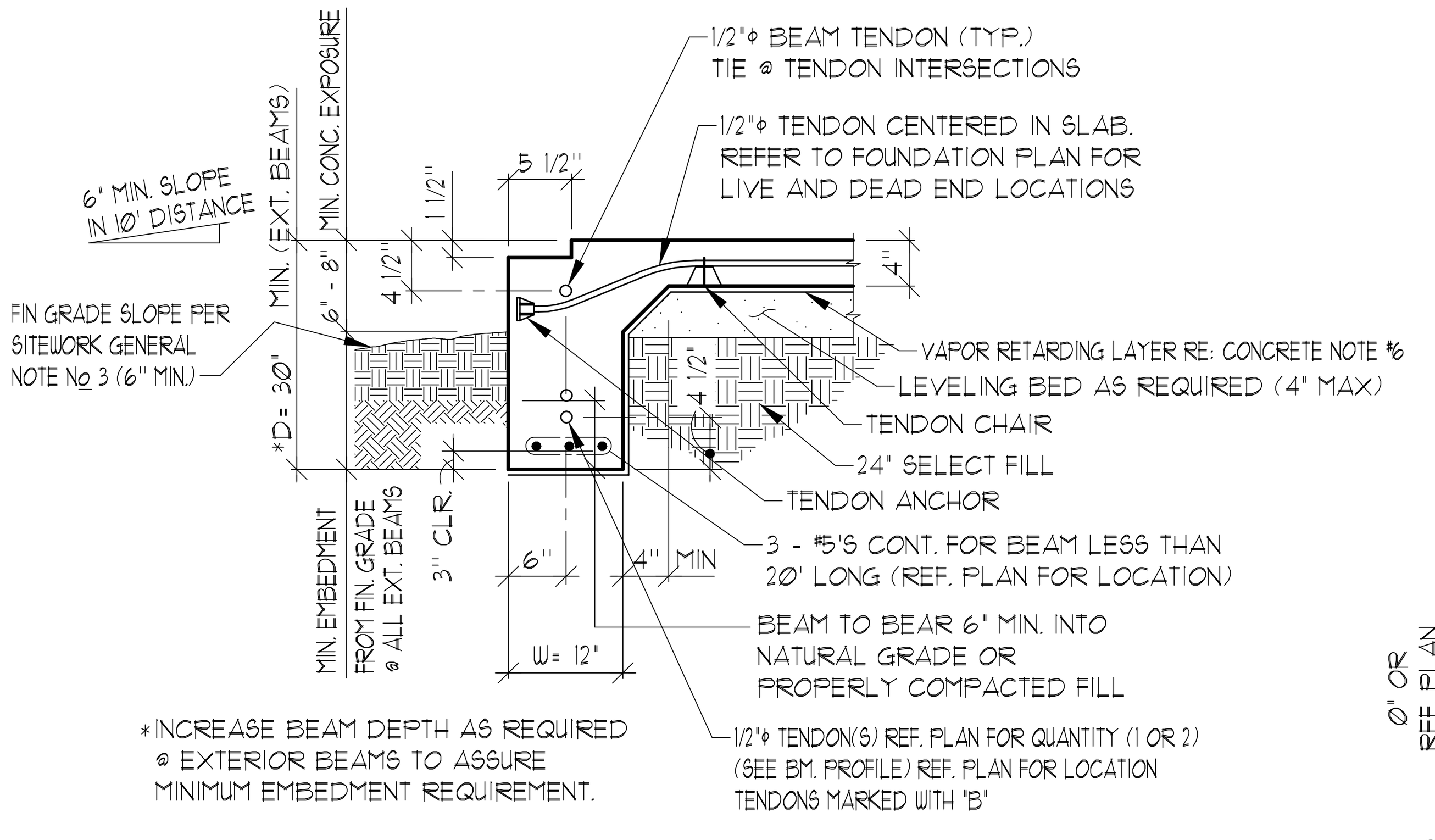

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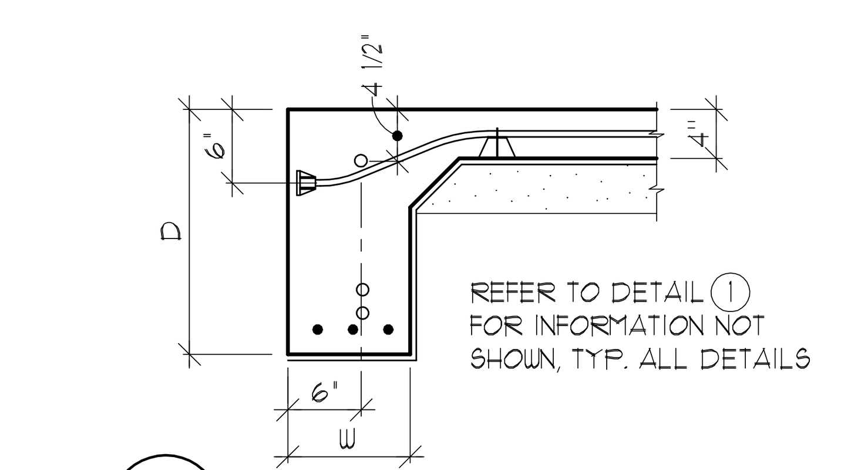

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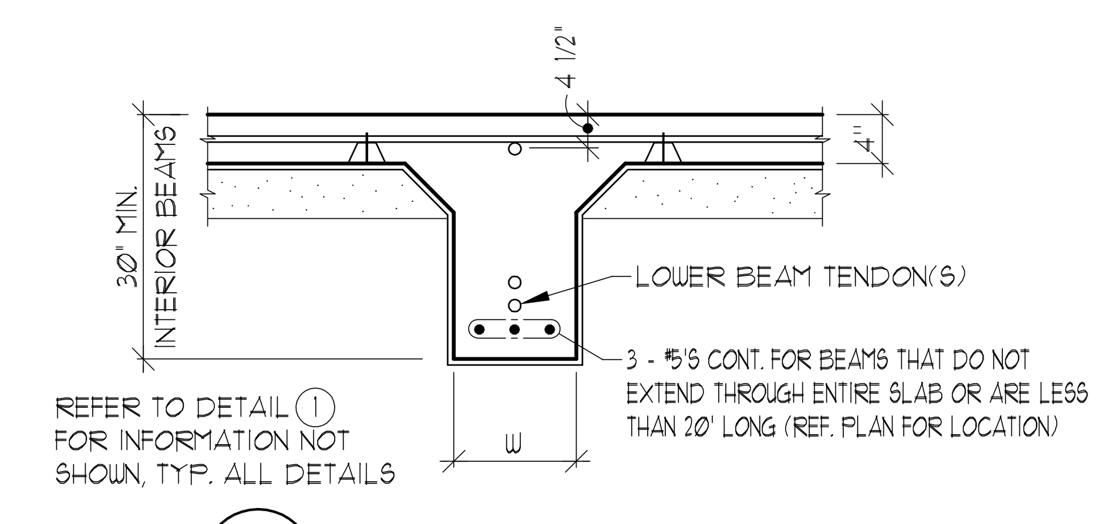

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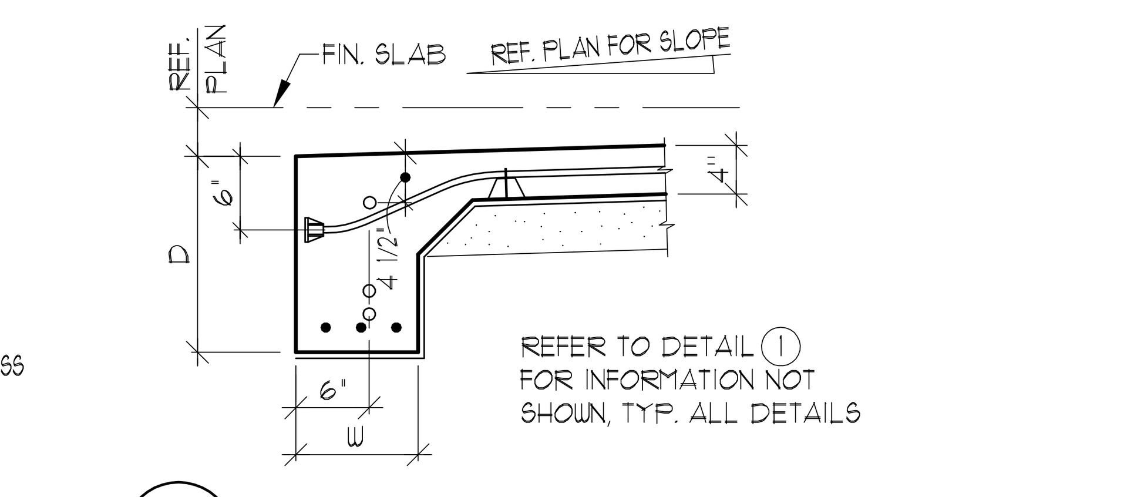

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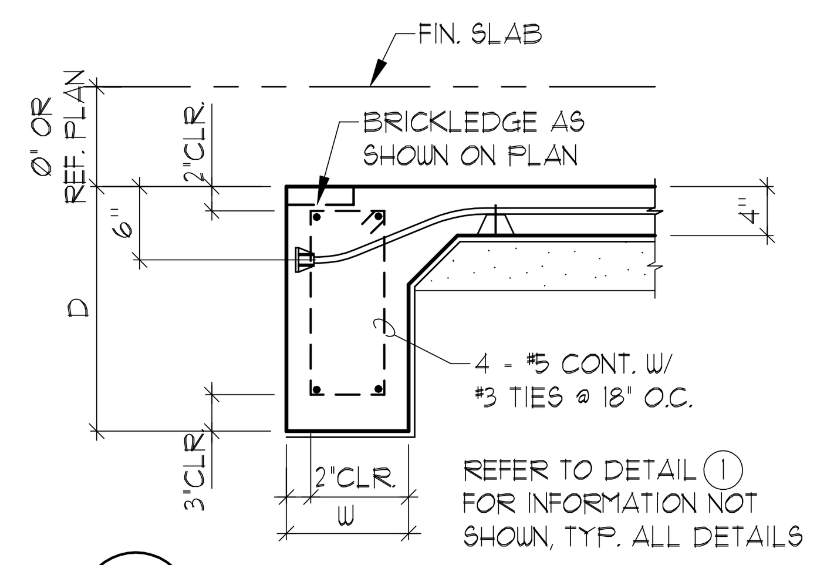

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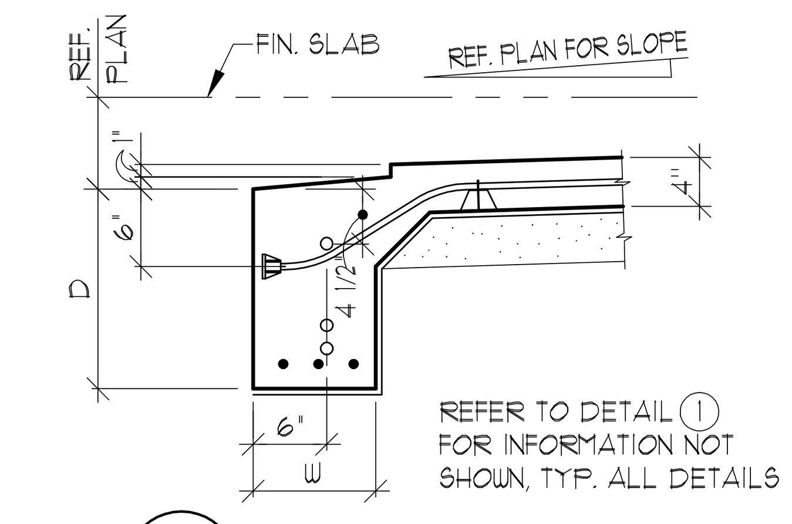

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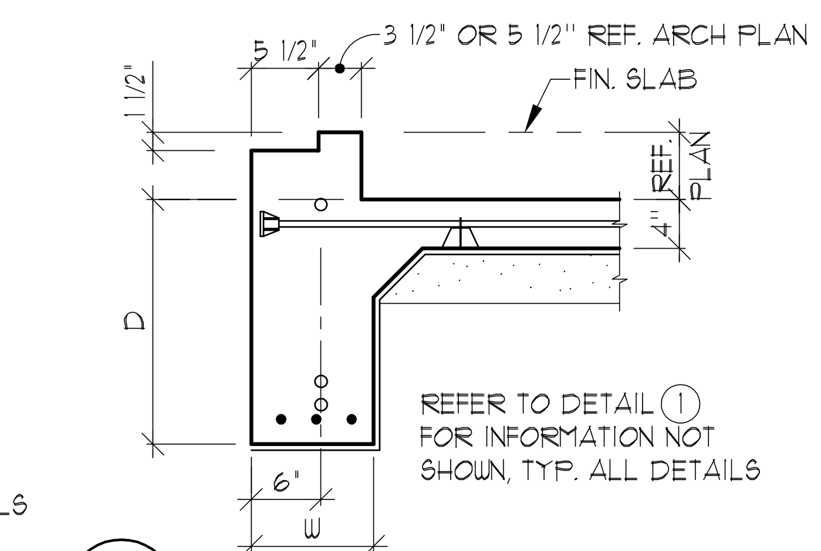

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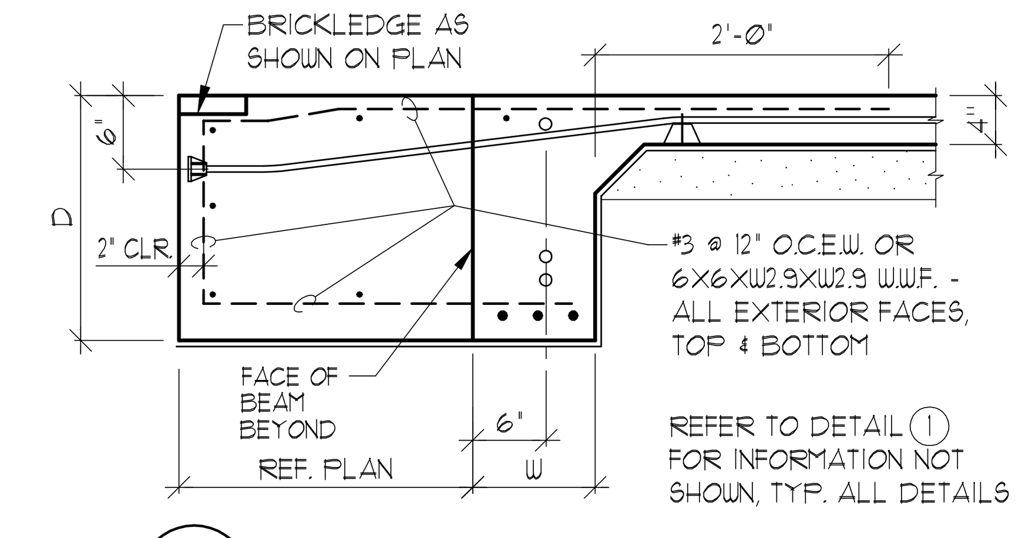

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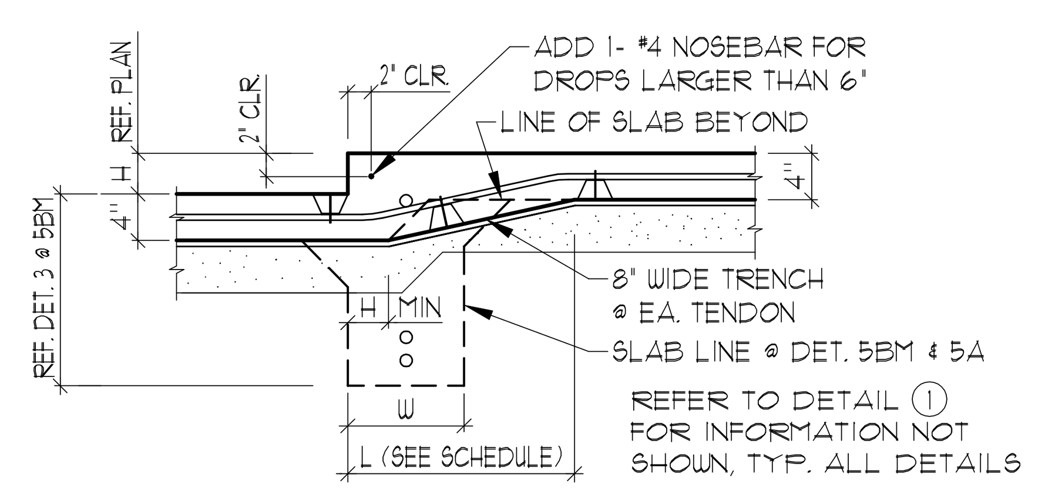
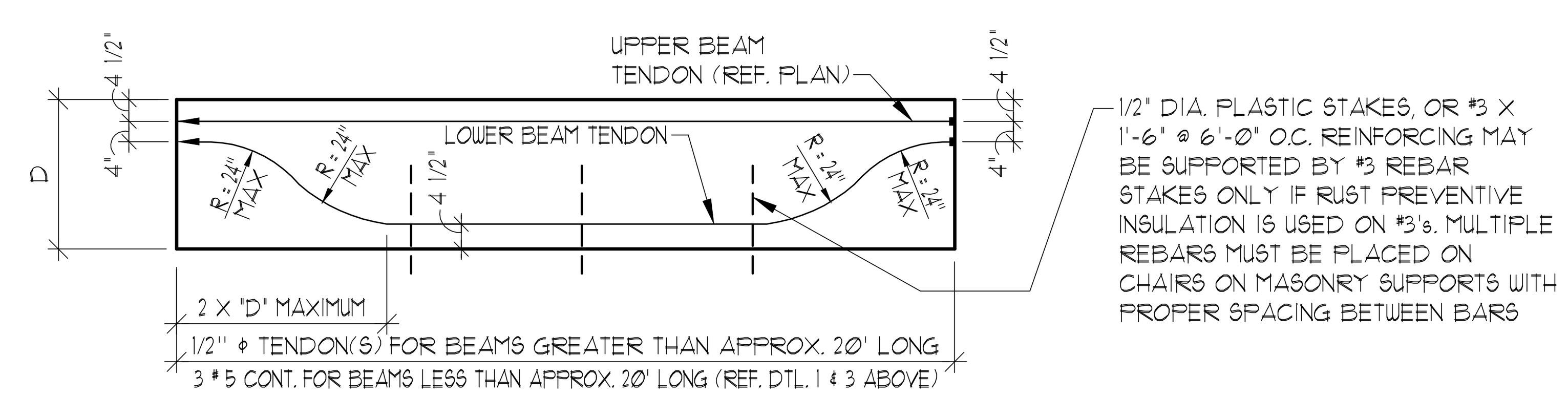


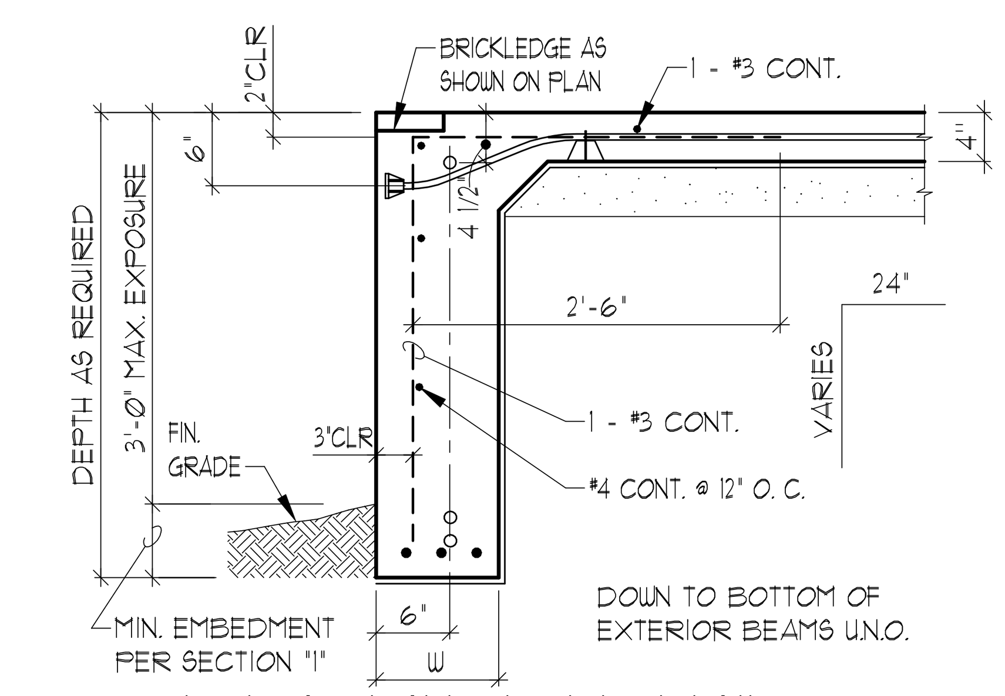
NOMINAL DROP (H)	TRENCH LENGTH (L)
2"	8"
4"	1'-4"
6"	2'-0"
8"	2'-8"
10"	3'-4"
12"	4'-0"

SCHEDULE FOR TYPICAL TENDON TRENCH AT DROPS

5 5BM

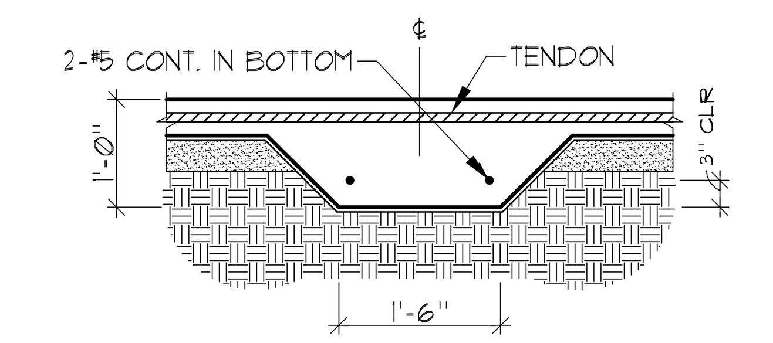


BEAM REINFORCING PROFILE

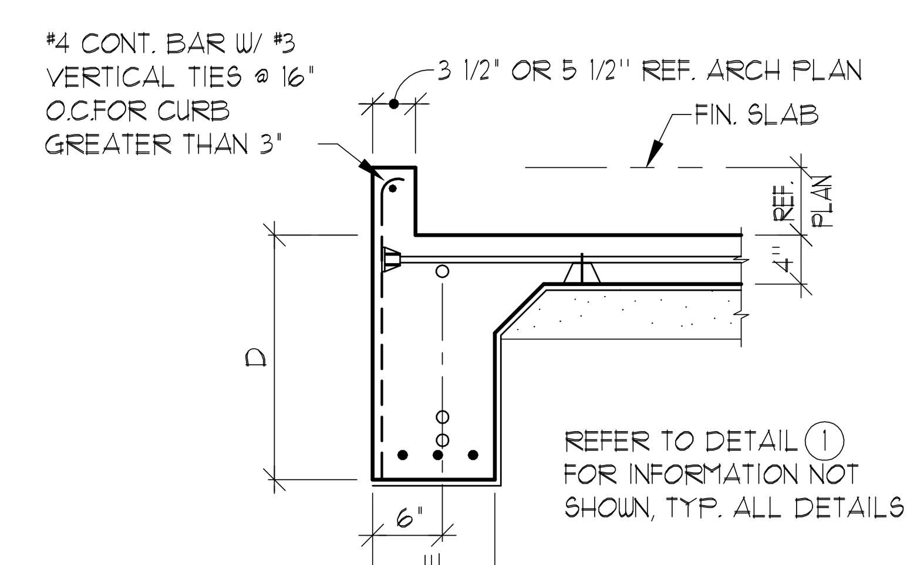


EXTRA BEAM DEPTH DETAIL

USE WHERE SITE CONDITIONS REQUIRE EXTERIOR BEAM EXPOSURE GREATER THAN 1'-6"



SECTION "A-A"



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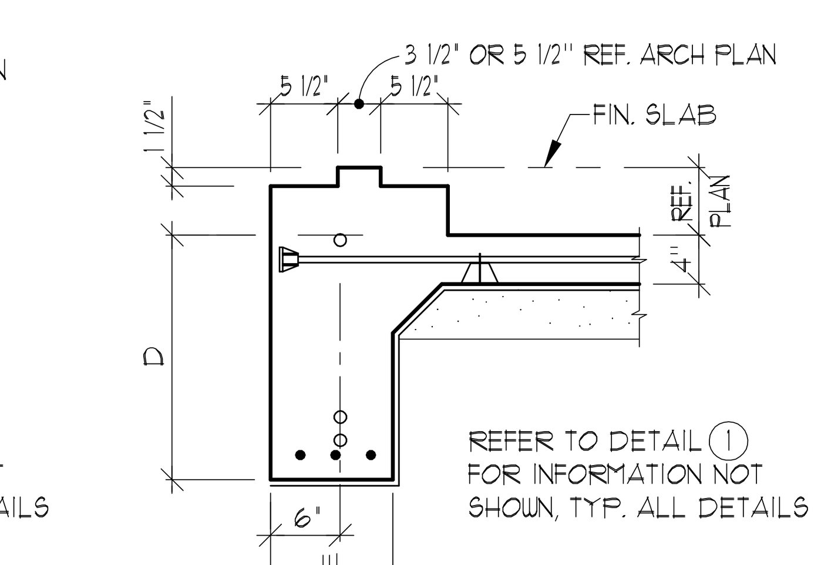

11

GENERAL NOTES - TENDONS

1. PRESTRESSING 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.
2. 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.
3. TENDONS SHALL BE INITIALLY PRESTRESSED 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.
4. ACCEPTABLE TOLERANCES FOR THE TENDON PLACEMENT SHALL BE AS FOLLOWS:
   BEAM TENDONS +/- 1 IN. VERT., +/- 1/2" HORIZ.
   SLAB TENDONS +/- 1/2" IN. VERT., +/- 12 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

1. TENDONS SHALL BE STRESSED TO 33.0 KIPS PER STRAND AND SHALL HAVE A MIN. SET LOAD OF 28.9 KIPS.
2. ACTUAL TENDON ELONGATIONS SHALL MEASURE WITHIN 10 PERCENT OF THEORETICAL ELONGATIONS AND CORRESPONDING PRESSURE GAUGE READINGS.
3. 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.
4. CONCRETE SHALL HAVE ATTAINED A MIN. COMPRESSIVE STRENGTH OF 70% OF ITS 28 DAY STRENGTH AT THE TIME OF STRESSING.
5. BRICKWORK SHALL NOT BEGIN BEFORE STRESSING IS COMPLETED.
6. TENDONS SHALL BE CUT OR BURNED AT 1 INCH FROM THE WEDGES. POCKETS SHALL BE FILLED WITH NON-SHRINK GROUT.

GENERAL NOTES - SITEWORK

1. 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.
2. THE LEVELING BED SHALL BE FIRM STABLE BANK SAND OR OTHER CLEAN GRANULAR MATERIAL.
3. 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.
4. 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.
5. 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.
6. 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

1. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 WITH DEFORMATIONS PER ASTM A305 AND SHALL BE DETAILED AND INSTALLED PER ACI-318 LATEST EDITION.
2. WELDED WIRE FABRIC SHALL BE 6 x 6 x W 2.9 x W 2.9 W.W.F. (6 GAUGE) PER ASTM A185. WHERE SHOWN ON PLANS WWF SHALL BE SUPPLIED IN SHEETS AND SHALL BE PLACED 2 INCHES BELOW THE TOP OF CONCRETE.
3. WHERE FIELD SPLICES IN THE CONTINUOUS REINFORCING OCCUR, BARS SHALL BE LAPPED A DISTANCE OF 30 TIMES THE BAR DIAMETER. WWF LAPS SHALL BE 10 INCHES MINIMUM.
4. 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.
5. AT ALL RE-ENTRANT CORNERS PLACE 2 # 5 X 6'-0" IN THE SLAB.

GENERAL NOTES - CONCRETE

1. 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.
2. REQUIRED SLUMP ON JOB ORDER. THE CONCRETE PLANT CAN INCREASE WORKABILITY BY ADDING UP TO 5% AIR ENTRAINMENT ADDITIONAL CEMENT, OR OTHER APPROVED ADMIXTURES.
3. 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.
4. CONCRETE SHALL NOT BE PLACED AT TEMPERATURES BELOW 40°F OR RAINY WEATHER OR OTHER ADVERSE WEATHER CONDITIONS.
5. CONCRETE SHALL BE WELL CONSOLIDATED, ESPECIALLY IN THE VICINITY OF TENDON ANCHORAGES.
6. A 6 MIL POLYETHYLENE VAPOR RETARDING LAYER SHALL BE PLACED UNDER ALL SLABS. ALL LAPS SHALL BE TAPED.
7. FORMS TO BE STRIPPED NO LESS THAN 24 HOURS AND NO MORE THAN 6 DAYS AFTER PLACEMENT OF CONCRETE.
8. BUILDER SHALL VERIFY ALL DIMENSIONS, DROPS, OFFSETS, BRICKLEDGES, INSERTS AND OPENINGS WITH ARCHITECTURAL DRAWINGS.
9. 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

1. 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.
2. 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.
3. 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.
4. 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

1. BEC ENGINEERS AND CONSULTANTS, LLC ADVISES 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.
2. 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.
3. 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.
4. 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.
5. 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.)
6. THE DESIGN PROCEDURES AND CRITERIA USED BY BEC ARE IN ACCORDANCE WITH GENERALLY ACCEPTED STANDARDS AND PRACTICES FOR A STRUCTURE OF THIS TYPE.
7. 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 CONTRACTURAL) 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 (I.E. ANCHOR BOLTS, HOLDOWNS, CONDUIT SLEEVES, WATERSTOPS ETC.) FILL PLACEMENT, LOT PREPARATION OR VERIFICATION FOR CORRECT DENSITY OF SOILS, TOPOGRAPHY OR SITE SUITABILITYVERIFICATION, BEARING CAPACITY, FINAL LOT DRAINAGE VERIFICATION OR PLUMBING INSTALLATION.
8. 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 COMPRESSABLE SO THE ANTICIPATED EXPANSION OF THE MASONRY CAN OCCUR WITHOUT IMPOSING STRESS.
9. 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 STABALIZE OR REMOISTURE 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.

STATE OF TEXAS
MIGUEL MILLA
142447
LICENSED PROFESSIONAL ENGINEER
01-11-2024

City of Houston
REVIEWED FOR COMPLIANCE

NO	DATE	ISSUES/REVISIONS
A	11/22/2023	ISSUED FOR REVIEW
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DUNAWAY | BEC
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3200 Wilcrest Dr, Suite 440 | Houston, Texas 77042
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TBPE REGIS. #: F-1114

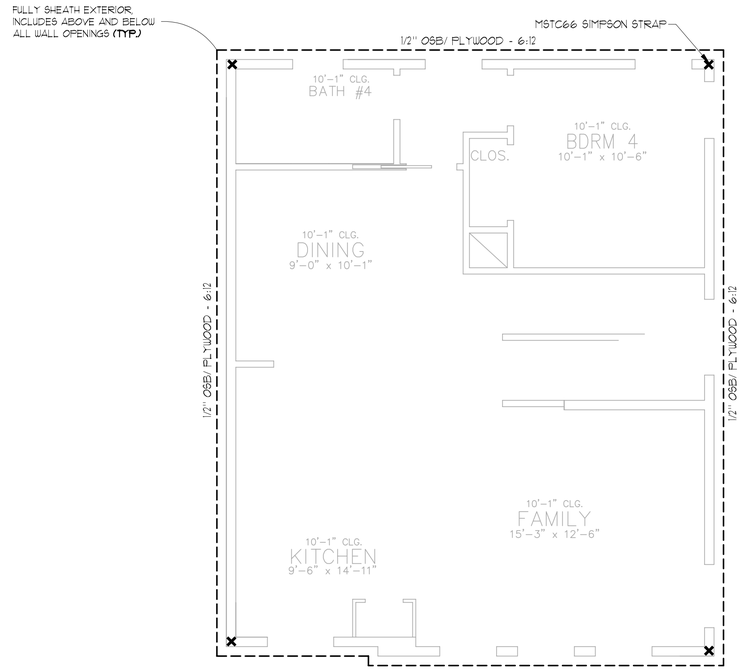
TREEHOUSE DEVELOPMENT, LLC

4502 TERRY STREET
HOUSTON, TEXAS 77009

REF#: B-10508
DRN: GT CHK: MM DES: MM

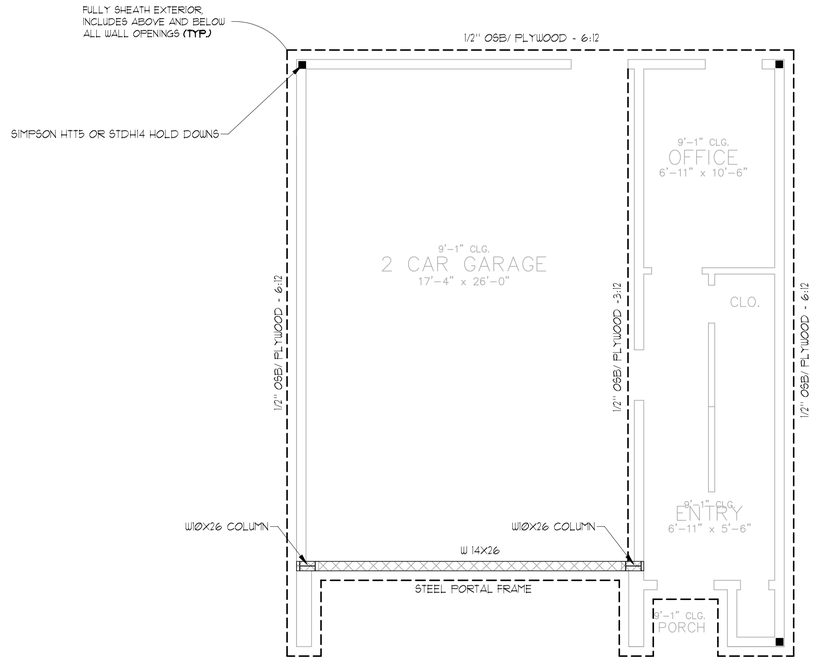
FOUNDATION DETAILS SHEET

SHEET NO. S2.0



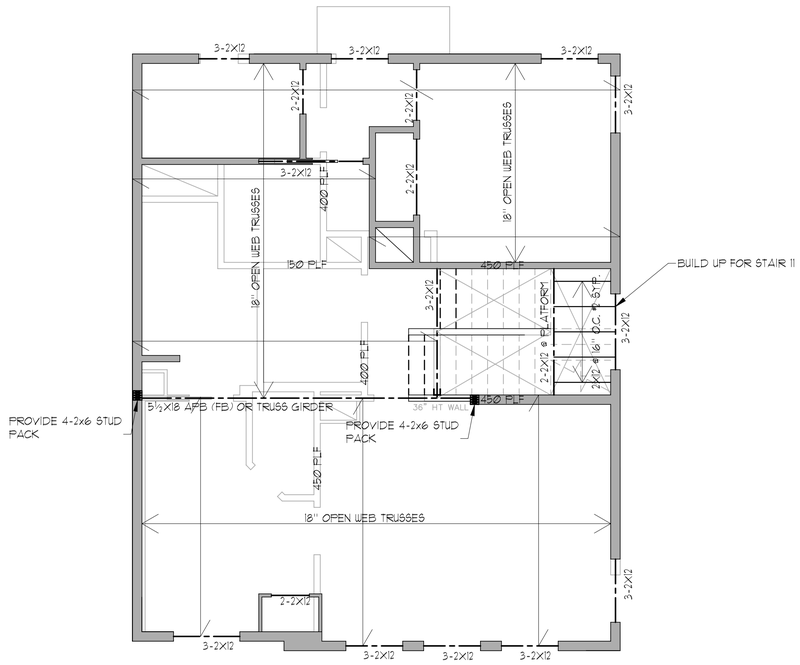
SECOND FLOOR SHEARWALL PLAN

SCALE 1/4" = 1'-0" ON 22X34 SHEET



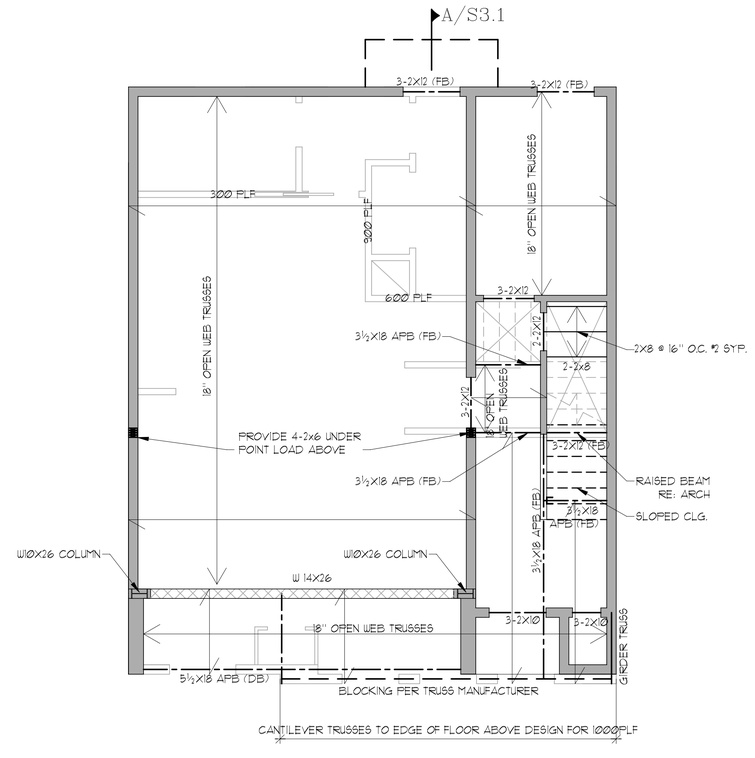
FIRST FLOOR SHEARWALL PLAN

SCALE 1/4" = 1'-0" ON 22X34 SHEET



SECOND LEVEL CEILING FRAMING PLAN

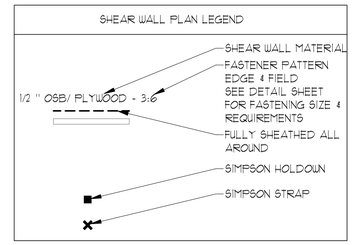
SCALE 1/4" = 1'-0" ON 22X34 SHEET



FIRST FLOOR CEILING FRAMING PLAN

SCALE 1/4" = 1'-0" ON 22X34 SHEET

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

1.) FOR WALLS 10'-0" TALL OR LESS, ALL EXTERIOR WALLS ARE MINIMUM 2 X 4 STUDS @ 16" O.C. U.N.O. FOR WALLS TALLER THAN 10'-0", ALL EXTERIOR WALLS ARE 2 X 6 STUDS @ 16" O.C. U.N.O.

2.) ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH 1/2" PLYWOOD (U.N.O.). 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.

3.) 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.

4.) ALL INTERIOR WALL STUDS ARE A MINIMUM OF 2X4's @ 16" O.C. U.N.O.

5.) 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" DOW BOARD OR PLYWOOD SPACER BETWEEN MEMBERS.)

CEILING FRAMING

6.) ALL ROOF LEVEL CEILING JOISTS (NOT SUPPORTING FLOOR ABOVE), ARE TO BE #2 SYP. U.N.O. ALL ROOF LEVEL CEILING JOISTS ARE TO BE 2 X 6's @ 24" O.C. U.N.O. (MAX. SPAN = 9'-10")

7.) ALL ANTHONY POWER BEAMS ARE AS MANUFACTURED BY ANTHONY FOREST PRODUCTS CO. THE FOLLOWING EQUIVALENT PRODUCT MAY BE SUBSTITUTED WITH ENGINEERS APPROVAL.
- PSL BEAMS BY WEYERHAEUSER
- VERSALLAM BEAMS BY BOISE-CASCADE.
- X-BEAM BY ROSBORO

8.) 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

9.) 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).

10.) SOLID BLOCKING REQUIRED BELOW ALL SECOND FLOOR WALLS WHICH RUN PERPENDICULAR TO FLOOR JOIST SPAN.

11.) ALL OPEN WEB FLOOR TRUSSES (DESIGN BY MANUFACTURE) DESIGN FOR LIVE LOAD OF 40 PSF, PLUS WALL LOAD: DL=200 PLF LL=100 PLF U.N.O. = POINT LOADS (KIPS)

12.) NO TRUSS OR BEAM ALLOWED AT CENTER LINE OF TUB, TOILET, SHOWER DRAINS OR LIGHT FIXTURES.

13.) ▲(1K) = TRUSS ALIGN W/ POINT LOAD FROM ABOVE (KIPS)
✳ = TRUSS OR BEAM UNDER WALL ABOVE U.N.O.
= SPAN DIRECTION

14.) 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.)

15.) USE TREATED SYP #2 WOOD IN PORCH/BALCONY AREA. REF. ARCH DRAWINGS FOR DECKING, WATERPROOFING, SURFACE MATERIAL AND FLASHING DETAILS, ETC.

LEGEND

16.) = 1ST & 2ND FLOOR; = RAISED FLOOR; = FLOOR ABOVE; = BUILT UP FLOOR; = HALF WALL; = DESIGNATED STORAGE

ABBREVIATIONS

17.) F.B. = FLUSH BEAM; U.W.A = UNDER WALL ABOVE; B.O.B. = BOTTOM OF BEAM
D.B. = DROP BEAM; DBL = 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
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⊏ = SIMPSON OR EQUAL TRUSS, JOIST OR BEAM HANGER.
S.B. = STRONGBACK TO DISTRIBUTE ROOF LOADS TO ADJACENT JOISTS TYP.

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TREEHOUSE DEVELOPMENT, LLC

4502 TERRY STREET
HOUSTON, TEXAS 77009

REF#: B-10508

DRN:	CHK:	DES:
GT	MM	MM

1ST & 2ND LEVEL FRAMING PLAN

SHEET NO.
S3.0

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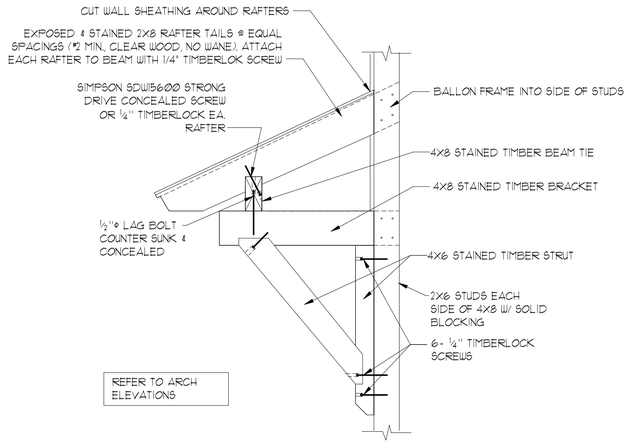
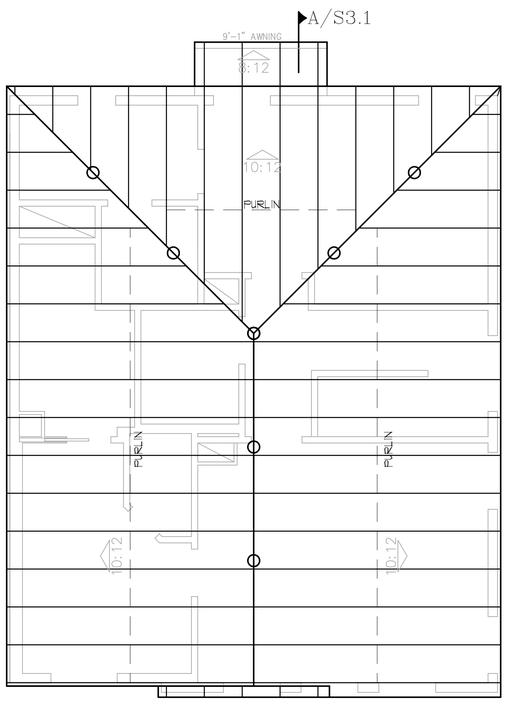
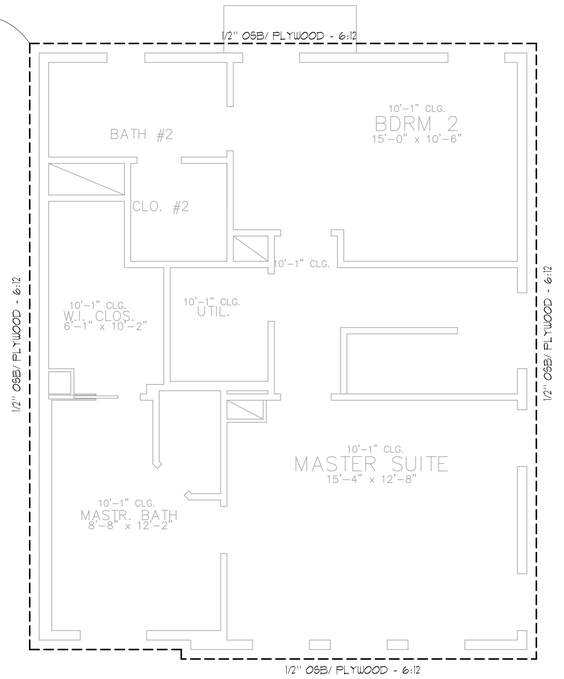


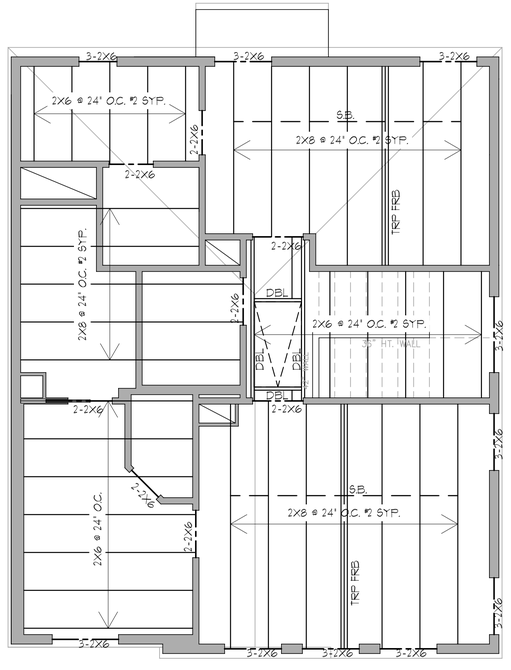
A/S3.1 AWNING OVERHANG
NOT TO SCALE



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

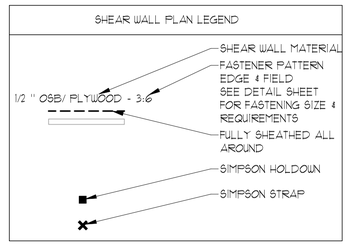


THIRD FLOOR SHEARWALL PLAN
SCALE 1/4" = 1'-0" ON 22x34 SHEET



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

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



ROOF LEVEL NOTES:

1.) ALL FRAMING TO BE ¶2 SYP. UNLESS NOTED OTHERWISE.
2.) ALL RAFTERS TO BE 2x6 @ 24" O.C. U.N.O. MAXIMUM SPAN 10'-7".
3.) ALL HIP, VALLEY AND RIDGE MEMBERS ARE TO BE ¶2 SYP. ONE NOMINAL SIZE LARGER THAN THE SUPPORTED MEMBERS, U.N.O.
4.) SEE ARCHITECTURAL DRAWINGS FOR ROOF PITCH AND PLATE HEIGHTS.
5.) DO NOT BRACE ROOF FRAMING DIRECTLY TO CEILING JOISTS U.N.O. ON PLAN.
6.) ATTACH RAFTERS TO TOP PLATES WITH SIMPSON H1 OR H2.5 HURRICANE TIES AT EVERY OTHER ROOF RAFTER U.N.O.
7.) 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 5' 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.
8.) PLACE COLLAR TIES @ EVERY OTHER RAFTER U.N.O.
9.) —— —— —— 2x8 PURLIN SUPPORTED AT 4'-0" O.C. MAXIMUM. ALL MULTIPLE JOISTS AND BEAMS USED TO SUPPORT PURLIN BRACES MUST BE BRACED AT THE TOP EDGE TO PREVENT ROLLOVER OR LATERAL SWAY.
10.) 2-2x4 TEE BRACE UP TO 8'-0" LONG.
2-2x6 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.
11.) 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
1.) FOR WALLS 10'-0" TALL OR LESS, ALL EXTERIOR WALLS ARE MINIMUM 2 X 4 STUDS @ 16" O.C. U.N.O. FOR WALLS TALLER THAN 10'-0", ALL EXTERIOR WALLS ARE 2 X 6 STUDS @ 16" O.C. U.N.O.
2.) ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH 1/2" PLYWOOD (U.N.O.) 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.
3.) 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.
4.) ALL INTERIOR WALL STUDS ARE A MINIMUM OF 2X4's @ 16" O.C. U.N.O.
5.) REFER TO HEADER SCHEDULE BELOW FOR WINDOW HEADER SIZE UNLESS NOTED ON PLAN. 2 - 2 X 6 ¶ SYP FOR 2X4 WALLS OR 3 -2 X 6 FOR 2X6 WALLS, U.N.O. (USE 1/2" DOW BOARD OR PLYWOOD SPACER BETWEEN MEMBERS.)

CEILING FRAMING
6.) ALL ROOF LEVEL CEILING JOISTS (NOT SUPPORTING FLOOR ABOVE.) ARE TO BE ¶2 SYP. U.N.O. ALL ROOF LEVEL CEILING JOISTS ARE TO BE 2 X 6's @ 24" O.C. U.N.O. (MAX. SPAN = 9'-10")
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- PSL BEAMS BY WEYERHAEUSER
- VERSALLAM BEAMS BY BOISE-CASCADE.
- X-BEAM BY ROSBORO
8.) ALL "BEAMS" TO BE FLUSH WHERE REQUIRED TO MAINTAIN PROPER CEILING LINE. IF CONDITIONS ALLOW, BEAM MAY BE DROPPED FOR BOTTOM CHORD BEARING TRUSS
9.) 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

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ROOF & 3RD FLOOR FRAMING PLAN

SHEET NO.
S3.1

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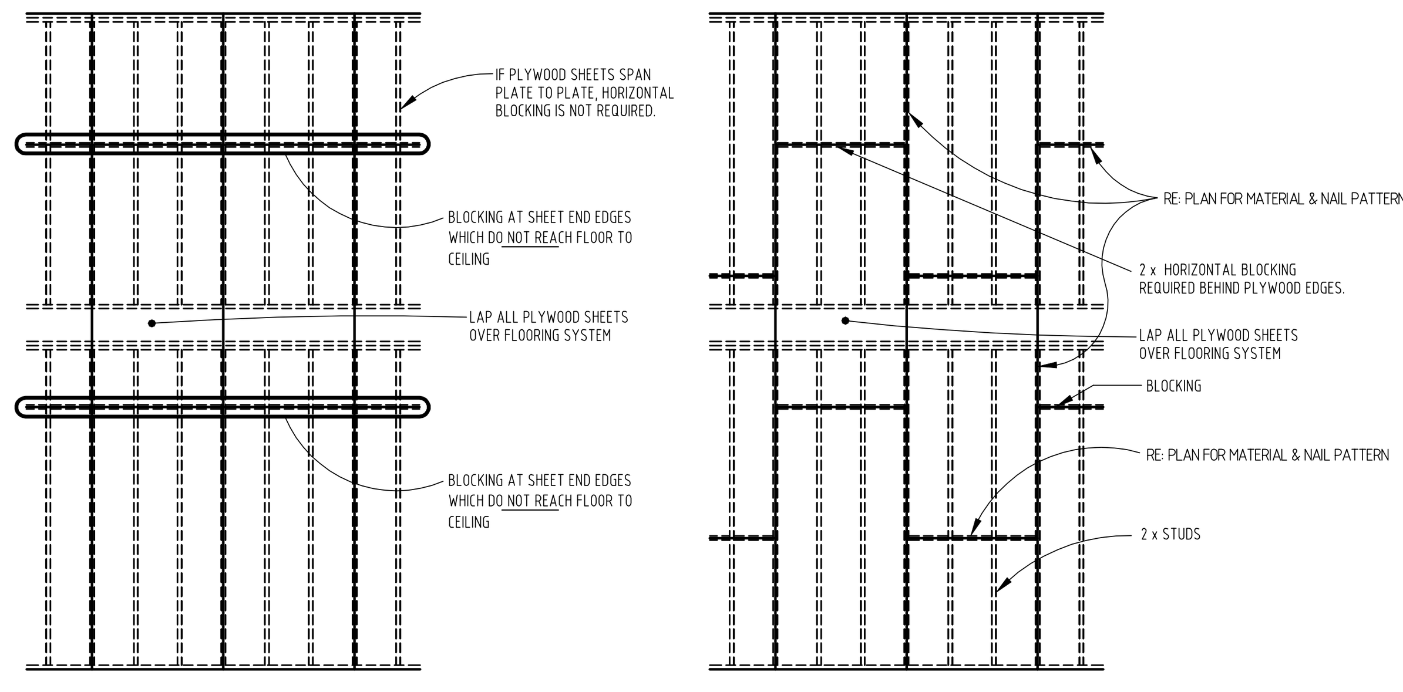
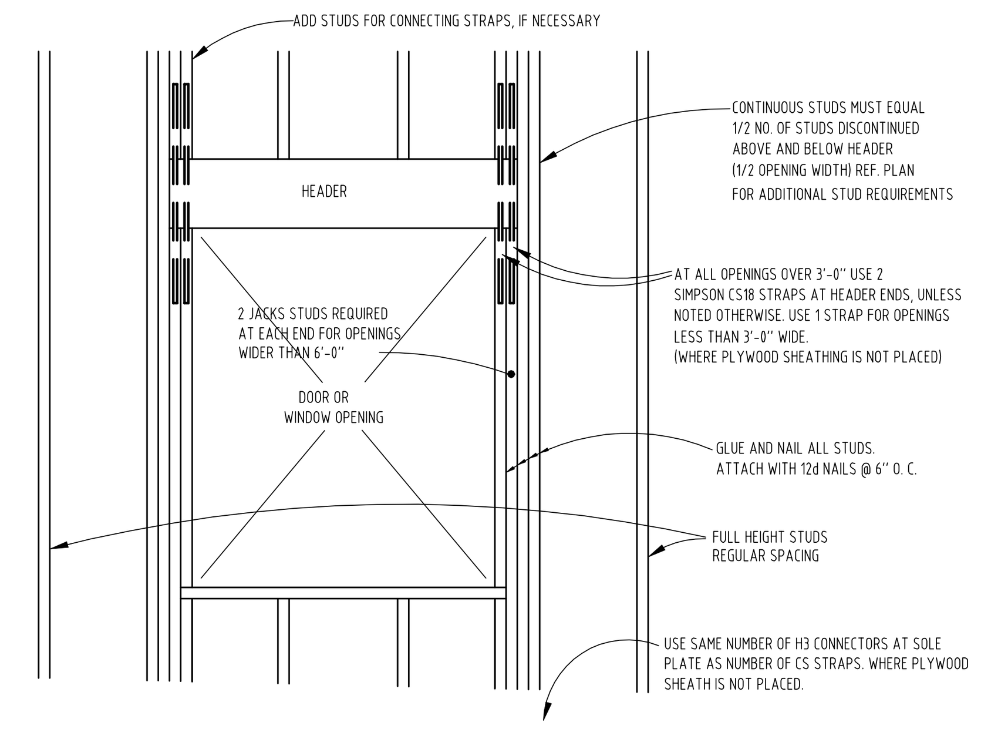
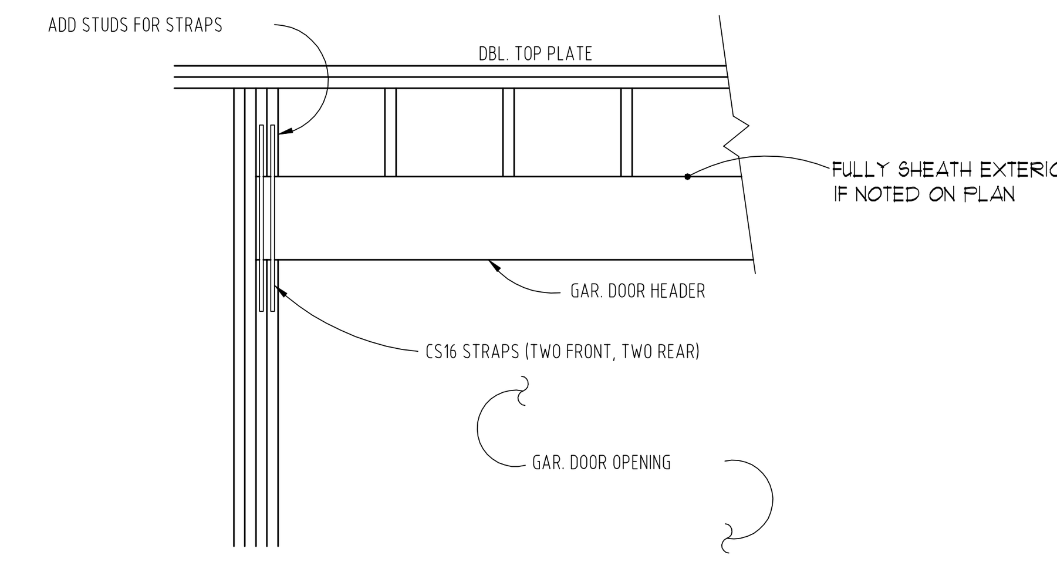


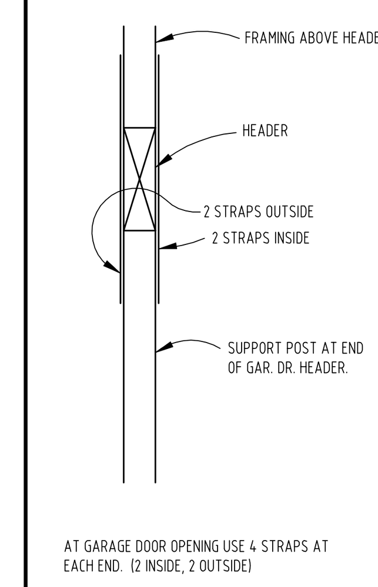
PLYWOOD BLOCKING AND NAILING PATTERN FOR EXTERIOR WALLS



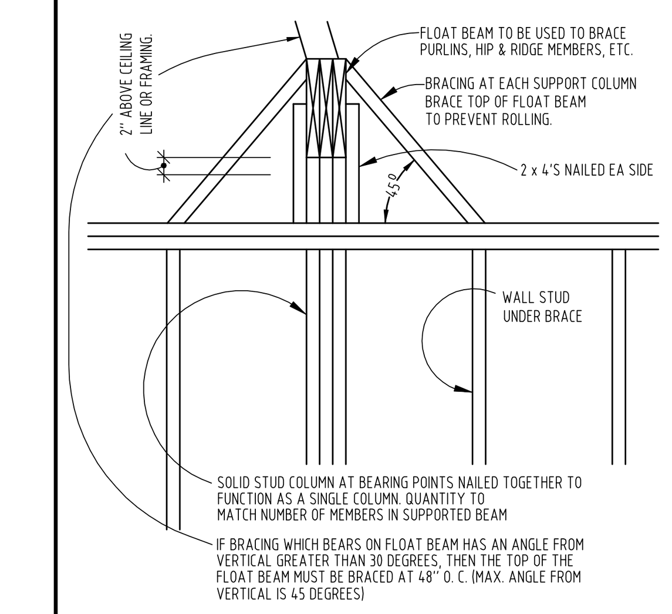
WALL REINF. AROUND WINDOW OPENINGS



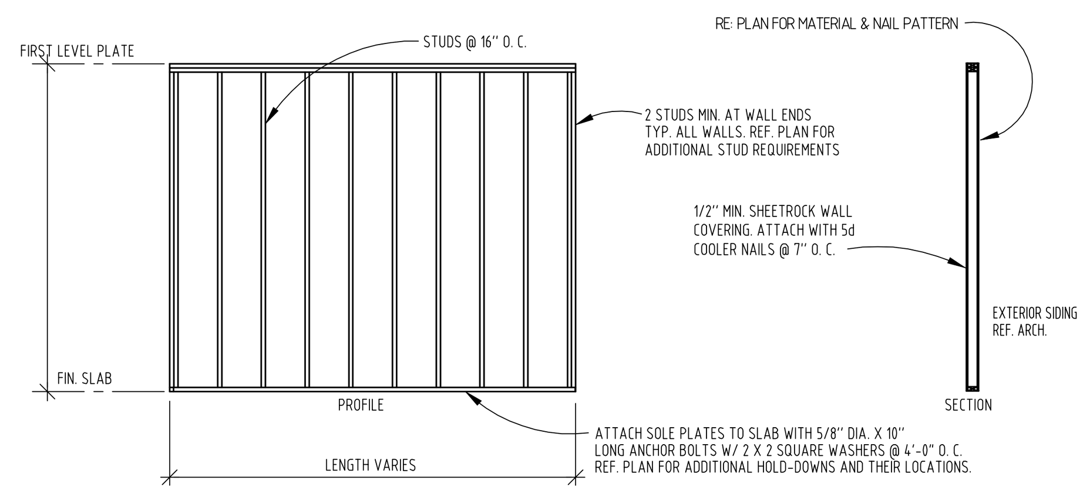
GARAGE DOOR OPENING REINF.



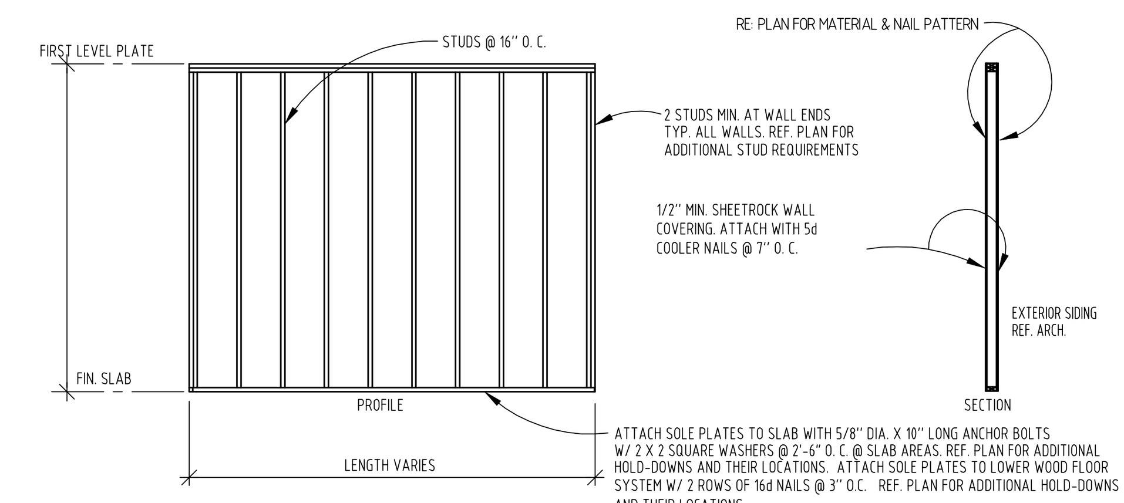
WALL REINF. AROUND GARAGE DOOR OPENINGS



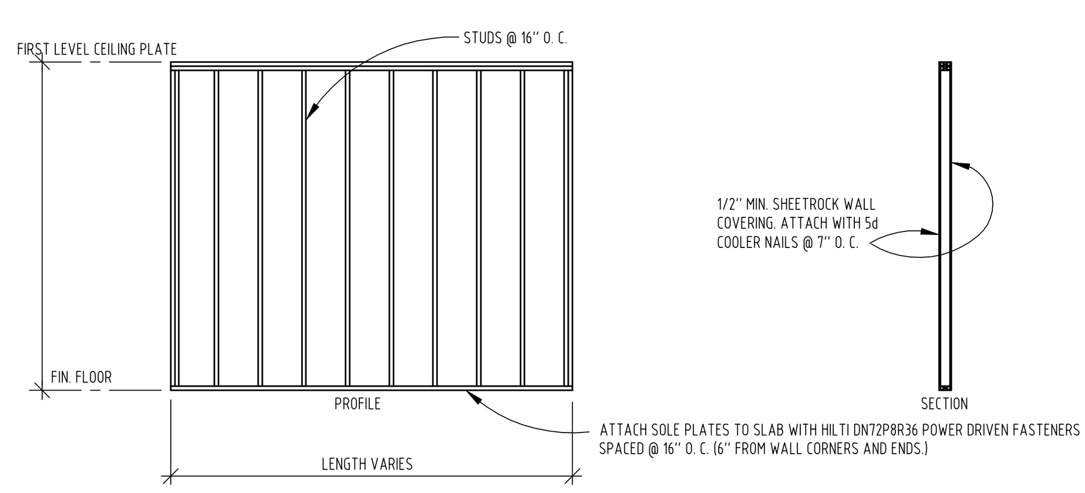
FLOAT BEAM DETAIL



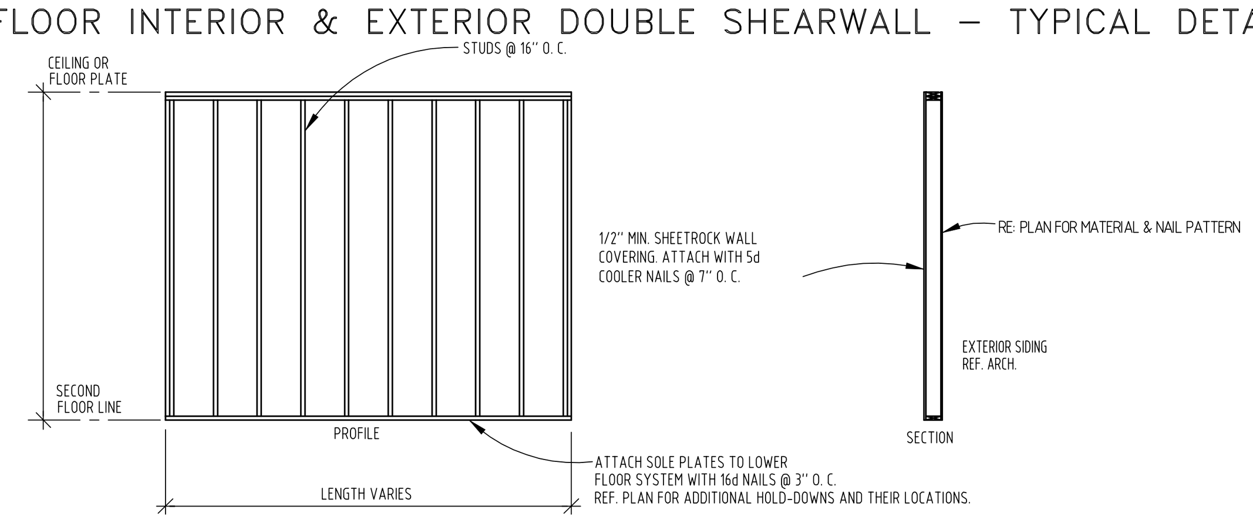
FIRST FLOOR EXTERIOR SHEARWALL – TYPICAL DETAIL



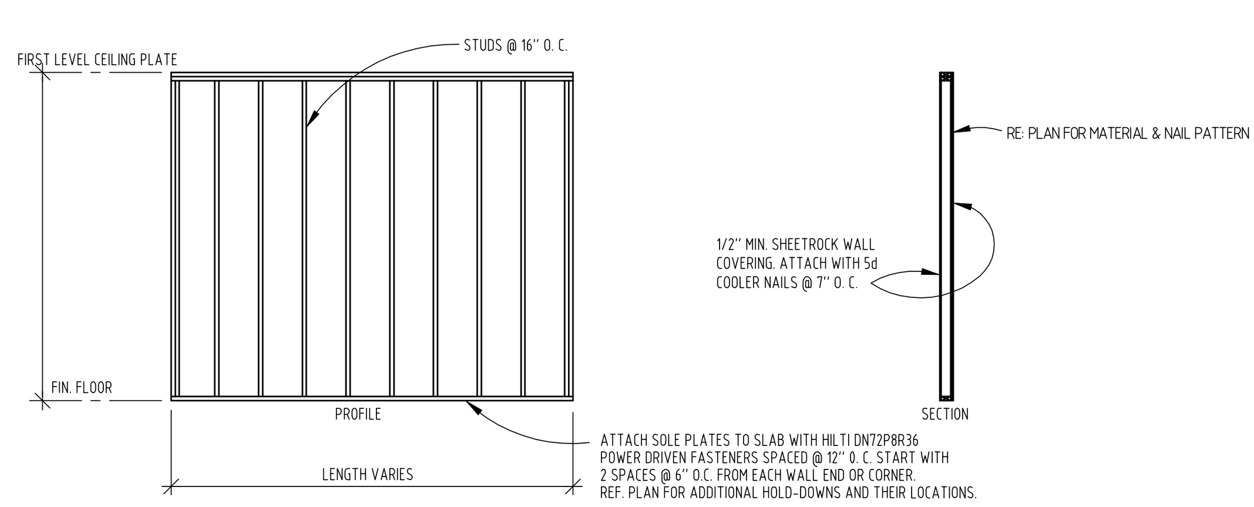
FIRST FLOOR INTERIOR & EXTERIOR DOUBLE SHEARWALL – TYPICAL DETAIL



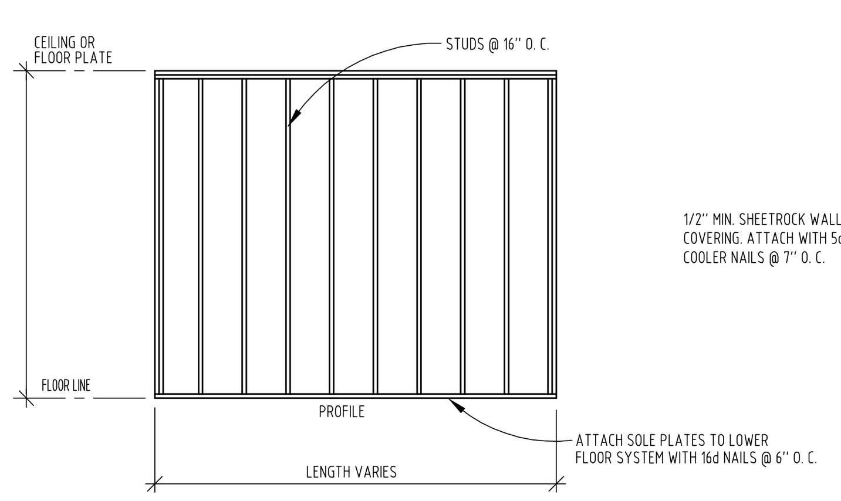
FIRST FLOOR INTERIOR WALL – TYPICAL DETAIL



SECOND OR THIRD FLOOR EXTERIOR SHEARWALL

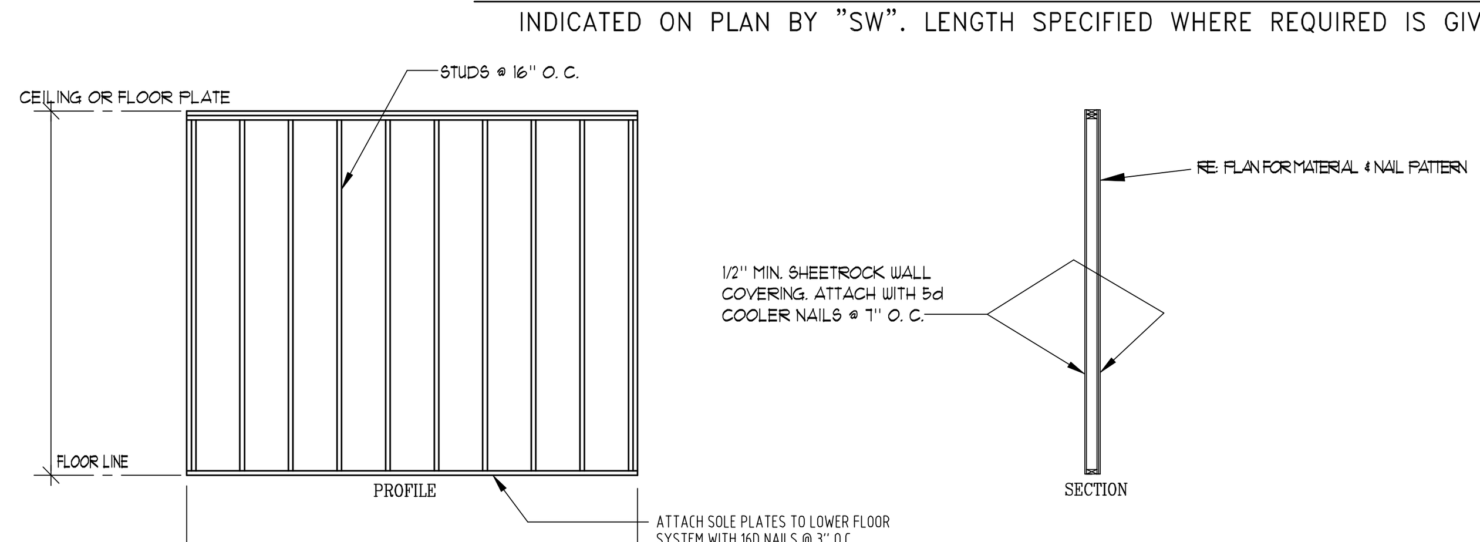


FIRST FLOOR INTERIOR SHEARWALL – TYPICAL DETAIL
INDICATED BY "SW" ON PLAN.



SECOND OR THIRD FLOOR INTERIOR WALL
TYPICAL DETAIL

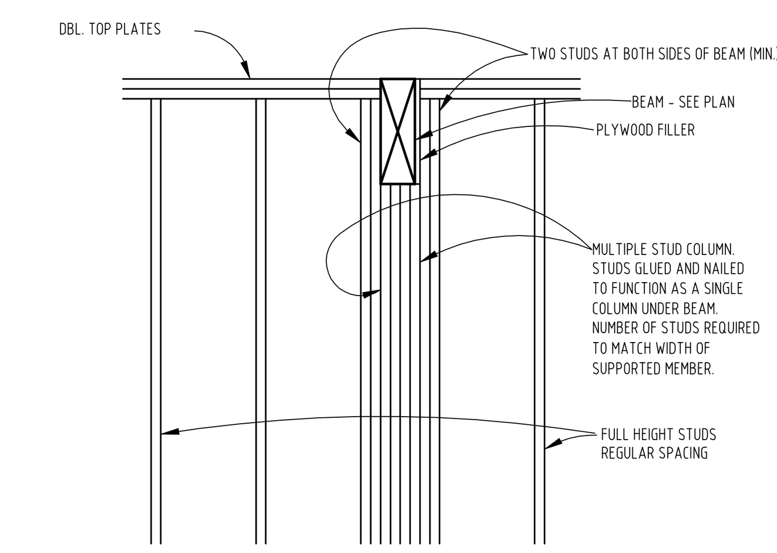
PLYWOOD AND SHEETROCK NAILING DIAGRAMS
INDICATED ON PLAN BY "SW". LENGTH SPECIFIED WHERE REQUIRED IS GIVEN IN FEET.



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

GENERAL NOTES – WOOD

1. All joists and rafters shall be #3 SYP unless otherwise noted. Multiple 2 x 12 beams shall be of #2 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 - 12d common nails (toenailed) at each end where a connector tie is not used.
2. Bolt holes through wood shall be drilled 1/16" maximum larger than the diameter of the bolts to be installed. Bolts through wood shall be fitted with standard washers.
3. 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.
4. Wall studs to be 2 X 4 or 2 X 6 studs @ 16" O.C. Attach each stud to top and sole plates with 2-16d 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.
5. Joists under non-load bearing partitions shall be doubled.
6. Provide Simpson Galvanized "LU & LUS" standard joist hangers at solid sawn flush joint connections, and for trusses at flush beam connections, or use Simpson LBV hangers. All flush beam - to - beam connections are to be made with Simpson "HGLT & GLT" connectors, U. N. O. All Simpson specifications and recommendations are to be followed, unless noted otherwise.
7. 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.
8. Plywood or sheathing shall bear an AFPA Trademark and be stamped performance rated for application and exposure on panel. Face grain is to run perpendicular to support members for horizontal (floor and roof) sheathing.
9. Provide the same number of wall studs under beams as the number of member's in the beams unless noted otherwise (3 - 2 X 4 studs under each end of a beam made of 3 - 2 x 10 members). Studs to be glued and nailed to function as a single column.
10. Wood in direct contact with concrete or masonry shall be treated lumber.
11. Wood columns and posts shall be framed to true end bearings, and shall be positively anchored to foundation with approved post bases. Support column 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.
12. 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 joists or to an adjoining stud, end blocking may be ommitted, U.N.O. at shearwalls. Solid blocking shall be not less than two inches (2") in thickness and shall match the depth of the joist.
13. At exterior sole plates provide 5/8" dia. x 10" long anchor bolts, with 2 x 2 square washers, at 4'-0" (max.) o. c., with bolts at 12" maximum from wall ends. Bolts shall be embeded 7" minimum into concrete. As an alternate Simpson "MAS" hold - downs may be used. Place 6" from wall ends and space at 2'-8" O.C. See plans for any addtional spacing and hold-down and anchoring requirements.
14. All beams made up of multiple 2 X joists shall be connected as per the I.R.C. Code requirements, or local code, whichever is stricter.
15. Flitch 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.
16. Floor decking to be min. 3/4" T&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.)
17. If not specified by applicable building codes, wood members, connections and construction shall comply with AITC Timber Construction Manual requirements, latest edition.
18. All Simpson connectors used with treated wood members treated with chromated copper arsenate (CCA-C) or DOT sodium borate (SBX) should be coated with standard G90 galvanizing and connected with nails, screws, or bolts that are post hot dip galvanized. All Simpson connectors used with wood members treated with alkaline copper quat (ACQ-C) and ACQ-D) or copper azole (CBA-A and CA-B) or any other "non-DOT" borate should be coated with Simpson Z max (G185) or post hot dip galvanized (HDG) and connected with nails, screws, or bolts that are post hot dip galvanized (HDG) or are stainless steel (SST300). Wood treated with amoniacal copper zinc arsenate (ACZA) or any other preservative treatment not noted above is NOT ALLOWED for construction.
19. For engineered wood products noted on plans, all manufacturer specifications and installation requirements must be followed U.N.O.
20. 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.



BEAM POCKET DETAIL

GENERAL NOTES – STRUCTURAL STEEL

1. 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.
2. 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.
3. Splicing of members is prohibited without prior approval by engineer. Connection plates are to be 3/8" thick unless noted otherwise.
4. All welding shall conform to the AWS code. Weld electrodes are to be E70XX series. Provide back-up strips as required.
5. 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.
6. Loose lintels shall be as scheduled on the structural drawings, or as noted in table below.

CLEAR SPAN	
4'-0" OR LESS	L3 1/2 X 3 1/2 X 5/16
6'-0"	L4 X 3 1/2 X 5/16
8'-0"	L5 X 3 1/2 x 5/16
10'-0"	L6 X 3 1/2 X 3/8
16'-0" @ GARAGE DOORS (no story above)	L8 X 3 1/2 X 5/8

Note: All Lintels to be Long Leg Vertical (LLV), U.N.O.

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

ENGINEERED BEAMS (PARALLAM / GLULAM)

TYPICAL BEAM SIZES (WHERE REQ'D)	SIZE SIMPSON HANGE
3.5" X 11-1/4"	HGUS412
3.5" X 11-7/8"	HGUS412
3-1/2" X 14"	HGUS414
3-1/2" X 16"	HGUS414
3-1/2" X 18"	HGUS414
5-1/4" X 11-1/4"	HGUS5.50/12
5-1/4" X 11-7/8"	HGUS5.50/12
5-1/4" X 14"	HGUS5.50/14
5-1/4" X 16"	HGUS5.50/14
5-1/4" X 18"	HGUS5.50/14
7" X 11-1/4"	HGUS7.25/12
7" X 11-7/8"	HGUS7.25/12
7" X 14"	HGUS7.25/14
7" X 16"	HGUS7.25/14
7" X 18"	HGUS7.25/14

NOTES:
1 - SAWN TIMBER - SOUTHERN YELLOW PINE SHALL BE THE GRADE SPECIFIED ON THE FRAMING DRAWINGS AND SHALL HAVE A MOISTURE CONTENT OF 15% MAXIMUM.
2 - SAWN TIMBER BEAMS USED AS HEADERS SHALL HAVE A 1/2- INCH PLYWOOD OR OSB PANEL PLACED BETWEEN THE TWO MEMBERS.
3 - PSL - PARALLAM BEAMS SHALL BE AS MANUFACTURED BY WEYERHAUSER, BOISE, IDAHO
4 - PROVIDE 3 " BEARING AT EACH END OF ANY TIMBER BEAM LISTED ABOVE, MINIMUM.
5 - HANGERS SHALL BE INSTALLED PER MANUFACTURER'S MOST RECENTLY PRINTED LITERATURE.
6 - SEE MANUFACTURER'S DETAIL SHEETS FOR TAPERED END CUTS.

DESIGN LOADS:

2021 IRC WITH COH AMENDMENTS

LIVE LOADS:	FLOORS	– 40 PSF
	CEILINGS	– 20 PSF
	ROOF	– 20 PSF
	SOLAR READY ZONE	– 5 PSF
ATTIC ACCESS STAIR CAPACITY		– 350 LBS.

HANDRAIL AND GUARDRAIL DESIGN LOADS:
HANDRAILS AND GUARDRAILS SHALL SUPPORT A MINIMUM 200 LB LIVE LOAD IN ANY DIRECTION AT ANY POINT ALONG THE TOP

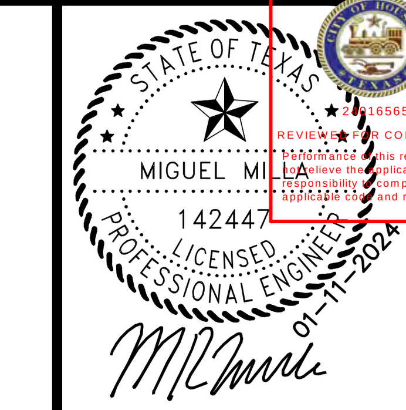
WIND: **Vult= 135 MPH**
RISK CAT. II
EXPOSURE "B" HEIGHT = 30'

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

2 – 2 X 4's on Edge	3'-0" MAX.
2 – 2 X 6's on Edge	4'-0" MAX.
2 – 2 X 8's on Edge	6'-0" MAX.
2 – 2 X 10's on Edge	8'-0" MAX.
2 – 2 x 12's on Edge	10'-0" MAX.



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

DUNAWAY | BEC
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TBPE REGIS. #: F-1114

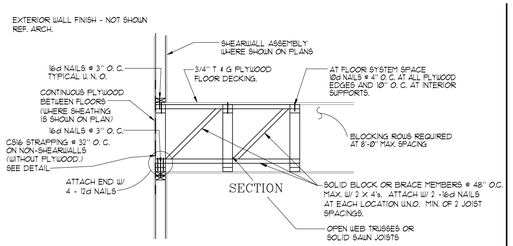
TREEHOUSE DEVELOPMENT, LLC

4502 TERRY STREET
HOUSTON, TEXAS 77009

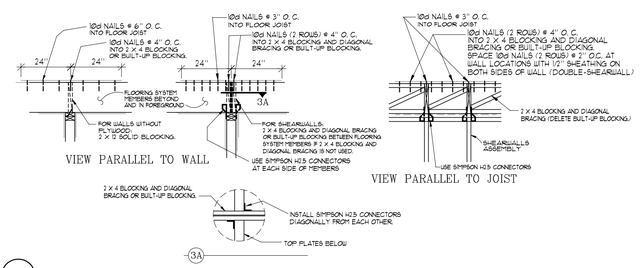
REF#: B-10508
DRN: GT CHK: MM DES: MM

FRAMING DETAILS SHEET 1

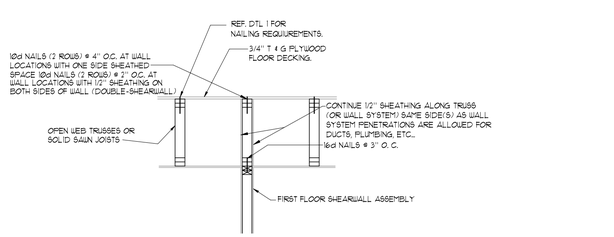
SHEET NO. S4.0



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

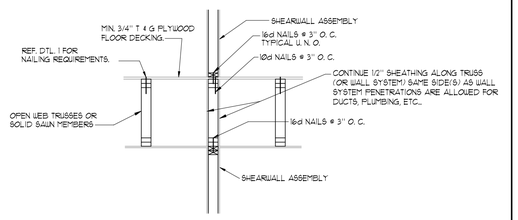


2 WALL AND SHEARWALL CONNECTION TO PERPENDICULAR FLOORING SYSTEM MEMBERS

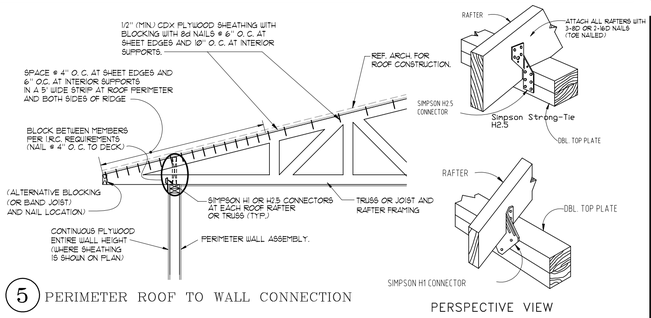


3 TYPICAL INTERIOR SHEARWALL DIRECTLY BELOW TRUSS FOR WALLS RUNNING PARALLEL TO FLOOR MEMBERS

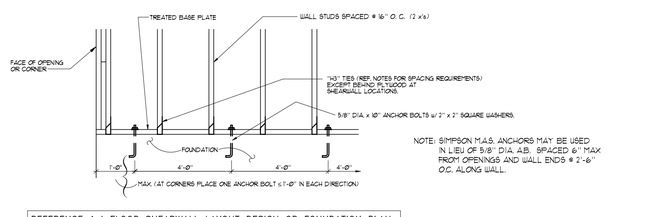
(PLACE TRUSS DIRECTLY ABOVE SHEARWALLS WHERE POSSIBLE, OTHERWISE CONTINUE WALL SYSTEM UP TO 2ND FLOOR DECKING)



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

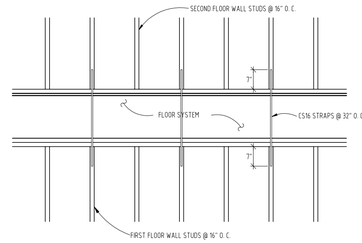


5 PERIMETER ROOF TO WALL CONNECTION

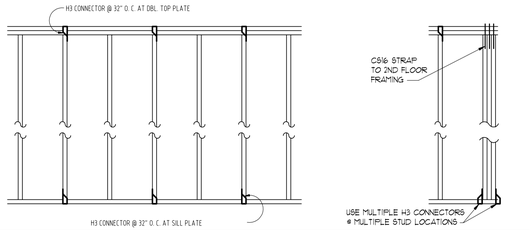


REFERENCE 1st FLOOR SHEARWALL LAYOUT DESIGN OR FOUNDATION PLAN FOR ADDITIONAL HOLDOWNS AND ALTERNATIVE ANCHORING SYSTEM.

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

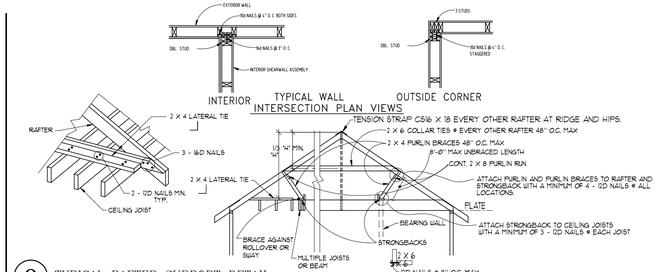


7 ALIGNED FIRST AND SECOND FLOOR EXTERIOR WALLS (UNSHEATHED WALLS)



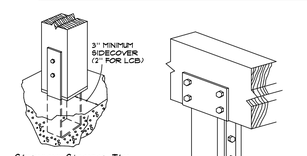
SEE SPECIFIC SHEARWALL TYPES FOR NAILING PLYWOOD, HOLD-DOWNS, LAG SCREWS, AND BOLTS. TYP. ALL DETAILS

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

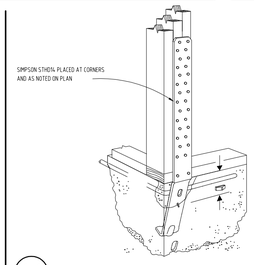


NOTE: SECURELY FASTEN HIP RIDGE & VALLEY BRACING, SUPPORT BEAMS & WALLS TO MEMBERS AT EACH END WITH H2.5 CONNECTORS (2 MIN.) OR SIMPSON CS22 STRAPPING AT EACH END (WRAPPED OVER & UNDER)

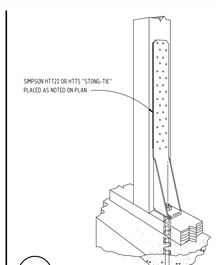
9 TYPICAL RAFTER SUPPORT DETAIL



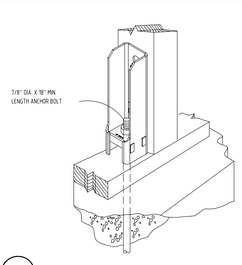
10 TYPICAL POST BASE AND CAP CONNECTIONS



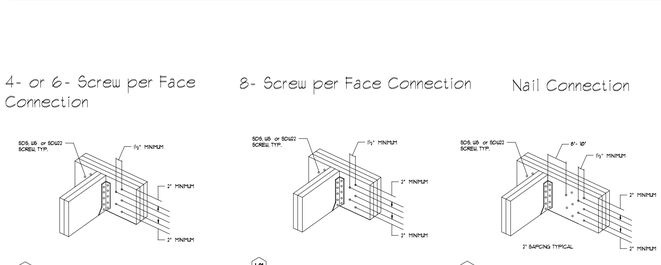
11 ANTI-SPALLING STRAP TIE HOLD-DOWN



12 HOLD-DOWN



13 HD5B, HD7B AND HD9B HOLD-DOWN



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

CONNECTION DETAILS

City of Houston

STATE OF TEXAS
MIGUEL MILLA
142447
LICENSED PROFESSIONAL ENGINEER
01-11-2024

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

DUNAWAY | BEC
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3200 Wilcrest Dr, Suite 440 | Houston, Texas 77042
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TBPE REGIS. #: F-1114

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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

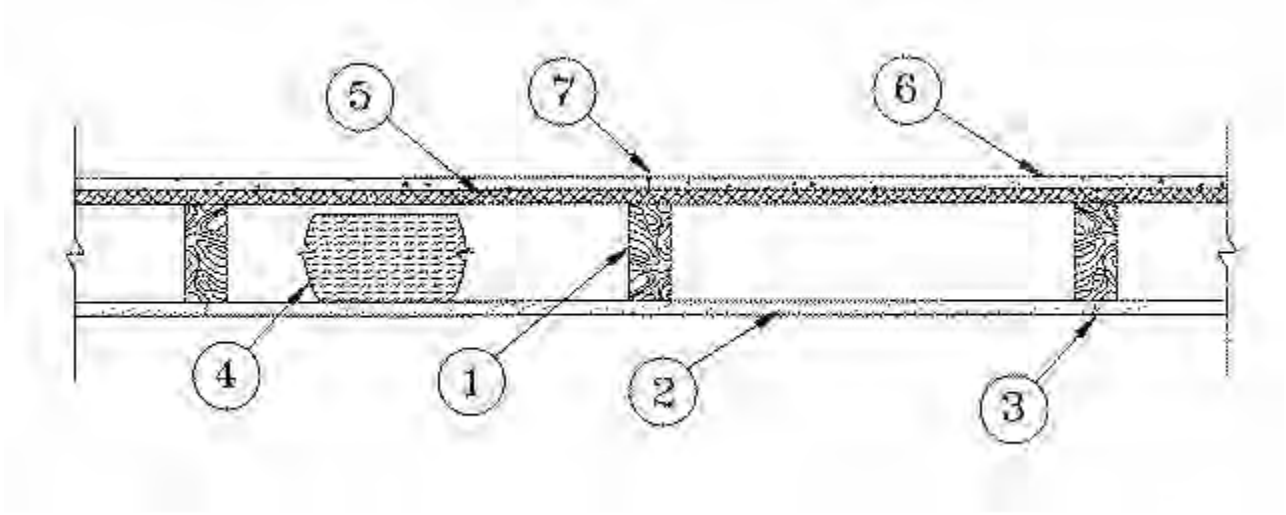
See General Information for Fire Resistance Ratings - ANSI/UL 263

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 srcrew 1 in. from edge of board. 54 in. 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

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 Certified 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 Certified.

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

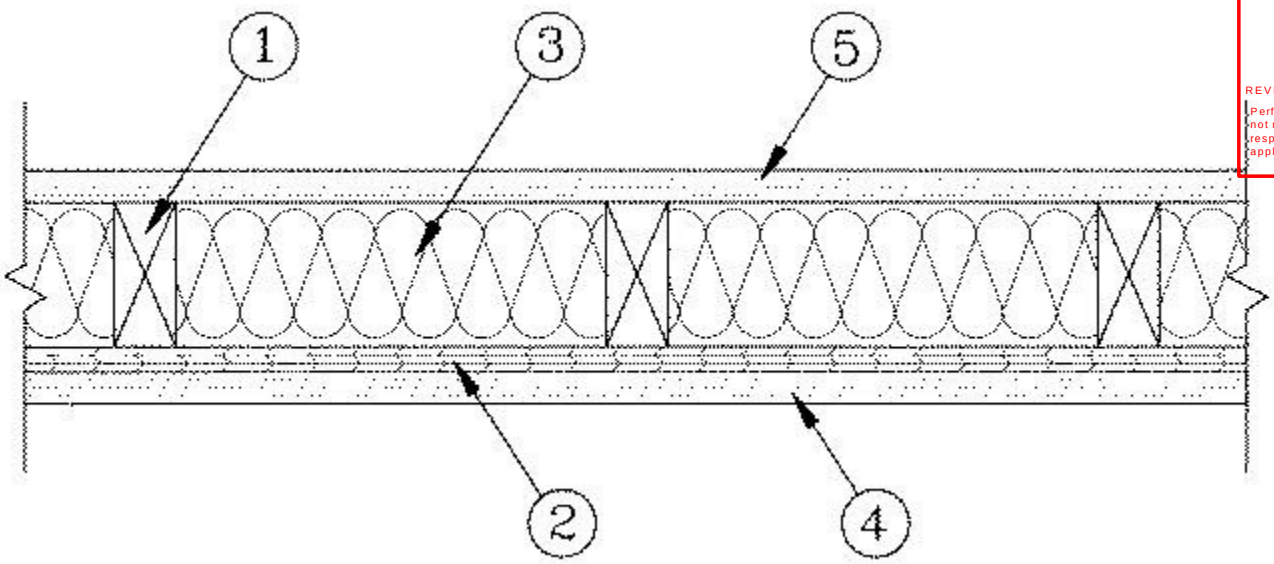
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

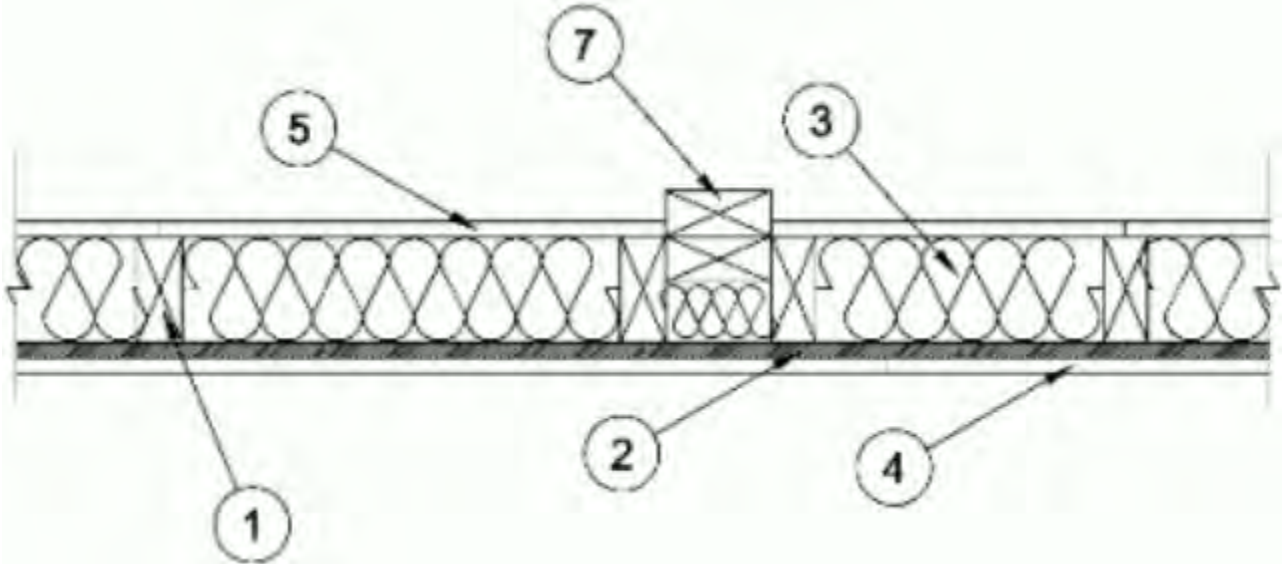
Design No. **U344**

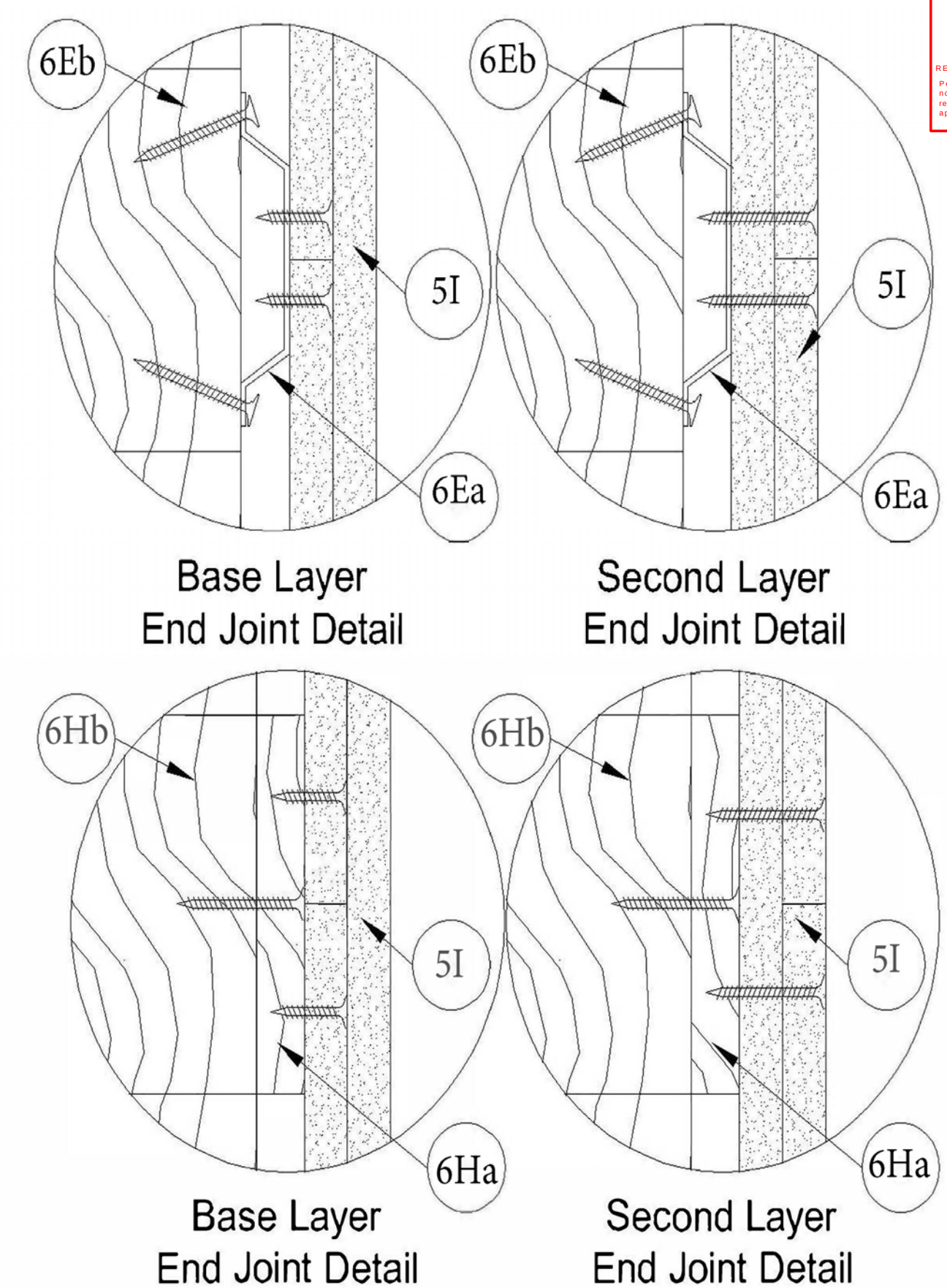
August 4, 2023

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.**







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^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, 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^3.
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^3.
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

CERTAINTEED 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.

CERTAINTEED 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.
CERTAINTEED 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

CERTAINTEED 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.

CERTAINTEED 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.
CERTAINTEED 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.
CERTAINTEED 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

2I. **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 2Ia) 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 ¾ 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.**

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BUBBLE NOTES ON DETAILS

No.	DESCRIPTION
1	SCHEDULED ROOF COVERING*, CLASS C OR BETTER, OVER (CHOOSE ONE): a. ONE LAYER OF 30 lb. ASPHALT-IMPREGINATED FELT PAPER WHEN ROOF SLOPE IS GREATER THAN 3:12 SLOPE. b. ADHESIVE BACKED, SELF-SEALING, RUBBERIZED MEMBRANE WHEN ROOF SLOPE IS 3:12 SLOPE OR LESS. *ANY ROOF COVERING APPROVED FOR USE BY THE LOCAL AUTHORITY.
2	SCHEDULED CDX PLYWOOD DECKING* (CHOOSE ONE): a. 15/32 IN. (COMPOSITION). b. 19/32 IN. (TILE). c. 15/32 IN. MINIMUM, FIRE-RETARDANT WITHIN 48 IN. OF A 2-HOUR, FIRE-RATED COMMON WALL WHERE THE COMMON WALL DOES NOT HAVE A 30 IN. HEIGHT PARAPET. *WITH OPTIONAL FOIL-FACED RADIANT BARRIER FACING DOWN.
3	SCHEDULED 2x RAFTERS AT 16 IN. O.C. SEE ELEVATIONS FOR SLOPE.
4	2x RIDGE, HIP, AND/OR VALLEY JOISTS MINIMUM ONE SIZE LARGER THAN RAFTERS.
5	2x COLLAR TIES AT 48 IN. O.C. LOCATE AT UPPER 1/3 OF ATTIC SPACE.
6	2x4 RIDGE BRACE AT MINIMUM 8'-0" O.C. USE 2x6 BRACE WHEN LENGTH EXCEEDS 8'-0" OR PER ENGINEER'S RECOMMENDATION.
7	CONTINUOUS 2x PURLIN SAME SIZE AS RAFTERS.
8	2x4 BRACES AT 48 IN. O.C. BRACE ANGLE MINIMUM 45d FROM HORIZONTAL.
9	2x6 STRONGBACK ATTACHED TO A 2x4 SLEEPER INSTALLED AT MID-SPAN BETWEEN PARTITIONS WHEN SPAN BETWEEN PARTITIONS EXCEED 8'-0".
10	SCHEDULED ATTIC VENTING* (CHOOSE ONE): a. CONTINUOUS RIDGE VENT. b. SOLAR/HARD WIRED POWER VENTS. c. TURBINE VENTS. d. AIR HAWKS. *OPENINGS IN THE ROOF DECKING NOT ALLOWED WITHIN 4 FEET TO A 2-HOUR COMMON WALL WHERE THERE IS NO 30 IN. HEIGHT PARAPET.
11	CEILING JOISTS PER FRAMING SPAN TABLE. ALL JOISTS TO HAVE MINIMUM BEARING OF 1-1/2 IN.
12	ATTIC ACCESS FROM THE CEILING (CHOOSE ONE BASED ON MECHANICAL ACCESS): a. 30"x54" PULL-DOWN STAIRS RATED AT 350 lb. WHERE MECHANICAL EQUIPMENT IS LOCATED IN ATTIC. b. 22"x30" MINIMUM SCUTTLE ACCESS WHEN ATTIC IS MORE THAN 30 SQUARE FEET OF AREA BASED ON A 30 IN. VERTICAL HEIGHT AND THERE IS NO MECHANICAL EQUIPMENT.
13	SCHEDULED BEAM, HEADER, OR DOUBLE FRAMING (DIMENSION LUMBER, GLULAM, LVL, PARALLEL STRAND, ETC.) PER ENGINEER OF RECORD.
14	SIMPSON (r) JOIST HANGER OR EQUAL (MATCH GAUGE) WHEN CEILING JOIST SPAN EXCEED 12'-0".
15	SCHEDULED INSULATION* (CHOOSE ONE): a. UNFACED BATT (MINERAL FIBER, PLASTIC FIBER, NATURAL FIBER, OR FIBERGLASS). b. FACED BATT (WITH OR WITHOUT RADIANT BARRIER). c. SPRAY FOAM OPEN CELL. d. SPRAY FOAM CLOSED CELL. e. LOOSE-FILL AND BLOWN-IN (ATTIC FLOORS). f. RIGID FIBER. g. FOR ASSEMBLY UL-U344: FOIL-FACED FIBERGLASS BATTS (NOMINAL 0.70 PCF DENSITY) WHERE THE FOIL IS FACING THE MOISTURE SIDE OF THE STUD WALL. h. FOR ASSEMBLY UL-V340: MINERAL FIBER HAVING A DENSITY OF 2.87 PCF. *SEE TABLE ELSEWHERE IN THIS DOCUMENT FOR MINIMUM R-VALUES. NOTE: R-VALUES SHOWN IN THE RESCHECK REPORT TAKE PRECEDENCE.
16	2x GABLE WALL WITH DOUBLE TOP PLATE. TOP OF GABLE WALL FLUSH TO UNDERSIDE RAFTERS.
17	2x LOOKOUTS* AT 24 IN. O.C. MINIMUM LENGTH 3x OVERHANG VALUE (CHOOSE ONE BASED ON FASCIA SIZE): a. NOTCH TO A 2x4 AT SOFFIT (/BRICK POCKET) FOR A 1x6 FASCIA. b. NOTCH TO A 2x6 AT SOFFIT (/BRICK POCKET) FOR A 1x8 FASCIA. *MATCH SIZE TO SCHEDULED RAFTER.
18	2x2 CONTINUOUS SOFFIT NAILER BETWEEN LOOKOUTS.
19	BRIDGE BLOCKING AT 24 IN. O.C. (WHERE FLUSH OVERHANG.)
20	1x FILLER.
21	2x FULL-HEIGHT BIRD BLOCK/NAILER (FIREBLOCKING) BETWEEN BARGE RAFTERS. NOTE: SEE TABLE R302.1(1) FOOTNOTES 'a' AND 'b' ELSEWHERE ON THIS PAGE FOR MORE INFORMATION.
22	2x TOP PLATE CUT DOWN AS REQUIRED FLUSH TO BOTH EXTERIOR FINISH FACES. SUBSTITUTE 2-PCS. 3/4 IN. PLYWOOD WHEN WIDTH EXCEEDS 2x12.
23	METAL COPING, SLOPE TO BACK, WITH INSIDE AND OUTSIDE HOLD DOWN CLIPS.
24	2x4 OUTLOOKER WITH 1x OR 2x NAILER AGAINST EXTERIOR WALL.
25	SUBFASCIA / BARGE RAFTER (CHOOSE ONE): a. 2x4 SUBFASCIA / BARGE RAFTER FOR 1x6 FASCIA. b. 2x6 SUBFASCIA / BARGE RAFTER FOR 1x8 FASCIA.
26	SCHEDULED FASCIA* (CHOOSE ONE): a. 1x6 WOOD OR CEMENTOUS BOARD. b. 1x8 WOOD OR CEMENTOUS BOARD. c. 1x6 WOOD OR CEMENTOUS BOARD. PROVIDE CONTINUOUS RABBET ALONG BOTTOM TO RECEIVE EXTERIOR FINISH MATERIAL OTHER THAN BRICK. *CONSULT LOCAL AUTHORITY FOR USE OF PVC PRODUCTS.
27	SCHEDULED 1x2 TRIM (OPTIONAL GUTTER MOLD).
28	GALVANIZED FLASHING DRIP EDGE.
29	SCHEDULED 3/8 IN. SOFFIT BOARD (CHOOSE ONE): a. PLYWOOD, MASONITE, OR CEMENTOUS BOARD WITH LOUVERED VENTS AT 6'-0" O.C. MAX. b. PLYWOOD, MASONITE, OR CEMENTOUS BOARD WITH CONTINUOUS VINYL OR METAL VENT STRIP. c. CONTINUOUS PERFORATED MASONITE OR CEMENTOUS BOARD. INSTALL NON-PERFORATED SQUARES WHERE SOFFIT TURNS CORNERS AND AT SOFFIT ENDS. d. NON-PERFORATED PLYWOOD, MASONITE, OR CEMENTOUS BOARD WHERE VENTING IS NOT PROVIDED OR NOT ALLOWED. APPLY BEAD OF SEALANT ALONG ALL EDGES.
30	1-PC. (OR 2-PC. "L") 2x CONTINUOUS SLEEPER TO RECEIVE FRIEZE TRIM (CREATES BRICK POCKET).
31	SCHEDULED 1x4 OR LARGER, OR MULTI-PIECE FRIEZE TRIM. PROVIDE CONTINUOUS RABBET ALONG BOTTOM TO RECEIVE EXTERIOR FINISH MATERIAL OTHER THAN BRICK.
32	2 IN. (1 IN. MIN.) CORRUGATED-STYLE BAFFLES BETWEEN JOISTS AT ALL AREAS THAT WILL HAVE SOFFIT VENTING.
33	DOUBLE 2x TOP PLATE.
34	STUD WALL (CHOOSE ONE BASED ON SITUATION): a. 2x4 STUDS AT 16 IN. O.C. OR b. 2-2x4 STUDS AT 16 IN. O.C. WHEN WALLS ARE TALLER THAN 10 FEET OR LOAD BEARING WALLS SUPPORTING ONE FLOOR ABOVE OR c. 2x6 STUDS AT 16 IN. O.C. FOR ALL LOAD BEARING WALLS SUPPORTING TWO OR MORE FLOORS.
35	SINGLE 2x BOTTOM (SOLE) PLATE. PROVIDE CHEMICALLY-TREATED (PT) WOOD WHEN WOOD COMES IN CONTACT WITH CONCRETE OR MASONRY.
36	FIREBLOCKING* AT 10 FEET ON CENTER EACH WAY WHERE REQUIRED (CHOOSE ONE): a. 2x DIMENSIONAL LUMBER OR b. BATTS OR BLANKETS OF MINERAL FIBER OR GLASS FIBER OR C. ANY OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE. *SEE FIREBLOCKING NOTE PANEL ON THIS PAGE FOR ADDITIONAL MATERIALS.
37	INTERIOR GYPSUM WALLBOARD (CHOOSE ONE BASED ON CONSTRUCTION TYPE): a. 5/8 IN. TYPE 'X' GYPSUM WALLBOARD (V-A CONSTRUCTION). b. 1/2 IN. TYPE 'C' GYPSUM WALLBOARD (V-B CONSTRUCTION).
38	SCHEDULED SINGLE- OR MULTI-PIECE BASEBOARD.
39	SCHEDULED FINISH FLOORING.
40	EXTERIOR WALL - SINGLE 2x CHEMICALLY-TREATED SOLE PLATE OVER (CHOOSE ONE): a. 4 IN. WIDE FOAM ROLL. b. CONTINUOUS BEAD OF SILICONE SEALANT.
41	1/2 IN. x 12 IN. ANCHOR BOLT SPACED 6-FOOT O.C. MAXIMUM, WITH MINIMUM 2 BOLTS PER PLATE.
42	SCHEDULED CONCRETE SLAB ON GRADE, CONCRETE PERIMETER BEAM, OR SIMILAR PER ENGINEER OF RECORD.
43	MINIMUM 6 IN. OF FOUNDATION WALL EXPOSURE ABOVE FINISHED GRADE.
44	SLOPE GRADE MINIMUM 5% AWAY FROM FOUNDATION WALL, FIRST 10 FEET FOR PERVIOUS SURFACES AND 2% SLOPE FOR IMPERVIOUS SURFACES.
45	EXTERIOR WALL SHEATHING* (CHOOSE ONE): a. 15/32 IN. APA RATED SHEATHING 32/16 (EXPOSURE 1 PLYWOOD). b. 15/32 IN. ORIENTED STRAND BOARD (OSB) PER PS1, PS2, OR APA STANDARD PRP-108. STRUCTURAL ENGINEER APPROVED WHERE REQUIRED. c. 2'x8' WATERPROOF GYPSUM. d. ANY OTHER TYPE OF WALL SHEATHING THAT DOES NOT PROMOTE RIPPLING/WAVING OF THE FINISH MATERIAL. *[ADDITIONAL] RIGID INSULATION CAN BE PLACED BETWEEN EXTERIOR SHEATHING AND EXTERIOR WALL COVERING.
46	EXTERIOR WALL PROTECTIVE COVERING (CHOOSE ONE): a. ONE LAYER 30 lb. ASPHALT-IMPREGNATED FELT PAPER. b. WATER RESISTANT AND BREATHABLE "HOUSE WRAP". c. TWO LAYERS OF GRADE D PAPER (FOR USE WITH CEMENT PLASTER VENEER).
47	EXTERIOR WALL FINISH MATERIAL (CHOOSE ONE): a. NOMINAL CEMENTOUS SHEET, CLAPBOARD*, OR SHIPLAP STYLE SIDING (SMOOTH OR TEXTURED). b. NOMINAL WOOD SHEET, CLAPBOARD*, OR SHIPLAP STYLE SIDING. c. 3-COAT, MINIMUM 3/4 IN. THICK CEMENT PLASTER (SCRATCH, BROWN, FINISH). d. ANY OTHER EXTERIOR FINISH MATERIAL APPROVED FOR USE BY THE LOCAL AUTHORITY. *CLAPBOARD-STYLE SIDING TO BE INSTALLED HORIZONTALLY.
48	PROVIDE "Z-FLASHING" OR "DRIP-FLASHING" AT ALL HORIZONTAL SEAMS AND ABOVE ALL EXTERIOR DOORS AND WINDOWS. ALLOW MINIMUM 1/16 IN. GAP ABOVE FLASHING AND INSTALL BEHIND PROTECTIVE WALL COVERING.

BUBBLE NOTES ON DETAILS

No.	DESCRIPTION
49	FACE BRICK OR STONE VENEER WITH WEEP HOLES AT 33 IN. O.C. WHERE FIRST COURSE AND AT ALL LINTELS.
50	VENEER TIES SPACED MINIMUM 32 IN. HORIZONTALLY, 24 IN. VERTICALLY, OR TO SUPPORT NO MORE THAN 2.67 SQ. FT. OF WALL AREA (CHOOSE ONE): a. 9 GA. STRAND WIRE WITH HOOK EMBEDDED INTO MORTAR JOINT. b. 22 GA. BY 7/8 IN. CORRUGATED SHEET METAL.
51	AIR SPACE.
52	CONTINUOUS HALF-ROLL 15 lb. ASPHAULT-IMPREGINATED FELT PAPER (18 IN. WIDE). INSTALL BEHIND SHEATHING AND TURNED OUT ONTO BRICK POCKET.
53	SCHEDULED STEEL LINTEL AT ALL WALL OPENINGS.
54	2x2 BRICK MOLD OR EQUAL TRIM SURROUND.
55	SCHEDULED WINDOW ASSEMBLY. U-FACTOR AND S.H.G.C. PER RES CHECK SOFTWARE.
56	BRICK SILL WITH SLOPE.
57	SCHEDULED 1x BANDING OR TRIM PER ELEVATIONS. PROVIDE MINIMUM 2 IN. POCKET REVEAL FOR BRICK TERMINATION.
58	APPLIED SYNTHETIC STONE VENEER (MUDSET) OR SIMILAR.
59	TWO LAYERS OF GRADE D PAPER OR ONE LAYER ADHESIVE BACKED, SELF-SEALING RUBBERIZED MEMBRANE APPLIED OVER ITEM 45 OR ITEM 76.
60	3/4 IN. CONCRETE BACKER BOARD SECURED WITH CORROSION-RESISTANT FASTENERS.
61	CORROSION-RESISTANT WEEP SCREED/STARTER STRIP BEHIND BACKER BOARD WHERE NO LET-IN AT FOUNDATION AND AT ALL PORCHES.
62	WATERTABLE/BANDING (CHOOSE ONE): a. CAST STONE. b. BRICK ROWLOCK WITH SLOPE (AS WINDOW SILL). c. STUCCO-CLAD POLYSTYRENE MOLDING.
63	SCHEDULED FLOOR JOIST* SYSTEM, MINIMUM BEARING OF 1-1/2 IN., WITH LATERAL SUPPORT AT ENDS AND AT EACH SUPPORT (CHOOSE ONE): a. NOMINAL 2x DIMENSIONAL LUMBER. b. I-JOISTS. c. PARALLEL CHORD OPEN WEB TRUSSES. d. ANY OTHER TYPE OF FLOOR JOIST SYSTEM APPROVED FOR USE BY THE LOCAL AUTHORITY OR AS SCHEDULED BY THE ENGINEER OF RECORD. *WITH SIMPSON (r) JOIST HANGERS OR EQUAL (MATCH GAUGE AS REQUIRED).
64	1x3 "X" OR NOMINAL 2x BRIDGE BLOCKING (OR EQUAL) WHEN FLOOR JOIST SPAN EXCEEDS 8'-0". LOCATE AT MIDPOINT OF SPAN OR UNDER A PARTITION ABOVE.
65	NOMINAL 2x CONTINUOUS RIM JOIST OR BLOCKING BETWEEN JOISTS AT FLOOR SYSTEM PERIMETER.
66	SCHEDULED SUBFLOORING* (CHOOSE ONE): a. 2x6 TONGUE & GROOVE (T&G) INSTALLED DIAGONALLY. b. 1-1/8 IN. APA STURDI-FLOOR T&G PLYWOOD OR EQUAL. c. 3/4 IN. APA STURDI-FLOOR T&G PLYWOOD OR EQUAL. d. ANY OTHER SUBFLOORING APPROVED FOR USE BY THE LOCAL AUTHORITY. *WITH OPTIONAL CONSTRUCTION ADHESIVE APPLIED TO THE TOP OF ALL JOISTS AND THE SUBFLOORING IS SECURED TO THE JOISTS WITH BUGULE-HEAD SCREWS.
67	ONE LAYER OF 1/2 IN. TYPE 'C' GYPSUM WALLBOARD LAMINATED TO EACH SIDE OF 1 IN. GYPSUM COREBOARD (SLX), WITH JOINT COMPOUND APPLIED WITH A 1/4 IN. NOTCHED SPREADER ON BOTH SIDES OF THE COREBOARD*. TOTAL THICKNESS IS 2 IN. JOINTS OF FACE LAYER AND COREBOARD STAGGERED AT LEAST 12 IN. (UL-U529). FIRST LAYER SECURED TO STUDS WITH 1-1/2 IN. LONG TYPE G STEEL SCREWS SPACED 24 IN. O.C. IN BOTH DIRECTIONS. COREBOARD SECURED TO GYPSUM WITH 1-1/2 IN. LONG TYPE G STEEL SCREWS SPACED 24 IN. O.C. BOTH DIRECTIONS. *ASSEMBLY EXTENDS FROM EXTERIOR WALL TO EXTERIOR WALL AND FROM FOUNDATION TO UNDERSIDE ROOF DECKING/TOP OF PARAPET.
68	TWO LAYERS OF 24 INCH WIDE, 1 IN. THICK COREBOARD* (SLX) FRICTION-FITTED INSIDE CONTINUOUS H-SHAPED (INTERIOR) AND C-SHAPED (PERIMETER) METAL CHANNELS. THE H-SHAPED METAL CHANNELS ARE INSTALLED VERTICALLY (ONLY) AND ARE NO. 25 MSG GALVANIZED STEEL. OVERALL CHANNEL DEPTH 2-1/8 IN. AND FLANGE WIDTH IS 1-1/2 IN. HORIZONTAL SEAMS OF COREBOARD STAGGERED MINIMUM 12 INCHES. SEE UL PUBLICATION UL-U373 FOR MORE INFORMATION. *ASSEMBLY EXTENDS FROM EXTERIOR WALL TO EXTERIOR WALL AND FROM FOUNDATION TO UNDERSIDE ROOF DECKING/TOP OF PARAPET.
69	3/4 IN. AIR SPACE EACH SIDE OF ITEM #68.
70	ALUMINUM ANGLE ATTACHMENT CLIPS, 0.062 IN. THICK, 2 IN. WIDE WITH 2 IN. AND 2-1/2 IN. LEGS ATTACHED TO WOOD FRAMING WITH MINIMUM ONE 1-1/4 IN. LONG TYPE W SCREW AND SECURED TO *EACH* H-SHAPED METAL CHANNEL WITH ONE 3/8 IN. LONG TYPE S SCREW - EACH SIDE OF ASSEMBLY. VERTICAL SPACING OF CLIPS MAXIMUM 10 FEET O.C. FOR THE UPPER 24 FEET OF WALL AREA AND 5 FEET O.C. FOR THE REMAINING LOWER WALL AREA WHEN WALL EXCEEDS 24 FEET IN HEIGHT. SEE UL PUBLICATION UL-U373 FOR MORE INFORMATION.
71	3"x8"x24" AERCON FLORIDA L.L.C. OR LITECRETE, S.A. DE C.V. CONCRETE MASONRY UNITS* FOR USE AS A NON-LOAD BEARING WALL (UL-U919). *ASSEMBLY EXTENDS FROM EXTERIOR WALL TO EXTERIOR WALL AND FROM FOUNDATION TO UNDERSIDE ROOF DECKING OR TOP OF PARAPET.
72	MINERAL FIBER (**OPTIONAL**) (SUBSTITUTIONS ALLOWED) INSULATION MAX. 3.0 PCF DENSITY IN ALL STUD WALL CAVITIES AND ALL CONCEALED SPACES ABUTTING THE 2-HOUR FIRE ASSEMBLY. PROVIDE MINIMUM 3/4 INCH SEPARATION BETWEEN INSULATION AND AREA SEPARATION WALL. THIS IS A SOUND TRANSMISSION CLASS (STC) ITEM THAT IS NOT PART OF THE FIRE ASSEMBLY.
73	NOMINAL 2x CONTINUOUS BIRD BLOCKS (FIREBLOCKING) BETWEEN RAFTERS (WITH BEVELED TOP WHERE REQUIRED) TIGHT TO UNDERSIDE PLYWOOD DECKING. NOTE: BUTT END OF CEILING JOISTS SHALL BE LOCATED 1-1/2 IN. AWAY FROM THE EXTERIOR SIDE OF THE TOP PLATE TO ALLOW FOR BLOCKING. NOTE: SEE TABLE R302.1(1) FOOTNOTES 'a' AND 'b' ELSEWHERE ON THIS PAGE FOR MORE INFORMATION.
74	2x6 BIRD BLOCK SLEEPERS BETWEEN FLOOR JOISTS.
75	ONE LAYER 5/8 IN. TYPE 'X' GYPSUM BOARD* APPLIED TO THE INTERIOR SIDE OF: a. 2x BIRD BLOCKING AND TIGHT TO UNDERSIDE PLYWOOD DECKING. b. RIM JOIST OR BLOCKING BETWEEN JOISTS AT THE EXTERIOR WALL. c. ATTIC GABLES. d. ATTIC PONY WALLS (WHERE RAFTERS DO NOT SHARE THE SAME PLATE AS CEILING JOISTS). e. STUD WALLS IN CRAWL SPACES. SUBSTITUTE MOISTURE-RESISTANT BOARD OF EQUAL RATING WHERE REQUIRED. f. BACKSIDE OF PARAPETS. g. RAFTERS. ATTACH TO MEMBERS WITH 6d CEMENT COATED NAILS AT 7 IN. O.C. *APPLY CONTINUOUS BEAD OF FIRE-FOAM SEALANT WHERE GYPSUM MEETS WOOD.
76	ONE LAYER 5/8 IN. TYPE 'X' GYPSUM BOARD* APPLIED DIRECTLY TO THE EXTERIOR SHEATHING (UL-U344). ATTACH TO STUDS THRU PLYWOOD WITH 8d CEMENT COATED NAILS SPACED 7 IN. O.C. ALONG STUDS AND PERIMETER OF PANELS. EXTEND FLUSH TO UNDERSIDE OF ROOF DECKING OR TO TOP OF PARAPET. NOTCH AS REQUIRED WHERE RAFTER TAILS. *FIRE-FOAM AS REQUIRED.
77	ONE LAYER 5/8 IN. TYPE 'X' GYPSUM BOARD* APPLIED TO THE INTERIOR SIDE OF THE EXTERIOR WALL. ATTACH TO STUDS OR BLOCKING WITH 6d CEMENT COATED NAILS SPACED 7 IN. O.C. ALONG STUDS AND PERIMETER OF PANELS. *FIRE-FOAM AS REQUIRED.
78	ONE LAYER 5/8 IN. TYPE 'C' GYPSUM BOARD APPLIED DIRECTLY TO THE FLOOR JOIST UNDERSIDE.
79	CONTINUOUS HAT-SHAPED METAL CHANNELS INSTALLED PERPENDICULAR TO JOISTS.
80	ONE LAYER 5/8 IN. TYPE 'C' GYPSUM BOARD ATTACHED TO HAT-SHAPED METAL CHANNELS (UL-L536).
81	TWO LAYERS 5/8 IN. TYPE 'C' GYPSUM BOARD ATTACHED TO HAT-SHAPED METAL CHANNELS (UL-L583).
82	WHERE A CEILING OR CANTILEVER IS FIRE-PROTECTED, PROVIDE CONCEALED SPACE FIREBLOCKING* IN-LINE TO AND FLUSH WITH THE EXTERIOR SIDE OF THE EXTERIOR WALL(S) THAT IS ABUTTING THE FIRE-RATED CEILING OR CANTILEVER. SECURE TO 2x2 LEDGERS BETWEEN JOISTS. *SEE FIREBLOCKING NOTE PANEL FOR APPROVED MATERIALS.
83	BLOCKING BETWEEN STUDS WHERE REQUIRED.
84	3/4 IN. PLYWOOD OR 2x LEDGER(s) APPLIED ON TOP OF EXTERIOR SHEATHING (OR ON TOP OF GYPSUM BOARD) AND LAG BOLTED TO STUDS/RIM JOIST/BLOCKING BETWEEN STUDS BEYOND. BOLT SPACING 12 INCHES ON CENTER, STAGGERED.
85	2x OR I-JOIST OUTLOOKERS AT 24 IN. O.C. MAX.
86	1/2 IN. PLYWOOD SUBFASCIA.
87	5/8 IN. TYPE 'X' GYPSUM BOARD APPLIED TO THE UNDERSIDE OF OUTLOOKERS, UNDERSIDE OF RAFTERS, AND BETWEEN THE SUBFASCIA AND FASCIA.
88	SCHEDULED FASCIA PANEL.
89	METAL PAN/FLASHING WITH DRIP LIP. VERTICAL LEG OF FLASHING INSTALLED UNDER THE HOUSE WRAP AND IS MINIMUM 8 INCHES TALL.
90	2-PC. 2x BLOCKING BETWEEN STUDS (FOR INTERIOR GYPSUM BOARD AND EXTERIOR STEP FLASHING). ALIGN TO AND FOLLOW LOWER ROOF SLOPE.
91	GALVANIZED STEP SHINGLE FLASHING.
92	UL DESIGN NUMBER V340 ANSI/UL 263 -- LOUISIANA-PACIFIC BLAZEGUARD OR LP FLAMEBLOCK LAMINATE BUILDING UNIT SUBSTITUTION FOR ITEMS 45, 76, AND 15. APPLY WITH GYPSUM SIDE FACING AWAY FROM THE STUD WALL. MINERAL FIBER INSULATION 2.87 PCF DENSITY. SEE MANUFACTURER'S DATA FOR PROPER FASTENING.

FOOTNOTES:

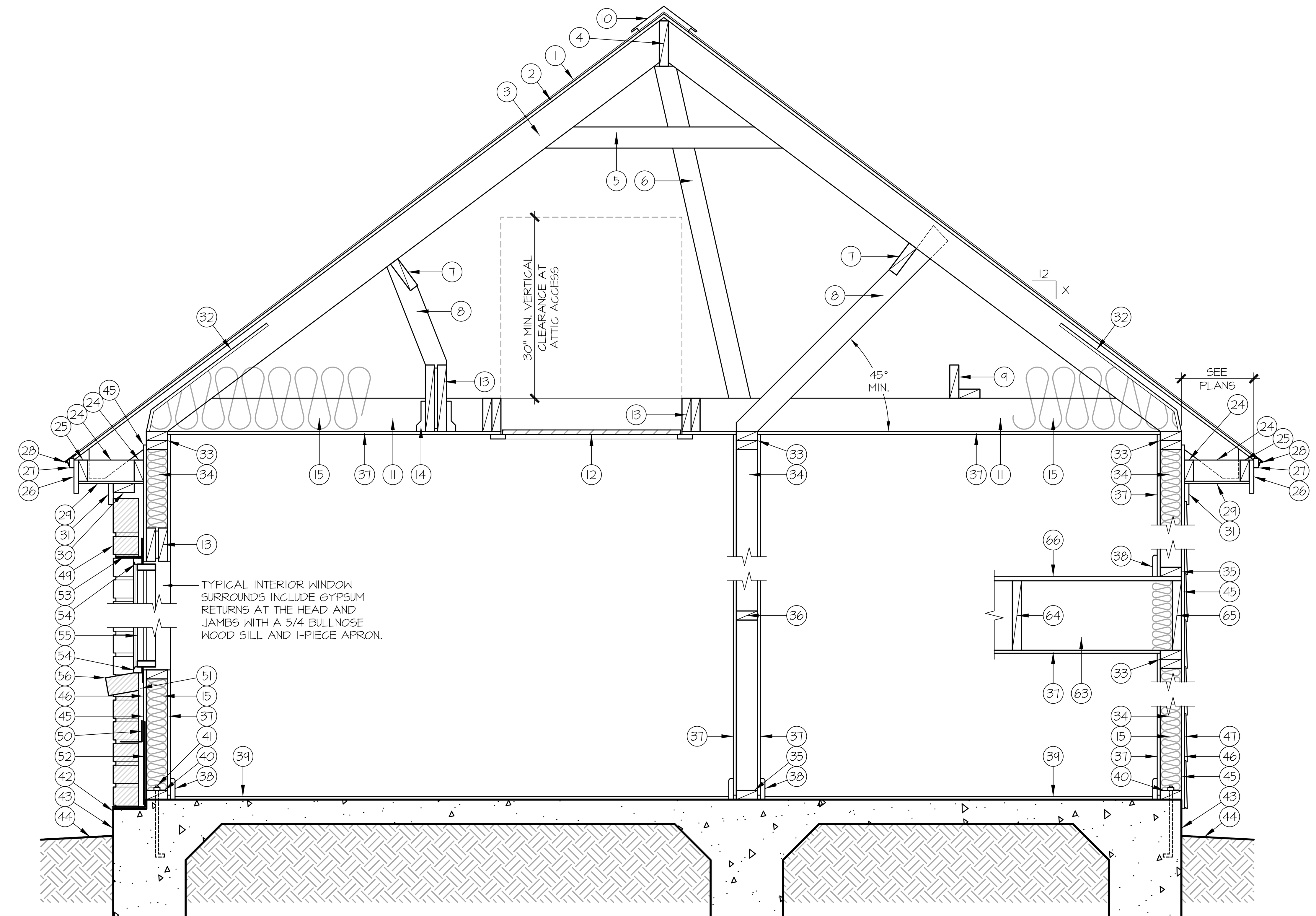
A) ADJACENT STUD WALL CAVITIES AND CONCEALED SPACES ARE NOT PART OF THE FIRE ASSEMBLY.

B) 2x STUD WALL IN ATTIC IS REQUIRED FOR SUPPORTING EACH SIDE OF THE FIRE-RATED ASSEMBLY. ADDING SOUND-DEADENING INSULATION IS OPTIONAL.

C) REPEAT AS REQUIRED FOR EACH FLOOR LEVEL.

D) CONTINUITY OF THE FIRE-RESISTIVE ASSEMBLY ON THE EXTERIOR WALL UP TO THE UNDERSIDE OF THE ROOF DECKING ALLOWS SOFFIT AND FASCIA TO NOT REQUIRE PROTECTION.

E) INSTALL 2x BIRD BLOCKS BETWEEN BARGE RAFTERS WHEN FRAME WALL IS OUTSIDE 5 FEET AND THE BRICK VENEER IS INSIDE 5 FEET TO A PROPERTY LINE.

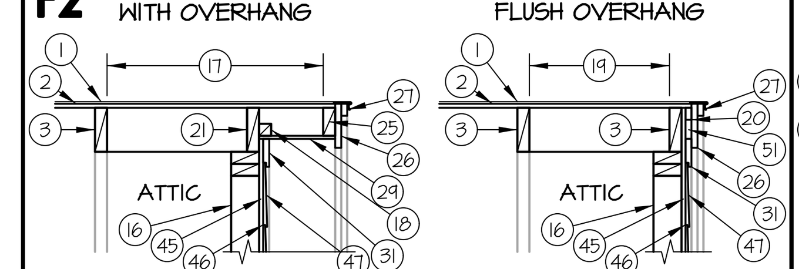


F1 DIAGRAMMATIC BUILDING SECTION

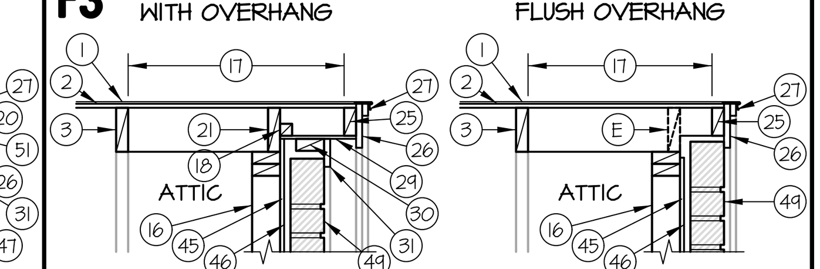
SCALE: 3/4" = 1'-0" @ 22x34 MEDIA

THE FOLLOWING 1/2"=1'-0" SCALE DETAILS ARE AN EXTENSION OF THE DIAGRAMMATIC BUILDING SECTION. FOR ANY ITEM NOT SHOWN OR NOT LABELED, SEE DETAIL "F1" ABOVE FOR ADDITIONAL INFORMATION.

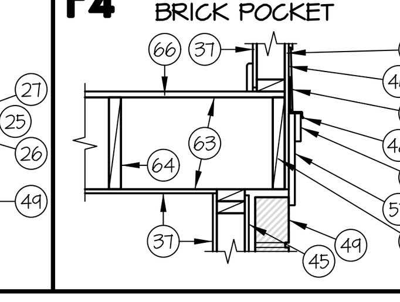
F2 GABLE SIDING WITH OVERHANG / GABLE SIDING FLUSH OVERHANG



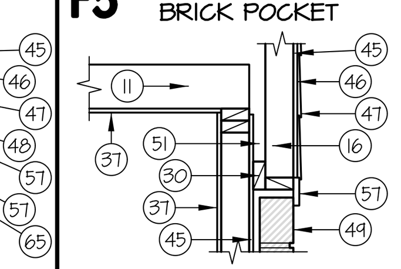
F3 BRICK GABLE WITH OVERHANG / BRICK GABLE FLUSH OVERHANG



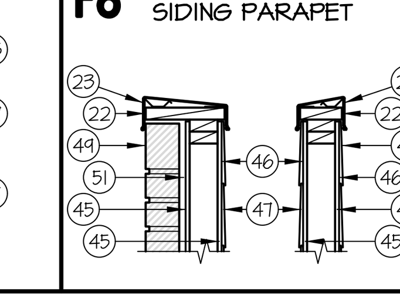
F4 CANTILEVER OVER BRICK POCKET



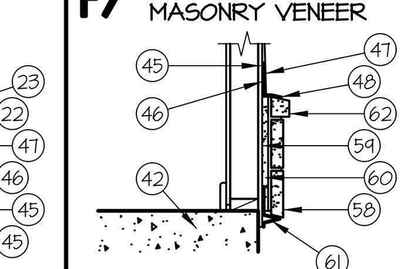
F5 GABLE END OVER BRICK POCKET



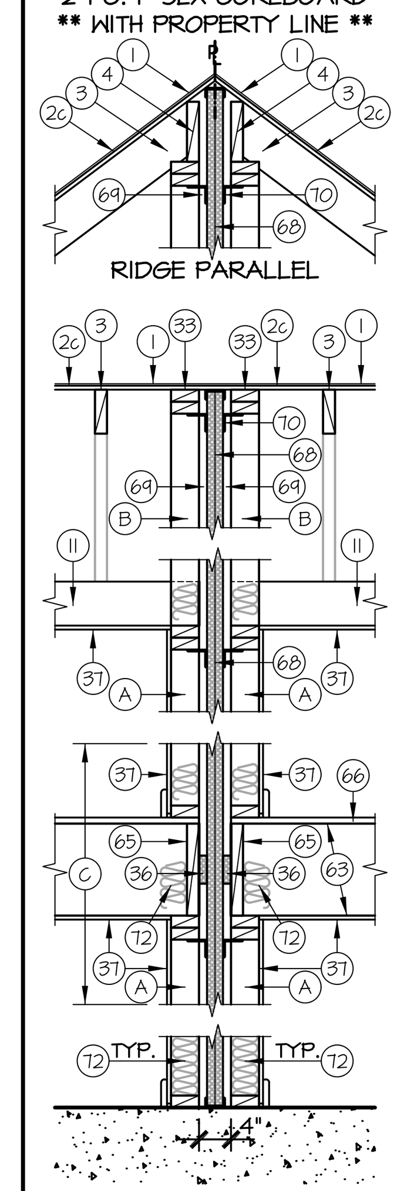
F6 BRICK AND/OR SIDING PARAPET



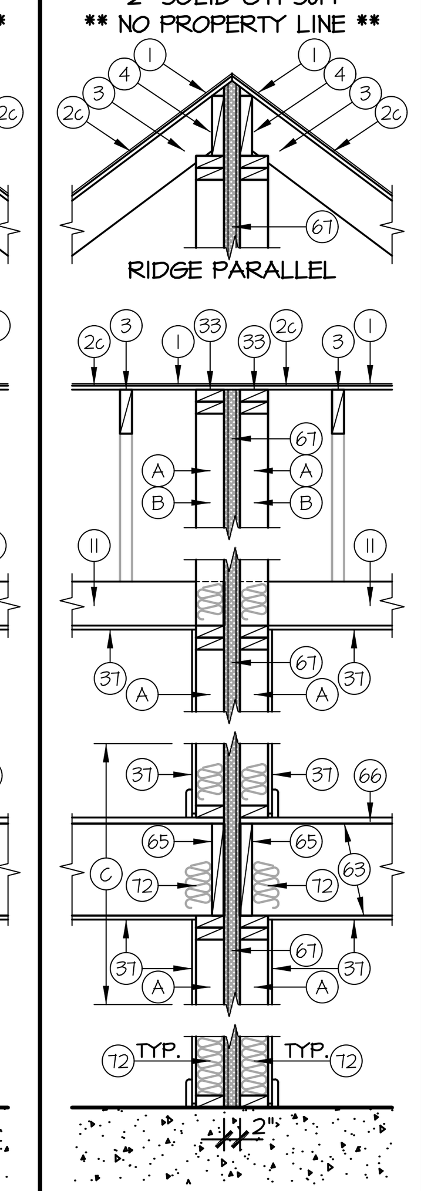
F7 ADHERED MASONRY VENEER



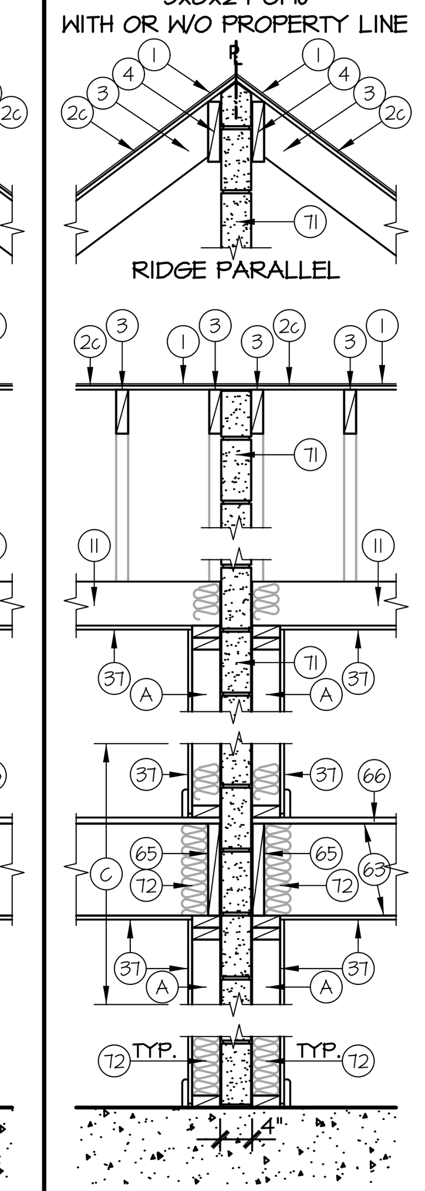
F8 2-HOUR FIRE RATED WALL UL-U373 ANSI/UL 263
2-PC. 1" SLX COREBOARD
** WITH PROPERTY LINE **



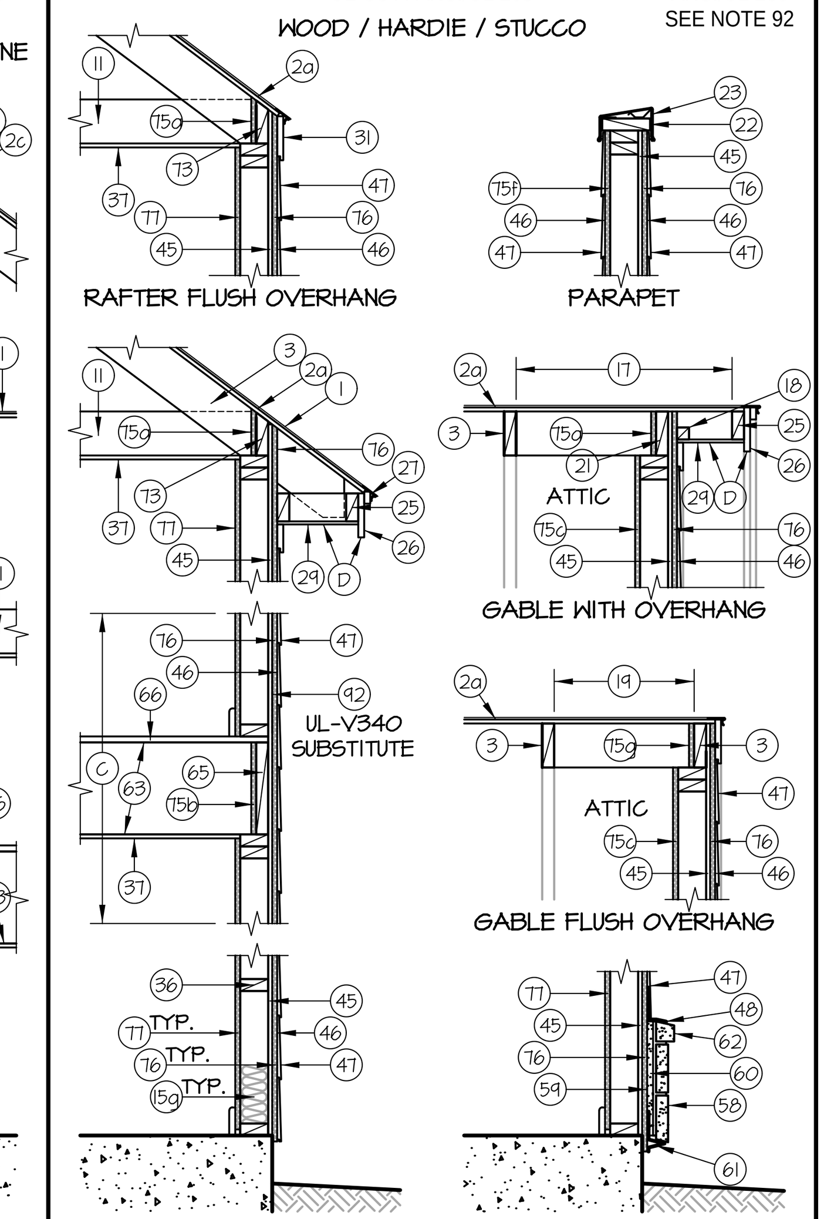
F9 2-HOUR FIRE RATED WALL UL-U529 ANSI/UL 263
2" SOLID GYPSUM
** NO PROPERTY LINE **



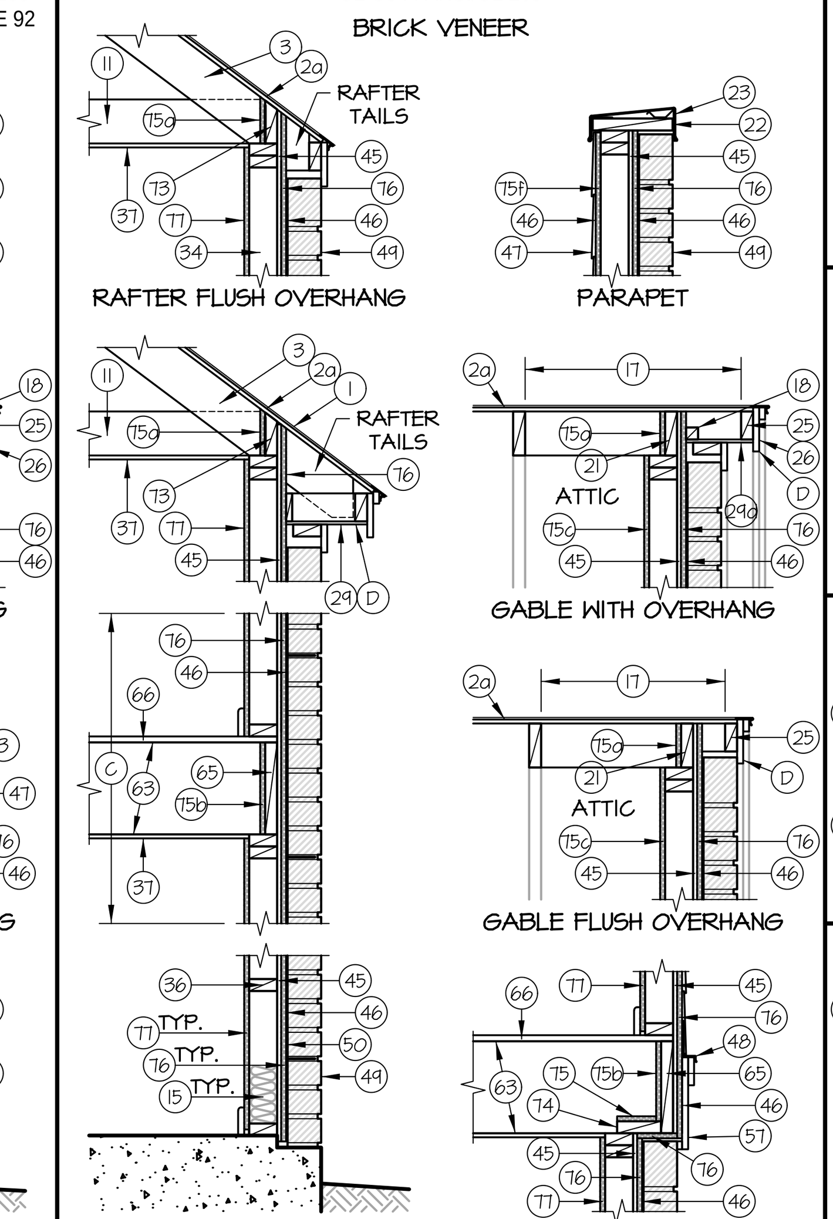
F10 2-HOUR FIRE RATED WALL UL-U919 ANSI/UL 263
3x8x24 CMU
WITH OR W/O PROPERTY LINE



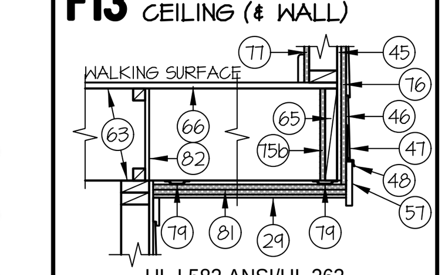
F11 1-HOUR FIRE RATED WALL UL-U344 ANSI/UL 263 — FOR UL-V340 ANSI/UL 263 SEE NOTE 92
WOOD / HARDIE / STUCCO



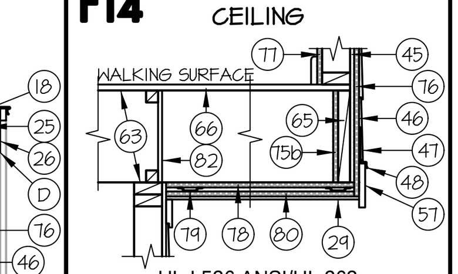
F12 1-HOUR FIRE RATED WALL UL-U344 ANSI/UL 263
BRICK VENEER



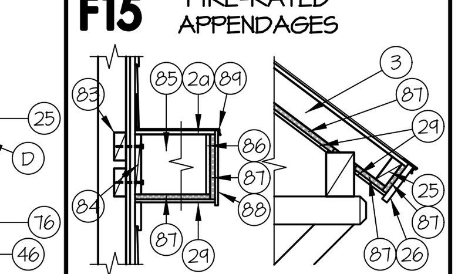
F13 1-HOUR RATED CEILING (& WALL)



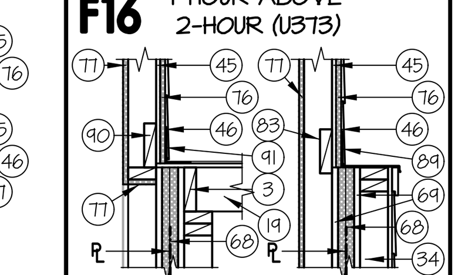
F14 2-HOUR RATED CEILING



F15 FIRE-RATED APPENDAGES



F16 1-HOUR ABOVE 2-HOUR (U373)



PW+A

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AMERICAN INSTITUTE OF BUILDING DESIGN

REDRAW: 2015 IRC

TABLE R302.1(1) EXTERIOR WALLS (No Sprinkler)

EXTERIOR WALL ELEMENT		MINIMUM FIRE RATING	MINIMUM SEPARATION DISTANCE
WALLS	FIRE-RESISTANCE RATED	1-HOUR (c)	< 5 FEET
	NON FIRE-RESISTANCE RATED	0 HOURS	>= 5 FEET
PROJECTIONS	NOT ALLOWED	N/A	< 2 FEET
	FIRE-RESISTANCE RATED	1-HOUR ON THE UNDERSIDE (a,b)	>= 2 FEET TO < 5 FEET
	NON FIRE-RESISTANCE RATED	0-HOURS	>= 5 FEET
OPENINGS IN WALLS	NOT ALLOWED	N/A	< 3 FEET
	25% MAXIMUM OF WALL AREA	0-HOURS	3 FEET
	UNLIMITED	0-HOURS	5 FEET
PENETRATIONS	ALL	SEE R302.4	< 3 FEET
		NONE REQUIRED	3 FEET

FOOTNOTES:

a. ROOF EAVE FIRE-RESISTANCE RATING REDUCED TO 0-HOURS ON THE UNDERSIDE OF THE EAVE IF FIREBLOCKING IS PROVIDED FROM THE WALL TOP PLATE TO THE UNDERSIDE OF THE ROOF SHEATHING.

b. ROOF EAVE FIRE-RESISTANCE RATING REDUCED TO 0-HOURS ON THE UNDERSIDE OF THE EAVE PROVIDED THAT GABLE VENT OPENINGS ARE NOT INSTALLED.

c. AS TESTED PER ASTM E 119 OR UL 263 WITH EXPOSURE FROM BOTH SIDES.

R302.2 TOWNHOUSES COMMON WALL

WHERE A FIRE SPRINKLER SYSTEM IS NOT PROVIDED, THE COMMON WALL SHALL BE NOT LESS THAN A 2-HOUR FIRE-RESISTANCE RATED WALL ASSEMBLY TESTED IN ACCORDANCE WITH ASTM E 119 OR UL 263.

FIREBLOCKING MATERIALS — R302.11

1. 2-INCH NOMINAL LUMBER
2. TWO THICKNESS OF 1-INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS.
3. ONE THICKNESS 23/32-INCH WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 23/32-INCH WOOD STRUCTURAL PANELS.
4. ONE THICKNESS OF 3/4-INCH PARTICLE BOARD WITH JOINTS BACKED BY 3/4-INCH PARTICLE BOARD.
5. 1/2-INCH GYPSUM BOARD (TYPE C).
6. 1/4-INCH CEMENT-BASED MILLBOARD.
7. BATTS OR BLANKETS OF MINERAL WOOL OR GLASS FIBER OR OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE.
8. CELLULOSE INSULATION INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E119 OR UL 263, FOR THE SPECIFIC APPLICATION.

THROUGH PENETRATIONS — R302.4.1

PENETRATING ITEMS THRU FIRE-RESISTANCE RATED ASSEMBLIES SHALL BE STEEL, FERROUS OR COPPER PIPES, TUBES OR CONDUITS WHERE THE ANNULAR SPACE SHALL BE PROTECTED AS FOLLOWS:

1. FOR CONCRETE OR MASONRY WALLS OR FLOOR ASSEMBLIES, CONCRETE, GROUT OR MORTAR IS PERMITTED FOR THE FULL THICKNESS OF THE WALL OR FLOOR ASSEMBLY. THE NOMINAL DIAMETER OF THE PENETRATING ITEM IS NOT MORE THAN 6 INCHES AND THE AREA OF THE OPENING THRU THE WALL DOES NOT EXCEED 144 SQUARE INCHES.
2. FOR ALL OTHER WALL OR FLOOR ASSEMBLIES, THE MATERIAL USED TO FILL THE ANNULAR SPACE SHALL PREVENT PASSAGE OF FLAME AND HOT GASSES UNDER A PRESSURE DIFFERENTIAL OF NOT LESS THAN 0.01 INCHES OF WATER FOR THE TIME PERIOD EQUIVALENT TO THE FIRE-RESISTANCE RATING OF THE CONSTRUCTION PENETRATED.

FIRE-FOAM SEALANT AT FIRE-RATED ASSEMBLIES

FIRE-FOAM SEALANT SHALL BE APPLIED AT THE FOLLOWING LOCATIONS:

1. ALL EDGES WHERE GYPSUM MEETS WOOD.
2. ALL GYPSUM GAPS THAT EXCEED 1/8 INCH.
3. AROUND ALL PIPING THRU PENETRATIONS.
4. AROUND ALL UL-LISTED ELECTRICAL BOXES.

FIRE-FOAM SHALL BEAR ONE OF THE FOLLOWING TESTING METHODS: ASTM E84, ASTM E814, UL 1715, OR NFPA 286.

GENERAL DETAIL NOTES

1. THE DRAWINGS AND DETAILS SHOWN ON THIS PAGE REPRESENT SITUATIONS THAT MAY BE ENCOUNTERED WITHIN A PARTICULAR DOCUMENT SET. SELECT DRAWINGS AND/OR DETAILS SHOWN ON THIS PAGE MAY NOT APPLY TO THIS DOCUMENT. PLEASE REFERENCE THE DOCUMENT BODY FOR CALLOUTS TO THESE DETAILS.
2. ANY DETAILS SHOWN IN THE DOCUMENT BODY THAT IS SIMILAR TO THE DETAIL(S) SHOWN ON THIS PAGE SHALL TAKE PRECEDENCE OVER THE DETAILS SHOWN ON THIS PAGE.
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GENERAL AND FIRE-RATED DETAILS

CODE EDITION: 2021 IRC
WITH CITY OF HOUSTON AMENDMENTS
AND OTHER BUILDING CODES AS REQUIRED

PWA Project Number
A09-IRC2021_Houston — A9-01

PERMIT SET — Date: 3 April 2024

BRICK VENEER NOTES R703.8

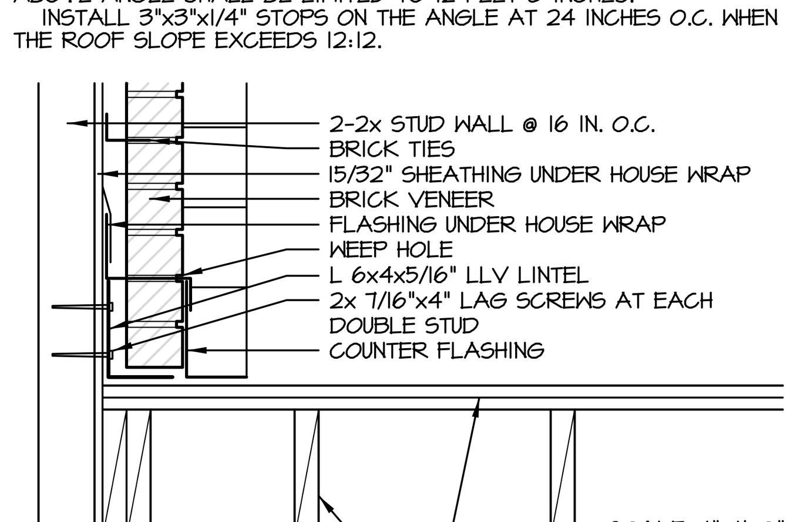
VENEER TIES:
1. STRAND WIRE SHALL BE NO LESS THAN NO. 9 U.S. GAGE AND SHALL HAVE A HOOK EMBEDDED IN THE MORTAR JOINT.
2. SHEET METAL SHALL BE NO LESS THAN NO. 22 U.S. GAGE BY 7/8 INCH CORRUGATED.
EACH TIE SHALL SUPPORT NO MORE THAN 2.67 SQUARE FEET OF WALL AREA AND SHALL BE SPACED NO MORE THAN 32 INCHES HORIZONTALLY AND 24 INCHES VERTICALLY. TIES SHALL BE PLACED NO GREATER THAN 12 INCHES AWAY FROM ANY WALL OPENING OR WALL CORNER.

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.

WEEPHOLES:
PROVIDE WEEPHOLES IN THE OUTSIDE WYTHE OF MASONRY WALLS AT A MAXIMUM SPACING OF 33 INCHES ON CENTER. WEEPHOLES SHALL NOT BE LESS THAN 3/16 INCH IN DIAMETER. WEEPHOLES 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. THE LINTELS SHALL HAVE A LENGTH OF BEARING NO LESS THAN 4 INCHES. STEEL LINTELS SHALL BE SHOP COATED WITH RUST-INHIBITIVE PAINT OR TREATED TO PROVIDE CORROSION-RESISTANCE.

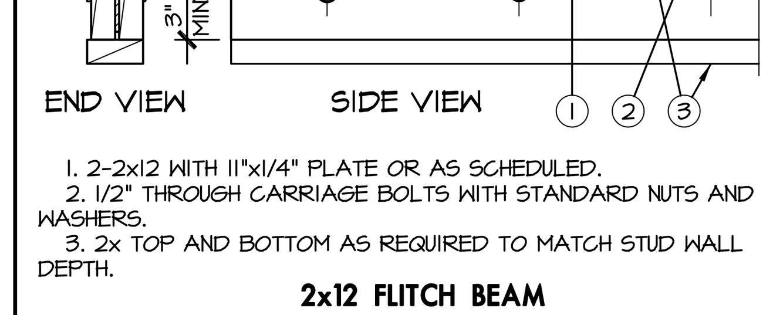
LINTEL w/BRICK VENEER ON LOWER ROOF:
PROVIDE MINIMUM 6"x4"x5/16" LLV STEEL ANGLE ANCHORED TO DOUBLE 2x4 STUDS AT MAXIMUM 16 INCH O.C. SPACING. STEEL ANGLE SHALL BE ANCHORED AT EACH DOUBLE STUD WITH NO LESS THAN TWO 7/16 INCH DIA. BY 4 INCH LAG SCREWS. MINIMUM CLEARANCE UNDER THE ANGLE NO LESS THAN 1/16 INCH. THE MASONRY VENEER SHALL BEAR ON THE ANGLE NO LESS THAN 2/3 THE WIDTH OF THE MASONRY VENEER THICKNESS. MAXIMUM HEIGHT ABOVE ANGLE SHALL BE LIMITED TO 12 FEET 8 INCHES.
INSTALL 3"x3"x1/4" STOPS ON THE ANGLE AT 24 INCHES O.C. WHEN THE ROOF SLOPE EXCEEDS 12:12.



LINTEL w/BRICK VENEER ON LOWER ROOF

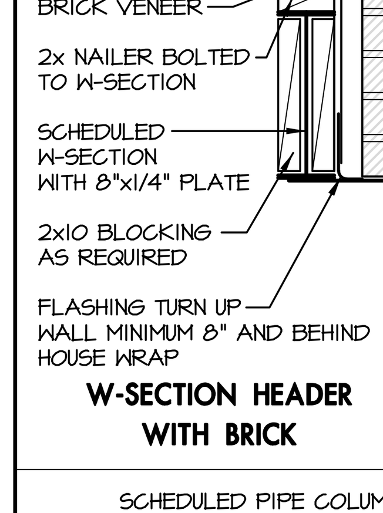
STEEL NOTES AND DETAILS 1" = 1'-0"

1. ALL MISCELLANEOUS STRUCTURAL STEEL PLATES AND SECTIONS SHALL CONFORM TO ASTM A-36.
2. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B OR ASTM 501.
3. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B.
4. ALL DETAILING SHALL CONFORM TO CURRENT AISC SPECIFICATIONS.
5. ALL WELDING SHALL CONFORM TO CURRENT AMERICAN WELDING SOCIETY SPECIFICATIONS FOR MATERIAL BEING WELDED AND BE PERFORMED BY CERTIFIED WELDERS.
6. ALL BOLTS SHALL BE UNFINISHED ASTM A-307, UNLESS OTHERWISE NOTED.
7. ALL STRUCTURAL STEEL AND MISCELLANEOUS IRON NOT ENCASED IN CONCRETE SHALL RECEIVE ONE SHOP COAT OF APPROVED PRIMER PAINT.

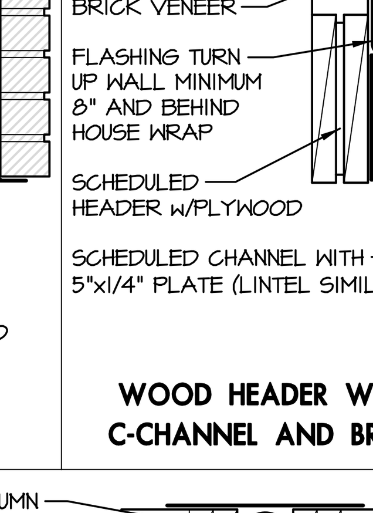


1. 2-2x12 WITH 11"x1/4" PLATE OR AS SCHEDULED.
2. 1/2" THROUGH CARRIAGE BOLTS WITH STANDARD NUTS AND WASHERS.
3. 2x TOP AND BOTTOM AS REQUIRED TO MATCH STUD WALL DEPTH.

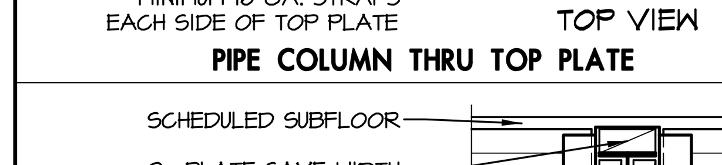
2x12 FLITCH BEAM



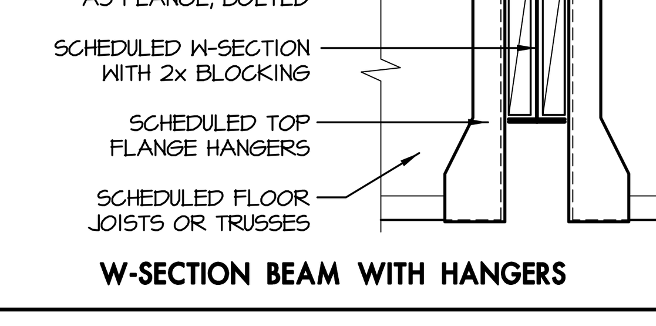
W-SECTION HEADER WITH BRICK



WOOD HEADER WITH C-CHANNEL AND BRICK



PIPE COLUMN THRU TOP PLATE



W-SECTION BEAM WITH HANGERS

MASONRY VENEER LINTEL SPANS R703.8

Angle Size (inches) (1)	No Story Above	One Story Above	Two Stories Above	Reinforcing Bars (2)
3 x 3 x 1/4"	6'-0"	4'-6"	3'-0"	1
4 x 3 x 1/4"	8'-0"	6'-0"	4'-6"	1
5x3-1/2x5/16"	10'-0"	8'-0"	6'-0"	2
6x3-1/2x5/16"	14'-0"	9'-6"	7'-0"	2
2-6x3-1/2x5/16"	20'-0"	12'-0"	9'-6"	4

1. LONG LEG OF THE ANGLE SHALL BE PLACED VERTICALLY (LLV).
2. NUMBER OF 1/2-IN. OR EQUIVALENT REINFORCING BARS WHERE A REINFORCED (CMU) LINTEL IS USED.

ATTIC ACCESS NOTES R807 M1305

1. PROVIDE ATTIC ACCESS WHEN AN ATTIC AREA EXCEEDS 30 SQ. FT. AT A HEIGHT OF 30 INCHES OR GREATER. THE ACCESS OPENING IS NO LESS THAN 22 IN. BY 30 IN. WITH A MINIMUM ATTIC HEADROOM CLEARANCE OF 30 IN.
2. WHERE THERE IS MECHANICAL EQUIPMENT IN THE ATTIC, PROVIDE A MINIMUM WALL OPENING OF 22 IN. WIDE BY 30 IN. TALL OR LARGE ENOUGH TO REMOVE THE LARGEST APPLIANCE.
3. PROVIDE A 22 IN. MINIMUM BY 54 IN. PULL-DOWN STAIRS RATED AT 350 LBS. WHERE CEILING ACCESS TO MECHANICAL EQUIPMENT.

ATTIC VENTILATION NOTES R806

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.

UNDER FLOOR SPACE VENTILATION NOTES R408

PROVIDE ONE SQUARE FOOT NET AREA OF OPENING FOR EACH 150 SQUARE FOOT OF UNDER FLOOR AREA.
WHERE A CLASS I VAPOR RETARDER MATERIAL IS USED, THE MINIMUM NET AREA OPENING SHALL NOT BE LESS THAN 1 SQUARE FOOT FOR EACH 1500 SQUARE FEET OF UNDER FLOOR AREA.
ONE SUCH VENTILATING OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING.
NOTE: SELF-ACTUATING FLOOD VENT LOUVERS DO NOT COUNT TOWARDS UNDER FLOOR SPACE VENT AREA OPENING.

ELECTRICAL AND VENTILATION NOTES M1507 E3902

1. ELECTRICAL PLANS ARE PROVIDED FOR DESIGN INTENT ONLY. VERIFY LOCATIONS OF FIXTURES, SWITCHES, OUTLETS AND EQUIPMENT WITH A LICENSED PROFESSIONAL ELECTRICIAN.
2. PROVIDE GROUND-FAULT (GFCI) OUTLETS WITHIN 6-FEET OF SINKS, IN GARAGES, ALL EXTERIOR WATERPROOF OUTLETS, AND IN CRAWL SPACES.
3. WHERE REQUIRED, PROVIDE ARC-FAULT (AFCI) OUTLETS AT THE FIRST OUTLET ON THE BRANCH CIRCUIT.
4. PROVIDE 110V OUTLET AND SWITCHED LIGHT IN ATTIC NEAR H.V.A.C. EQUIPMENT. LOCATE SWITCH NEAR (IF NOT OUTSIDE) ATTIC ACCESS.
5. ALL ELECTRICAL DEVICES LOCATED BELOW THE MINIMUM FLOOD PROTECTION ELEVATION (MFPE) SHALL BE ON A SEPARATE CIRCUIT.
6. PROVIDE VENTILATION AT ALL BATHS AND UTILITY ROOMS. THE (LOCAL) EXHAUST RATE SHALL BE A MINIMUM OF 50 CFM.
7. WHEN EXHAUST VENTS EXITS THROUGH THE ROOF DECKING, THE MINIMUM TERMINATION DISTANCE IS 5'-0" FROM ANY PROPERTY LINE.
8. KITCHEN RANGE HOODS SHALL DISCHARGE TO THE OUTDOORS AND HAVE A MINIMUM (LOCAL) EXHAUST RATE OF 100 CFM.
9. WHERE EXHAUST HOOD SYSTEMS EXCEED 400 CFM, MAKE UP AIR SHALL BE PROVIDED AT APPROXIMATELY EQUAL TO THE EXHAUST RATE AND BE AUTOMATICALLY CONTROLLED TO OPERATE SIMULTANEOUSLY WITH THE EXHAUST SYSTEM.
10. GARAGE DOOR OPENERS REQUIRE SHUTOFF AND REVERSE SENSORS AT BOTH SIDES OF THE OVERHEAD DOOR.

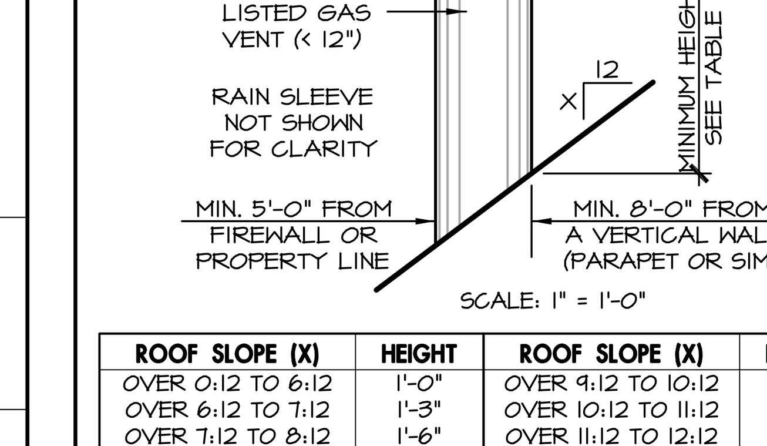
EXTERIOR COVERING & WEEP SCREEDS NOTES R703

1. AN APPROVED WATER-RESISTIVE BARRIER, MINIMUM ONE LAYER 15 lb. FELT, SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS.
2. SELF-ADHERED (RUBBERIZED) MEMBRANES USED AS FLASHING SHALL COMPLY WITH AAMA 711.
3. METAL OR WIRE LATH AND LATH ATTACHMENTS SHALL BE OF CORROSION-RESISTANT MATERIALS.
4. PLASTERING WITH PORTLAND CEMENT PLASTER SHALL NOT BE LESS THAN THREE COATS WHERE APPLIED OVER METAL OR WIRE LATH.
5. NO. 26 GAGE CORROSION-RESISTANT WEEP SCREEDS SHALL HAVE A VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES AND PLACED AT OR BELOW THE FOUNDATION PLATE LINE. THE WEEP SCREED SHALL BE PLACED NOT LESS THAN 4 INCHES ABOVE THE EARTH OR NOT LESS THAN 2 INCHES ABOVE PAVED AREAS. FASTENERS USED TO ATTACH SCREEDS SHALL BE CORROSION-RESISTANT.
6. EXTERIOR PLASTER SHALL INCLUDE A WATER-RESISTIVE BARRIER, TWO LAYERS OF GRADE D PAPER MINIMUM, THAT WILL LAP OVER THE WEEP SCREED ATTACHMENT FLANGE.
7. FIBER CEMENT PANEL SIDING SHALL BE MINIMUM GRADE II.
8. ADHERED MASONRY VENEER SHALL BE INSTALLED A MIN. 4 IN. ABOVE EARTH, 2 IN. ABOVE PAVED AREAS, OR MIN. 1/2 IN. ABOVE EXTERIOR WALKING SURFACES AND SHALL INCLUDE WEEP SCREEDS.

FIREPLACE AND CHIMNEY NOTES R1003

1. ALL BRICK OR PREFAB FIREPLACES TO BE BUILT AND INSTALLED PER CURRENT BUILDING CODE EDITION AND BE U.L. AND I.C.B.O. APPROVED. A COPY OF THE MANUFACTURER INSTALLATION MANUAL WILL BE AVAILABLE ON SITE FOR INSPECTOR REVIEW.
2. CHIMNEYS TO BE A MINIMUM 2 FEET ABOVE ANY ROOF LINE WITHIN A 10 FOOT RADIUS OR 3 FEET FROM ANY ROOF LINE (RIDGE).
3. CHIMNEY PIPE SHALL EXIT THROUGH THE ROOF DECKING INSIDE ALL BUILDING AND SETBACK LINES.
4. PROVIDE SPARK ARRESTORS AT CHIMNEY. MESH TO HAVE MAXIMUM GAP OF 1/2 INCH TO A MINIMUM GAP OF 3/8 INCH.
5. FOR A DIRECT VENT, FUEL-FIRED APPLIANCE THAT TERMINATES OUT A WALL THAT IS FACING A PROPERTY LINE, THE WALL SHALL NOT BE CLOSER THAN 4 FEET TO THE PROPERTY LINE.
6. FIREPLACES LOCATED IN A SLEEPING SPACE SHALL BE OF DECORATIVE TYPE WITH A SEALED BOX AND HAVE FRESH AIR INTAKE FROM THE OUTDOORS.

GAS APPLIANCE VENT TERMINATION NOTES G2426 G2427



ROOF SLOPE (X)	HEIGHT	ROOF SLOPE (X)	HEIGHT
OVER 0:12 TO 6:12	1'-0"	OVER 9:12 TO 10:12	2'-6"
OVER 6:12 TO 7:12	1'-3"	OVER 10:12 TO 11:12	3'-3"
OVER 7:12 TO 8:12	1'-6"	OVER 11:12 TO 12:12	4'-0"
OVER 8:12 TO 9:12	2'-0"	OVER 12:12 TO 14:12	5'-0"

1. ALL GAS APPLIANCE VENTS TO EXIT AN EXTERIOR WALL LOCATED NO LESS THAN 4'-0" FROM ANY PROPERTY LINE OR COMMON WALL.
2. DISTANCE OF GAS VENT PIPES THROUGH A EXTERIOR WALL PERPENDICULAR TO A PROPERTY LINE OR COMMON WALL TO BE MINIMUM OF 4 FEET FROM THE PROPERTY LINE OR COMMON WALL.
3. GAS APPLIANCE VENT PIPES THAT EXITS THRU THE ROOF DECKING SHALL BE LOCATED A MINIMUM 5 FEET FROM ANY PROPERTY LINE OR CENTERLINE OF ANY COMMON WALL. DIRECT THE VENT PIPE TO A BACK OR SIDE ROOF PLANE.
4. GAS VENT PIPES THAT ARE 12 INCHES OR LESS IN SIZE SHALL BE LOCATED NO CLOSER THAN 8 FEET FROM A VERTICAL WALL OR SIMILAR OBSTRUCTION.

INSULATION MINIMUMS - CLIMATE ZONE 2A N1102.1.2

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

CEILING UNDER ATTIC:	R-38
CEILING UNDER OUTSIDE:	R-38
ABOVE GRADE WALLS (2x4):	R-13
FLOORS OVER UNCONDITIONED CRAWL SPACE:	R-13
FLOORS OVER UNCONDITIONED SPACE (GARAGE):	R-13
FLOORS OVER OUTSIDE:	R-13
CONDITIONED CRAWL SPACE - 2x4/2x6 WALLS:	R-6
BASEMENT WALLS:	R-0
SLABS:	R-0
DUCTWORK IN ATTIC/UNCONDITIONED SPACES:	R-8
DUCTWORK IN CONDITIONED SPACES:	R-6

CLOTHES DRYER AND HOOD VENT EXHAUSTS

M1502 M1503 M1506

CLOTHES DRYER:
1. CLOTHES DRYER DUCTS SHALL TERMINATE NOT LESS THAN 3 FEET IN ANY DIRECTION FROM OPENINGS INTO BUILDINGS AND BE EQUIPPED WITH A BACKDRAFT DAMPER.
2. SCREENS SHALL NOT BE INSTALLED AT THE TERMINATION.
3. DUCT SIZE SHALL BE 4 INCHES IN DIAMETER OF NO. 28 GAGE METAL WITH A MAXIMUM LENGTH OF 35 FEET. ELBOW FITTING EQUIVALENT LENGTH WILL COUNT TOWARDS TOTAL DUCT LENGTH.
RANGE HOODS:
1. DUCTS SERVING RANGE HOODS SHALL TERMINATE OUTSIDE THE BUILDING PROPER AND BE EQUIPPED WITH A BACKDRAFT DAMPER.
2. MAKEUP AIR IS REQUIRED WHEN EXHAUST RATE IS GREATER THAN 400 C.F.M.
EXHAUST OPENINGS:
OPENINGS SHALL TERMINATE NO LESS THAN 3 FEET FROM PROPERTY LINES, 3 FEET FROM OPERABLE AND NON-OPERABLE OPENINGS INTO THE BUILDING, AND 10 FEET FROM AIR INTAKES EXCEPT WHERE THE OPENING IS LOCATED 3 FEET ABOVE THE AIR INTAKE.

MECHANICAL ACCESS AND HVAC NOTES

M1305 M1307 M1401

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. LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQ. FT. FLOOR AREA AT 0.1 IN. W.G. BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS.
2. THE SUPPLY AND RETURN CHASES SHOWN ON THE FLOOR PLAN(S) ARE DIAGRAMMATIC AND SHALL BE USED FOR GENERAL LAYOUT AS ADVISED BY THE MECHANICAL CONTRACTOR. ANY CHASE SHOWN THAT IS LARGER THAN THE SPECIFIED DUCTWORK SHALL BE RESIZED WHERE ANY LEFTOVER SPACE SHALL BE GIVEN BACK TO THE ROOM THAT THE CHASE IS LOCATED IN. ANY CHASE THAT IS SHOWN ON THE PLAN THAT WILL NOT BE USED SHALL BE REMOVED FROM THE SPACE IN WHICH THE UNUSED CHASE IS LOCATED IN. ANY CHASE THAT SHOWS 2 INCH WALLS ARE CHASES THAT ARE INSTALLED AFTER THE DUCTWORK INSTALLATION IS COMPLETED (FURR-WALLS).
3. PROVIDE A MIN. 24 IN. WIDE CONTINUOUS PLYWOOD WALKWAY TO ACCESS ALL MECHANICAL EQUIPMENT LOCATED IN THE ATTIC.
4. PASSAGEWAY SIZE SHALL BE NO LESS THAN ~~22~~ 30 IN. WIDE AND 30 IN. TALL AND HAVE A MAXIMUM LENGTH OF 20 FEET FROM THE ATTIC ACCESS TO EQUIPMENT. WHERE THE PASSAGEWAY IS UNOBSTRUCTED AND NOT LESS THAN 22 IN. WIDE AND NOT LESS THAN 6 FEET TALL FOR THE ENTIRE LENGTH, THE PASSAGEWAY SHALL NOT BE MORE THAN 50 FEET LONG.
5. PROVIDE A MINIMUM 30 IN. BY 30 IN. LEVEL SERVICE PLATFORM AT THE SERVICE SIDE OF ALL EQUIPMENT IN THE ATTIC.
6. APPLIANCES WITH AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF THE IGNITION IS NOT LESS THAN 18 INCHES ABOVE THE GARAGE FLOOR.
7. CLOSET HVAC UNITS SHALL OBSERVE ALL CLEARANCES AND MINIMUM SERVICE AREAS AS SHOWN IN THE CURRENT BUILDING CODE EDITION.
8. CLOTHES DRYER LOCATED IN A UTILITY CLOSET SHALL HAVE A MINIMUM 100 SQ. INCH OPENING TO THE CLOSET FOR MAKEUP AIR.

PLUMBING AND WATER HEATER NOTES P2700 P2801

1. ALL FLOOR DRAINS TO HAVE OVERFLOW PAN WITH RELIEF LINE TO OUTSIDE OR STORM SEWER (DO NOT CONNECT TO SANITARY SEWER). ONE CONNECTION TO A LAVATORY TAILPIECE IS ALLOWED.
2. CLOTHES WASHERS THAT ARE LOCATED ON A FLOOR LEVEL THAT WILL POSE WATER DAMAGE SHALL HAVE A METAL PAN WITH A 2 IN. DRAIN AND RELIEF LINE DIRECTED TO OUTSIDE. THE RELIEF LINE SHALL NOT BE CONNECTED TO THE SANITARY SEWER. PROVIDE A METAL PAN USING ONE OF THESE METHODS:
a. UNDER THE CLOTHES WASHER ONLY.
b. IN THE SPACE PROVIDED FOR BOTH WASHER AND DRYER.
c. THE ENTIRE UTILITY ROOM OR UTILITY CLOSET.
3. PROVIDE PLUMBING ACCESS PANEL AT ALL SLIP JOINTS AND WHIRLPOOL MOTORS.
4. PROVIDE ADEQUATE FURRING SO VENT AND SOIL PIPES DO NOT PENETRATE PLATES.
5. ALL PLUMBING VENTS SHALL EXIT THROUGH A ROOF PLANE THAT SLOPES TO THE BACK. COLOR COORDINATE TERMINATION TO ROOF MATERIAL AS SCHEDULED.
6. LOCATE WATER HEATER IN ATTIC, ABOVE A LOAD BEARING PARTITION, IN AN APPROVED PAN, MINIMUM 1-1/2 IN. TALL, WITH A MIN. 3/4 IN. RELIEF LINE TO AN INDIRECT WASTE PIPE OR TO OUTSIDE. PROVIDE DECKING BELOW THE PAN.
7. PROVIDE ADEQUATE ATTIC VENTILATION FOR GAS WATER HEATER.
8. IN-LINE (TANKLESS) WATER HEATER INSTALLATION SHALL FOLLOW THE CURRENT BUILDING CODE EDITION.
9. TEMPERATURE-ACTUATED MIXING VALVES SHALL BE INSTALLED AT ALL BATHTUBS AND WHIRLPOOL BATHTUBS. OMIT WHERE TUB/SHOWER COMBINATION.

FLOOR/CEILING/RAFTER SPAN TABLES

SELECT VALUES FOR SOUTHERN YELLOW PINE (S.Y.P.)

SIZE	#2 GRADE S.Y.P. @ 19% M.C.			#3 GRADE S.Y.P. @ 19% M.C.		
	12" O.C.	16" O.C.	24" O.C.	12" O.C.	16" O.C.	24" O.C.
FLOOR JOIST DL: 10 PSF, LL: 40 PSF, L/R: 360 (R502.3)						
2x6	10'-3"	9'-4"	7'-7"	8'-2"	7'-1"	5'-9"
2x8	13'-6"	11'-10"	9'-8"	10'-3"	8'-11"	7'-3"
2x10	16'-2"	14'-0"	11'-5"	12'-6"	10'-10"	8'-10"
2x12	19'-1"	16'-6"	13'-6"	14'-9"	12'-10"	10'-5"
CEILING JOIST DL: 5 PSF, LL: 10 PSF, L/R: 240 W/O STORAGE (R802.4)						
2x6	18'-8"	16'-11"	13'-11"	14'-11"	12'-11"	10'-6"
2x8	24'-7"	21'-7"	17'-7"	18'-9"	16'-3"	13'-3"
2x10	> 26'-0"	25'-7"	20'-11"	22'-9"	19'-9"	16'-1"
RAFTER DL: 10 PSF, LL: 20 PSF, L/R: 180 (COMPOSITION) (R802.5)						
2x6	15'-7"	13'-6"	11'-0"	11'-9"	10'-2"	8'-4"
2x8	19'-8"	17'-1"	13'-11"	14'-10"	12'-10"	10'-6"
2x10	23'-5"	20'-3"	16'-6"	18'-0"	15'-7"	12'-9"
RAFTER SPAN DL: 10 PSF, LL: 20 PSF, L/R: 240 (TILE ROOF) (R802.5)						
2x6	14'-9"	13'-5"	11'-0"	11'-9"	10'-2"	8'-4"
2x8	19'-6"	17'-1"	13'-11"	14'-10"	12'-10"	10'-6"
2x10	23'-5"	20'-3"	16'-6"	18'-0"	15'-7"	12'-9"

HEADER SPAN TABLE

ROOF AND CEILING LOAD ONLY. MAXIMUM ROOM WIDTH: 20'-0" (R602.7)

HEADER SIZE	2-2x6	2-2x8	2-2x10	2-2x12	3-2x8	3-2x10	3-2x12
MAXIMUM SPAN	5'-5"	6'-10"	8'-5"	9'-9"	8'-4"	10'-6"	12'-2"
JACK STUDS	1	1	2	2	1	1	2

STUD NOTCHING AND BORED HOLE LIMITATIONS

BEARING WALLS: R602
1. BORED HOLE MAXIMUM DIAMETER 40% OF STUD DEPTH.
2. BORED HOLE LOCATION NO CLOSER THAN 5/8-INCH TO EDGE OF STUD.
3. IF BORED HOLE IS BETWEEN 40% AND 60% OF STUD DEPTH, THEN STUD MUST BE DOUBLE AND NO MORE THAN 2 SUCCESSIVE STUDS ARE DOUBLED AND SO BORED.
4. BORED HOLES MUST NOT BE LOCATED IN THE SAME CROSS SECTION OF CUT OR NOTCH IN STUD.
5. NOTCH MUST NOT EXCEED 25% OF STUD DEPTH.
NONBEARING WALLS:
1. BORED HOLE MAXIMUM DIAMETER 60% OF STUD DEPTH.
2. BORED HOLE LOCATION NO CLOSER THAN 5/8-INCH TO EDGE OF STUD.
3. BORED HOLES MUST NOT BE LOCATED IN THE SAME CROSS SECTION OF CUT OR NOTCH IN STUD.
4. NOTCH MUST NOT EXCEED 40% OF STUD DEPTH.

FASTENING SCHEDULE R602

Item	Building Elements Description	Fastener Number and Type	Spacing and Location
ROOF			
1	BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE	4-8d box or 3-8d common or 3-10d box	TOENAIL
2	CEILING JOIST TO TOP PLATE	4-8d box or 3-8d common or 3-10d box	PER JOIST, TOENAIL
3	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS.	4-10d box or 3-8d common	FACE NAIL
4	CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	See Table R802.5.1(9)	FACE NAIL
5	COLLAR TIE TO RAFTER, FACE NAIL OR 1 1/4"x20 GA. RIDGE STRAP TO RAFTER	4-10d box or 3-10d common	FACE NAIL EACH RAFTER
6	RAFTER OR ROOF TRUSS TO PLATE	3-16d box or 3-10d common or 4-10d box	2 TOENAILS ONE SIDE, 1 TOENAIL OPPOSITE SIDE OF EACH RAFTER OR TRUSS
7	ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d or 3-10d common or 4-10d box	TOENAIL
		3-16d box or 2-16d common or 3-10d box	END NAIL
WALL			
8	STUD TO STUD	16d common	24" O.C. FACE NAIL
		10d Box	16" O.C. FACE NAIL
9	STUD TO STUD AND ABUTING STUDS AT INTERSECTING WALL CORNERS	16d box	12" O.C. FACE NAIL
		16d common	16" O.C. FACE NAIL
10	BUILT-UP HEADER	16d common	16" O.C. EACH EDGE FACE NAIL
		16d box	12" O.C. EACH EDGE FACE NAIL
11	CONTINUOUS HEADER TO STUD	5-8d box or 4-8d common or 4-10d box	TOENAIL
12	TOP PLATE TO TOP PLATE	16d common or	16" O.C. FACE NAIL
		10d box	12" O.C. FACE NAIL
13	DOUBLE TOP PLATE SPLICE FOR SDCs A-D2 WITH SEISMIC BRACED WALL LINE SPACING < 25'	8-16d common or 12-16d box or 12-10d box	FACE NAIL ON EACH SIDE OF END JOINT
	DOUBLE TOP PLATE SPLICE SDCs D0, D1, OR D2 AND BRACED WALL LINE SPACING > 25'	12-16d	
14	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d common or	16" O.C. FACE NAIL
		16d box	12" O.C. FACE NAIL
15	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (AT BRACED WALL PANELS)	3-16d box or	3x 16" O.C. FACE NAIL
		2-16d common or	2x 16" O.C. FACE NAIL
16	TOP OR BOTTOM PLATE TO STUD	4-8d box or 3-16d box or 4-8d common or 4-10d box	TOENAIL
		3-16d box or 2-16d common or 3-10d box	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d box or 2-16d common	FACE NAIL
18	1" BRACE TO EACH STUD AND PLATE	3-8d box or 2-8d common or 2-10d box	FACE NAIL
19	1"x6" SHEATHING TO EACH BEARING	3-8d box or 2-8d common or 2-10d box	FACE NAIL
20	1"x8" AND WIDER SHEATHING TO EACH BEARING	3-8d box or 3-8d common or 3-10d box Wider than 1"x8": 4-8d box or 3-8d common or 3-10d box	FACE NAIL
FLOOR			
21	JOIST TO SILL, TOP PLATE OR GIRDER	4-8d box or 3-8d common or 3-10d box	TOENAIL
22	RIM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE	8d box or	4" O.C. TOENAIL
		8d common or 10d box	6" O.C. TOENAIL
23	1"x6" SUBFLOOR OR LESS TO EACH JOIST	3-8d box or 2-8d common or 3-10d box	FACE NAIL
24	2" SUBFLOOR TO JOIST OR GIRDER	3-16d box or 2-16d common	BLIND AND FACE NAIL
25	2" PLANKS	3-16d box or 2-16d common	AT EACH BEARING, FACE NAIL
26	BAND OR RIM JOIST TO JOIST	3-16d common or 4-10d box	END NAIL
27	BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	20d common or	EACH LAYER: 32" O.C. TOP AND BOTTOM STAGGERED
		10d box	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED
		AND: 2-20d common or 3-10d box	FACE NAIL AT ENDS AND AT EACH SPLICE
28	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	4-16d box or 3-16d common or 4-10d box	AT EACH JOIST OR RAFTER, FACE NAIL
29	BRIDGING TO JOIST	2-10d	EACH END, TOENAIL
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING			
30	3/8" - 1/2"	Subfloor & Wall: 6d common	6" EDGES / 12" FIELD
		Roof: 8d common	
31	19/32" - 1"	8d common	6" EDGES / 12" FIELD
32	1 1/8" - 1 1/4"	10d common or 8d deformed	6" EDGES / 12" FIELD
33	1/2" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1-1/2" galv. roofing nail, 7/16" head or 1" crown staple 16 ga. 1-1/4" long	3" EDGES / 6" FIELD
34	25/32" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1-3/4" galv. roofing nail, 7/16" head or 1" crown staple 16 ga. 1-1/4" long	3" EDGES / 6" FIELD
35	1/2" GYPSUM SHEATHING APPLIED VERTICALLY	1-1/2" galv. roofing nail or 1-1/2" galv. staple or 1-1/4" type W or S screws	7" EDGES / 7" FIELD
36	5/8" GYPSUM SHEATHING APPLIED VERTICALLY	1-3/4" galv. roofing nail or 1-5/8" galv. staple or 1-5/8" type W or S screws	7" EDGES / 7" FIELD
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT			
37	3/4" OR LESS	6d deformed or 8d common	6" EDGES / 12" FIELD
38	7/8" - 1"	8d common or 8d deformed	6" EDGES / 12" FIELD
39	1 1/8" AND GREATER	10d common or 8d deformed	6" EDGES / 12" FIELD

SEE TABLE R602.3(1) FOR ADDITIONAL FASTENERS NOT LISTED.

SMOKE & CARBON MONOXIDE ALARM NOTES R314 & R315

SMOKE ALARMS:
1. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
a. IN EACH SLEEPING ROOM.
b. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS (UP TO 12 FEET).
c. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS.
d. SMOKE ALARMS SHALL BE INSTALLED NO LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER.
2. IONIZATION SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 20 FEET FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
3. IONIZATION SMOKE ALARMS WITH AN ALARM-SILENCING SWITCH SHALL NOT BE INSTALLED LESS THAN 10 FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
4. PHOTOELECTRIC SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 6 FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
5. ALARM DEVICES SHALL BE INTERCONNECTED WHERE ACTUATION OF ONE ALARM WILL ACTIVATE ALL ALARMS.
6. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED.
7. PRIMARY POWER SHALL BE FROM THE BUILDING WIRING (110v) AND SHALL ALSO BE EQUIPPED WITH A BATTERY BACKUP.

CARBON MONOXIDE ALARMS:
1. CARBON MONOXIDE ALARMS SHALL BE INSTALLED OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS WHERE THERE IS FUEL-FIRED (GAS) APPLIANCES AND/OR ATTACHED GARAGES.
2. WHERE A FUEL-BURNING APPLIANCE IS LOCATED WITHIN A BEDROOM (OR IT'S ATTACHED BATH), A CARBON MONOXIDE ALARM SHALL BE INSTALLED IN THE BEDROOM.
3. PRIMARY POWER SHALL BE FROM THE BUILDING WIRING (110v) AND SHALL ALSO BE EQUIPPED WITH A BATTERY BACKUP.

EGRESS/ESCAPE & RESCUE NOTES

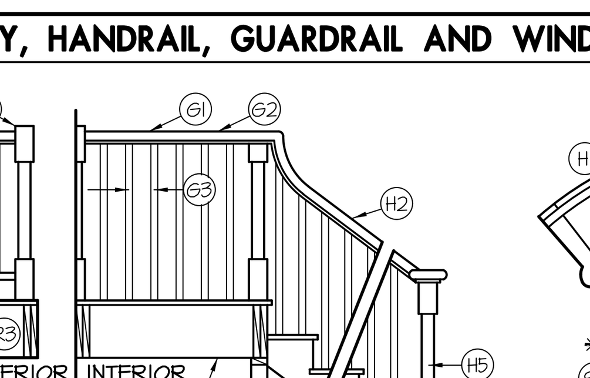
R310 R311

1. PROVIDE ONE EGRESS DOOR PER DWELLING UNIT, SIDE HINGED, 32 IN. CLEAR OPENING WIDTH, 78 IN. CLEAR OPENING HEIGHT AND BE READILY OPENABLE FROM INSIDE THE DWELLING WITHOUT THE USE OF KEYS OR SPECIAL KNOWLEDGE OR EFFORT.
2. THE LANDING IN FRONT OF THE EGRESS DOOR SHALL BE NO LOWER THAN 7-3/4 INCHES BELOW THE TOP OF THE THRESHOLD FOR IN-SWINGING DOORS AND THE LANDING IS NO LESS THAN 36 INCHES IN THE DIRECTION OF TRAVEL.
3. SLEEPING ROOMS, BASEMENTS AND HABITABLE ATTICS SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING WITH A MAXIMUM SILL HEIGHT OF 44 IN., A NET CLEAR OPENING OF 5.7 SQ. FT. (GRADE FLOORS ARE 5.0 SQ.FT.), A MIN. OPENING HEIGHT OF 24 IN. AND A MIN. OPENING WIDTH OF 20 IN.
4. OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE.

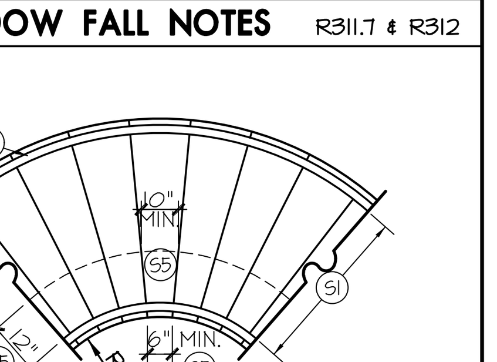
SAFETY GLAZING NOTES R308.4

PROVIDE SAFETY GLAZING IN THE FOLLOWING LOCATIONS:
1. ALL FIXED AND/OR OR OPERABLE DOORS.
2. ADJACENT TO A DOOR WHERE GLAZING IS WITHIN 24 INCHES OF THE DOOR AND THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES FROM A WALKING SURFACE.
3. GLAZING IN WINDOWS
a. WINDOW PANE IS GREATER THAN 9 SQ. FT.;
b. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 ABOVE THE FLOOR.;
c. THE TOP EDGE OF THE GLAZING IS MORE THAN 36 INCHES ABOVE THE FLOOR;
d. ONE OR MORE WALKING SURFACES ARE WITHIN 36 HORIZONTAL INCHES OF THE GLAZING.
4. GLAZING IN GUARDS AND RAILINGS.
5. GLAZING IS LESS THAN 60 HORIZONTAL INCHES AND FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR/OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60 INCHES FROM A WALKING SURFACE.
6. GLAZING IS LESS THAN 36 INCHES ABOVE STAIRWAYS, LANDINGS AND RAMPS.
7. GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60-INCH HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING.

STAIRWAY, HANDRAIL, GUARDRAIL AND WINDOW FALL NOTES R311.7 & R312



STAIR AND GUARDRAIL MINIMUMS
NO SCALE



CURVED STAIR MINIMUMS
NO SCALE

STAIRWAYS:
S1. 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 WHERE HANDRAIL IS INSTALLED ON ONE SIDE OR NO LESS THAN 27 INCHES WHERE HANDRAIL IS INSTALLED ON BOTH SIDES.
S2. HANDRAILS SHALL NOT PROJECT MORE THAN 4-1/2 INCHES.
S3. STAIRWAY HEAD HEIGHT SHALL NOT BE LESS THAN 6 FT. 8 INCHES AS MEASURED VERTICALLY FROM A STAIR NOSING.
S4. A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 147 INCHES (12'-3") BETWEEN FLOOR LEVELS OR LANDINGS.
S5. STAIRWAY MAXIMUM RISER HEIGHT IS 7-3/4 INCHES AND MINIMUM TREAD DEPTH IS 10 INCHES. WINDER TREAD MINIMUM TREAD DEPTH IS 6 INCHES AND MINIMUM 10 INCHES AT THE WALK LINE (12 IN. FROM THE INSIDE EDGE OF THE RAILING).
S6. NOSINGS OF NOT LESS THAN 3/4 INCH AND NO GREATER THAN 1-1/4 INCH ARE REQUIRED WHERE SOLID RISERS. NOSINGS ARE NOT REQUIRED WHEN THE TREAD DEPTH IS A MINIMUM OF 11 INCHES.
HANDRAILS:
H1. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH 4 OR MORE RISERS.
H2. HANDRAIL HEIGHT AS MEASURED VERTICALLY FROM THE TREAD NOSING SHALL BE NO LESS THAN 34 INCHES AND NO GREATER THAN 38 INCHES AND SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT.
H3. TERMINATIONS INCLUDE NEWEL POSTS, SAFETY TERMINALS OR RETURNS LOCATED NO LESS THAN THE TOPMOST RISER.
H4. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2 INCH BETWEEN THE WALL AND HANDRAIL.
H5. THE USE OF A VOLUTE, TURNOUT, STARTING EASING OR STARTING NEWEL SHALL BE ALLOWED OVER THE LOWEST TREAD (NO HIGHER THAN THE LOWEST TREAD).
GUARDRAILS:
G1. GUARDS ARE REQUIRED WHEN FLOOR TO FLOOR VERTICAL DISTANCE IS GREATER THAN 30 INCHES.
G2. MINIMUM GUARD HEIGHT IS 36 INCHES.
G3. GUARDS SHALL NOT HAVE OPENINGS WHICH WILL ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE.
G4. GUARDS ON OPEN SIDE OF STAIRS SHALL NOT HAVE OPENINGS WHICH WILL ALLOW PASSAGE OF A 4-3/8 INCH DIAMETER SPHERE.
HANDRAILS AND GUARDRAILS:
R1. HANDRAILS AND GUARDRAILS SHALL BE DESIGNED FOR A MINIMUM LIVE LOAD OF 200 PSI AND IN-FILL COMPONENTS DESIGNED FOR A MINIMUM LIVE LOAD OF 50 PSI.
R2. GRIP SIZE:
a) CIRCULAR - NO LESS THAN 1-1/4 INCHES TO NO GREATER THAN 2 INCHES.
b) PERIMETER DIMENSION NO LESS THAN 4 INCHES AND NO GREATER THAN 6-1/4 INCHES WITH A CROSS SECTION DIMENSION OF NOT MORE THAN 2-1/4 INCHES.
R3. WHERE THERE IS A IN-FILL BOTTOM RUNNER, THE BOTTOM RUNNER SHALL BE LOCATED NO HIGHER THAN 4 INCHES FROM THE SURFACE DIRECTLY BELOW THE RUNNER OR 2 VERTICAL INCHES FROM A STAIR NOSING AND HAVE A MAXIMUM UNSUPPORTED SPAN NO GREATER THAN 6 FEET.
R4. HORIZONTAL CABLE IN-FILL COMPONENTS, WHICH CREATES A LADDER EFFECT, IS ALLOWED WHERE SPACING BETWEEN CABLES AND MAXIMUM CABLE SUPPORT SPAN IS SUBJECT TO LOCAL JURISDICTIONAL GUIDELINES.
UNDER STAIR PROTECTION:
U1. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER-STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2 INCH GYPSUM BOARD.
LANDINGS FOR STAIRWAYS:
L1. THERE SHALL BE A FLOOR OR LANDING AT THE TOP AND BOTTOM OF EACH STAIRWAY. MINIMUM DEPTH IN THE DIRECTION OF TRAVEL IS 36 INCHES AT THE WALK LINE.
L2. A FLOOR OR LANDING IS NOT REQUIRED AT THE TOP OF AN INTERIOR FLIGHT OF STAIRS, INCLUDING STAIRS IN AN ENCLOSED GARAGE, PROVIDED THAT A DOOR DOES NOT SWING OVER THE STAIRS.
WINDOW FALL PROTECTION:
W1. WHEN A WINDOW IS LOCATED MORE THAN 72 IN. ABOVE THE GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF A WINDOW SHALL BE A MINIMUM 24 IN. ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED.

PENETRATIONS AND OPENINGS NOTES

1. THROUGH PENETRATIONS AND UNPROTECTED OPENINGS ARE NOT ALLOWED ON THE EXTERIOR SIDE OF FIRE-RESISTANCE RATED EXTERIOR WALLS THAT ARE FACING TO AND CLOSER THAN 36 INCHES TO A PROPERTY LINE. ITEMS NOT ALLOWED TO PENETRATE INCLUDE, BUT NOT LIMITED TO, HOSE BIBBS, A/C CONDENSER LINES, ELECTRICAL STUBS, GAS LINES, WATER LINES, COMMUNICATION STUBS, ETC.
2. ROOF/ATTIC VENTILATION OPENINGS ARE NOT ALLOWED IN-LINE TO AND/OR IN FRONT OF FIRE-RESISTANCE RATED EXTERIOR WALLS THAT ARE FACING TO AND CLOSER THAN 36 INCHES TO A PROPERTY LINE. "AIR HAWKS" AND OTHER SUCH DEVICES SHALL BE INSTALLED NO LESS THAN 36 INCHES FROM A PROPERTY LINE FOR ROOF PLANES THAT ARE FACING A PROPERTY LINE.
3. CRAWL SPACE (AIR) VENTILATION OPENINGS ARE NOT ALLOWED IN FIRE-RESISTANCE RATED EXTERIOR WALLS THAT ARE FACING TO AND CLOSER THAN 36 INCHES TO A PROPERTY LINE.
4. CONSULT LOCAL AUTHORITY FOR USE OF FLOOD VENTS AND/OR DUAL FUNCTION FLOOD VENTS WITH A FIRE-DAMPER ATTACHMENT INSTALLED IN FIRE-RESISTANCE RATED EXTERIOR WALLS FACING TO AND LESS THAN 36 INCHES TO A PROPERTY LINE.
5. PENETRATIONS THRU THE ROOF DECKING (WASTEWATER VENT PIPES, ETC.) IS NOT ALLOWED WITHIN 48 INCHES OF A 2-HOUR TENANT-SEPARATING COMMON WALL UNLESS A 30-INCH VERTICAL PARAPET IS LOCATED ABOVE THE ROOF DECKING AS AN EXTENSION OF THE 2-HOUR TENANT-SEPARATING COMMON WALL.
6. SKYLIGHTS, SOLAR TUBES, CHIMNEYS, AND OTHER LARGE OPENINGS THRU THE ROOF DECKING ARE NOT ALLOWED WITHIN 60 INCHES OF A 2-HOUR TENANT-SEPARATING COMMON WALL UNLESS A 30-INCH VERTICAL PARAPET ABOVE THE ROOF DECKING AS AN EXTENSION OF THE COMMON WALL IS PRESENT. EXTEND THE PARAPET MINIMUM 60 INCHES BEYOND EACH EDGE OF THE OPENING.
7. DRYER VENT, BATHROOM VENT, UTILITY ROOM VENT, COOKTOP HOOD VENT, AND OTHER SUCH TYPES OF VENTILATION TERMINATIONS LOCATED THRU AN EXTERIOR FIRE-RATED WALL THAT IS LOCATED BETWEEN 3- AND 5-FEET TO A PROPERTY LINE SHALL BE MADE OF METAL AND INCLUDE A FLAPPER VENT (PLASTIC TERMINATIONS NOT ALLOWED).
8. FIREWALL DETAILS U373, U529, AND U919 ARE NON-LOAD BEARING AND COMPLETE ASSEMBLIES PROVIDING THE REQUIRED 2-HOUR FIRE-RESISTANCE RATING FOR EXPOSURE FROM BOTH SIDES. ADJACENT 2x STUD WALL CAVITIES ARE NOT PART OF THE FIRE RESISTANCE. PENETRATIONS AND OPENINGS THRU U373, U529, AND U919 IS NOT ALLOWED.

PW+A

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ENGINEER OF RECORD NOTE

WHEN THE LOCAL JURISDICTION REQUIRES A REGISTERED STRUCTURAL ENGINEER TO PROVIDE A SEALED AND SIGNED DOCUMENT AS PART OF A SUBMITTAL PACKAGE, THE ENGINEER OF RECORD'S DRAWINGS, DETAILS, TABLES AND SCHEDULES SHALL TAKE PRECEDENCE OVER THE INFORMATION PROVIDED IN THIS ARCHITECTURAL DOCUMENT.

MIN. UNIFORMLY DISTRIBUTED LIVE LOADS (PSF)

R301.5

UNINHABITABLE ATTICS WITHOUT STORAGE:	10
UNINHABITABLE ATTICS WITH LIMITED STORAGE:	20
HABITABLE ATTICS & ATTICS w/FIXED STAIRS:	30
BALCONIES (EXTERIOR) AND DECKS:	40
FIRE ESCAPES:	40
GUARDRAILS AND HANDRAILS*:	200
GUAR IN-FILL COMPONENTS:	50
PASSENGER VEHICLE GARAGES:	50
ROOMS OTHER THAN SLEEPING ROOM:	40
SLEEPING ROOMS:	30
STAIRS:	40

* A SINGLE CONCENTRATED LOAD APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP.

NON-ABSORBANT SURFACES R307

BATHTUBS AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NON-ABSORBANT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.

TERMITE PROTECTION R318

PROVIDE A METHOD OR A COMBINATION OF METHODS FOR TERMITE PROTECTION AS FOLLOWS:
a) CHEMICAL TERMITICIDE TREATMENT.
b) TERMITE BATTING SYSTEM.
c) PRESSURE-PRESERVATIVE-TREATED WOOD.
d) NATURALLY DURABLE TERMITE-RESISTANT WOOD.
e) PHYSICAL BARRIERS.
f) COLD-FORMED STEEL FRAMING.

ATTACHED GARAGE PROTECTION

1. APPLY 5/8" TYPE 'X' GYPSUM BOARD TO THE GARAGE SIDE OF WALL STUDS AND CEILING JOISTS.
2. OPENINGS BETWEEN GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH MIN. 1-3/8 INCH THICK SOLID WOOD DOOR, SOLID OR HONEYCOMB-CORE STEEL DOOR MIN. 1-3/8 INCH THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF-LATCHING AND EQUIPPED WITH A SELF-CLOSING OR AUTOMATIC-CLOSING DEVICE.
3. WHERE THERE ARE FLOOD VENTS LOCATED BETWEEN THE ATTACHED GARAGE AND CRAWL SPACE UNDER THE RESIDENCE, THE FLOOD VENTS SHALL BE EQUIPPED WITH A UL LISTED FIRE DAMPER ATTACHMENT.
4. WHERE THERE IS AN ACCESS DOOR LOCATED BETWEEN THE ATTACHED GARAGE AND CRAWL SPACE UNDER THE RESIDENCE, THE DOOR SHALL BE 20 MINUTE FIRE RATED, SELF LATCHING, AND EQUIPPED WITH A SELF-CLOSING DEVICE.

GENERAL FRAMING NOTES

1. ALL FRAMING LUMBER SHALL BE SOUTHERN YELLOW PINE #2 OR BETTER, UNLESS OTHERWISE NOTED ON PLAN.
2. STUDS AND PLATES MAY BE CONSTRUCTION GRADE MATERIAL. 6x MATERIAL SHALL BE SOUTHERN YELLOW PINE #1 SR OR BETTER.
3. CONSULT LOCAL AUTHORITY FOR USE OF RECYCLED, FINGER-JOINTED STUDS FOR USE IN LOAD BEARING WALLS.
4. PLYWOOD SHEATHING SHALL BE MANUFACTURED WITH EXTERIOR GLUE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICAN PLYWOOD ASSOCIATION STANDARD PS1-83.
5. ALL GLUE LAMINATED BEAMS SHALL BE STRESS GRADE 24F-V3 UNLESS OTHERWISE NOTED ON PLANS.
6. ALL FRAMING CLIPS AND DEVICES SHALL BE SIMPSON "STRONG TIE" OR EQUIVALENT.
7. SEE FASTENING SCHEDULE TABLE FOR CONNECTIONS NOT INDICATED ON THE PLANS.
8. TRUSS JOISTS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER.
9. ALL NAILS SHALL BE COMMON, UNLESS OTHERWISE NOTED.
10. POSTS USED FOR BEAM OR GIRDER SUPPORTS SHALL HAVE FULL BEARING TO THE FOUNDATION, UNLESS OTHERWISE NOTED.
11. TIMBER SIZES PRESCRIBED ARE MINIMUM. LARGER SIZES MAY BE SUBSTITUTED. DETAILED CONNECTIONS MAY REQUIRE MODIFICATION IF SUBSTITUTIONS ARE MADE.
12. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS.
13. METAL STRAPPING/BRACING FOR WIND/SEISMIC DESIGN PER ENGINEER OF RECORD.
14. LEDGERS THAT ARE PART OF A FLOOR SYSTEM AND WILL BE SECURED TO A RIM JOIST SHALL BE CONNECTED TO THE RIM JOIST WITH THROUGH BOLTS WITH STANDARD NUTS AND WASHERS SPACED 12 INCH ON CENTER, STAGGERED.
15. APPLY EXPANDING FOAM SEALER (POLYSEAL OR EQUAL) IN ALL AREAS PRONE TO INFILTRATION. USE MINIMAL EXPANDING FOAM BETWEEN FRAMED OPENING AND WINDOW/DOOR CASINGS.
16. INSTALL FIRE BREAKS AT EACH END OF A BREEZEWAY WHEN THE BREEZEWAY IS CONNECTED TO 2 SEPARATE STRUCTURES.
17. SUBSTITUTE WATERPROOF GYPSUM OF EQUIVALENT THICKNESS AND TYPE (RATING) FOR ALL AREAS IN AND UP TO THE MINIMUM FLOOD PROTECTION ELEVATION (MFPE) OR WHERE GYPSUM WILL BE PRONE TO WEATHERING.
18. WHERE PRESSURE-TREATED LUMBER HAS BEEN CUT TO SIZE, APPLY TREATING SEALANT TO THE CUT FACES.
19. ALL FASTENERS SHALL BE APPROVED FOR USE ON CHEMICALLY TREATED WOOD.
20. APPLY A SELF-ADHESIVE WATERPROOF MEMBRANE OR EQUIVALENT TO THE TOP SURFACE OF ALL JOISTS AND BEAMS THAT WILL BE EXPOSED TO WEATHERING.
21. SAFETY GLAZING LOCATIONS SHALL BE VERIFIED BY A SITE VISIT FROM A QUALIFIED WINDOW VENDOR REPRESENTATIVE.

CODE NOTES AND SCHEDULES

CODE EDITION: 2021 IRC
WITH CITY OF HOUSTON AMENDMENTS
AND OTHER BUILDING CODES AS REQUIRED

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PERMIT SET Date: 3 April 2024