

# HISTORIC AND DESIGN REVIEW COMMISSION

October 21, 2020

**HDRC CASE NO:** 2020-449  
**ADDRESS:** 522 N HACKBERRY ST  
**LEGAL DESCRIPTION:** NCB 570 BLK 6 LOT S 50 FT OF 1 & 2  
**ZONING:** RM-4, H  
**CITY COUNCIL DIST.:** 2  
**DISTRICT:** Dignowity Hill Historic District  
**APPLICANT:** ANNA SALCEDO  
**OWNER:** BLACK BRICK URBAN HOMES LLC  
**TYPE OF WORK:** Construction of one, 2-story residential structure  
**APPLICATION RECEIVED:** September 22, 2020  
**60-DAY REVIEW:** Not applicable due to City Council Emergency Orders  
**CASE MANAGER:** Edward Hall

## REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to construct a 2-story, multi-family residential structure on the vacant lot at 522 N Hackberry, located within the Dignowity Hill Historic District.

## APPLICABLE CITATIONS:

*Historic Design Guidelines, Chapter 4, Guidelines for New Construction*

### 1. Building and Entrance Orientation

#### A. FAÇADE ORIENTATION

*i. Setbacks*—Align front facades of new buildings with front facades of adjacent buildings where a consistent setback has been established along the street frontage. Use the median setback of buildings along the street frontage where a variety of setbacks exist. Refer to UDC Article 3, Division 2. Base Zoning Districts for applicable setback requirements.

*ii. Orientation*—Orient the front façade of new buildings to be consistent with the predominant orientation of historic buildings along the street frontage.

#### B. ENTRANCES

*i. Orientation*—Orient primary building entrances, porches, and landings to be consistent with those historically found along the street frontage. Typically, historic building entrances are oriented towards the primary street.

### 2. Building Massing and Form

#### A. SCALE AND MASS

*i. Similar height and scale*—Design new construction so that its height and overall scale are consistent with nearby historic buildings. In residential districts, the height and scale of new construction should not exceed that of the majority of historic buildings by more than one-story. In commercial districts, building height shall conform to the established pattern. If there is no more than a 50% variation in the scale of buildings on the adjacent block faces, then the height of the new building shall not exceed the tallest building on the adjacent block face by more than 10%.

*ii. Transitions*—Utilize step-downs in building height, wall-plane offsets, and other variations in building massing to provide a visual transition when the height of new construction exceeds that of adjacent historic buildings by more than one-half story.

*iii. Foundation and floor heights*—Align foundation and floor-to-floor heights (including porches and balconies) within one foot of floor-to-floor heights on adjacent historic structures.

#### B. ROOF FORM

*i. Similar roof forms*—Incorporate roof forms—pitch, overhangs, and orientation—that are consistent with those

predominantly found on the block. Roof forms on residential building types are typically sloped, while roof forms on nonresidential

building types are more typically flat and screened by an ornamental parapet wall.

*ii. Façade configuration*—The primary façade of new commercial buildings should be in keeping with established patterns. Maintaining horizontal elements within adjacent cap, middle, and base precedents will establish a consistent street wall through the alignment of horizontal parts. Avoid blank walls, particularly on elevations visible from the street. No new façade should exceed 40 linear feet without being penetrated by windows, entryways, or other defined bays.

#### D. LOT COVERAGE

*i. Building to lot ratio*—New construction should be consistent with adjacent historic buildings in terms of the building to lot ratio. Limit the building footprint for new construction to no more than 50 percent of the total lot area, unless adjacent historic buildings establish a precedent with a greater building to lot ratio.

### 3. Materials and Textures

#### A. NEW MATERIALS

*i. Complementary materials*—Use materials that complement the type, color, and texture of materials traditionally found in the district. Materials should not be so dissimilar as to distract from the historic interpretation of the district. For example, corrugated metal siding would not be appropriate for a new structure in a district comprised of homes with wood siding.

*ii. Alternative use of traditional materials*—Consider using traditional materials, such as wood siding, in a new way to provide visual interest in new construction while still ensuring compatibility.

*iii. Roof materials*—Select roof materials that are similar in terms of form, color, and texture to traditionally used in the district.

*iv. Metal roofs*—Construct new metal roofs in a similar fashion as historic metal roofs. Refer to the Guidelines for Alterations and Maintenance section for additional specifications regarding metal roofs.

*v. Imitation or synthetic materials*—Do not use vinyl siding, plastic, or corrugated metal sheeting. Contemporary materials not traditionally used in the district, such as brick or simulated stone veneer and Hardie Board or other fiberboard siding, may be appropriate for new construction in some locations as long as new materials are visually similar to the traditional material in dimension, finish, and texture. EIFS is not recommended as a substitute for actual stucco.

### 4. Architectural Details

#### A. GENERAL

*i. Historic context*—Design new buildings to reflect their time while respecting the historic context. While new construction should not attempt to mirror or replicate historic features, new structures should not be so dissimilar as to distract from or diminish the historic interpretation of the district.

*ii. Architectural details*—Incorporate architectural details that are in keeping with the predominant architectural style along the block face or within the district when one exists. Details should be simple in design and should complement, but not visually compete with, the character of the adjacent historic structures or other historic structures within the district. Architectural details that are more ornate or elaborate than those found within the district are inappropriate.

*iii. Contemporary interpretations*—Consider integrating contemporary interpretations of traditional designs and details for new construction. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the structure is new. Modern materials should be implemented in a way that does not distract from the historic structure.

### 5. Garages and Outbuildings

#### A. DESIGN AND CHARACTER

*v. Garage doors*—Incorporate garage doors with similar proportions and materials as those traditionally found in the district.

## 6. Mechanical Equipment and Roof Appurtenances

### A. LOCATION AND SITING

*i. Visibility*—Do not locate utility boxes, air conditioners, rooftop mechanical equipment, skylights, satellite dishes, and other roof appurtenances on primary facades, front-facing roof slopes, in front yards, or in other locations that are clearly visible from the public right-of-way.

*ii. Service Areas*—Locate service areas towards the rear of the site to minimize visibility from the public right-of-way.

### B. SCREENING

*i. Building-mounted equipment*—Paint devices mounted on secondary facades and other exposed hardware, frames, and piping to match the color scheme of the primary structure or screen them with landscaping.

*ii. Freestanding equipment*—Screen service areas, air conditioning units, and other mechanical equipment from public view using a fence, hedge, or other enclosure.

*iii. Roof-mounted equipment*—Screen and set back devices mounted on the roof to avoid view from public right-of-way. Historic Design Guidelines, Chapter 5, Guidelines for Site Elements

### B. NEW FENCES AND WALLS

*i. Design*—New fences and walls should appear similar to those used historically within the district in terms of their scale, transparency, and character. Design of fence should respond to the design and materials of the house or main structure.

*ii. Location*—Avoid installing a fence or wall in a location where one did not historically exist, particularly within the front yard. The appropriateness of a front yard fence or wall is dependent on conditions within a specific historic district. New front yard fences or wall should not be introduced within historic districts that have not historically had them.

*iii. Height*—Limit the height of new fences and walls within the front yard to a maximum of four feet. The appropriateness of a front yard fence is dependent on conditions within a specific historic district. New front yard fences should not be introduced within historic districts that have not historically had them. If a taller fence or wall existed historically, additional height may be considered. The height of a new retaining wall should not exceed the height of the slope it retains.

*iv. Prohibited materials*—Do not use exposed concrete masonry units (CMU), Keystone or similar interlocking retaining wall systems, concrete block, vinyl fencing, or chain link fencing.

*v. Appropriate materials*—Construct new fences or walls of materials similar to fence materials historically used in the district. Select materials that are similar in scale, texture, color, and form as those historically used in the district, and that are compatible with the main structure. Screening incompatible uses—Review alternative fence heights and materials for appropriateness where residential properties are adjacent to commercial or other potentially incompatible uses.

## 3. Landscape Design

### A. PLANTINGS

*i. Historic Gardens*—Maintain front yard gardens when appropriate within a specific historic district.

*ii. Historic Lawns*—Do not fully remove and replace traditional lawn areas with impervious hardscape. Limit the removal of lawn areas to mulched planting beds or pervious hardscapes in locations where they would historically be found, such as along fences, walkways, or drives. Low-growing plantings should be used in historic lawn areas; invasive or large-scale species should be avoided. Historic lawn areas should never be reduced by more than 50%.

*iii. Native xeric plant materials*—Select native and/or xeric plants that thrive in local conditions and reduce watering usage. See UDC Appendix E: San Antonio Recommended Plant List—All Suited to Xeriscape Planting Methods, for a list of appropriate materials and planting methods. Select plant materials with a similar character, growth habit, and light requirements as those being replaced.

*iv. Plant palettes*—If a varied plant palette is used, incorporate species of taller heights, such informal elements should be restrained to small areas of the front yard or to the rear or side yard so as not to obstruct views of or otherwise distract from the historic structure.

v. *Maintenance*—Maintain existing landscape features. Do not introduce landscape elements that will obscure the historic structure or are located as to retain moisture on walls or foundations (e.g., dense foundation plantings or vines) or as to cause damage.

## B. ROCKS OR HARDSCAPE

i. *Impervious surfaces* —Do not introduce large pavers, asphalt, or other impervious surfaces where they were not historically located.

ii. *Pervious and semi-pervious surfaces*—New pervious hardscapes should be limited to areas that are not highly visible, and should not be used as wholesale replacement for plantings. If used, small plantings should be incorporated into the design.

iii. *Rock mulch and gravel* - Do not use rock mulch or gravel as a wholesale replacement for lawn area. If used, plantings should be incorporated into the design.

## D. TREES

i. *Preservation*—Preserve and protect from damage existing mature trees and heritage trees. See UDC Section 35-523 (Tree Preservation) for specific requirements.

ii. *New Trees* – Select new trees based on site conditions. Avoid planting new trees in locations that could potentially cause damage to a historic structure or other historic elements. Species selection and planting procedure should be done in accordance with guidance from the City Arborist.

## 5. Sidewalks, Walkways, Driveways, and Curbing

### A. SIDEWALKS AND WALKWAYS

i. *Maintenance*—Repair minor cracking, settling, or jamming along sidewalks to prevent uneven surfaces. Retain and repair historic sidewalk and walkway paving materials—often brick or concrete—in place.

ii. *Replacement materials*—Replace those portions of sidewalks or walkways that are deteriorated beyond repair. Every effort should be made to match existing sidewalk color and material.

iii. *Width and alignment*—Follow the historic alignment, configuration, and width of sidewalks and walkways. Alter the historic width or alignment only where absolutely necessary to accommodate the preservation of a significant tree.

iv. *Stamped concrete*—Preserve stamped street names, business insignias, or other historic elements of sidewalks and walkways when replacement is necessary.

v. *ADA compliance*—Limit removal of historic sidewalk materials to the immediate intersection when ramps are added to address ADA requirements.

### B. DRIVEWAYS

i. *Driveway configuration*—Retain and repair in place historic driveway configurations, such as ribbon drives.

Incorporate a similar driveway configuration—materials, width, and design—to that historically found on the site. Historic driveways are typically no wider than 10 feet. Pervious paving surfaces may be considered where replacement is necessary to increase stormwater infiltration.

ii. *Curb cuts and ramps*—Maintain the width and configuration of original curb cuts when replacing historic driveways. Avoid introducing new curb cuts where not historically found.

## 7. Off-Street Parking

### A. LOCATION

i. *Preferred location*—Place parking areas for non-residential and mixed-use structures at the rear of the site, behind primary structures to hide them from the public right-of-way. On corner lots, place parking areas behind the primary structure and set them back as far as possible from the side streets. Parking areas to the side of the primary structure are acceptable when location behind the structure is not feasible. See UDC Section 35-310 for district-specific standards.

ii. *Front*—Do not add off-street parking areas within the front yard setback as to not disrupt the continuity of the streetscape.

iii. *Access*—Design off-street parking areas to be accessed from alleys or secondary streets rather than from principal

streets whenever possible.

## B. DESIGN

i. *Screening*—Screen off-street parking areas with a landscape buffer, wall, or ornamental fence two to four feet high—or a combination of these methods. Landscape buffers are preferred due to their ability to absorb carbon dioxide. See UDC Section 35-510 for buffer requirements.

ii. *Materials*—Use permeable parking surfaces when possible to reduce run-off and flooding. See UDC Section 35-526(j) for specific standards.

iii. *Parking structures*—Design new parking structures to be similar in scale, materials, and rhythm of the surrounding historic district when new parking structures are necessary.

### *Standard Specifications for Windows in Additions and New Construction*

Consistent with the Historic Design Guidelines, the following recommendations are made for windows to be used in new construction:

- **GENERAL:** Windows used in new construction should be similar in appearance to those commonly found within the district in terms of size, profile, and configuration. While no material is expressly prohibited by the Historic Design Guidelines, a high quality wood or aluminum-clad wood window product often meets the Guidelines with the stipulations listed below.
- **SIZE:** Windows should feature traditional dimensions and proportions as found within the district.
- **SASH:** Meeting rails must be no taller than 1.25". Stiles must be no wider than 2.25". Top and bottom sashes must be equal in size unless otherwise approved.
- **DEPTH:** There should be a minimum of 2" in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. All windows should be supplied in a block frame and exclude nailing fins which limit the ability to sufficiently recess the windows.
- **TRIM:** Window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail.
- **GLAZING:** Windows should feature clear glass. Low-e or reflective coatings are not recommended for replacements. The glazing should not feature faux divided lights with an interior grille. If approved to match a historic window configuration, the window should feature true, exterior muntins.
- **COLOR:** Wood windows should feature a painted finish. If a clad or non-wood product is approved, white or metallic manufacturer's color is not allowed and color selection must be presented to staff.

## FINDINGS:

- a. The applicant is requesting a Certificate of Appropriateness for approval to construct a 2-story, multi-family residential structure on the vacant lot at 522 N Hackberry, located within the Dignowity Hill Historic District. The lot is currently void of any existing structures.
- b. **CONTEXT & DEVELOPMENT PATTERN** – The context and development pattern of this block on N Hackberry Street consists of single-story structures, serving both residential and commercial uses.
- c. **SETBACKS & ORIENTATION** – According to the Guidelines for New Construction, the front facades of new buildings are to align with front facades of adjacent buildings where a consistent setback has been established along the street frontage. Additionally, the orientation of new construction should be consistent with the historic examples found on the block. The applicant has not provided information regarding setbacks on the submitted site plan. Staff finds that new construction should feature a setback that is equal to or greater than those found historically on the block. Given the proposed height of two stories, staff finds that a greater setback would be most appropriate.
- d. **ENTRANCES** – According to the Guidelines for New Construction 1.B.i., primary building entrances should be oriented towards the primary street. The applicant has proposed entrances that face N Hackberry; however, staff finds that one entrance should be eliminated. Additionally, staff finds that the redesigned entrance should be designed to feature architectural elements that traditionally accompany the entrances found on historic structures within the district, such as porch elements.

- e. **SCALE & MASS** – Per the Guidelines for New Construction 2.A.i., a height and massing similar to historic structures in the vicinity of the proposed new construction should be used. In residential districts, the height and scale of new construction should not exceed that of the majority of historic buildings by more than one-story. While a proposed height of two stories is within the Guidelines, staff finds that the proposed massing is atypical for the district and inconsistent with the Guidelines. Traditional forms, including façade arrangement, roof forms, and porch forms should be incorporated into the design.
- f. **SCALE & MASS (Width)** – The applicant has proposed a total width of approximately forty (40) feet. This is wider than the structures found historically on this block. Staff finds that the proposed width of new construction should be comparable to the widths of structures found historically on this block.
- g. **FOUNDATION & FLOOR HEIGHTS** – According to the Guidelines for New Construction 2.A.iii., foundation and floor heights should be aligned within one (1) foot of neighboring structure's foundation and floor heights. Per the submitted elevations, the proposed foundation heights are not consistent with the Guidelines.
- h. **ROOF FORM** – The applicant has proposed for the structure to feature a flat roof with various flat roof planes. This block of N Hackberry features historic structures with gabled and hipped roofs. The proposed roof form is not consistent with the Guidelines.
- i. **LOT COVERAGE** – Per the Guidelines, the building footprint for new construction should be no more than fifty (50) percent of the size of the total lot area. The applicant's proposed lot coverage is consistent with the Guidelines.
- j. **MATERIALS** – The applicant has proposed materials that include composite siding, faux stone veneer, and stucco. The proposed materials, with the exception of horizontally oriented lap siding are not consistent with the Guidelines, as they are not found predominantly within the Dignowity Hill Historic District.
- k. **WINDOW MATERIALS** – The applicant has noted the installation of vinyl windows, but has not specified a specific product. Staff finds that windows should be consistent with staff standards for windows in new construction, noted in the applicable citations. Vinyl windows typically are not consistent with staff's standard specifications in regards to profile.
- l. **WINDOW & DOOR OPENINGS** – Per the submitted documents, the applicant has proposed window profiles that are atypical of those found historically within the district. The proposed windows feature sizes that are larger than those found historically within the district, or feature non-traditional profiles, such as fixed, square windows. Staff finds that windows that are consistent with those found historically within the district in regards to size and profile be installed.
- m. **WINDOW & DOOR OPENINGS** – Per the submitted documents, the applicant has proposed blank walls near the front elevation on both side elevations. Staff finds that windows should be added to separate expanses of wall that do not feature windows. Additionally, window should be grouped in a manner that is consistent with those found historically on the block, be separated by a six inch wood mullion rather than siding, feature a one over one profile and equally sized sashes.
- n. **ARCHITECTURAL DETAILS** – As noted above, staff finds that roof forms and fenestration profiles should reference those found historically on the block. Additionally, staff finds that the proposed materials should be amended to be consistent with the Guidelines. Porch forms and massing should be incorporated into the design, and the front loaded garages should be eliminated.
- o. **PARKING (Garages)** – The applicant has proposed two, front loading garages. Front loading garages are not found historically within the district and are not consistent with the Guidelines. The proposed front loading garages should be eliminated from the design. Additionally, any parking configuration that promotes a front yard parking condition should be avoided.
- p. **DRIVEWAYS** – The applicant has proposed two (2) driveways to provide access into the site. Lots within the Dignowity Hill Historic District historically feature one (1) driveway per lot. Staff finds that only one driveway should be installed.

- q. FRONT WALKWAY – Structures located within the Dignowity Hill Historic District traditionally have walkways that lead from the front porch to the right of way. The applicant has not incorporated these into the design. Staff finds that one walkway should lead from primary entrance to the sidewalk at the right of way.
- r. MECHANICAL EQUIPMENT – The applicant has not noted the location of mechanical equipment at this time. Staff finds that all mechanical equipment should be screened from view from the public right of way.
- s. LANDSCAPING – At this time the applicant has not provided information regarding landscaping. A detailed landscaping plan should be submitted to OHP staff for review and approval. Landscaping should be consistent with the Guidelines for Site Elements.

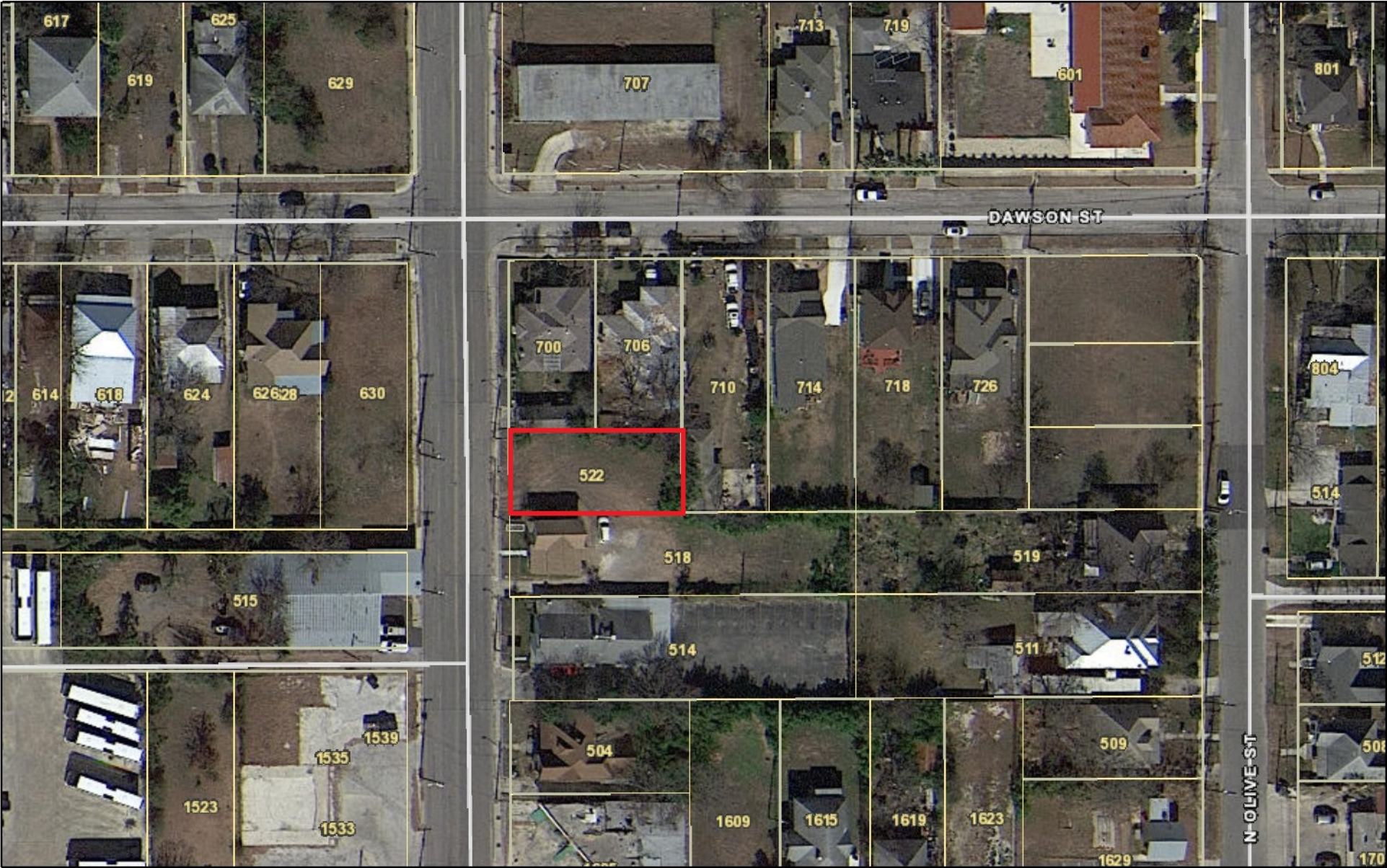
## **RECOMMENDATION:**

Staff does not recommend approval based on findings a through s. Staff recommends that the applicant address the following items prior to receiving a recommendation for approval:

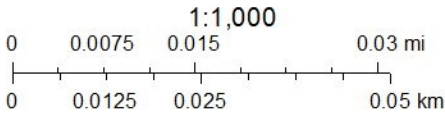
- i. That the applicant provide documentation noting that the proposed new construction will feature a setback that is equal to or greater than those found historically on the block, as noted in finding c.
- ii. That the applicant eliminate one of the proposed entrances, and develop entrance elements for one entrance that are consistent with the Guidelines and those found historically within the district, as noted in finding d.
- iii. That the applicant propose an overall width that is comparable with those found historically on the block, as noted in finding e.
- iv. That the applicant incorporate foundation and floor heights that are consistent with the Guidelines as noted in finding g.
- v. That the applicant incorporate roof forms that are consistent with the Guidelines as noted in finding h.
- vi. That the propose stucco and faux wood siding are eliminated from the proposed design, as noted in finding j.
- vii. That window materials adhere to staff's standards for windows in new construction as noted in finding k.
- viii. That fenestration patterns, profiles and openings be modified to be consistent with the Guidelines and the historic examples found within the district, as noted in findings l and m.
- ix. That unique porch massing is incorporated into the design as noted in findings d and n.
- x. That the proposed double driveway and front loaded garage configuration be eliminated, as noted in findings n, o and p.
- xi. That a landscaping plan be developed to include a front walkways and that all mechanical equipment be screened from view at the public right of way as noted in findings q, r and s.



City of San Antonio One Stop



October 15, 2020







DRAWING INDEX	
A1.01	COVER SHEET
A1.02	SITE PLAN
A1.03	FLOOR PLAN
A1.04	FLOOR PLAN
A1.05	ELEVATION PLAN
A1.06	DETAILS
A1.07	ROOF PLAN/CROSS SECTION
A1.08	ELECTRICAL
A1.09	WINDOWS/DOORS
S.1	FOUNDATION PLAN
S.2	BRACED WALL PLAN
S.3	FRAMING PLAN
S.4	DETAILS PLAN

AREA SCHEDULE		
NAME	AREA	COMMENTS
CONDITIONED 1ST FLOOR 2ND FLOOR CONDITIONED: 2	883.16 SF 926.14 SF 1809.30 SF	CONDITIONED CONDITIONED
UNCONDITIONED GARAGE PORCH 3RD FLOOR & PERGOLA	254.16 SF 150.00 SF 264.29 SF	UNCONDITIONED UNCONDITIONED UNCONDITIONED
UNCONDITIONED:0	668.45 SF	
GRAND TOTAL: 1	2477.75 SF	

GENERAL NOTES

UNLESS OTHERWISE NOTED, ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE CONTRACT DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE.

ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONTRACT DRAWINGS AND OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.

THE CONTRACTOR SHALL VERIFY ALL JOB SITE CONDITIONS AND RELATED DIMENSIONS.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE TO THE LATEST EDITION OF THE UNIFORM BUILDING CODE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF AND THE SAFETY IN AND AROUND THE JOB SITE AND OF ADJACENT PROPERTIES.

CONTRACTOR AND OR OWNER SHALL KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN BOTH DURING AND AFTER CONSTRUCTION.

COMPLIANCE WITH CODES AND ORDINANCES GOVERNING THE WORK SHALL BE MADE AND ENFORCED BY THE GENERAL CONTRACTOR.

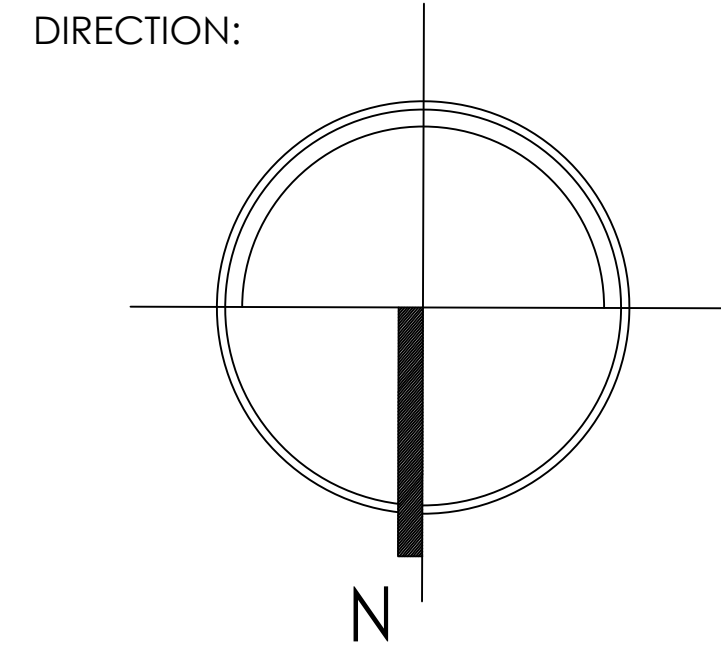
GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.

NOTE THAT ALL WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE.

MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION OF MATERIALS SHALL BE FOLLOWED.

WORKMANSHIP THROUGHOUT SHALL BE OF THE BEST QUALITY OF THE TRADE INVOLVED AND THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF THE VARIOUS TRADES TO EXPEDITE THE JOB IN A SMOOTH AND CONTINUOUS PROCESS.

**RH**  
design•custom•homes  
20410 WILD SPRINGS DR  
SAN ANTONIO, TEXAS 78251  
(210) 848 0361  
marro000@hotmail.com



PROJECT:  
**DUPLEX  
UNIT 1 & 2**

OWNER:  
CONSTRU K22

LOCATION:  
522 N HACKBERRY  
SAN ANTONIO, TEXAS 78202

NOTE:  
GENERAL CONTRACTOR SHALL HAVE THIS FOUNDATION PLAN DESIGN BY A TEXAS REGISTERED ENGINEER TO MEET SOIL TESTS REQUIREMENTS.

THE DESIGNER ASSUMES NO LIABILITY FOR ANY STRUCTURE CONSTRUCTED FROM THIS PLAN IT IS THE RESPONSABILITY OF THE PURCHASER, OF THIS PLAN, TO PERFORM THE FOLLOWING BEFORE ACTUA CONSTRUCTION COMMENCES

1.- BUILDER OR CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

2.- BUILDER OR CONTRACTOR MUST VERIFY COMPLIANCE WITH ALL LOCAL BUILDING CODES OF THE AREA WHERE THE STRUCTURE IS TO BE CONSTRUCTED AND LOCATED.

3.- PLANS INDICATE LOCATIONS ONLY: ENGINEERING ASPECTS SHOULD BE INCORPORATED TO ACTUAL SITE CONDITIONS.

THESE PLANS ARE THE PROPERTY OF RH DESIGN CUSTOM HOMES AND ANY USE OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF RH DESIGN CUSTOM HOMES IS PROHIBITED.

DATE: MAY/2020  
DRAWN BY: M.R.

PLAN:  
**COVER SHEET**

SHEET No.:

**A1.01**



1. THE FOUNDATION DESIGN IS BASED ON THE PRESUMPTIVE ALLOWABLE LOAD BEARING VALUES PER THE IRC SECTION R401.4.1 TABLE R401.4.1 THE ADDRESS WAS MAPPED BY THE USDA SOIL SURVEY WEBSITE. CLAY (CH) SOILS ARE PRESENT AT THE SITE.
2. THE FOUNDATION HAS BEEN PROPORTIONED USING THE FOLLOWING NET ALLOWABLE SOIL BEARING PRESSURES:

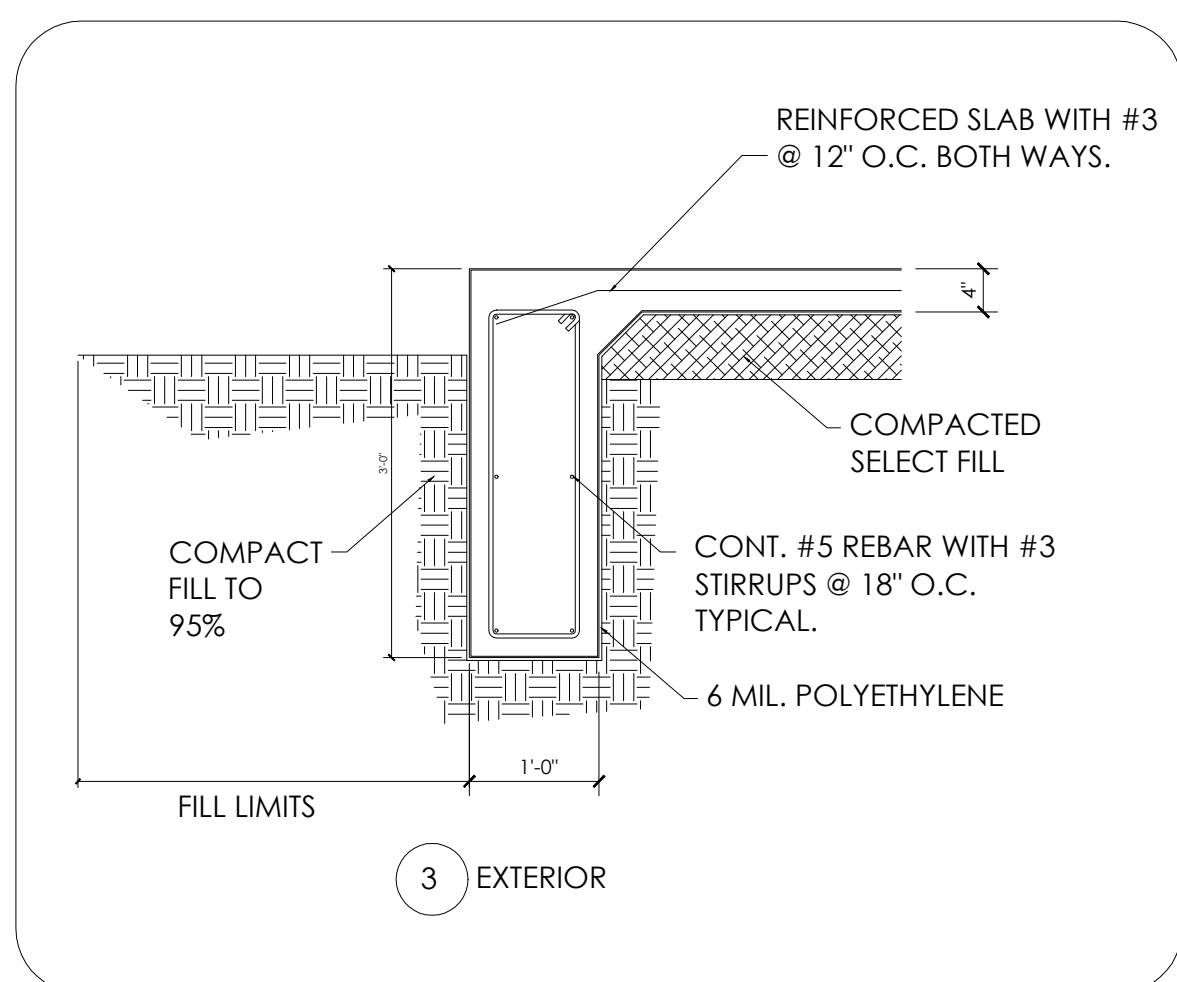
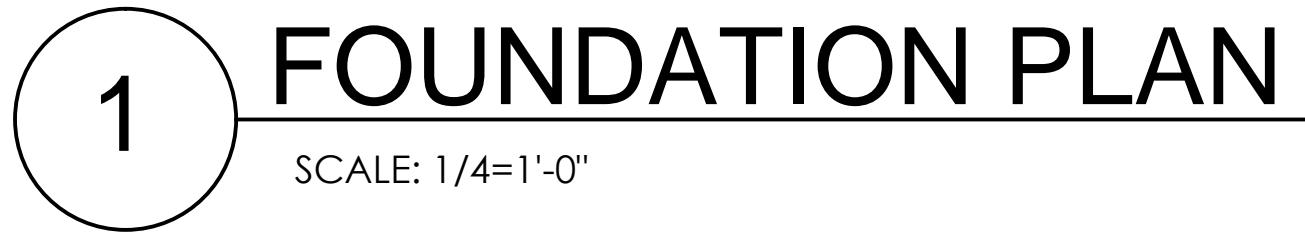
3. THE BUILDING PAD AREA SHALL BE STRIPPED OF ALL VEGETATION AND SOFT SOIL TO PROVIDE A MINIMUM OF 24 INCHES OF SELECT FILL BELOW THE SLAB.
4. COMPACT SUBGRADE AND SELECT FILL TO 85% OF STANDARD PROCTOR AT OPTIMUM MOISTURE CONTENT.
5. SLOPE THE EXTERIOR GRADE AWAY FROM THE EXCAVATIONS.
6. FOOTING SHALL BE NEATLY EXCAVATED AND BE FREE OF LOOSE MATERIAL AND STANDING WATER.
7. CONTRACTOR SHALL REMOVE AND OVER EXCAVATE ALL TREE ROOT BALLS AND FILL WITH LEAN CONCRETE OR SPECIFIED SELECT STRUCTURAL FILL.

1. CONCRET SPECIFIED IN THESE PLANS SHALL MEET THE REQUIERIMENTS OF ASTM C33 FOR AGGREGATES AND ASTM C150 FOR TYPE I PORTLAND CEMENT AND SHALL BE PROPORTIONED TO ACHIEVE A COMPRESSIVE STRENGTH (F'C) OF AT 28 DAYS:

2. FLY ASH, WHEN USED, SHALL CONFORM TO ASTM C618, TYPE C PR F. THE RATIO OF THE FLY ASH IN THE MIX SHALL NOT EXCEED 25 PERCENT AND SHALL TAKE INTO ACCOUNT THE SPECIFIC PROPERTIES.
3. WATER USED IN THE MIXING CONCRETE SHALL CONFORM TO ASTM C1602.
4. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE LATEST EDITION OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R AND CRSI.
5. MIXING, TRANSPORTING AND PLACING OF CONCRETE SHALL CONFORM TO ACI 304R.
6. CURING OF CONCRETE SHALL BE PER THE RECOMMENDATIONS OF ACI 308R.
7. MINIMUM CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS PER ACI 7.7:


GRADE BEAMS AND SLABS:	
TOP	1- 1/2 INCHES
BOARD FORMED SIDES	2 INCHES
EARTH FORMED SIDES	3 INCHES
BOTTOM	3 INCHES

8. STEEL DEFORMED REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. FABRIC SHALL BE SUPPLIED IN FLAT SHEETS, FABRIC SHALL BE LAPPED TWO FULL MESHES AT SPLICES.
10. REINFORCING SHALL NOT BE WELDED OR COLD BENT IN THE FIELD UNLESS APPROVED BY THE ENGINEER.
11. ALL REINFORCING SHALL BE CONTINUOUS THROUGH ALL MEMBERS AND MAY BE SPLICED USING 40 BAR DIAMETERS AND STAGGERED ALONG THE BEAM.
12. HORIZONTAL JOINT WILL NOT BE PERMITTED IN CONCRET CONSTRUCTION UNLESS SPECIFICALLY SHOWN IN THE CONTRACT DOCUMENTS. ALL OTHER JOINTS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.
13. CONDUIT, PIPES AND SHEELVES EMBEDDED IN CONCRET SHALL CONFORM TO THE REQUIREMENTS OF ACI 318, CHAPTER 6.3.



20410 WILD SPRINGS DR  
SAN ANTONIO, TEXAS 78251  
(210) 848 0361  
marro000@hotmail.com

CTION:



N

# DUPLEX UNIT 1

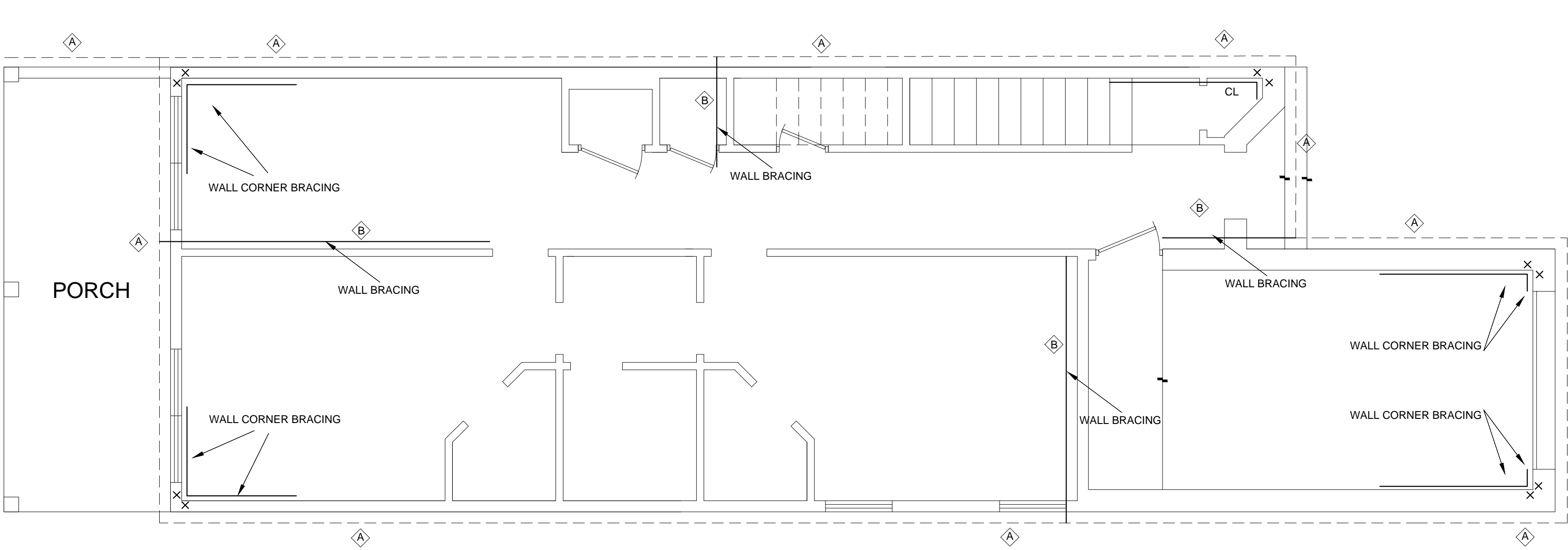
522 N HACKBERRY UNIT 1  
SAN ANTONIO, TEXAS 78202

THESE PLANS ARE THE PROPERTY OF RH  
DESIGN CUSTOM HOMES AND ANY USE  
OF THESE PLANS WITHOUT THE WRITTEN  
CONSENT OF RH DESIGN CUSTOM HOMES  
IS PROHIBITED.

# FOUNDATION

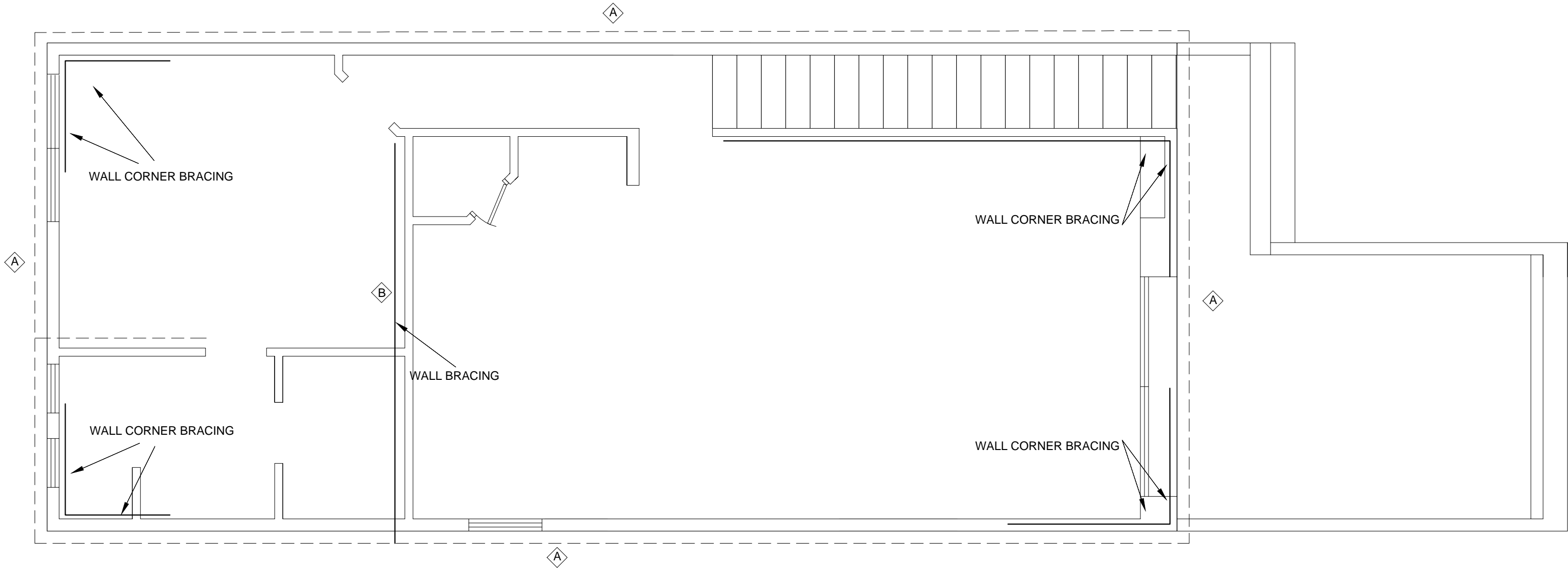
# S.1





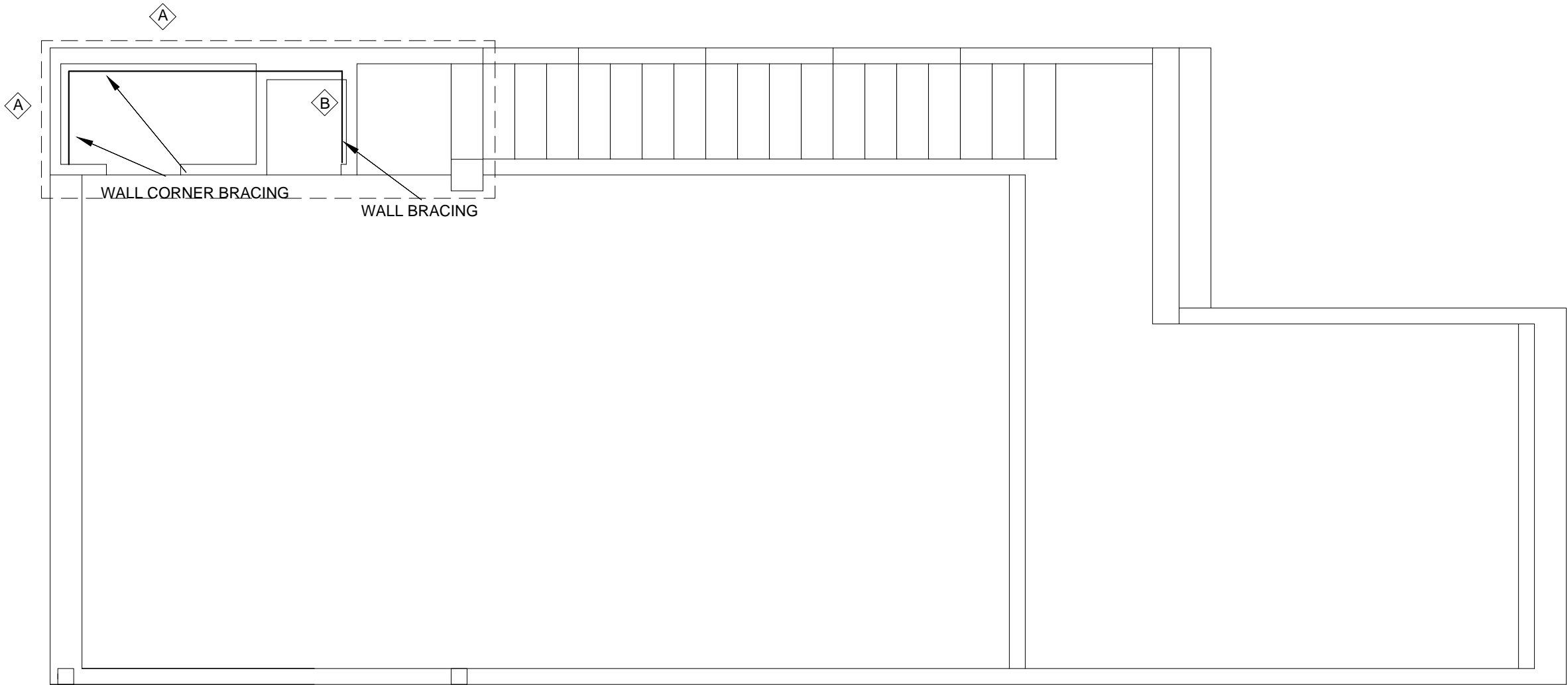
## FIRST FLOOR BRACED WALL PLAN

SCALE: 1/4=1'-0"



## SECOND FLOOR BRACED WALL PLAN

SCALE: 1/4=1'-0"



## THIRD FLOORBRACED WALL PLAN

SCALE: 1/4=1'-0"

	7/16" OSB SHEATHING ON THE EXTERIOR WALL FACE ONLY (WHERE SHOWN AT WINDOW AND DOOR OPENINGS, CONTINUE OSB ABOVE & BELOW WINDOWS AND DOORS) NAIL SPACING SHALL NOT EXCEED 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
	5/8" GYPSUM INTERIOR WALL BOARD 6d COOLER NAIL (0.092" X 1 7/8" LONG, 1/4" HEAD) OR WALLBOARD NAIL (0.086" X 1 7/8" LONG, 9/32" HEAD) OR 0.120" NAIL X 1 1/2" LONG, MIN. 3/8" HEAD.
	ADD HDU 4 SDS2 S HOLD-DOWN AT EA. CORNER, BOTH DIRECTIONS

### NOTES:

- SEE BRACED WALL PLAN FOR HOLD DOWN LOCATIONS APPLICATIONS
- SEE GENERAL NOTES FOR PANEL SPECIFICSTIONS AND OTHER REQUERIMENTS.
- PANELS SHALL BE INSTALLED PARALLEL TO WALL STUDS.
- GYPSUM PANELS SHALL NOT BE LESS THAN 2'-0" WIDE.
- 6d COOLER NAIL (0.092" X 1 7/8" LONG, 1/4" HEAD) OR WALLBOARD NAIL (0.086" X 1 7/8" LONG, 9/32" HEAD) OR 0.120" NAIL X 1 1/2" LONG, MIN. 3/8" HEAD.
- 8d COMMON NAIL (2 1/2" L X 0.131" D X 0.281" H) OR GALVANIZED BOX NAIL 2 1/2" L X 0.113" D X 0.297" H).
- DO NOT OVERDRIVE NAILS. NAILS SHALL BE FLUSH TO THE SURFACE. ADJUST GUN PRESSURE AS REQUIRED , TEST PRIOR TO INSTALLATION TO ACHEIVE ADQUATE NAILING.
- LOCATED NAILS AT LEAST 3/8" FROM EDGES AND ENDS OF PANELS.
- GYPSUM PANELS ALTERNATE FASTENERS: #6 TYPE W OR S x 1 5/8" SCREWS.
- 2018 INTERNATIONAL RESIDENTIAL CODE BRACING METHOD:

- CONTINUOSLY SHEATED WALL PANELS WITH INTERMITENT WALL FRAMINGS AS REQUIRED. WALLS HAVE BEEN DESIGNED PER ENGINEERING ANALYSIS USING THE SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (ANSI/AF AND PA/SDPWS).
- SEE SHEAR WALL SCHEDULE ON 2/S.2.0 FOR PANEL DESIGNATION AND NAILING REQUERIMENTS.
- ALL SHEAR WALLS SHALL HAVE A DOUBLE TOP PLATE AND ENDS OF THE TOP PLATES SHALL STAGGERED 48"MIN AND SHALL BE NAILED WITH EIGHT 16d FACE NAILED ON EACH SIDE OF THE JOINT.
- ALL TOP PLATES AT CORNERS AND INTERSECTIONS SHALL BE LAPPED AND FACE NAILED WITH TWO 16d NAILS.
- ENDS OF SHEAR WALL PANELS SHALL BE TERMINATED WITH (2) 2x CHORD MEMBERS. CONTRACTOR TO COORDINATE AN ANCHOR BOLT AT LEAST 6 INCHES FROM EACH END OF THE SHEAR WALL PANELS.
- ALL DISCONTINUOUS TOP PLATES SHALL BE SPLICED WITH A CS16 x GENERAL NOTES.

LOAD BEARING STUD WALL SCHEDULE		
LOCATION	GRADE AND SPACING	
EXTERIOR SUPPORTING ROOF AND CEILING ONLY	SP No. 2 - 2X6@ 16" O.C.	
EXTERIOR SUPPORTING FLOOR, ROOF AND CEILING	SP No. 2 - 2X6@ 16" O.C.	
INTERIOR	SP No. 2 - 2X4@ 16" O.C.	

### STUDS NOTES

- DOUBLE STUD AT ENDS OF ALL SHEAR WALL/BRACED WALL PANELS. SEE SHEAR WALL PLAN FOR HOLD DOWN LOCATIONS.
- ALL SHEAR AND LOAD BEARING WALLS SHALL RECIVE A DOUBLE TOP PLAT MATCH SIZE AND GRADE.
- ALL STUDS SHALL BE FULLY SHEATED ON BOTH SIDES PER THE

DEAD LOAD = 10 PSF		LIVE LOAD = 40 PSF
MARK	BEAM SIZE	
DF 2.80	(2) 2 X 8'S W/IFILLER	DOUG FIR #2 OR BETTER
DF 2.10	(2) 2 X 10'S W/IFILLER	DOUG FIR #2 OR BETTER
DF 2.12	(2) 2 X 12'S W/IFILLER	DOUG FIR #2 OR BETTER
DF 3.12	(3) 2 X 12'S W/IFILLER	DOUG FIR #2 OR BETTER
ML 2.9	(2) 1 3/4" X 9 1/2"	MICROLLAM
ML 2.11	(2) 1 3/4" X 14"	MICROLLAM
ML 2.14	(2) 1 3/4" X 14"	MICROLLAM
GL 3.11	(3) 1 3/4" X 11 7/8"	MICROLLAM
GL 3.10	3 1/8" X 10 1/2"	TREATED GLB
GL 3.12	3 1/8" X 12"	TREATED GLB
DEEPER, WIDER OR BETTER GRADES OF LUMBER MAY BE SUBSTITUTED. OTHER SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.		

### FRAMING NOTES

SPANS FOR RAFTERS SHALL BE IN ACCORDANCE WITH TABLES R802.5(1) THROUGH R802.5(8)

1. THE CONTRACTOR SHALL USE THE FOLLOWING LUMBER GRADES UNLESS OTHERWISE NOTED ON DRAWING.

JOISTS	DOUG FIR #2 OR BETTER
VERSALAMS	PER MANUFAC. INSTRUCTIONS
GLULAMS	24F-V8 DF/DF
HEADERS	DOUG FIR #2 OR BETTER
PREFAB TRUSSES/JOISTS	PER MANUFACT. INSTRUCTIONS
BEARING WALL STUDS	DOUG FIR #2 OR BETTER
NON-BEARING WALL STUDS	DOUG FIR STUD OR BETTER
SILL PLATES	PRESSURE TREATED DF #2
POSTS	OR BETTER
	DOUG FIR #1 OR BETTER

2. THE CONTRACTOR SHALL USE (2) 2" X 10" DF#2 W/IFILLER OR BETTER FOR ALL LOAD BEARING WINDOW AND DOOR HEADERS UNLESS OTHERWISE NOTED ON THE DRAWING.

3. THE CONTRACTOR SHALL USE A MINIMUM OF (2) 1 3/4" X 9 1/2" LVL FOR ANY HEADER SUPPORTING A GIRDER TRUSS UNLESS SPECIFICALLY NOTED OTHERWISE IN THE DRAWING.

4. ALL MULTIPLE BEAMS AND HEADERS SHALL BE NAILED USING 2 ROWS OF 16d NAILS @ 12" O.C.

5. A MINIMUM OF 2 STUDS SHALL BE PLACED AT ALL BEAMS, HEADERS AND GIRDER TRUSS BEARING POINTS UNLESS OTHERWISE NOTED ON THE DRAWING. SOLID BLOCK ALL POINT LOADS THROUGH AND LONGER TO POST/STUDS.

6. APPROPRIATE SIMPSON TIES SHALL BE USED TO CONNECT BEAMS 6' LISTED IN UBC TABLE 23-1-Q.

7. THE CONTRACTOR SHALL FOLLOW THE MINIMUM NAILING SCHEDULE

8. THE CONTRACTOR SHALL COMPLY WITH THE BUILDING CODES AS LISTED IN SECTION 23 OF THE CURRENT UBC.

### TRUSS NOTES

1. ROOF TRUSSES SHALL BE DESIGNED TO MEET THE LOADS SPECIFIED IN THE DESIGN CRITERIA. ALL TRIBUTARY UNBRANCHED SNOW, MECHANICAL LOADS, ETC., SHALL BE CONSIDERED IN THE DESIGN. THE DESIGN SHALL LIMIT THE DEFLECTION TO SPAN LENGTH/360.

2. THE CONTRACTOR SHALL USE SIMPSON HI CONNECTORS 48" O.C., ALTERNATE ENDS.

3. ROOF ACCESS SHALL BE PROVIDED WITH A MINIMUM 22" X 30" OPENING. SEE PLAN FOR LOCATION.

4. ANY CHANGES TO THE TRUSS CONFIGURATION SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

TABLE R503.2.1.1(2) ALLOWABLE SPANS FOR SANDED PLYWOOD COMBINATION SUBFLOOR UNDERLAYMENTg

IDENTIFICATION	SPACING OF JOISTS (inches)			
	16	20	24	
Species group <sup>a</sup> =	1	2	3	4
1	1/2	5/8	3/4	
2,3	5/8	3/4	7/8	
4	3/4	7/8	1	

FOR SI: 1 INCH = 25.4 MM, 1 POUND PER SQUARE FOOT = 0.0479 KPA. A. PLYWOOD CONTINUOUS OVER TWO OR MORE SPANS AND FACE GRAIN PERPENDICULAR TO SUPPORTS. UNSUPPORTED EDGES SHALL BE TONGUE-AND-GROOVE OR BLOCKED EXCEPT WHERE NOMINAL 1/4-INCH-THICK WOOD PANEL-TYPE UNDERLAYMENT, FIBER-CEMENT UNDERLAYMENT OR 3/4-INCH WOOD FINISH FLOOR IS USED. FIBER-CEMENT UNDERLAYMENT SHALL COMPLY WITH ASTM C 1288 OR ISO 8336 CATEGORY C. ALLOWABLE UNIFORM LIVE LOAD AT MAXIMUM SPAN BASED ON DEFLECTION OF 1/360 OF SPAN IS 100 PSF.B. APPLICABLE TO ALL GRADES OF SANDED EXTERIOR-TYPE PLYWOOD.

TABLE R503.2.1.1(1) ALLOWABLE SPANS AND LOADS FOR WOOD STRUCTURAL PANELS FOR ROOF AND SUBFLOOR SHEATHING AND COMBINATION SUBFLOOR UNDERLAYMENT.

SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (inch)	ALLOWABLE LIVE LOAD (psf) <sup>a,1</sup>		MAXIMUM SPAN (inches)		LOAD (pounds per square foot at maximum span)		MAXIMUM SPAN (inches)
		SPAN @ 16" o.c.	SPAN @ 24" o.c.	With edge support <sup>d</sup>	Without edge support <sup>d</sup>	Total load	Live load	
<b>Roof<sup>e</sup></b>								
<b>Sheathing<sup>a</sup></b>								
16/0	1/8	30	—	16	16	40	30	0
20/0	1/8	50	—	20	20	40	30	0
24/0	1/8	100	30	24	20 <sup>a</sup>	40	30	0
24/16	1/4	100	40	24	24	50	40	16
32/16	1/2	180	70	32	28	40	30	16 <sup>a</sup>
40/20	3/8	305	130	40	32	40	30	20 <sup>a,1</sup>
48/24	3/4	—	175	48	36	45	35	24
60/32	1	—	305	60	48	45	35	32
<b>Underlayment C-C plugged, single floor<sup>a</sup></b>								
<b>Roof<sup>e</sup></b>								
16 o.c.	1/8	100	40	24	24	50	40	16 <sup>a</sup>
20 o.c.	1/8	150	60	32	32	40	30	20 <sup>a,1</sup>
24 o.c.	3/8	240	100	48	36	35	25	24
32 o.c.	1/2	—	185	48	40	50	40	32
48 o.c.	1 1/8	—	290	60	48	50	40	48

FOR SI: 1 INCH = 25.4 MM, 1 POUND PER SQUARE FOOT = 0.0479 KPA.

A. THE ALLOWABLE TOTAL LOADS WERE DETERMINED USING A DEAD LOAD OF 10 PSF. IF THE DEAD LOAD EXCEEDS 10 PSF, THEN THE LIVE LOAD SHALL BE REDUCED ACCORDINGLY.

B. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITH LONG DIMENSION (STRENGTH AXIS) PERPENDICULAR TO SUPPORTS. SPANS SHALL BE LIMITED TO VALUES SHOWN BECAUSE OF POSSIBLE EFFECT OF CONCENTRATED LOADS.

C. APPLIES TO PANELS 24 INCHES OR WIDER.

D. LUMBER BLOCKING, PANEL EDGE CLIPS (ONE MIDWAY BETWEEN EACH SUPPORT, EXCEPT TWO EQUALLY SPACED BETWEEN SUPPORTS WHERE SPAN IS 48 INCHES), TONGUE-AND-GROOVE PANEL EDGES, OR OTHER APPROVED TYPE OF EDGE SUPPORT.

E. INCLUDES STRUCTURAL PANELS IN THESE GRADES.

F. UNIFORM LOAD DEFLECTION LIMITATION: 1/180 OF SPAN UNDER LIVE LOAD PLUS DEAD LOAD, 1/240 OF SPAN UNDER LIVE LOAD ONLY.

G. MAXIMUM SPAN 24 INCHES FOR 15/32-AND 1/2-INCH PANELS.

H. MAXIMUM SPAN 24 INCHES WHERE 3/4-INCH WOOD FINISH FLOORING IS INSTALLED AT RIGHT ANGLES TO JOISTS.

I. MAXIMUM SPAN 24 INCHES WHERE 1.5 INCHES OF LIGHTWEIGHT CONCRETE OR APPROVED CELLULAR CONCRETE IS PLACED OVER THE SUBFLOOR.

J. UNSUPPORTED EDGES SHALL HAVE TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH BLOCKING UNLESS MINIMUM NOMINAL 1/4-INCH-THICK WOOD PANEL-TYPE UNDERLAYMENT, FIBER-CEMENT UNDERLAYMENT WITH END AND EDGE JOINTS OFFSET NOT LESS THAN 2 INCHES OR 1 1/2 INCHES OF LIGHTWEIGHT CONCRETE OR APPROVED CELLULAR CONCRETE IS PLACED OVER THE SUBFLOOR, OR 3/4-INCH WOOD FINISH FLOORING IS INSTALLED AT RIGHT ANGLES TO THE SUPPORTS. FIBER-CEMENT UNDERLAYMENT SHALL COMPLY WITH

ASTM C 1288 OR ISO 8336 CATEGORY C. ALLOWABLE UNIFORM LIVE LOAD AT MAXIMUM SPAN, BASED ON DEFLECTION OF 1/360 OF SPAN, IS 100 PSF.

K. UNSUPPORTED EDGES SHALL HAVE TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED BY BLOCKING UNLESS NOMINAL 1/4-INCH-THICK WOOD PANEL-TYPE UNDERLAYMENT, FIBER-CEMENT UNDERLAYMENT WITH END AND EDGE JOINTS OFFSET NOT LESS THAN 2 INCHES OR 3/4-INCH WOOD FINISH FLOORING IS INSTALLED AT RIGHT ANGLES TO THE SUPPORTS. FIBER-CEMENT UNDERLAYMENT SHALL COMPLY WITH ASTM C 1288 OR ISO 8336 CATEGORY C. ALLOWABLE UNIFORM LIVE LOAD AT MAXIMUM SPAN, BASED ON DEFLECTION OF 1/360 OF SPAN, IS 100 PSF, EXCEPT PANELS WITH A SPAN RATING OF 48 ON CENTER ARE LIMITED TO 65 PSF TOTAL UNIFORM LOAD AT MAXIMUM SPAN.

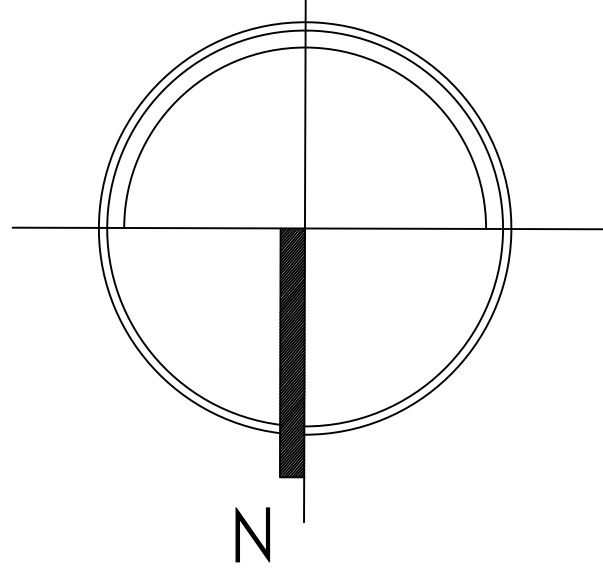
L. ALLOWABLE LIVE LOAD VALUES AT SPANS OF 16 INCHES ON CENTER AND 24 INCHES ON CENTER TAKEN FROM REFERENCE STANDARD APA E30, APA ENGINEERED WOOD CONSTRUCTION GUIDE. REFER TO REFERENCE STANDARD FOR ALLOWABLE SPANS NOT LISTED IN THE TABLE.

# RH

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20410 WILD SPRINGS DR  
SAN ANTONIO, TEXAS 78251  
(210) 848 0361  
marro000@hotmail.com

DIRECTION:



PROJECT:

## DUPLEX UNIT 1

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 1  
SAN ANTONIO, TEXAS 78202

### NOTE:

GENERAL CONTRACTOR SHALL HAVE THIS FOUNDATION PLAN DESIGN BY A TEXAS REGISTERED ENGINEER TO MEET SOIL TESTS REQUIREMENTS.

THE DESIGNER ASSUMES NO LIABILITY FOR ANY STRUCTURE CONSTRUCTED FROM THIS PLAN. IT IS THE RESPONSABILITY OF THE PURCHASER, OF THIS PLAN, TO PERFORM THE FOLLOWING BEFORE ACTUA CONSTRUCTION COMMENCES

1.- BUILDER OR CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

2.- BUILDER OR CONTRACTOR MUST VERIFY COMPLIANCE WITH ALL LOCAL BUILDING CODES OF THE AREA WHERE THE STRUCTURE IS TO BE CONSTRUCTED AND LOCATED.

3.- PLANS INDICATE LOCATIONS ONLY: ENGINEERING ASPECTS SHOULD BE INCORPORATED TO ACTUAL SITE CONDITIONS.

THESE PLANS ARE THE PROPERTY OF RH DESIGN CUSTOM HOMES AND ANY USE OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF RH DESIGN CUSTOM HOMES IS PROHIBITED.

DATE:

MAY/2020

DRAWN BY:

M.R.

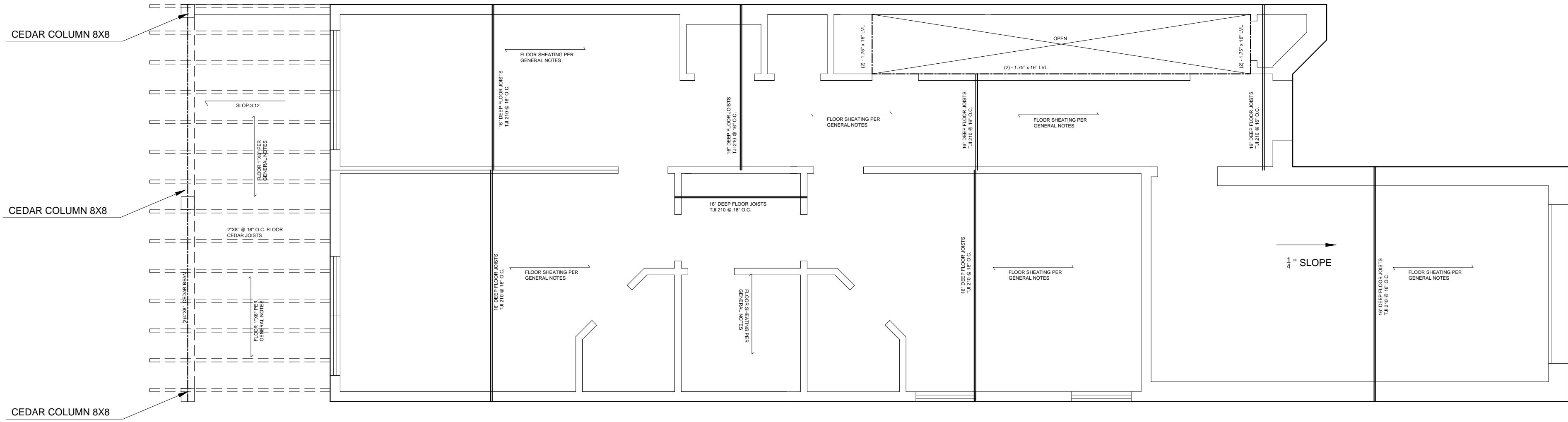
PLAN:

## BRACED WALL PLAN

SHEET No.:

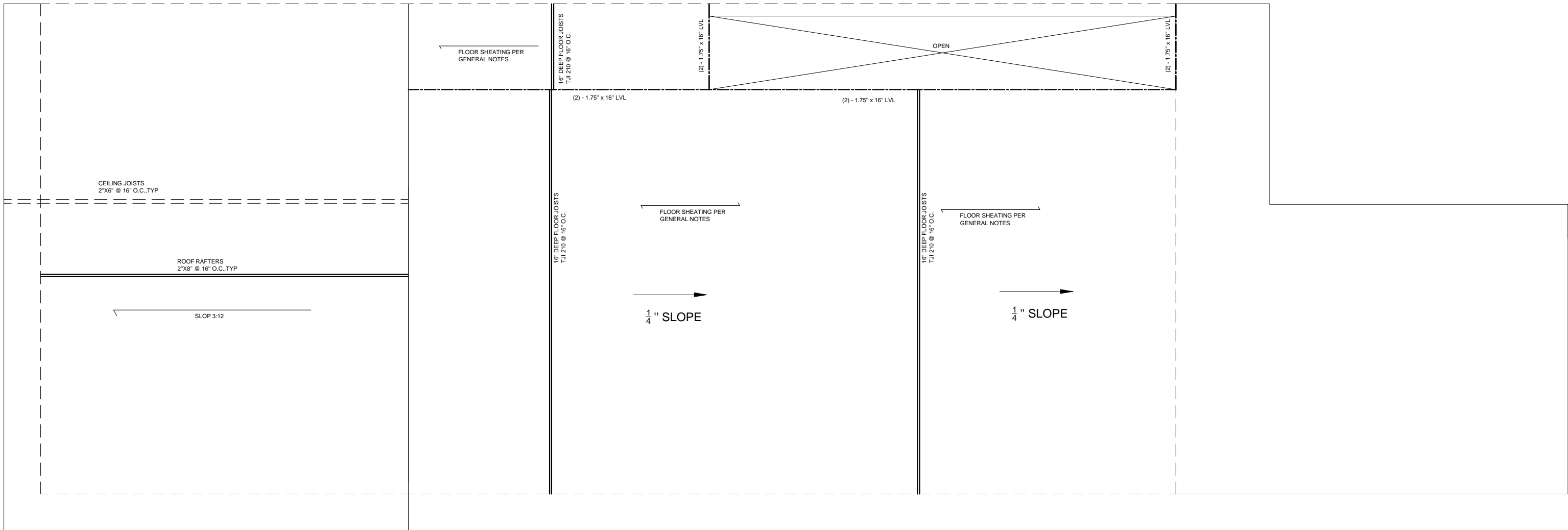
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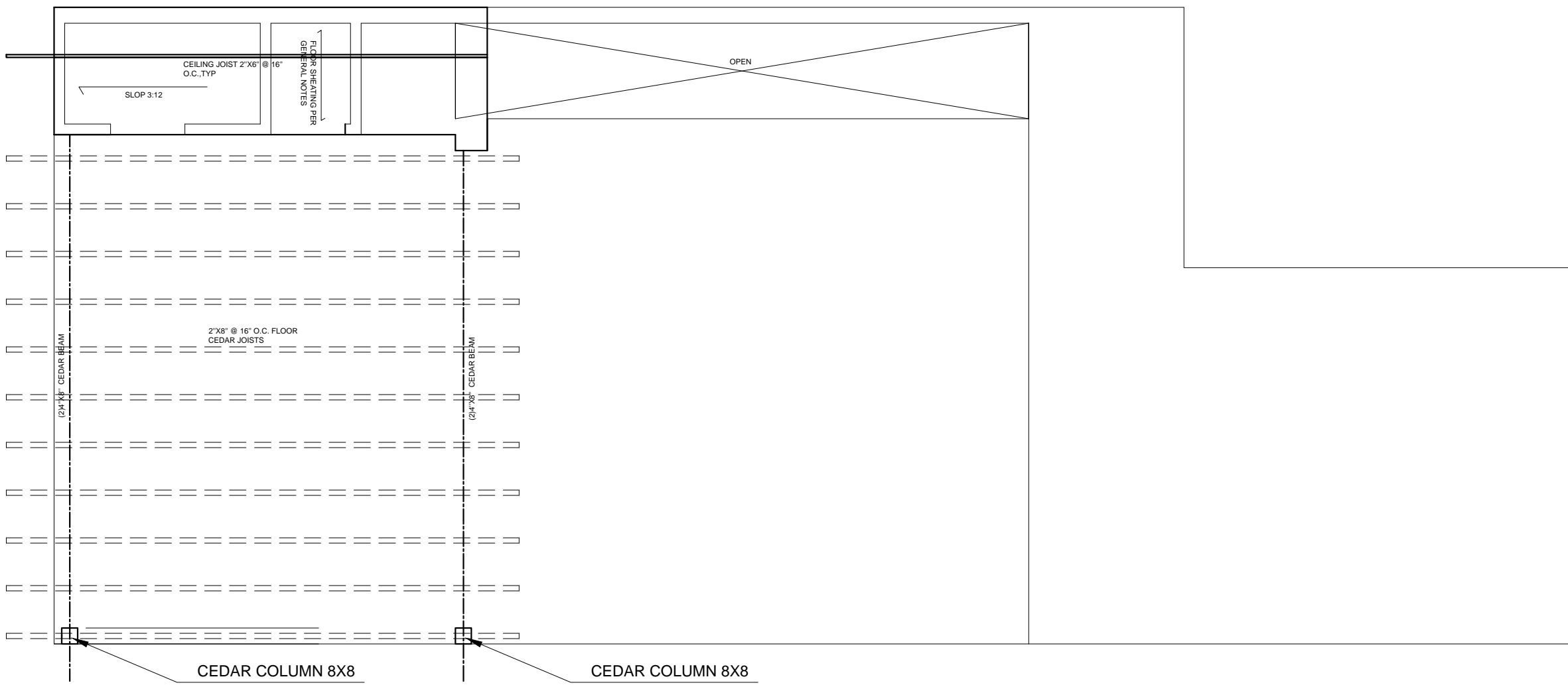
## SECOND FLOOR FRAMING

SCALE: 1/4=1'-0"



## THIRD FLOOR FRAMING

SCALE: 1/4=1'-0"



## ROOF FRAMING

SCALE: 1/4=1'-0"

### STRUCTURAL NOTES

#### GENERAL

1. TEMPORARY BRACING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE IRC 2018 EDITION ANDLOCAL CITY AMENDMENTS.
3. THE DESIGN GRAVITY LOADS ARE AS FOLLOWS:

SUPERIMPOSED DEAD LOAD (NOT LIMITED TO BELOW):

STRUCTURE MECHANICAL AND CEILING FINISHES	SELF WEIGHT(15 PSF) 5 PSF AS REQUIRED
-------------------------------------------------	---------------------------------------------

LIVE LOADS

FLOOR RESIDENTIAL ROOF	40 PSF 20/16/12 PSF
---------------------------	------------------------

4. THE LIVE LOADS ARE NOT PERMITTED TO BE REDUCED.
5. THE STRUCTURE HEREIN HAVE BEEN DESIGNED AND DETAILED TO RESIST THE WIND PRESSURES CALCULATED FROM CHARPTER 26 OF THE ASCE07-10" MINIMUM DESIGN LOADS FOR BUILDING AND OTHERS STRUCTURES" AS REFERENCED IN THE IBC FOR AN ULTIMATE WIND SPEED OF 1115 MILES PER HOUR, RISK CATEGORY II, EXPOSURE 'B' AT A MEAN ROOF HEIGHT OF 33 FEET ABOVE THE FINISHED GRADE.
6. THE COMPONENTS AND CLADDING SYSTEM AND THEIR ATTACHMENTS TO THE STRUCTURE SHALL BE DESIGNED AND DETAILED TO RESIST WIND FORCES DESCRIBED ABOVE.
7. THE SEISMIC FORCES HAVE BEEN REVIEWED AND DETERMINED TO BE EXEMPT FROM SECTION 1613, OF THE IBC 2018:

SITE CLASS SEISMIC DESIGN CATEGORY	D A "EXEMPT"
---------------------------------------	-----------------

8. STRUCTURAL MEMBERS HAVE BEEN LOCATED AND DESIGNED TO ACCOMMODATE THE MECHANICAL EQUIPMENT AND OPENINGS SPECIFIED BY THE MECHANICAL CONSULTANT. ANY SUBSTITUTIONS RESULTING IN REVISIONS TO THE STRUCTURE SHALL BE THE RESPONSABILITY OF THE CONTRACTOR TO COORDINATE WITH 13TH LEVEL.
9. THE USE OF THE CONTRACT DOCUMENTS AND/OR ELECTRONIC FILES AS STRUCTURAL SHOP DRAWING DOCUMENTS BY THE CONTRACTOR OR SUB-CONTRACTORS IS TO BE USED AT THEIR OWN RISK. 13TH LEVEL ASSUMES NO LIABILITY AS THE RESULT OF THE REPRODUCTIVE USE OF THE STRUCTURAL CONTRACT DOCUMENTS FOR THE SHOP DRAWINGS.
10. SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL REFERENCE ONLY. NO DIMENSINAL INFOTMATION SHALL BE OBTAINED BY DIRECT SCALING OF DRAWINGS.
11. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL RESULTING REVISIONS TO THE STRUCTURAL SYSTEM OR OTHER TRADES AS A RESULT OF ACCEPTANCE OF CONTRACTOR PROPOSED ALTERNATIVES OR SUBSTITUTIONS.

### FLOOR JOIST MAXIMUM SPANS

40 PSF LIVE LOAD + 10 PSF DEAD LOAD									
IMPROVED PERFORMANCE (L/480)									
Joist Series	Joist Depth	12' o.c.	16' o.c.	18' o.c.	19.2' o.c.	20' o.c.	12' o.c.	16' o.c.	18' o.c.
GPI 20	11 1/2"	17'-0"	13'-0"	11'-0"	10'-0"	9'-0"	17'-0"	13'-0"	11'-0"
	14"	22'-0"	17'-0"	15'-0"	14'-0"	13'-0"	22'-0"	17'-0"	15'-0"
GPI 40	11 1/2"	31'-0"	24'-0"	21'-0"	20'-0"	19'-0"	31'-0"	24'-0"	21'-0"
	14"	37'-0"	29'-0"	25'-0"	24'-0"	23'-0"	37'-0"	29'-0"	25'-0"
GPI 60	11 1/2"	37'-0"	29'-0"	25'-0"	24'-0"	23'-0"	37'-0"	29'-0"	25'-0"
	14"	44'-0"	34'-0"	29'-0"	28'-0"	27'-0"	44'-0"	34'-0"	29'-0"
GPI 80	11 1/2"	37'-0"	29'-0"	25'-0"	24'-0"	23'-0"	37'-0"	29'-0"	25'-0"
	14"	44'-0"	34'-0"	29'-0"	28'-0"	27'-0"	44'-0"	34'-0"	29'-0"
WI 40	11 1/2"	21'-0"	16'-0"	14'-0"	13'-0"	12'-0"	21'-0"	16'-0"	14'-0"
	14"	26'-0"	20'-0"	17'-0"	16'-0"	15'-0"	26'-0"	20'-0"	17'-0"
WI 60	11 1/2"	21'-0"	16'-0"	14'-0"	13'-0"	12'-0"	21'-0"	16'-0"	14'-0"
	14"	26'-0"	20'-0"	17'-0"	16'-0"	15'-0"	26'-0"	20'-0"	17'-0"
WI 80	11 1/2"	21'-0"	16'-0"	14'-0"	13'-0"	12'-0"	21'-0"	16'-0"	14'-0"
	14"	26'-0"	20'-0"	17'-0"	16'-0"	15'-0"	26'-0"	20'-0"	17'-0"

40 PSF LIVE LOAD + 20 PSF DEAD LOAD									
IMPROVED PERFORMANCE (L/480)									
Joist Series	Joist Depth	12' o.c.	16' o.c.	18' o.c.	19.2' o.c.	20' o.c.	12' o.c.	16' o.c.	18' o.c.
GPI 20	11 1/2"	17'-0"	13'-0"	11'-0"	10'-0"	9'-0"	17'-0"	13'-0"	11'-0"
	14"	22'-0"	17'-0"	15'-0"	14'-0"	13'-0"	22'-0"	17'-0"	15'-0"
GPI 40	11 1/2"	31'-0"	24'-0"	21'-0"	20'-0"	19'-0"	31'-0"	24'-0"	21'-0"
	14"	37'-0"	29'-0"	25'-0"	24'-0"	23'-0"	37'-0"	29'-0"	25'-0"
GPI 60	11 1/2"	37'-0"	29'-0"	25'-0"	24'-0"	23'-0"	37'-0"	29'-0"	25'-0"
	14"	44'-0"	34'-0"	29'-0"	28'-0"	27'-0"	44'-0"	34'-0"	29'-0"
GPI 80	11 1/2"	37'-0"	29'-0"	25'-0"	24'-0"	23'-0"	37'-0"	29'-0"	25'-0"
	14"	44'-0"	34'-0"	29'-0"	28'-0"	27'-0"	44'-0"	34'-0"	29'-0"
WI 40	11 1/2"	21'-0"	16'-0"	14'-0"	13'-0"	12'-0"	21'-0"	16'-0"	14'-0"
	14"	26'-0"	20'-0"	17'-0"	16'-0"	15'-0"	26'-0"	20'-0"	17'-0"
WI 60	11 1/2"	21'-0"	16'-0"	14'-0"	13'-0"	12'-0"	21'-0"	16'-0"	14'-0"
	14"	26'-0"	20'-0"	17'-0"	16'-0"	15'-0"	26'-0"	20'-0"	17'-0"
WI 80	11 1/2"	21'-0"	16'-0"	14'-0"	13'-0"	12'-0"	21'-0"	16'-0"	14'-0"
	14"	26'-0"	20'-0"	17'-0"	16'-0"	15'-0"	26'-0"	20'-0"	17'-0"

### BONUS ROOM FLOOR JOIST SELECTION GUIDE

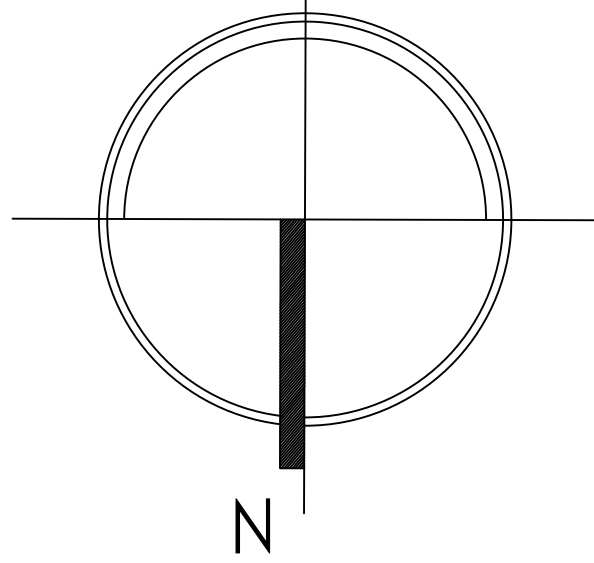
L (Span)	X (KneeWall Location)	WI Joists (Series - Depth) <sup>1</sup>				GPI Joists (Series - Depth) <sup>2</sup>			
		12' o.c.	16' o.c.	18' o.c.	20' o.c.	12' o.c.	16' o.c.	18' o.c.	20' o.c.
20'	4"	60-11 1/2"	60-14"	60-16"	60-18"	65-11 1/2"	65-14"	65-16"	65-18"
	5"	60-11 1/2"	60-14"	60-16"	60-18"	65-11 1/2"	65-14"	65-16"	65-18"
	6"	60-11 1/2"	60-14"	60-16"	60-18"	65-11 1/2"	65-14"	65-16"	65-18"
22'	4"	60-14"	60-16"	60-18"	60-19 1/2"	65-14"	65-16"	65-18"	60-19 1/2"
	5"	60-14"	60-16"	60-18"	60-19 1/2"	65-14"	65-16"	65-18"	60-19 1/2"
	6"	60-14"	60-16"	60-18"	60-19 1/2"	65-14"	65-16"	65-18"	60-19 1/2"
24'	4"	60-16"	60-18"	Dn1 60-18"	Dn1 60-18"	65-16"	65-18"	60-18"	Dn1 65-18"
	5"	60-16"	60-18"	Dn1 60-18"	Dn1 60-18"	65-16"	65-18"	60-18"	Dn1 65-18"
	6"	60-16"	60-18"	Dn1 60-18"	Dn1 60-18"	65-16"	65-18"	60-18"	Dn1 65-18"
26'	4"	60-16"	Dn1 60-18"	Dn1 60-18"	Dn1 60-18"	65-16"	65-18"	Dn1 65-18"	Dn1 60-14"
	5"	60-16"	Dn1 60-18"	Dn1 60-18"	Dn1 60-18"	65-16"	65-18"	Dn1 65-18"	Dn1 60-14"
	6"	60-16"	Dn1 60-18"	Dn1 60-18"	Dn1 60-18"	65-16"	65-18"	Dn1 65-18"	Dn1 60-14"

RH

design • custom • homes

20410 WILD SPRINGS DR  
SAN ANTONIO, TEXAS 78251  
(210) 848 0361  
maro000@hotmail.com

DIRECTION:



PROJECT:

DUPLEX  
UNIT 1

OWNER:  
CONSTRU K22

LOCATION:  
522 N HACKBERRY UNIT 1  
SAN ANTONIO, TEXAS 78202

NOTE:  
GENERAL CONTRACTOR SHALL HAVE THIS FOUNDATION PLAN DESIGN BY A TEXAS REGISTERED ENGINEER TO MEET SOIL TESTS REQUIREMENTS.

THE DESIGNER ASSUMES NO LIABILITY FOR ANY STRUCTURE CONSTRUCTED FROM THIS PLAN IT IS THE RESPONSABILITY OF THE PURCHASER, OF THIS PLAN, TO PERFORM THE FOLLOWING BEFORE ACTUA CONSTRUCTION COMMENCES  
1.- BUILDER OR CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.  
2.- BUILDER OR CONTRACTOR MUST VERIFY COMPLIANCE WITH ALL LOCAL BUILDING CODES OF THE AREA WHERE THE STRUCTURE IS TO BE CONSTRUCTED AND LOCATED.  
3.- PLANS INDICATE LOCATIONS ONLY: ENGINEERING ASPECTS SHOULD BE INCORPORATED TO ACTUAL SITE CONDITIONS.

THESE PLANS ARE THE PROPERTY OF RH DESIGN CUSTOM HOMES AND ANY USE OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF RH DESIGN CUSTOM HOMES IS PROHIBITED.

DATE: MAY/2020  
DRAWN BY: M.R.

PLAN:

## FRAMING PLAN

SHEET No.:

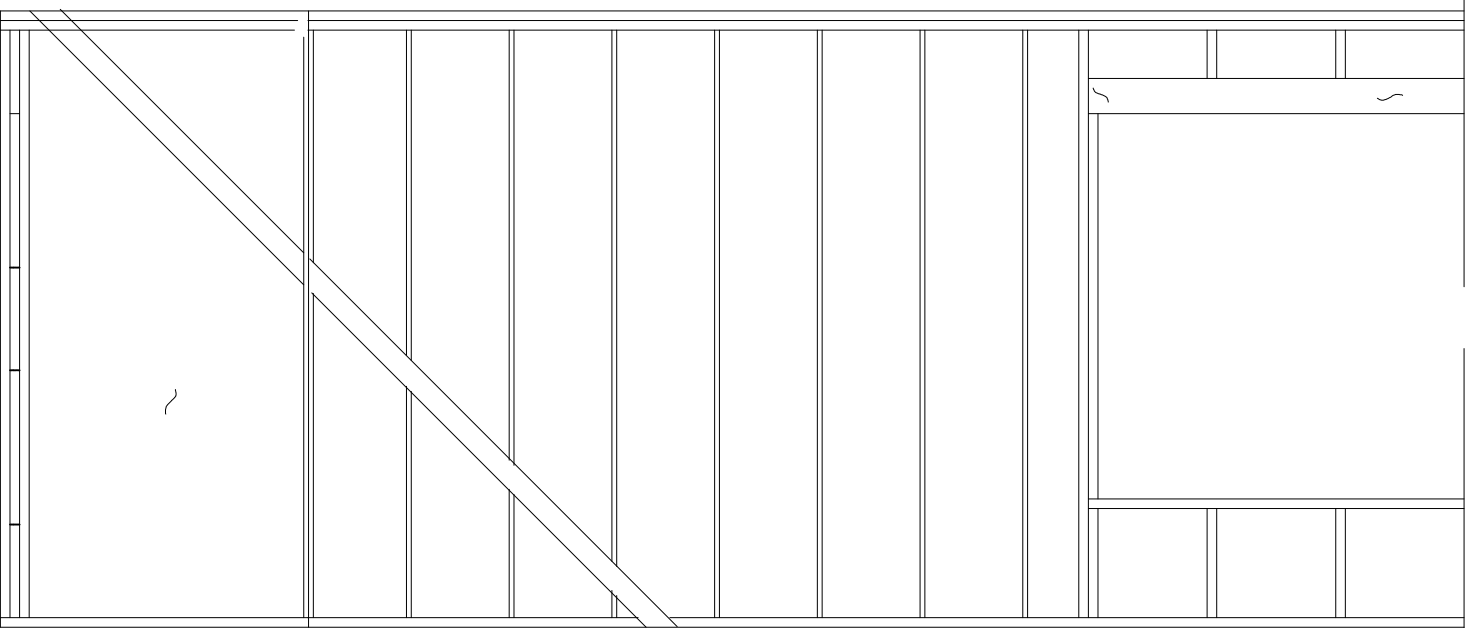
S.3



NOTE:

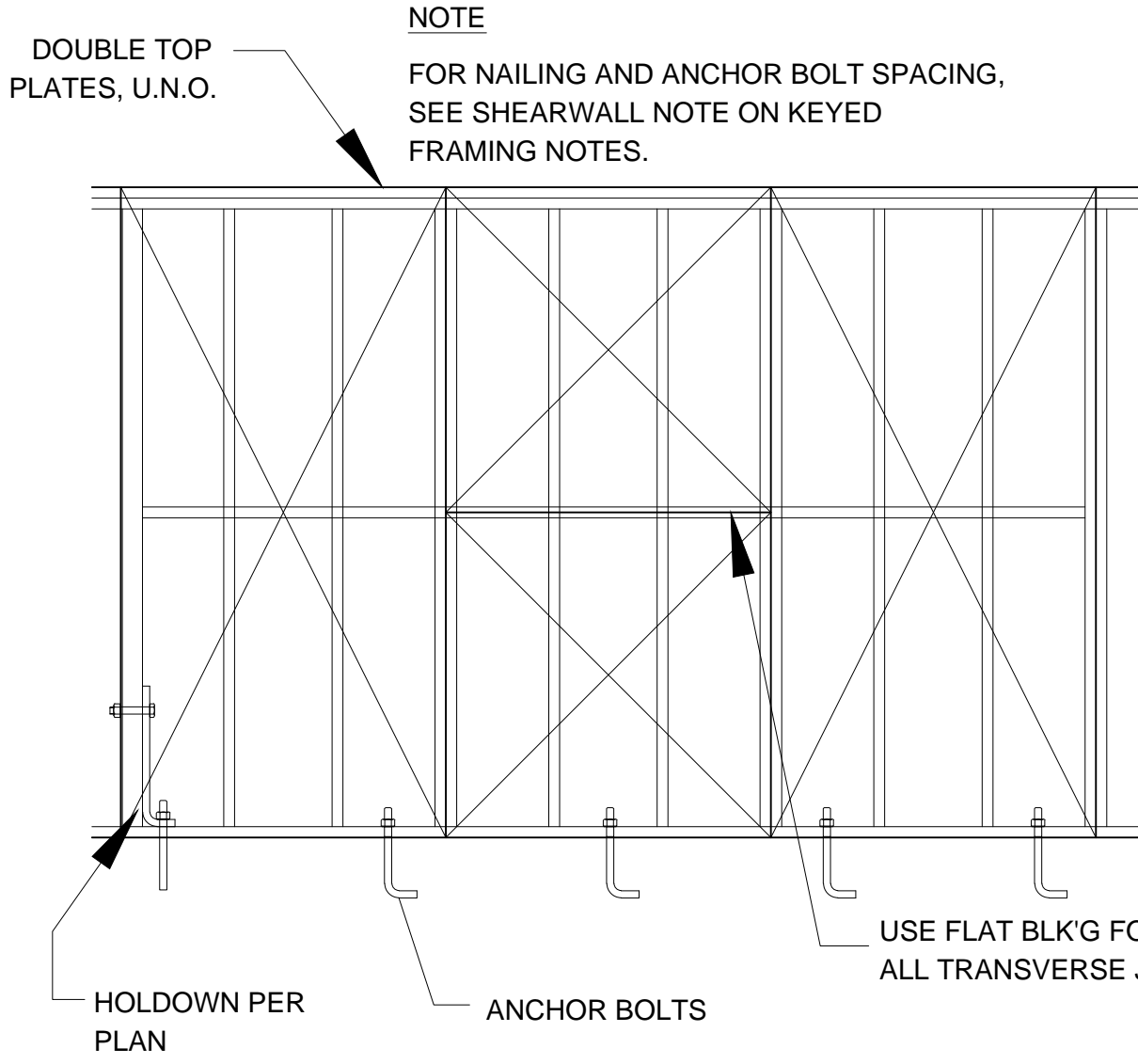
1. 4' X 8' X 5/8" PLYWOOD SHEET MAY BE USED IN PLACE OF 1 X 4.
2. PLYWOOD SHEET TO BE SECURELY NAILED TO SOLE PLATE, TOP PLATE, AND STUDS.

(SEE HEADER SCHEDULE).



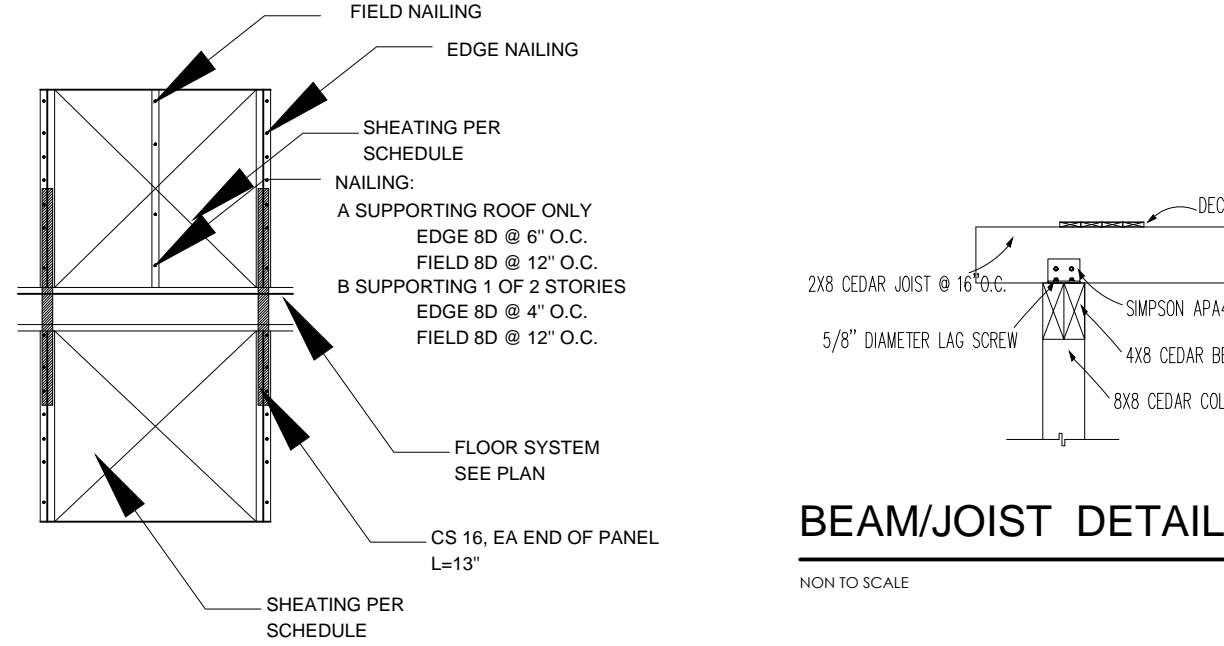
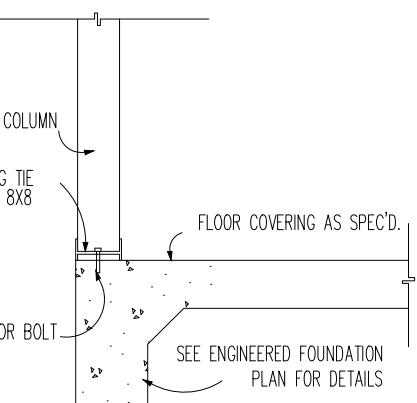
## TYPICAL CORNER BRACING AND WINDOW DETAIL

NON SCALE



## TYPICAL VERTICAL PLYWOOD LAYOUT

NON SCALE



## ALTERNATE BRACED WALL

NON SCALE

## COMUMN DETAIL

NON TO SCALE

SPANS FOR CEILING JOISTS SHALL BE IN ACCORDANCE WITH TABLES R602.4(1) AND R602.4(2), FOR OTHER GRADES AND SPECIES AND FOR OTHER LOADING CONDITIONS, REFER TO THE AWC SJI.

TABLE R602.4(1) CEILING JOIST SPANS FOR COMMON LUMBER SPECIES (UNINHABITABLE ATTICS WITHOUT STORAGE, LIVE LOAD = 10 PSF, U/A = 240)

TABLE R602.4(1) - CONTINUED CEILING JOIST SPANS FOR COMMON LUMBER SPECIES (UNINHABITABLE ATTICS WITHOUT STORAGE, LIVE LOAD = 10 PSF, U/A = 240)

CEILING JOIST SPACING (inches) SPECIES AND GRADE	DEAD LOAD = 5 psf				CEILING JOIST SPACING (inches) SPECIES AND GRADE	DEAD LOAD = 5 psf			
	2' x 4	2' x 6	2' x 8	2' x 10		2' x 4	2' x 6	2' x 8	2' x 10
Maximum ceiling joist spans (feet - inches) (feet - inches) (feet - inches) (feet - inches)					Maximum ceiling joist spans (feet - inches) (feet - inches) (feet - inches) (feet - inches)				
Douglas fir-larch SS 13-2	20-0				Douglas fir-larch SS 13-2	20-0			
Douglas fir-larch #1 12-8	19-11				Douglas fir-larch #1 12-8	19-11			
Douglas fir-larch #2 12-8	19-11				Douglas fir-larch #2 12-8	19-11			
Douglas fir-larch #3 11-1	18-3				Douglas fir-larch #3 11-1	18-3			
Hem-fir SS 12-5	19-4				Hem-fir SS 12-5	19-4			
Hem-fir #1 12-2	19-1				Hem-fir #1 12-2	19-1			
Hem-fir #2 11-7	18-2				Hem-fir #2 11-7	18-2			
Hem-fir #3 10-0	15-10				Hem-fir #3 10-0	15-10			
Southern pine SS 12-11	20-0				Southern pine SS 12-11	20-0			
Southern pine #1 12-5	19-4				Southern pine #1 12-5	19-4			
Southern pine #2 11-0	18-6				Southern pine #2 11-0	18-6			
Southern pine #3 10-1	16-11				Southern pine #3 10-1	16-11			
Species-pine #1 12-2	19-1				Species-pine #1 12-2	19-1			
Species-pine #2 11-0	18-6				Species-pine #2 11-0	18-6			
Species-pine #3 11-0	18-6				Species-pine #3 11-0	18-6			
Douglas fir-larch #1 11-4	18-1				Douglas fir-larch #1 11-4	18-1			
Douglas fir-larch #2 11-3	17-6				Douglas fir-larch #2 11-3	17-6			
Douglas fir-larch #3 9-7	16-1				Douglas fir-larch #3 9-7	16-1			
Douglas fir-larch #4 11-3	17-6				Douglas fir-larch #4 11-3	17-6			
Hem-fir #1 11-0	17-4				Hem-fir #1 11-0	17-4			
Hem-fir #2 10-6	16-4				Hem-fir #2 10-6	16-4			
Hem-fir #3 9-5	15-2				Hem-fir #3 9-5	15-2			
Southern pine SS 11-9	18-5				Southern pine SS 11-9	18-5			
Southern pine #1 11-3	17-6				Southern pine #1 11-3	17-6			
Southern pine #2 10-9	16-11				Southern pine #2 10-9	16-11			
Southern pine #3 9-9	15-1				Southern pine #3 9-9	15-1			
Species-pine #1 11-0	18-6				Species-pine #1 11-0	18-6			
Species-pine #2 10-9	17-6				Species-pine #2 10-9	17-6			
Species-pine #3 9-5	15-2				Species-pine #3 9-5	15-2			

TABLE R602.4(2) CEILING JOIST SPANS FOR COMMON LUMBER SPECIES (UNINHABITABLE ATTICS WITH LIMITED STORAGE, LIVE LOAD = 20 PSF, U/A = 240)

CEILING JOIST SPACING (inches) SPECIES AND GRADE	DEAD LOAD = 10 psf				CEILING JOIST SPACING (inches) SPECIES AND GRADE	DEAD LOAD = 10 psf			
	2' x 4	2' x 6	2' x 8	2' x 10		2' x 4	2' x 6	2' x 8	2' x 10
Maximum ceiling joist spans (feet - inches) (feet - inches) (feet - inches) (feet - inches)									
Douglas fir-larch SS 10-3	16-4				Douglas fir-larch SS 10-3	16-4			
Douglas fir-larch #1 10-0	15-9				Douglas fir-larch #1 10-0	15-9			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir SS 9-10	15-4				Hem-fir SS 9-10	15-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			
Hem-fir #1 9-6	15-0				Hem-fir #1 9-6	15-0			
Hem-fir #2 9-2	14-5				Hem-fir #2 9-2	14-5			
Hem-fir #3 7-8	11-2				Hem-fir #3 7-8	11-2			
Southern pine SS 10-3	16-1				Southern pine SS 10-3	16-1			
Southern pine #1 9-10	15-4				Southern pine #1 9-10	15-4			
Southern pine #2 9-3	15-1				Southern pine #2 9-3	15-1			
Southern pine #3 7-2	10-4				Southern pine #3 7-2	10-4			
Species-pine #1 9-8	15-2				Species-pine #1 9-8	15-2			
Species-pine #2 9-3	14-9				Species-pine #2 9-3	14-9			
Species-pine #3 7-8	11-2				Species-pine #3 7-8	11-2			
Douglas fir-larch #1 10-0	15-4				Douglas fir-larch #1 10-0	15-4			
Douglas fir-larch #2 9-10	15-0				Douglas fir-larch #2 9-10	15-0			
Douglas fir-larch #3 7-10	11-4				Douglas fir-larch #3 7-10	11-4			</



1. THE FOUNDATION DESIGN IS BASED ON THE PRESUMPTIVE ALLOWABLE LOAD BEARING VALUES PER THE IRC SECTION R401.4.1 TABLE R401.4.1 THE ADDRESS WAS MAPPED BY THE USDA SOIL SURVEY WEBSITE. CLAY (CH) SOILS ARE PRESENT AT THE SITE.
2. THE FOUNDATION HAS BEEN PROPORTIONED USING THE FOLLOWING NET ALLOWABLE SOIL BEARING PRESSURES:

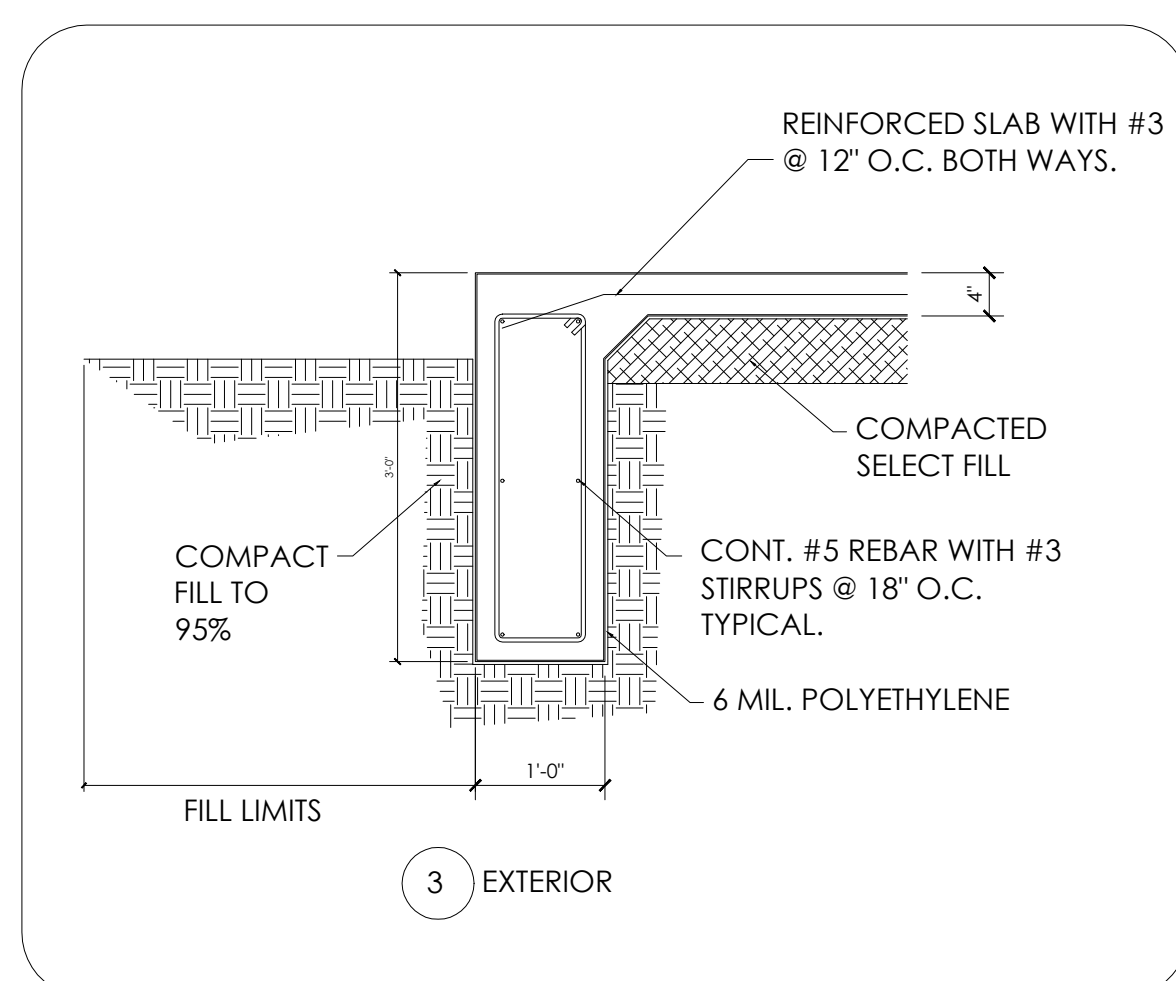
3. THE BUILDING PAD AREA SHALL BE STRIPPED OF ALL VEGETATION AND SOFT SOIL TO PROVIDE A MINIMUM OF 24 INCHES OF SELECT FILL BELOW THE SLAB.
4. COMPACT SUBGRADE AND SELECT FILL TO 85% OF STANDARD PROCTOR AT OPTIMUM MOISTURE CONTENT.
5. SLOPE THE EXTERIOR GRADE AWAY FROM THE EXCAVATIONS.
6. FOOTING SHALL BE NEATLY EXCAVATED AND BE FREE OF LOOSE MATERIAL AND STANDING WATER.
7. CONTRACTOR SHALL REMOVE AND OVER EXCAVATE ALL TREE ROOT BALLS AND FILL WITH LEAN CONCRETE OR SPECIFIED SELECT STRUCTURAL FILL.

1. CONCRET SPECIFIED IN THESE PLANS SHALL MEET THE REQUIERIMENTS OF ASTM C33 FOR AGGREGATES AND ASTM C150 FOR TYPE I PORTLAND CEMENT AND SHALL BE PROPORTIONED TO ACHIEVE A COMPRESSIVE STRENGHT (F'C) OF AT 28 DAYS:

2. FLY ASH, WHEN USED, SHALL CONFORM TO ASTM C618, TYPE C PR F. THE RATIO OF THE FLY ASH IN THE MIX SHALL NOT EXCEED 25 PERCENT AND SHALL TAKE INTO ACCOUNT THE SPECIFIC PROPERTIES.
3. WATER USED IN THE MIXING CONCRETE CHALL CONFORM TO ASTM C1602.
4. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE LATEST EDITION OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R AND CRSI.
5. MIXING, TRANSPORTING AND PLACING OF CONCRETE SHALL CONFORM TO ACI 304R.
6. CURING OF CONCRET SHALL BE PER THE RECOMMENDATIONS OF ACI 308R.
7. MINIMUM CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS PER ACI 7.7:

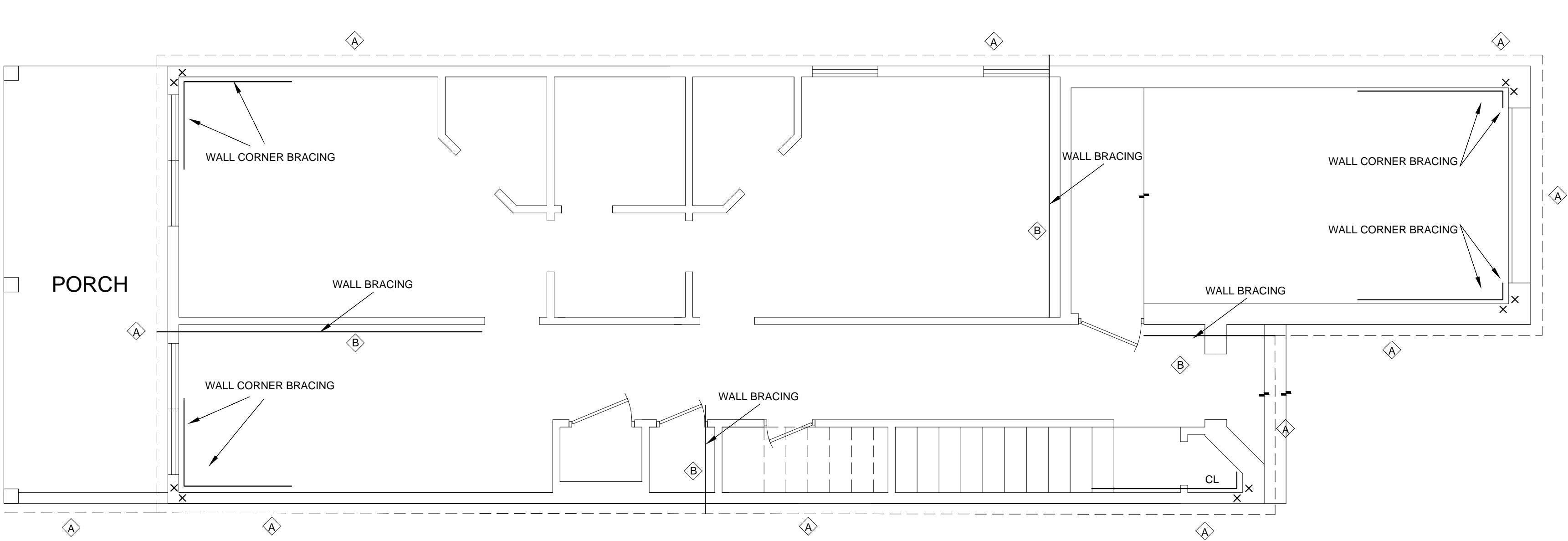
GRADE BEAMS AND SLABS:	
TOP	1- 1/2 INCHES
BOARD FORMED SIDES	2 INCHES
EARTH FORMED SIDES	3 INCHES
BOTTOM	3 INCHES

8. STEEL DEFORMED REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. FABRIC SHALL BE SUPPLIED IN FLAT SHEETS. FABRIC SHALL BE LAPPED TWO FULL MESHES AT SPLICES.
10. REINFORCING SHALL NOT BE WELDED OR COLD BENT IN THE FIELD UNLESS APPROVED BY THE ENGINEER.
11. ALL REINFORCING SHALL BE CONTINUOUS THROUGH ALL MEMBERS AND MAY BE SPLICED USING 40 BAR DIAMETERS AND STAGGERED ALONG THE BEAM.
12. HORIZONTAL JOINT WILL NOT BE PERMITTED IN CONCRET CONSTRUCTION UNLESS SPECIFICALLY SHOWN IN THE CONTRACT DOCUMENTS. ALL OTHER JOINTS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.
13. CONDUIT, PIPES AND SHEELVES EMBEDDED IN CONCRET SHALL CONFORM TO THE REQUIRMENTS OF ACI 318, CHAPTER 6.3.



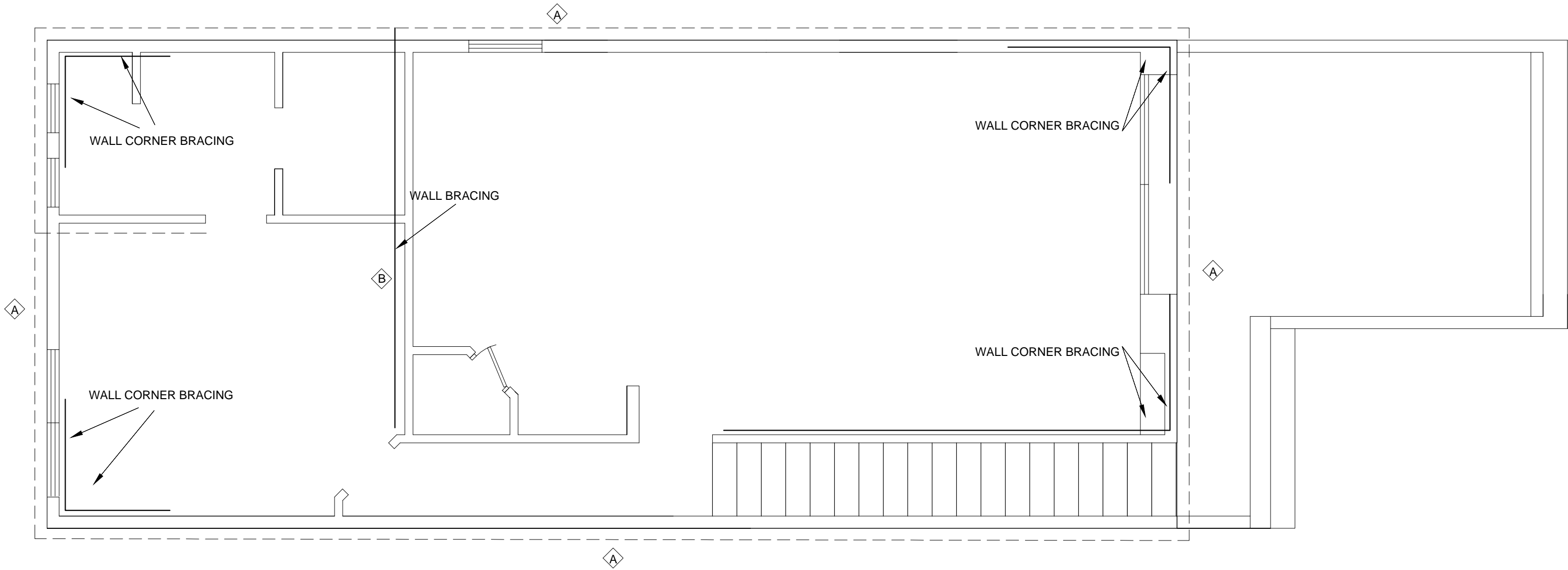
# S.1





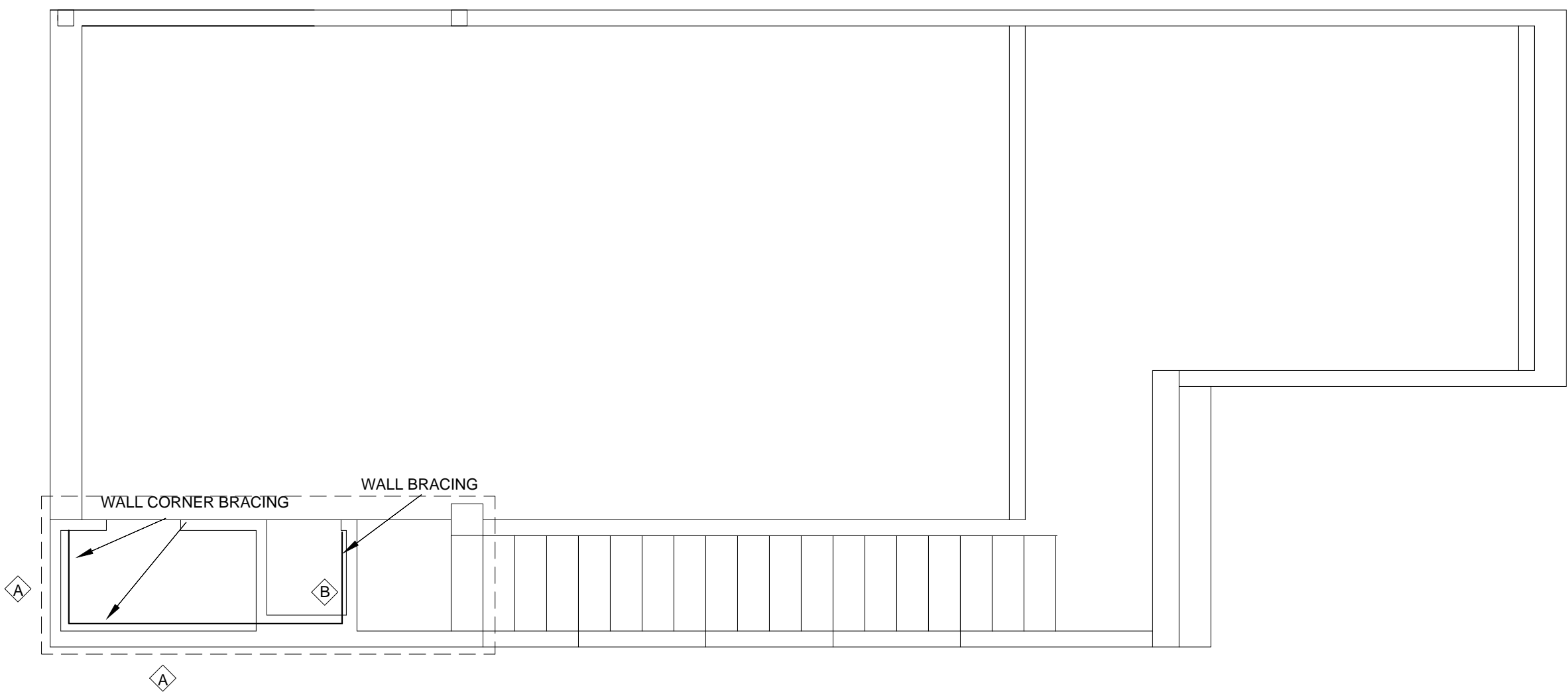
## FIRST FLOOR BRACED WALL PLAN

SCALE: 1/4=1'-0"



## SECOND FLOOR BRACED WALL PLAN

SCALE: 1/4=1'-0"



## THIRD FLOORBRACED WALL PLAN

SCALE: 1/4=1'-0"

	7/16" OSB SHEATHING ON THE EXTERIOR WALL FACE ONLY (WHERE SHOWN AT WINDOW AND DOOR OPENINGS) CONTINUE OSB ABOVE & BELOW WINDOWS AND DOORS NAIL SPACING SHALL NOT EXCEED 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
	5/8" GYPSUM INTERIOR WALL BOARD 6d COOLER NAIL (0.092" X 1 7/8" LONG, 1/4" HEAD) OR WALLBOARD NAIL (0.086" X 1 7/8" LONG, 9/32" HEAD) OR 1/2" NAIL X 1 1/2" LONG, MIN. 3/8" HEAD.
	ADD HDU 4 SDS-2 HOLD-DOWN AT EA. CORNER, BOTH DIRECTIONS

NOTES:

1. SEE BRACED WALL PLAN FOR HOLD DOWN LOCATIONS APPLICATIONS
  2. SEE GENERAL NOTES FOR PANEL SPECIFICSTIONS AND OTHER REQUERIMENTS.
  3. PANELS SHALL BE INSTALLED PARALLEL TO WALL STUDS.
  4. GYPSUM PANELS SHALL NOT BE LESS THAN 2'-0" WIDE.
  5. 6d COOLER NAIL (0.092" X 1 7/8" LONG, 1/4" HEAD) OR WALLBOARD NAIL (0.086" X 1 7/8" LONG, 9/32" HEAD) OR 1/2" NAIL X 1 1/2" LONG, MIN. 3/8" HEAD.
  6. 8d COMMON NAIL (2 1/2" L X 0.131" D X 0.281" H) OR GALVANIZED BOX NAIL 2 1/2" L X 0.113" D X 0.297" H).
  7. DO NOT OVERDRIVE NAILS. NAILS SHALL BE FLUSH TO THE SURFACE. ADJUST GUN PRESSURE AS REQUIRED , TEST PRIOR TO INSTALLATION TO ACHEIVE ADQUATE NAILING.
  8. LOCATED NAILS AT LEAST 3/8" FROM EDGES AND ENDS OF PANELS.
  9. GYPSUM PANELS ALTERNATE FASTENERS: #6 TYPE W OR S X 1 5/8" SCREWS.
- 2018 INTERNATIONAL RESIDENTIAL CODE BRACING METHOD:

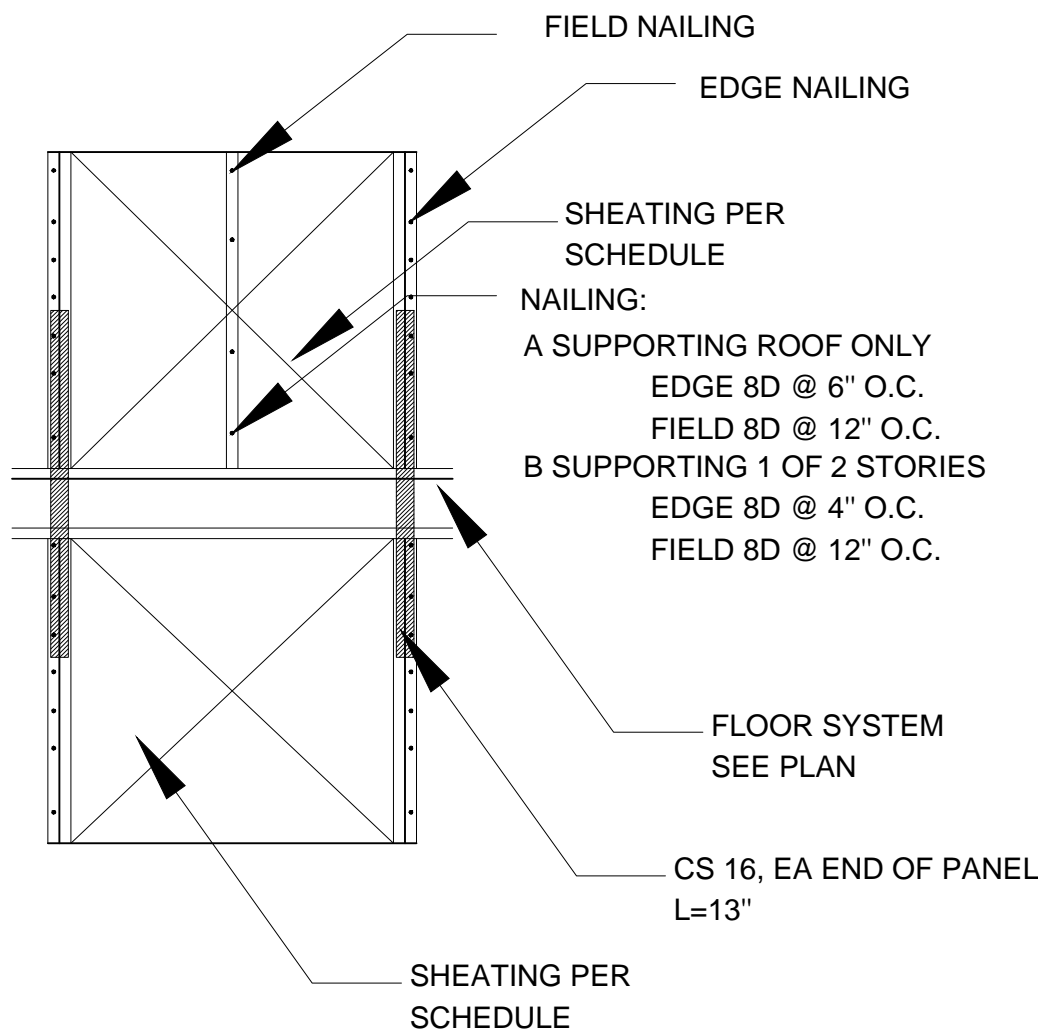
1. CONTINUOUSLY SHEATED WALL PANELS WITH INTERMITENT WALL FRAMINGS AS REQUIRED. WALLS HAVE BEEN DESIGNED PER ENGINEERING ANALYSIS USING THE SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (ANSI/AF AND PA/SDPWS).
2. SEE SHEAR WALL SCHEDULE ON 2/52.0 FOR PANEL DESIGNATION AND NAILING REQUERIMENTS.
3. ALL SHEAR WALLS SHALL HAVE A DOUBLE TOP PLATE AND ENDS OF THE TOP PLATES SHALL STAGGERED 48" MIN AND SHALL BE NAILED WITH EIGHT 16d FACE NAILED ON EACH SIDE OF THE JOINT.
4. ALL TOP PLATES AT CORNERS AND INTERSECTIONS SHALL BE LAPPED AND FACE NAILED WITH TWO 16d NAILS.
5. ENDS OF SHEAR WALL PANELS SHALL BE TERMINATED WITH (2) 2x CHORD MEMBERS. CONTRACTOR TO COORDINATE AN ANCHOR BOLT AT LEAST 6 INCHES FROM EACH END OF THE SHEAR WALL PANELS.
6. ALL DISCONTINUOUS TOP PLATES SHALL BE SPLICED WITH A CS16 x GENERAL NOTES.

### LOAD BEARING STUD WALL SCHEDULE

LOCATION	GRADE AND SPACING
EXTERIOR SUPPORTING ROOF AND CEILING ONLY	SP No. 2 - 2X6 @ 16" O.C.
EXTERIOR SUPPORTING FLOOR, ROOF AND CEILING	SP No. 2 - 2X6 @ 16" O.C.
INTERIOR	SP No. 2 - 2X4 @ 16" O.C.

STUDS NOTES

1. DOUBLE STUD AT ENDS OF ALL SHEAR WALL/BRACED WALL PANELS. SEE SHEAR WALL PLAN FOR HOLD DOWN LOCATIONS.
2. ALL SHEAR AND LOAD BEARING WALLS SHALL RECIVE A DOUBLE TOP PLAT MATCH SIZE AND GRADE.
3. ALL STUDS SHALL BE FULLY SHEATED ON BOTH SIDES PER THE



## ALTERNATE BRACED WALL

NON SCALE

MARK	BEAM SIZE	
DF 2.80	(2) 2 X 8'S W/FILLER	DOUG FIR #2 OR BETTER
DF 2.10	(2) 2 X 10'S W/FILLER	DOUG FIR #2 OR BETTER
DF 2.12	(2) 2 X 12'S W/FILLER	DOUG FIR #2 OR BETTER
DF 3.12	(3) 2 X 12'S W/FILLER	DOUG FIR #2 OR BETTER
ML 2.9	(2) 1 3/4" X 9 1/2"	MICROLLAM
ML 2.11	(2) 1 3/4" X 14"	MICROLLAM
ML 2.14	(2) 1 3/4" X 14"	MICROLLAM
GL 3.11	(3) 1 3/4" X 11 7/8"	MICROLLAM
GL 3.10	3 1/8" X 10 1/2"	TREATED GLB
GL 3.12	3 1/8" X 12"	TREATED GLB

DEEPER, WIDER OR BETTER GRADES OF LUMBER MAY BE SUBSTITUTED. OTHER SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.

### FRAMING NOTES

SPANS FOR RAFTERS SHALL BE IN ACCORDANCE WITH TABLES R802.5(1) THROUGH R802.5(8)

1. THE CONTRACTOR SHALL USE THE FOLLOWING LUMBER GRADES UNLESS OTHERWISE NOTED ON DRAWING.

JOISTS	DOUG FIR #2 OR BETTER
VERSLAMS	PER MANUFAC. INSTRUCTIONS
GLULAMS	24F-V8 DF/DF
HEADERS	DOUG FIR #2 OR BETTER
PREFAB TRUSSES/JOISTS	PER MANUFACT. INSTRUCTIONS
BEARING WALL STUDS	DOUG FIR #2 OR BETTER
NON-BEARING WALL STUDS	DOUG FIR STUD OR BETTER
SILL PLATES	PRESSURE-TREATED DF #2 OR BETTER
POSTS	DOUG FIR #1 OR BETTER

2. THE CONTRACTOR SHALL USE (2) 2" X 10" DF#2 W/FILLER OR BETTER FOR ALL LOAD BEARING WINDOW AND DOOR HEADERS UNLESS OTHERWISE NOTED ON THE DRAWING.

3. THE CONTRACTOR SHALL USE A MINIMUM OF (2) 1 3/4" X 9 1/2" LVL FOR ANY HEADER SUPPORTING A GIRDER TRUSS UNLESS SPECIFICALLY NOTED OTHERWISE IN THE DRAWING.

4. ALL MULTIPLE BEAMS AND HEADERS SHALL BE NAILED USING 2 ROWS OF 16d NAILS @ 12" O.C.

5. A MINIMUM OF 2 STUDS SHALL BE PLACED AT ALL BEAMS, HEADERS AND GIRDER TRUSS BEARING POINTS UNLESS OTHERWISE NOTED ON THE DRAWING. SOLID BLOCK ALL POINT LOADS THROUGH AND LONGER TO POST/STUDS.

6. APPROPRIATE SIMPSON TIES SHALL BE USED TO CONNECT BEAMS 6' LISTED IN UBC TABLE 23-1-Q.

7. THE CONTRACTOR SHALL FOLLOW THE MINIMUM NAILING SCHEDULE

8. THE CONTRACTOR SHALL COMPLY WITH THE BUILDING CODES AS LISTED IN SECTION 23 OF THE CURRENT UBC.

TRUSS NOTES

1. ROOF TRUSSES SHALL BE DESIGNED TO MEET THE LOADS SPECIFIED IN THE DESIGN CRITERIA. ALL TRIBUTARY UNIFORM SNOW, MECHANICAL LOADS, ETC., SHALL BE CONSIDERED IN THE DESIGN. THE DESIGN SHALL LIMIT THE DEFLECTION TO SPAN LENGTH/360.

2. THE CONTRACTOR SHALL USE SIMPSON HI CONNECTORS 48" O.C., ALTERNATE ENDS.

3. ROOF ACCESS SHALL BE PROVIDED WITH A MINIMUM 22" X 30" OPENING. SEE PLAN FOR LOCATION.

4. ANY CHANGES TO THE TRUSS CONFIGURATION SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

TABLE R503.2.1.1(2) ALLOWABLE SPANS FOR SANDED PLYWOOD COMBINATION SUBFLOOR UNDERLAYMENTg

IDENTIFICATION	SPACING OF JOISTS (inches)	
	16	24
Species group <sup>a</sup> -	-	-
1	1/2	5/8
2, 3	5/8	3/4
4	3/4	7/8

FOR S1: 1 INCH = 25.4 MM, 1 POUND PER SQUARE FOOT = 0.0479 KPA. A. PLYWOOD CONTINUOUS OVER TWO OR MORE SPANS AND FACE GRAIN PERPENDICULAR TO SUPPORTS. UNSUPPORTED EDGES SHALL BE TONGUE-AND-GROOVE OR BLOCKED EXCEPT WHERE NOMINAL 1/4-INCH-THICK WOOD PANEL-TYPE UNDERLAYMENT, FIBER-CEMENT UNDERLAYMENT OR 3/4-INCH WOOD FINISH FLOOR IS USED. FIBER-CEMENT UNDERLAYMENT SHALL COMPLY WITH ASTM C 1288 OR ISO 8336 CATEGORY C. ALLOWABLE UNIFORM LIVE LOAD AT MAXIMUM SPAN BASED ON DEFLECTION OF 1/360 OF SPAN IS 100 PSF.B. APPLICABLE TO ALL GRADES OF SANDED EXTERIOR-TYPE PLYWOOD.

TABLE R503.2.1.1(1) ALLOWABLE SPANS AND LOADS FOR WOOD STRUCTURAL PANELS FOR ROOF AND SUBFLOOR SHEATHING AND COMBINATION SUBFLOOR UNDERLAYMENT.

SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (inch)	ALLOWABLE LIVE LOAD (psf) <sup>a, b</sup>		MAXIMUM SPAN (inches)		LOAD (pounds per square foot of maximum span)		MAXIMUM SPAN (inches)
		SPAN @ 16" o.c.	SPAN @ 24" o.c.	With edge support <sup>d</sup>	Without edge support	Total load	Live load	
<b>Roof<sup>e</sup></b>								
Sheathing <sup>a</sup>								
16/0	1/8	30	-	16	16	40	30	0
20/0	1/8	50	-	20	20	40	30	0
24/0	1/8	100	30	24	20 <sup>+</sup>	40	30	0
24/16	1/4	100	40	24	24	50	40	16
32/16	1/2	180	70	32	28	40	30	16 <sup>+</sup>
40/20	3/8	305	130	40	32	40	30	20 <sup>+</sup>
48/24	1/2	-	175	48	36	45	35	24
60/32	3/4	-	305	60	48	45	35	32
<b>Underlayment C-C plugged, single floor<sup>a</sup></b>								
16 o.c.	1/8	100	40	24	24	50	40	16 <sup>+</sup>
20 o.c.	1/8	150	60	32	32	40	30	20 <sup>+</sup>
24 o.c.	1/8	240	100	48	36	35	25	24
32 o.c.	1/8	-	185	48	40	50	40	32
48 o.c.	1/2	-	290	60	48	50	40	48

FOR S1: 1 INCH = 25.4 MM, 1 POUND PER SQUARE FOOT = 0.0479 KPA.

A. THE ALLOWABLE TOTAL LOADS WERE DETERMINED USING A DEAD LOAD OF 10 PSF. IF THE DEAD LOAD EXCEEDS 10 PSF, THEN THE LIVE LOAD SHALL BE REDUCED ACCORDINGLY.

B. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITH LONG DIMENSION (STRENGTH AXIS) PERPENDICULAR TO SUPPORTS. SPANS SHALL BE LIMITED TO VALUES SHOWN BECAUSE OF POSSIBLE EFFECT OF CONCENTRATED LOADS.

C. APPLIES TO PANELS 24 INCHES OR WIDER.

D. LUMBER BLOCKING, PANEL EDGE CLIPS (ONE MIDWAY BETWEEN EACH SUPPORT, EXCEPT TWO EQUALLY SPACED BETWEEN SUPPORTS WHERE SPAN IS 48 INCHES), TONGUE-AND-GROOVE PANEL EDGES, OR OTHER APPROVED TYPE OF EDGE SUPPORT.

E. INCLUDES STRUCTURAL PANELS IN THESE GRADES.

F. UNIFORM LOAD DEFLECTION LIMITATION: 1/180 OF SPAN UNDER LIVE LOAD PLUS DEAD LOAD, 1/240 OF SPAN UNDER LIVE LOAD ONLY.

G. MAXIMUM SPAN 24 INCHES FOR 15/32- AND 1/2-INCH PANELS.

H. MAXIMUM SPAN 24 INCHES WHERE 3/4-INCH WOOD FINISH FLOORING IS INSTALLED AT RIGHT ANGLES TO JOISTS.

I. MAXIMUM SPAN 24 INCHES WHERE 1.5 INCHES OF LIGHTWEIGHT CONCRETE OR APPROVED CELLULAR CONCRETE IS PLACED OVER THE SUBFLOOR.

J. UNSUPPORTED EDGES SHALL HAVE TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED BY BLOCKING UNLESS MINIMUM NOMINAL 1/4-INCH-THICK WOOD PANEL-TYPE UNDERLAYMENT, FIBER-CEMENT UNDERLAYMENT WITH END AND EDGE JOINTS OFFSET NOT LESS THAN 2 INCHES OR 3/4-INCH WOOD FINISH FLOORING IS INSTALLED AT RIGHT ANGLES TO THE SUPPORTS.

K. UNSUPPORTED EDGES SHALL HAVE TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED BY BLOCKING UNLESS MINIMUM NOMINAL 1/4-INCH-THICK WOOD PANEL-TYPE UNDERLAYMENT, FIBER-CEMENT UNDERLAYMENT WITH END AND EDGE JOINTS OFFSET NOT LESS THAN 2 INCHES OR 3/4-INCH WOOD FINISH FLOORING IS INSTALLED AT RIGHT ANGLES TO THE SUPPORTS.

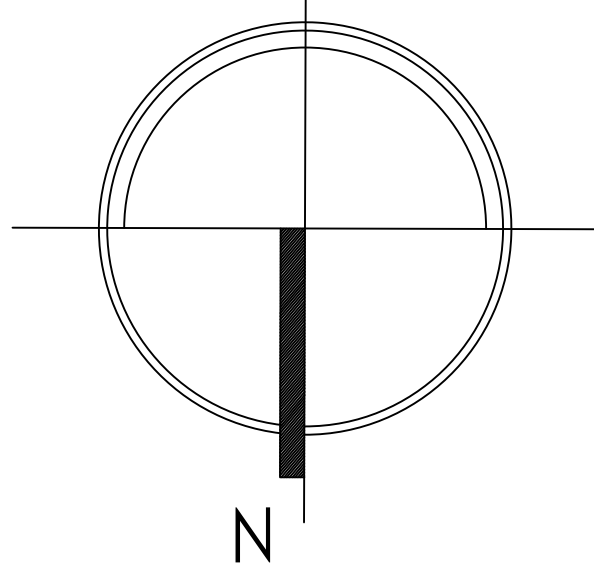
L. ALLOWABLE LIVE LOAD VALUES AT SPANS OF 16 INCHES ON CENTER AND 24 INCHES ON CENTER TAKEN FROM REFERENCE STANDARD APA E30, APA ENGINEERED WOOD CONSTRUCTION GUIDE. REFER TO REFERENCE STANDARD FOR ALLOWABLE SPANS NOT LISTED IN THE TABLE.

# RH

design • custom • homes

20410 WILD SPRINGS DR  
SAN ANTONIO, TEXAS 78251  
(210) 848 0361  
marro000@hotmail.com

DIRECTION:



PROJECT:

## DUPLEX UNIT 2

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 2  
SAN ANTONIO, TEXAS 78202

NOTE:

GENERAL CONTRACTOR SHALL HAVE THIS FOUNDATION PLAN DESIGN BY A TEXAS REGISTERED ENGINEER TO MEET SOIL TESTS REQUIREMENTS.

THE DESIGNER ASSUMES NO LIABILITY FOR ANY STRUCTURE CONSTRUCTED FROM THIS PLAN. IT IS THE RESPONSIBILITY OF THE PURCHASER, OF THIS PLAN, TO PERFORM THE FOLLOWING BEFORE ACTUAL CONSTRUCTION COMMENCES:

- 1.- BUILDER OR CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 2.- BUILDER OR CONTRACTOR MUST VERIFY COMPLIANCE WITH ALL LOCAL BUILDING CODES OF THE AREA WHERE THE STRUCTURE IS TO BE CONSTRUCTED AND LOCATED.
- 3.- PLANS INDICATE LOCATIONS ONLY: ENGINEERING ASPECTS SHOULD BE INCORPORATED TO ACTUAL SITE CONDITIONS.

THESE PLANS ARE THE PROPERTY OF RH DESIGN CUSTOM HOMES AND ANY USE OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF RH DESIGN CUSTOM HOMES IS PROHIBITED.

DATE:

MAY/2020

DRAWN BY:

M.R.

PLAN:

## BRACED WALL PLAN

SHEET No.:

# S.2











522 N HACKBERRY  
SAN ANTONIO, TX 78202

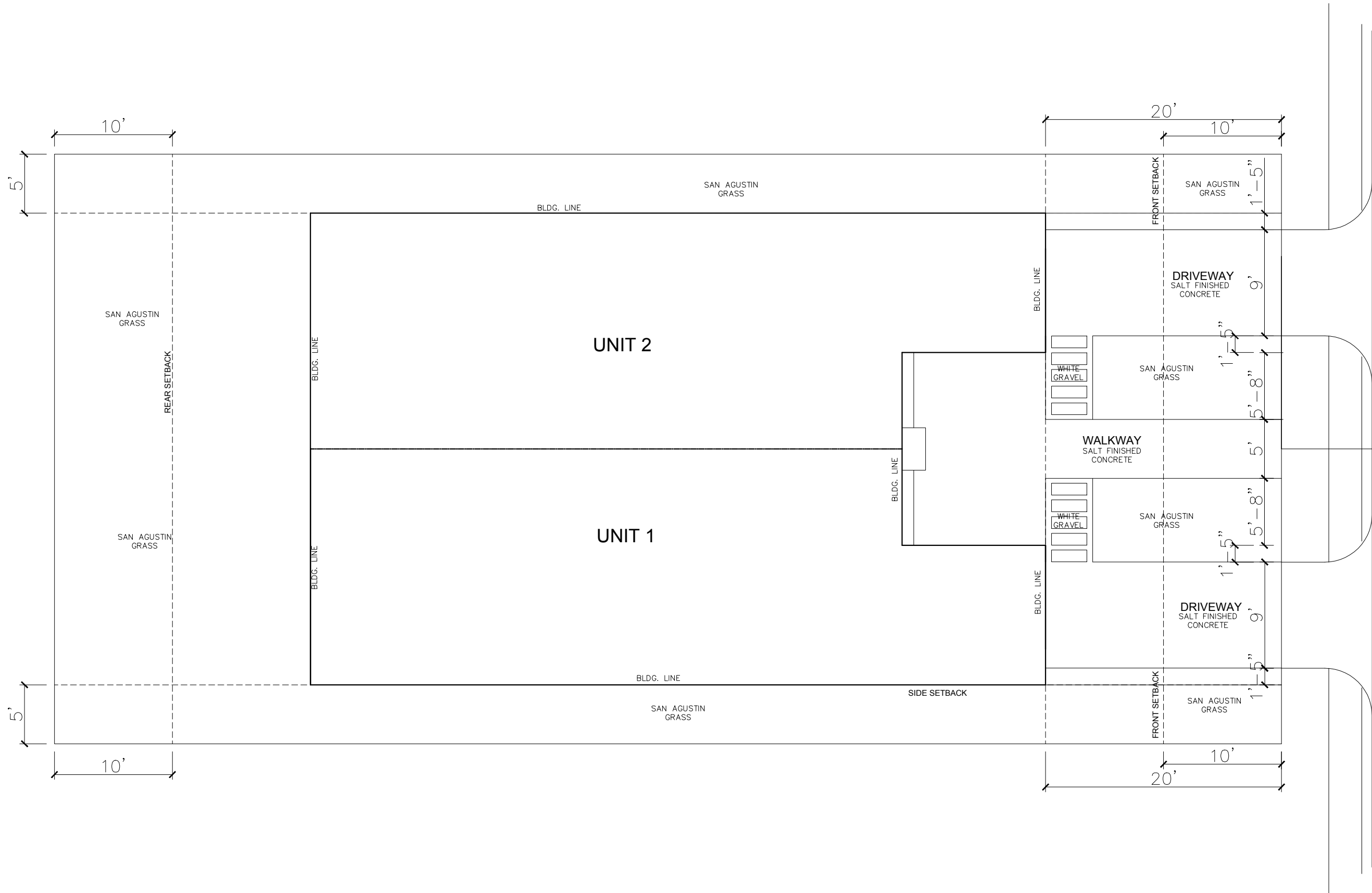
-LOT 1&2 BLOCK 6 NCB 570  
CITY OF SAN ANTONIO, TX  
-ZONING RM4  
-LOT AREA = 5,227.20 SQFT  
-HVAC AREA = 1238.25 SQFT

OWNER:  
7800 WEST IH-10,  
SUITE 710  
SAN ANTONIO, TEXAS  
78230-4750, USA

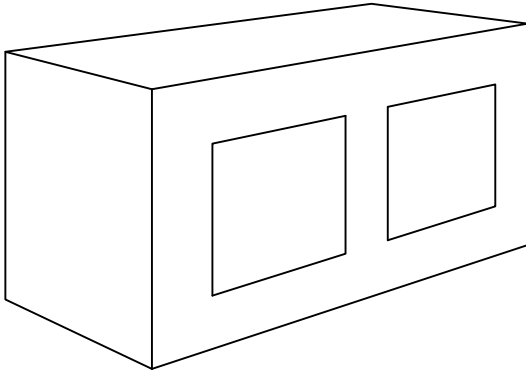
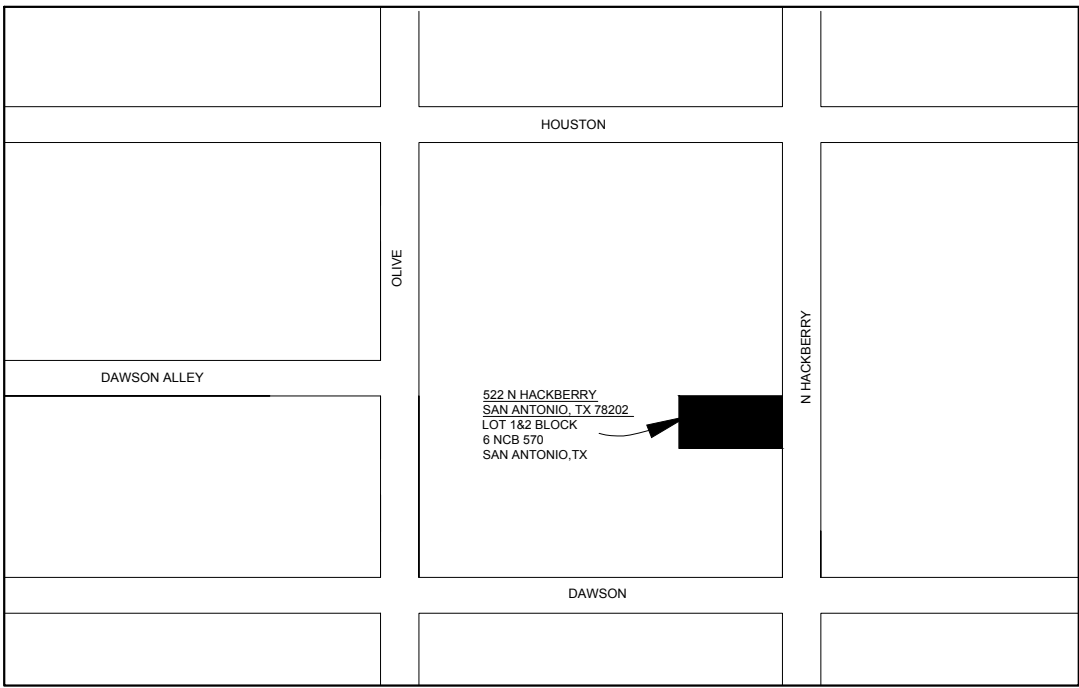
GENERAL CONTRACTOR:  
RH DESIGN CUSTOM HOMES  
407 HIGHLAND HILL  
SAN ANTONIO, TX 78260  
CONTACT:  
ANNA SALCEDO LIEBERS  
210 665 5894  
annae.salcedo@gmail.com

PROFESSIONAL ENGINEER:  
INEZ B. GARZA, JR.  
3011 SAN FELIPE ST  
SAN JUAN, TX 78589  
LICENSE 905-2360 FIRM REG. 4983

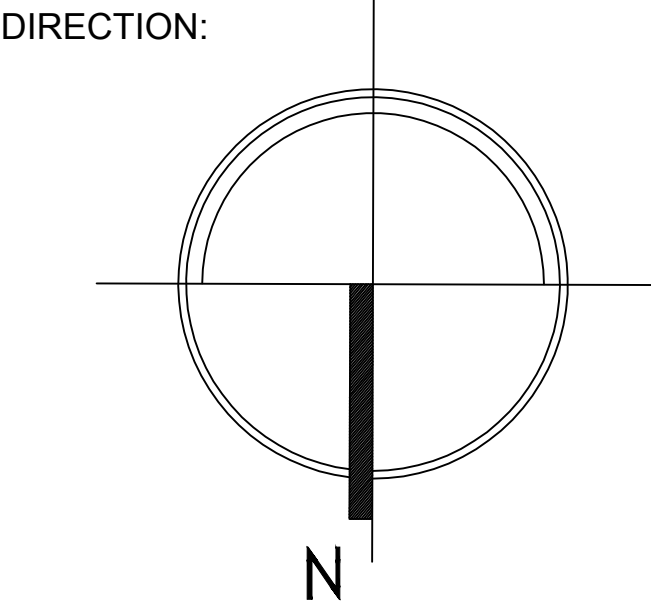
522 N HACKBERRY  
LOT 1&2, BLOCK 6  
N.C.B. 570  
5,227.20 SQ. FT.  
0.12 ACRES



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



BLACK BRICK URBAN HOMES, LLC



PROJECT:

DUPLEX  
UNIT 1 & 2

OWNER:  
7800 WEST IH-10, SUITE 710, SAN ANTONIO,  
TEXAS 78230-4750, USA

LOCATION:

522 N HACKBERRY  
SAN ANTONIO, TEXAS 78203

NOTE:  
GENERAL CONTRACTOR SHALL HAVE THIS  
FOUNDATION PLAN DESIGN BY A TEXAS  
REGISTERED ENGINEER TO MEET SOIL TESTS  
REQUIREMENTS.  
  
THE DESIGNER ASSUMES NO LIABILITY FOR  
ANY STRUCTURE CONSTRUCTED FROM THIS PLAN  
IT IS THE RESPONSABILITY OF THE PURCHASER, OF  
THIS PLAN, TO PERFORM THE FOLLOWING BEFORE  
ACTUAL CONSTRUCTION COMMENCES  
1.- BUILDER OR CONTRACTOR MUST VERIFY ALL  
DIMENSIONS PRIOR TO PROCEEDING WITH  
CONSTRUCTION.  
2.- BUILDER OR CONTRACTOR MUST VERIFY  
COMPLIANCE WITH ALL LOCAL BUILDING CODES  
OF THE AREA WHERE THE STRUCTURE IS TO BE  
CONSTRUCTED AND LOCATED.  
3.- PLANS INDICATE LOCATIONS ONLY:  
ENGINEERING ASPECTS SHOULD BE INCORPORATED  
TO ACTUAL SITE CONDITIONS.

THESE PLANS ARE THE PROPERTY OF RH  
DESIGN CUSTOM HOMES AND ANY USE  
OF THESE PLANS WITHOUT THE WRITTEN  
CONSENT OF RH DESIGN CUSTOM HOMES  
IS PROHIBITED.

DATE: JUL/2020 DRAWN BY: M.R.

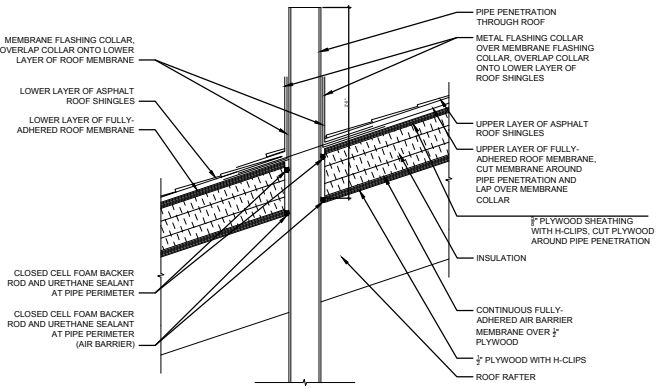
PLAN:

SITE PLAN

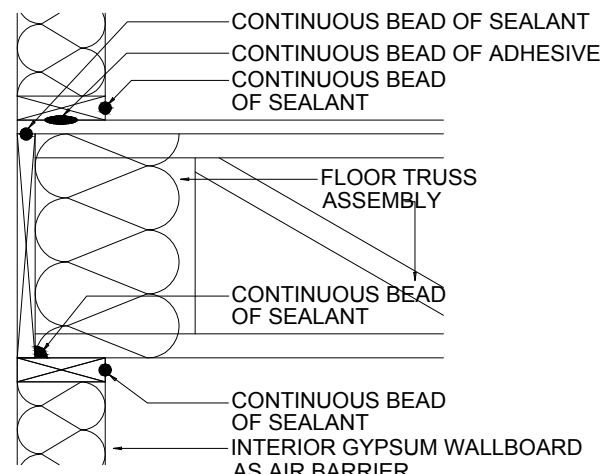
SHEET No.:

A1.02

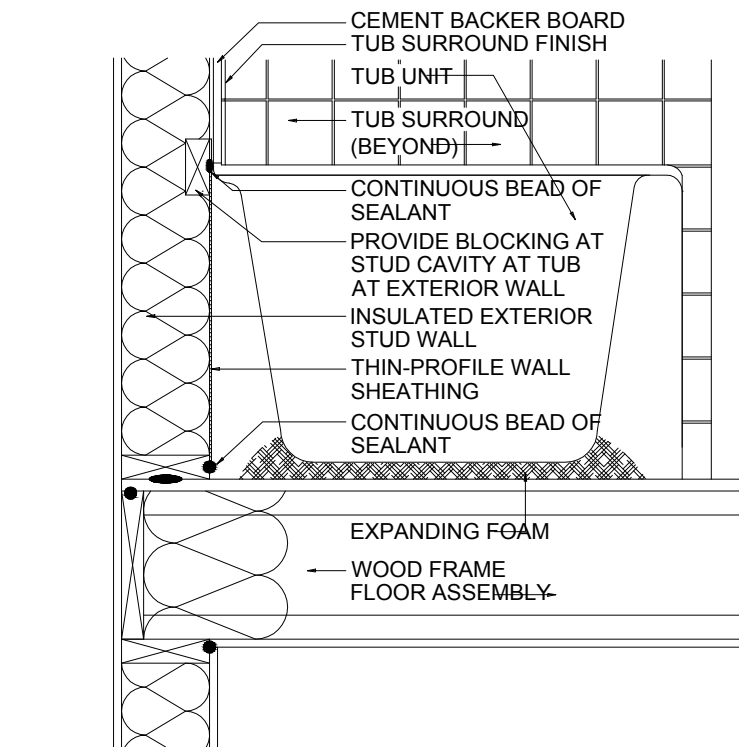




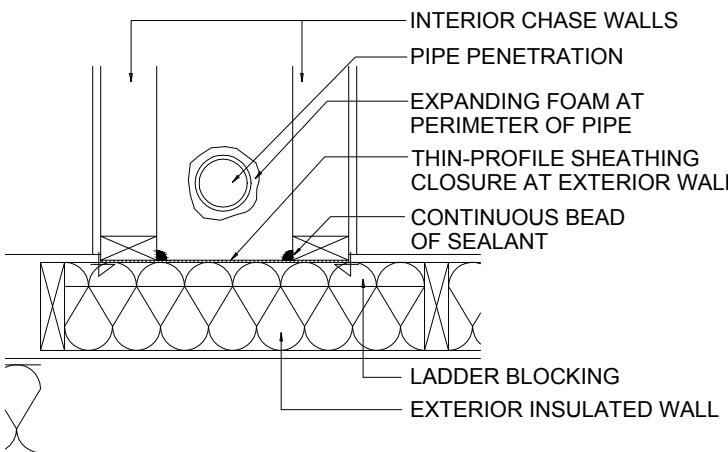
AIR SEAL AT TOP PIPE THROUGH ROOF  
NON SCALE



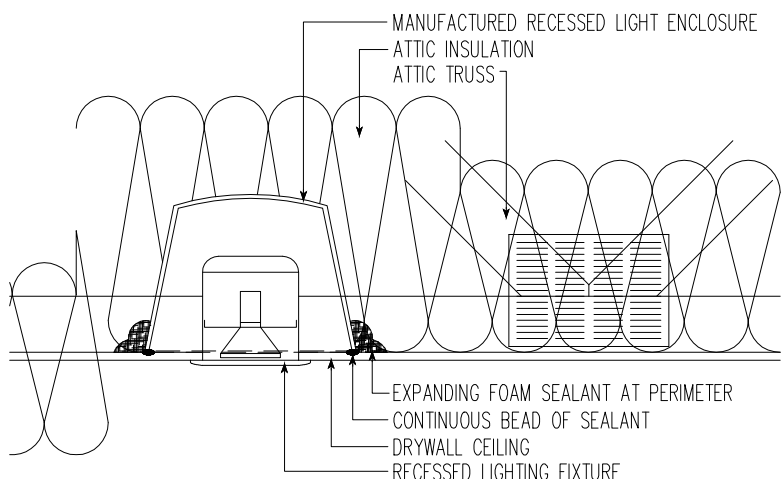
AIR SEAL AT UPPER FLOOR BAND JOIST  
NON SCALE



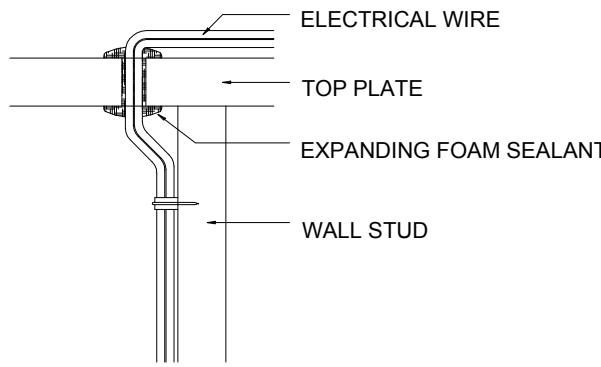
DETAIL AIR SEAL TUB  
NON SCALE



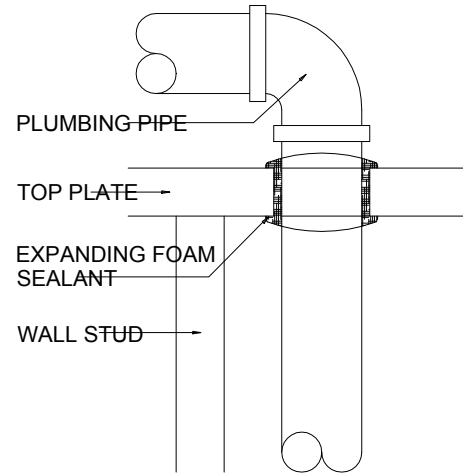
DETAIL AIR SEAL CHASE WALL  
NON SCALE



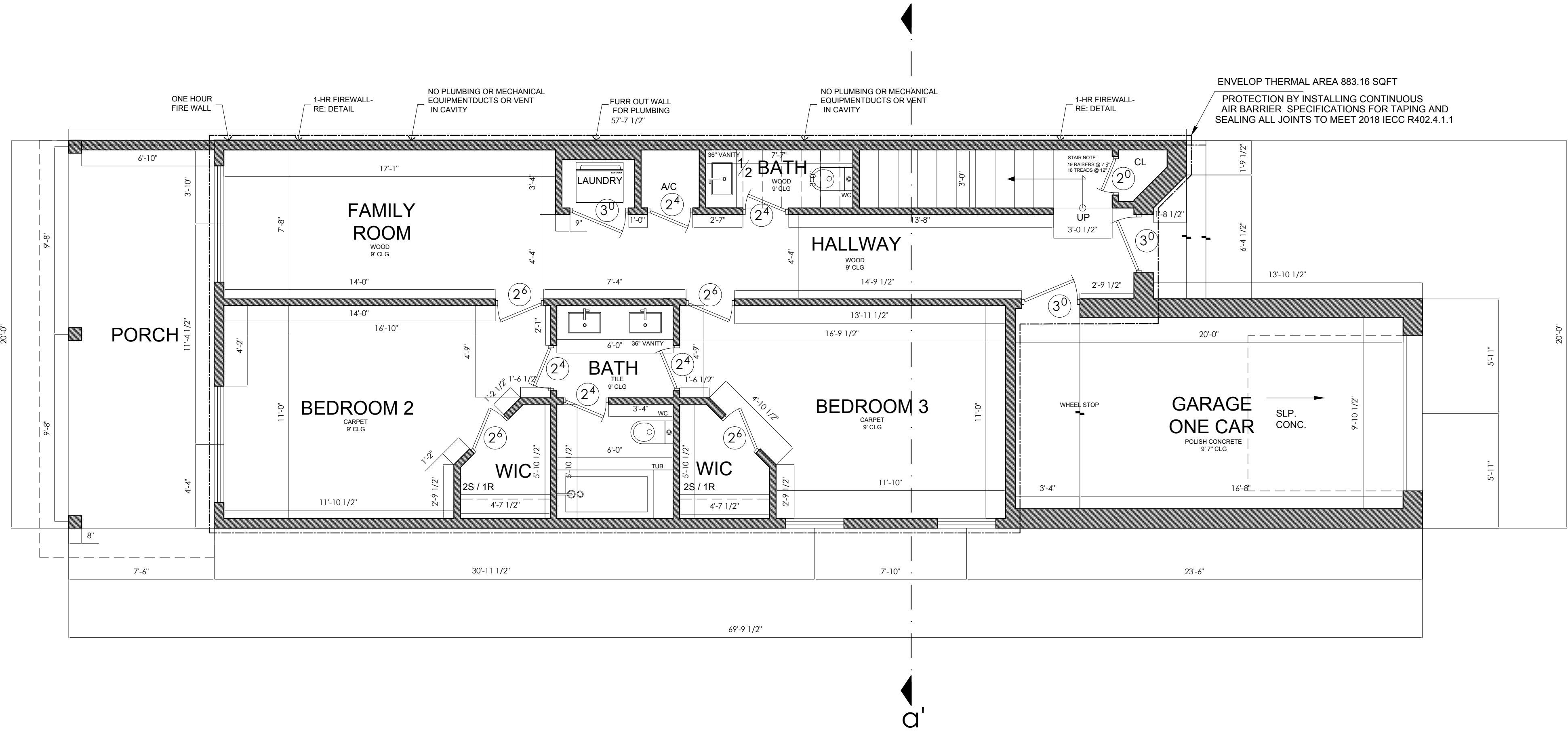
AIR SEAL AT RECESSED LIGHTING IN ATTIC  
NON SCALE



AIR SEAL AT TOP PLATE ELECTRICAL PENETRATION  
NON SCALE



AIR SEAL AT TOP PLATE PIPE PENETRATION  
NON SCALE



FIRST FLOOR PLAN

SCALE: 1/4=1'-0"

TABLE R402.4.1.1 AIR BARRIER AND INSULATION INSTALLATION*		
COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. <b>Breaks or joints in the air barrier shall be sealed.</b>	Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	The air barrier in any dropped ceiling or soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffits shall be aligned with the air barrier.
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance, R-value, of not less than R-3 per inch. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.
Windows, skylights and doors	The space between framing and skylights, and the jambs of windows and doors, shall be sealed.	—
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.
Floors, including cantilevered floors and floors above garages	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking. Alternatively, floor framing cavity insulation shall be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing, and shall extend from the bottom to the top of all perimeter floor framing members.
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Crawl space insulation, where provided instead of floor insulation, shall be permanently attached to the walls.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	—
Narrow cavities	—	Batts to be installed in narrow cavities shall be cut to fit or narrow cavities shall be filled with insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	—
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the finished surface.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.
Plumbing and wiring	—	In exterior walls, batt insulation shall be cut neatly to fit around wiring and plumbing, or insulation, that on installation readily conforms to available space, shall extend behind piping and wiring.
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate the wall from the shower or tub.	Exterior walls adjacent to showers and tubs shall be insulated.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical and communication boxes. Alternatively, air-sealed boxes shall be installed.	—
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the subfloor, wall covering or ceiling penetrated by the boot.	—
Concealed sprinklers	Where required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	—

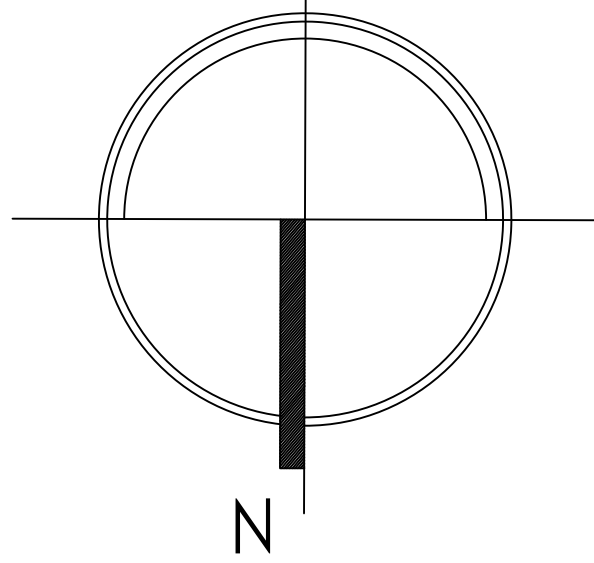
a. Inspection of log walls shall be in accordance with the provisions of ISS 400.



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DIRECTION:



PROJECT:

DUPLEX  
UNIT 1

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 1  
SAN ANTONIO, TEXAS 78202

NOTE:  
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DATE:

MAY/2020

DRAWN BY:

M.R.

PLAN:

FLOOR PLAN

SHEET No.:

A1.03

AREA SCHEDULE		
NAME	AREA	COMMENTS
CONDITIONED 1ST FLOOR 2ND FLOOR CONDITIONED: 2	883.16 SF 926.14 SF 1809.30 SF	CONDITIONED CONDITIONED
UNCONDITIONED GARAGE PORCH 3RD FLOOR & PERGOLA	254.16 SF 150.00 SF 264.29 SF	UNCONDITIONED UNCONDITIONED UNCONDITIONED
UNCONDITIONED:0	668.45 SF	
GRAND TOTAL: 1	2477.75 SF	





DIRECTION:



## OWNER: CONSTRU K22

LOCATION

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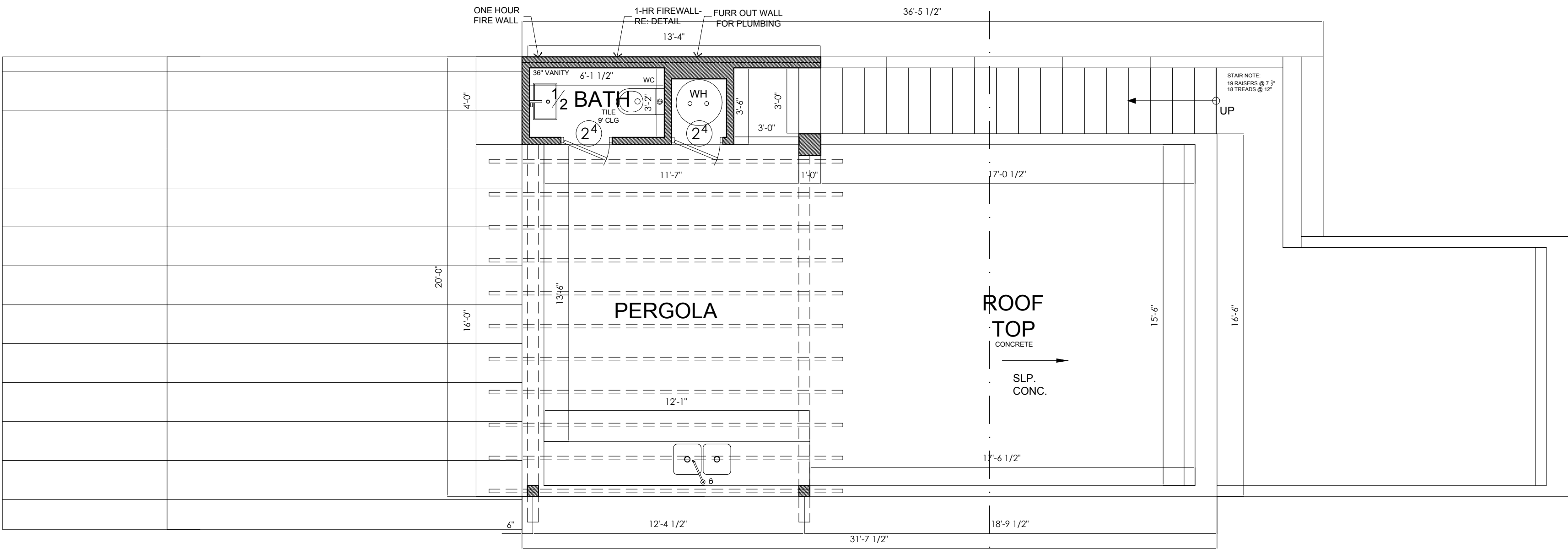
DATE: MAY/2020 DRAWN BY: M.R

PLAN:

SHEET No.:

[illegible]

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



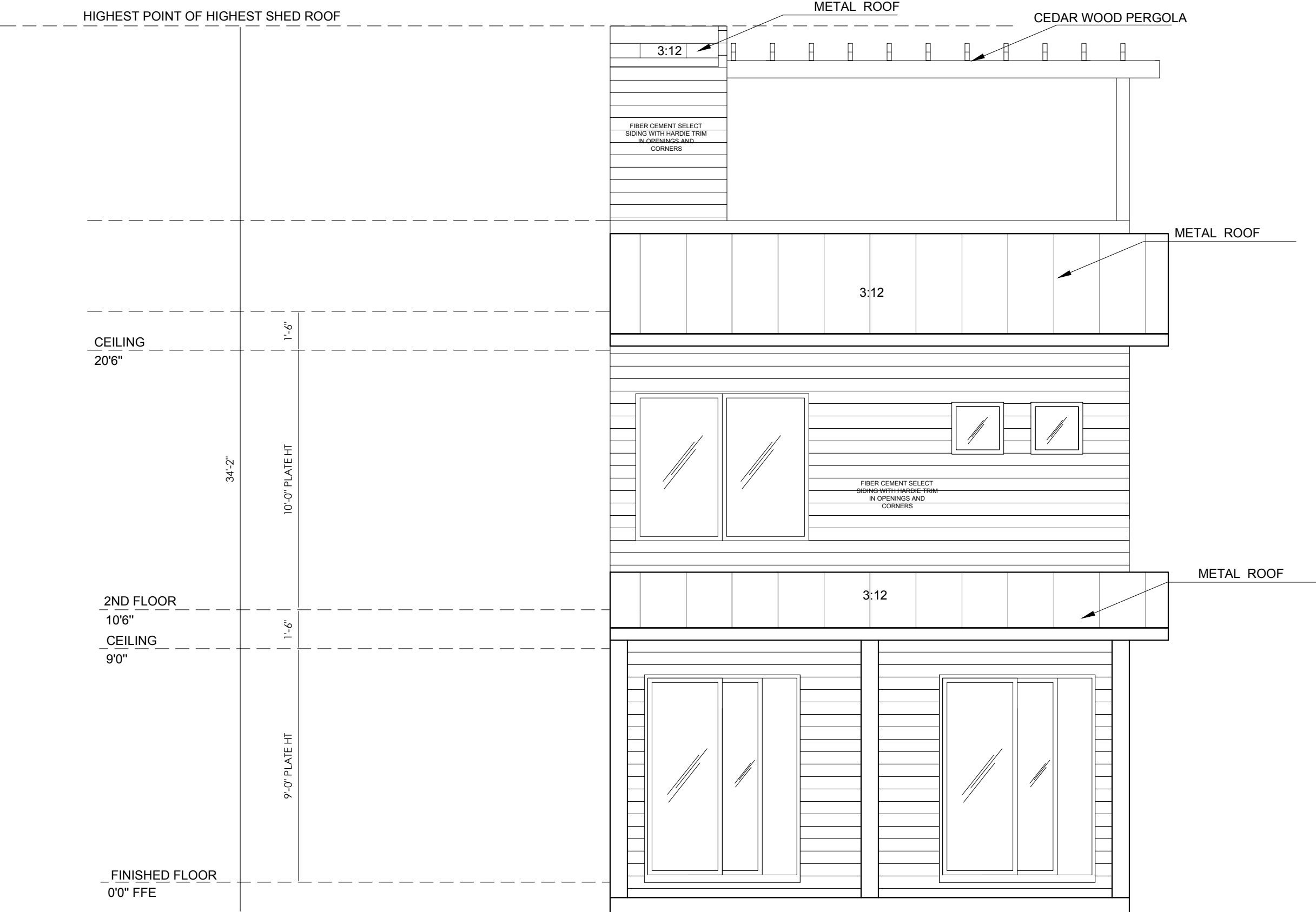
SCALE: 1/4"=1'-0"

DATE: MAY/2020 DRAWN BY: M.R

PLAN:

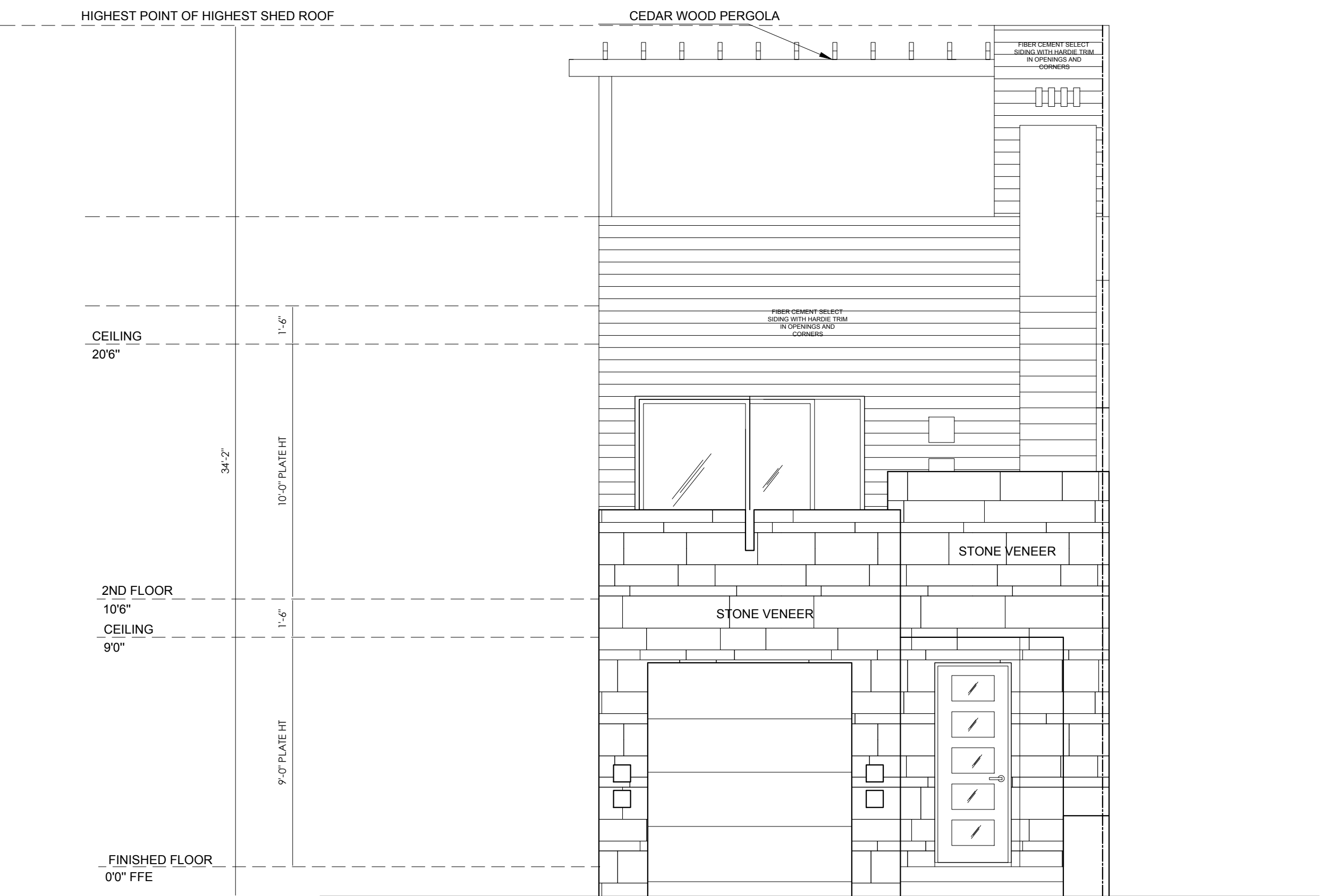
SHEET No.:

# A1.04



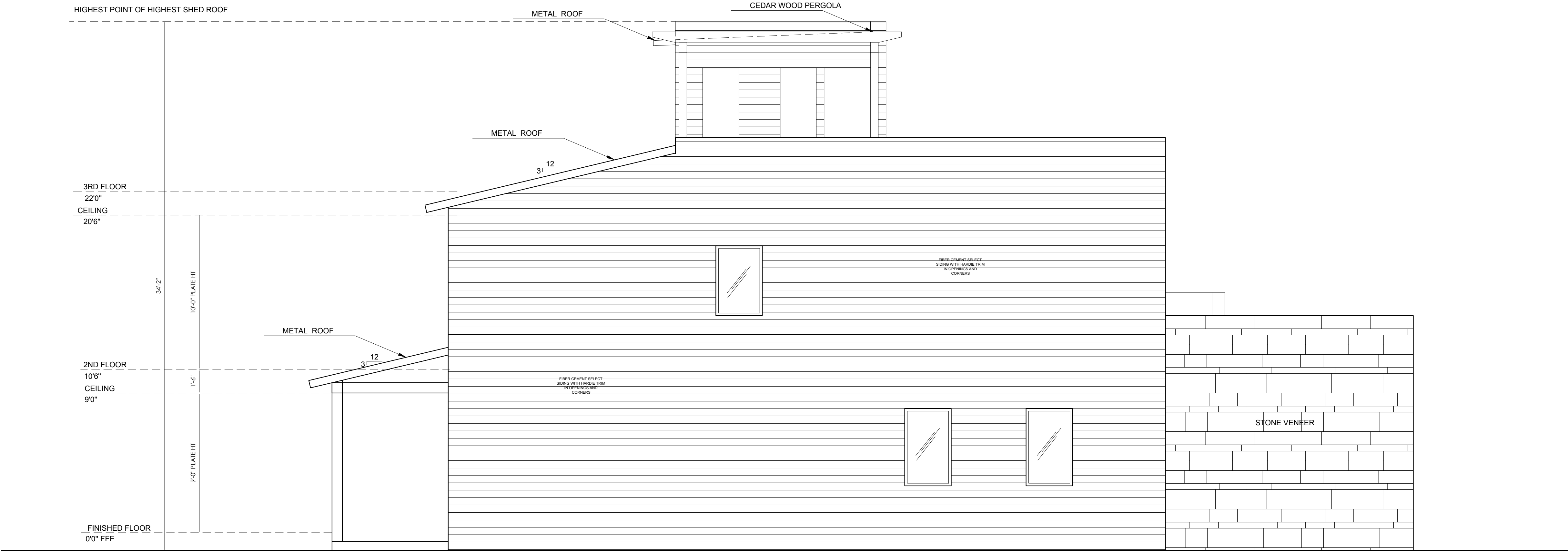
## REAR ELEVATION

SCALE: 1/4=1'-0"



## FRONT ELEVATION

SCALE: 1/4=1'-0"



## LEFT ELEVATION

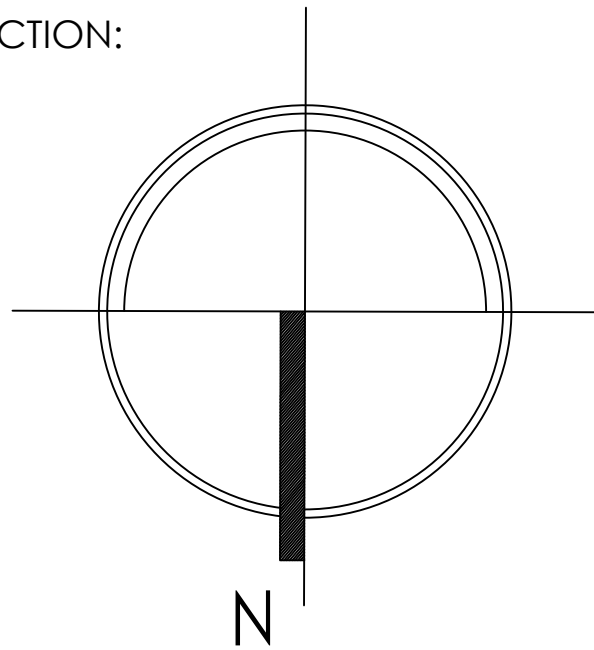
SCALE: 1/4=1'-0"



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DIRECTION:



PROJECT:

DUPLEX  
UNIT 1

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 1  
SAN ANTONIO, TEXAS 78202

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DATE:

MAY/2020

DRAWN BY:

M.R.

PLAN:

ELEVATION PLAN

SHEET No.:

A1.05



DIRECTION:



OWNER: CONSTRU K22

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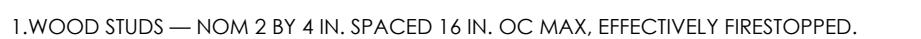
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PLAN:

SHEET No.

# 1 HR FIREWALL SECTION

NON TO SCALE



2. JOINTS AND NAIL-HEADS — JOINTS COVERED WITH JOINT COMPOUND AND PAPER TAPE. JOINT COMPOUND AND PAPER TAPE MAYBE OMITTED WHEN SQUARE EDGE BOARDS ARE USED. AS AN ALTERNATE, NOM 3/32 IN. THICK GYPSUM VENEER PLASTER MAY BEAPPLIED TO THE ENTIRE SURFACE OF CLASSIFIED VENEER BASEBOARD WITH THE JOINTS REINFORCED WITH PAPER TAPE. NAILHEADSEXPOSED OR COVERED WITH JOINT COMPOUND.

3. GYPSUM BOARD\* — 5/8 IN. THICK PAPER OR VINYL SURFACED, WITH BEVELED, SQUARE, OR TAPERED EDGES, APPLIED EITHER HORIZONTALLY OR VERTICALLY. GYPSUM PANELS NAILED 7 IN. OC WITH 6D CEMENT COATED NAILS 1-7/8 IN. LONG, 0.0915 IN. SHANK DIAM AND 15/64 IN. DIAM HEADS. WHEN USED IN WIDTHS OTHER THAN 48 IN., GYPSUM PANELS ARE TO BE INSTALLED HORIZONTALLY. FOR AN ALTERNATE METHOD OF ATTACHMENT OF GYPSUM PANELS, REFER TO ITEMS 6, 6A OR 6B, STEEL FRAMING MEMBERS\*.

UL 263 1-HOUR  
FIRERATED P-1 ASSEMBLY

## FIREWALL DETAILS

NON TO SCALE



NON TO SCALE



NON TO SCALE



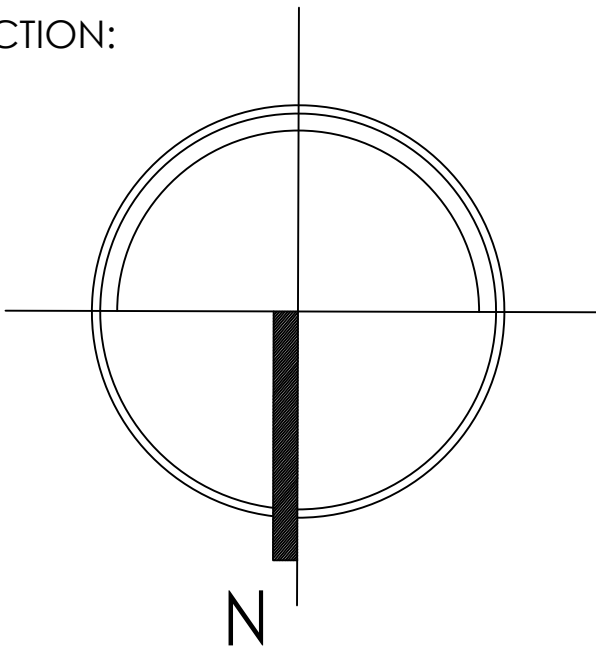
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DIRECTION:



PROJECT:

## DUPLEX UNIT 1

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 1  
SAN ANTONIO, TEXAS 78202

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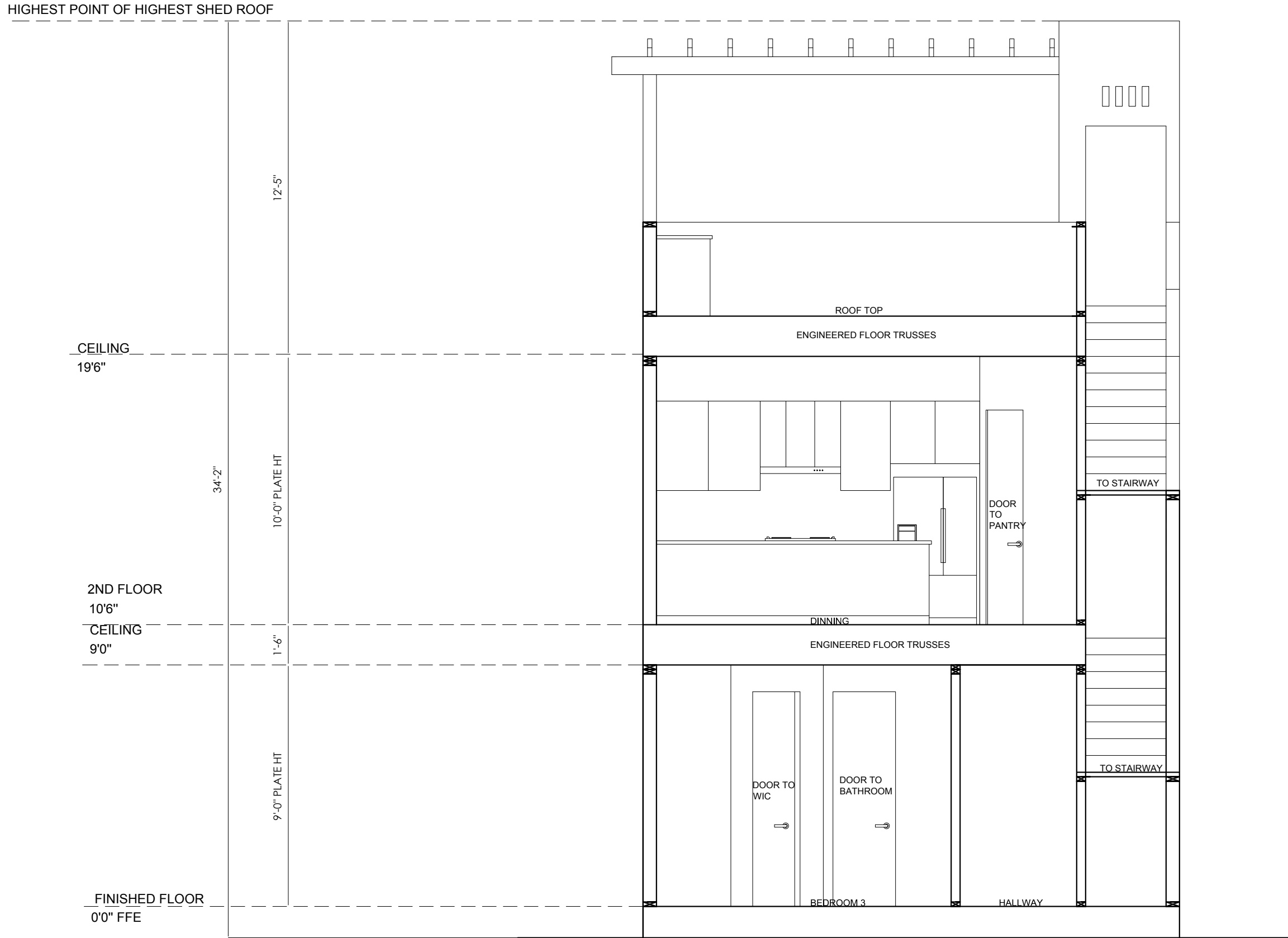
DRAWN BY:

M.R.

PLAN:

## CROSS SECTION ROOF PLAN

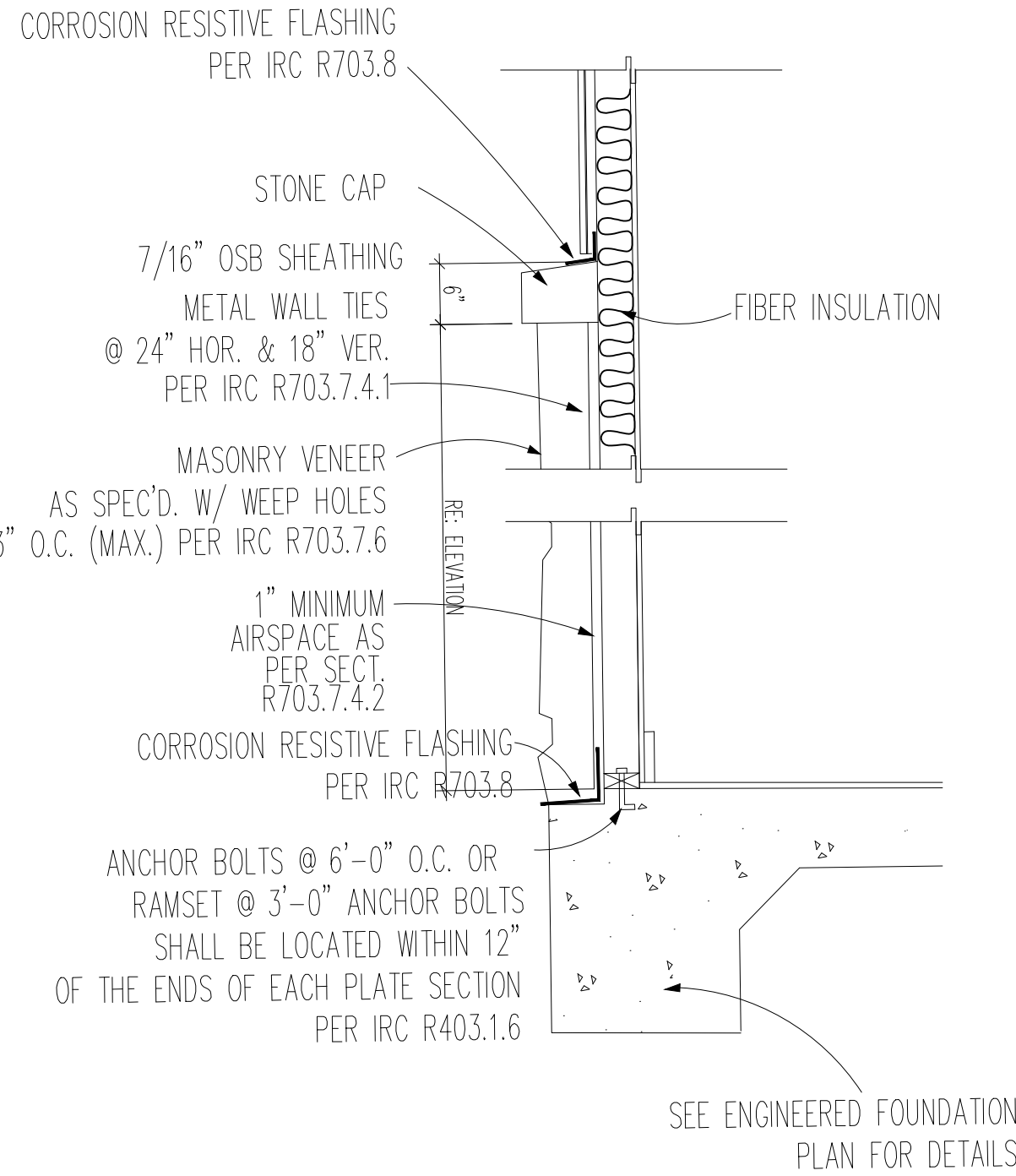
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1

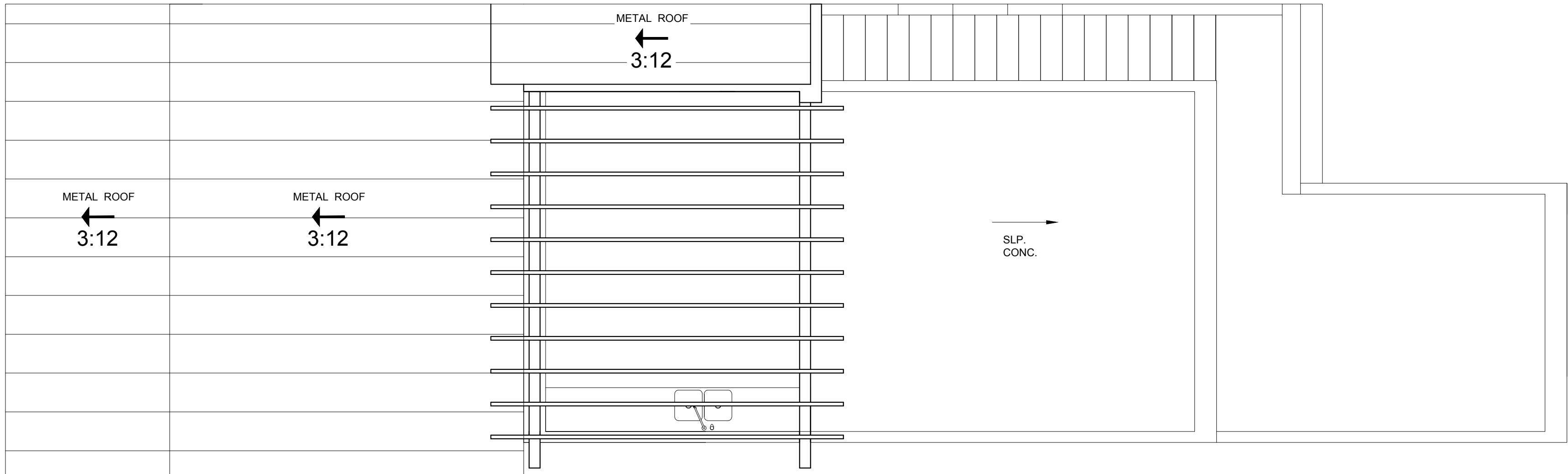
## CROSS SECTION a-a'

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



## TYP. MASONRY WAINSCOAT

NOT TO SCALE



1

## ROOF PLAN

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

TABLE R602.3(5) SIZE, HEIGHT AND SPACING OF WOOD STUDS*							
STUD SIZE (inches)	BEARING WALLS				NONBEARING WALLS		
	Laterally unsupported stud height <sup>a</sup> (feet)	Maximum spacing when supporting a roof- ceiling assembly or a habitable attic assembly, only (inches)	Maximum spacing when supporting one floor, plus a roof- ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting two floors, plus a roof- ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting one floor height <sup>a</sup> (inches)	Laterally unsupported stud height <sup>a</sup> (feet)	Maximum spacing (inches)
2 x 3 <sup>b</sup>	—	—	—	—	—	10	16
2 x 4	10	24 <sup>c</sup>	16 <sup>c</sup>	—	24	14	24
3 x 4	10	24	24	16	24	14	24
2 x 5	10	24	24	—	24	16	24
2 x 6	10	24	24	16	24	20	24

A. LISTED HEIGHTS ARE DISTANCES BETWEEN POINTS  
OF LATERAL SUPPORT PLACED PERPENDICULAR TO  
THE PLANE OF THE WALL. BEARING WALLS SHALL BE  
SHEATHED ON NOT LESS THAN ONE SIDE OR BRIDGING  
SHALL BE INSTALLED NOT GREATER THAN 4 FEET  
APART MEASURED VERTICALLY FROM EITHER END OF  
THE STUD. INCREASES IN UNSUPPORTED HEIGHT ARE  
PERMITTED WHERE IN COMPLIANCE WITH EXCEPTION 2  
OF SECTION R602.3.1 OR DESIGNED IN ACCORDANCE  
WITH ACCEPTED ENGINEERING PRACTICE.

B. SHALL NOT BE USED IN EXTERIOR WALLS.

C. A HABITABLE ATTIC ASSEMBLY SUPPORTED BY 2 x 4  
STUDS IS LIMITED TO A ROOF SPAN OF 32 FEET. WHERE  
THE ROOF SPAN EXCEEDS 32 FEET, THE WALL STUDS  
SHALL BE INCREASED TO 2 x 6 OR THE STUDS SHALL BE  
DESIGNED IN ACCORDANCE WITH ACCEPTED  
ENGINEERING PRACTICE.

A1.07

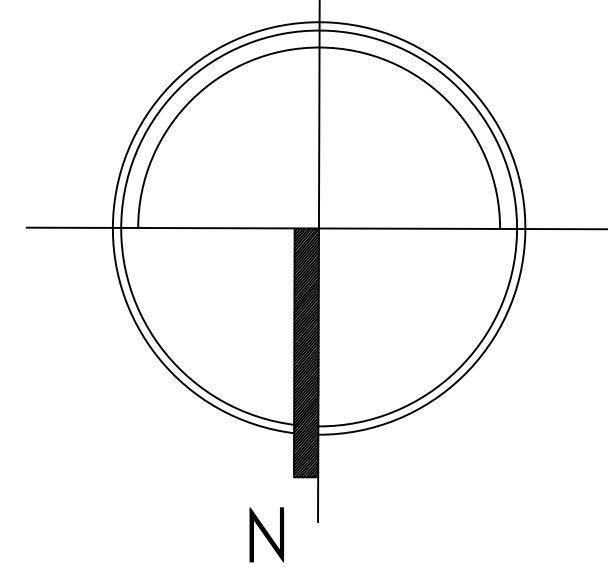




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DIRECTION:



PROJECT:

DUPLEX  
UNIT 1

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 1  
SAN ANTONIO, TEXAS 78202

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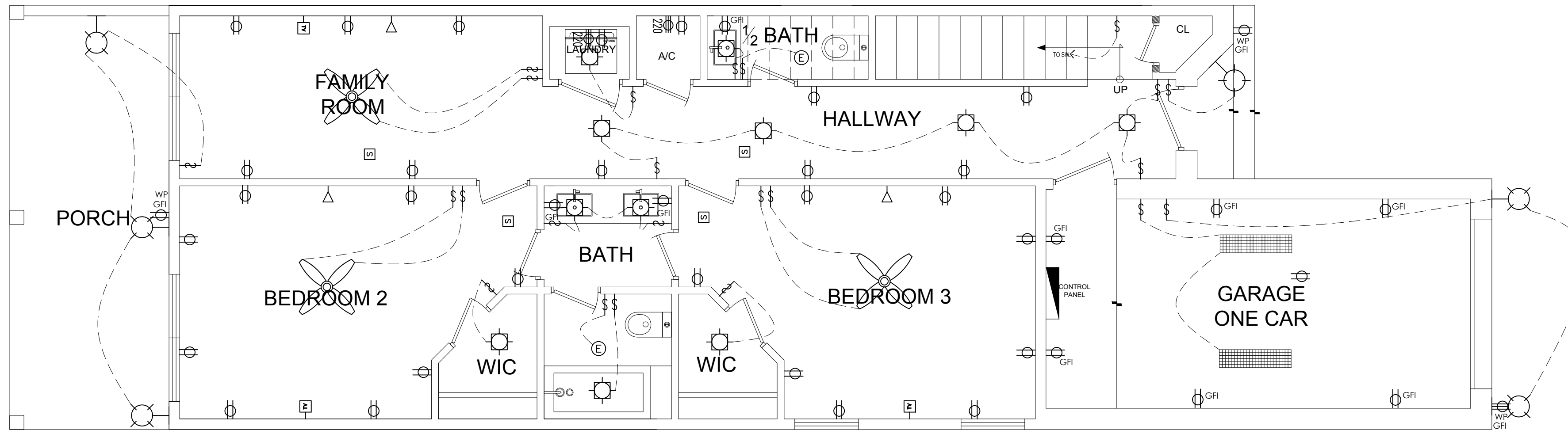
M.R.

PLAN:

ELECTRIC PLAN

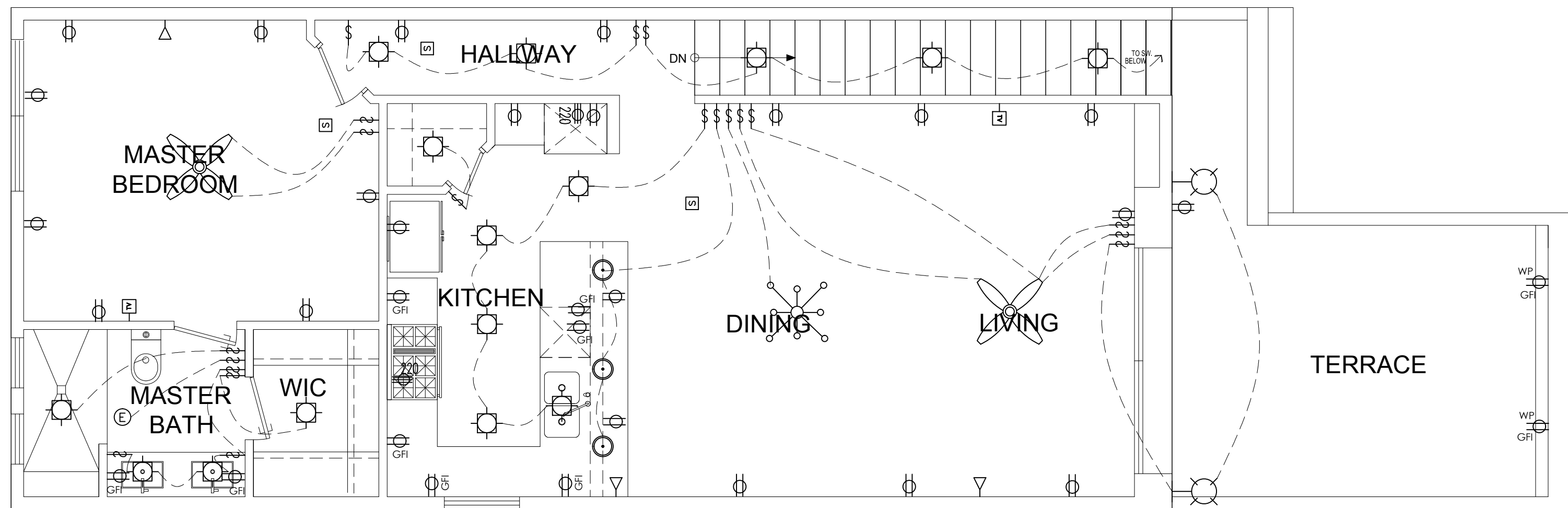
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A1.08



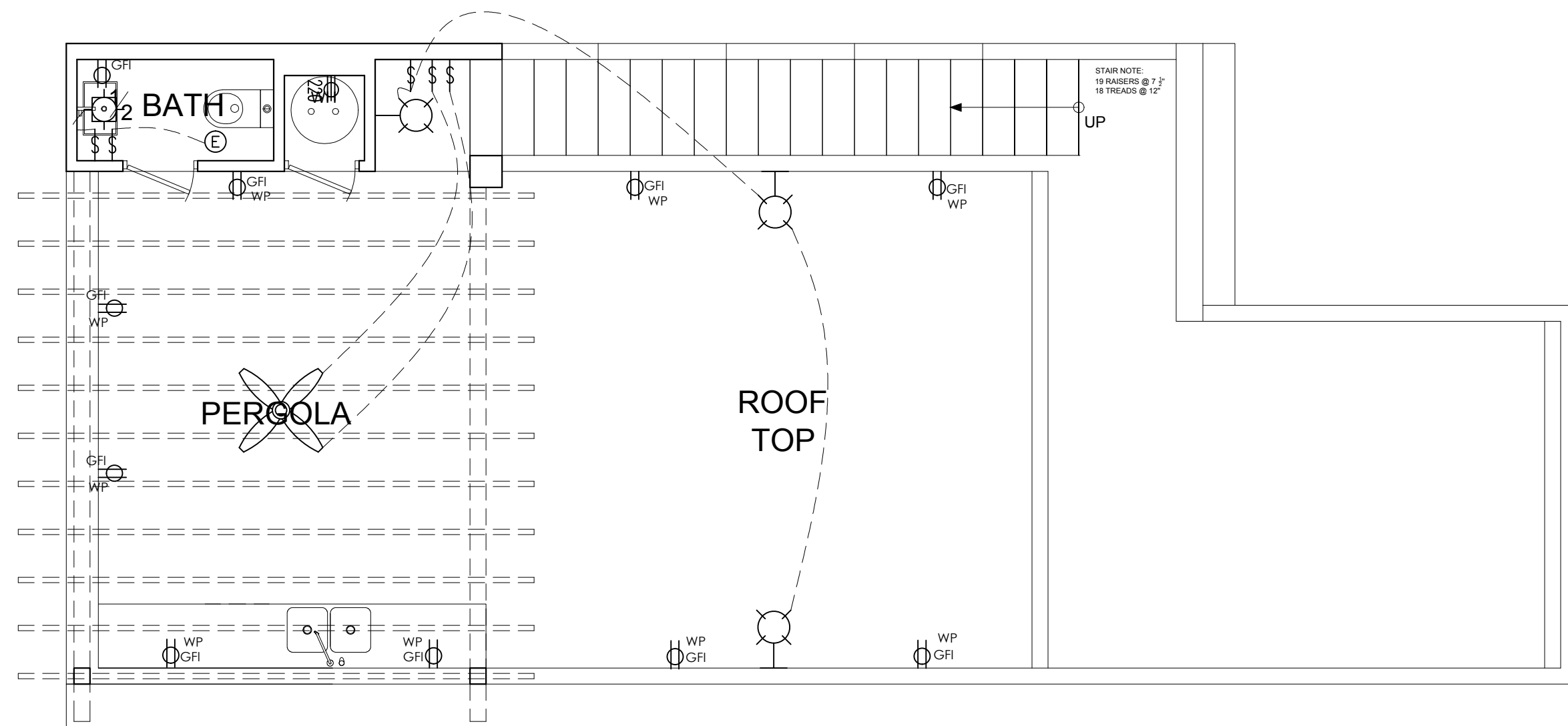
## FIRST FLOOR PLAN

SCALE: 1/4=1'-0"



## SECOND FLOOR PLAN

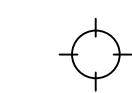
SCALE: 1/4=1'-0"



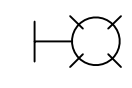
## THIRD FLOOR PLAN

SCALE: 1/4=1'-0"

### LIGHTING & POWER GRAPHIC SYMBOLS:



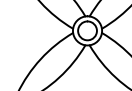
CEILING LIGHT FIXTURE



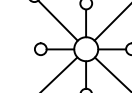
WALL LIGHT FIXTURE



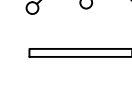
EXHAUST FAN OUTLET



FAN & LIGHT OUTLET



CHANDELIER



ROPE LIGHTING



SINGLE POLE SWITCH



THREE WAY SWITCH



FOUR WAY SWITCH



DIMMER SWITCH



PUSH BUTTON SWITCH



SMOKE DETECTOR



DOUBLE RECEPTACLE



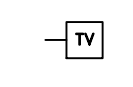
DOUBLE RECEPTACLE 220V



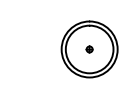
DOUBLE RECEPTACLE GFI



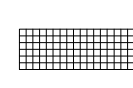
DOUBLE RECEPTACLE WEATHERPROOF



COAXIAL, CAT6e, TELEPHONE OUTLET



HANGING LIGHT



FLO FIX 1'X4'



CONTROL PANEL

### NOTE:

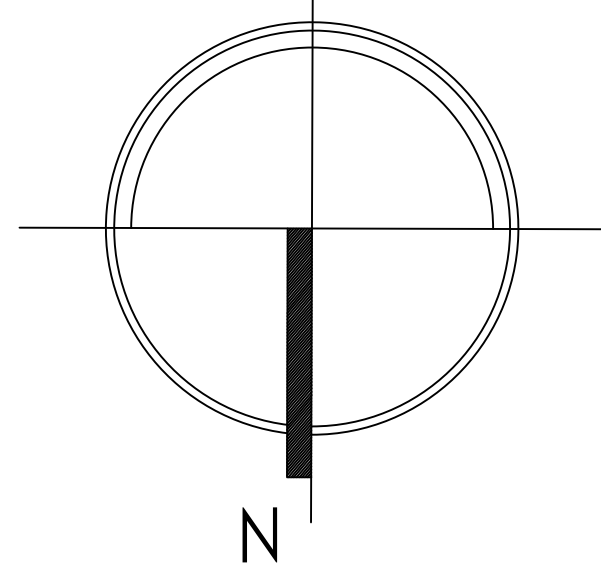
- \* ALL OUTLETS TO BE SPACED AS PER NEC 6/12' PLACEMENT RULES.
- \* ALL SMOKE DETECTORS SHALL BE ELECTRICALLY HARDWIRES WITH A BATTERY BACKUP.
- \* ALL SMOKE DETECTORS SHALL BE ELECTRICALLY INTERCONNECTED, SO THAT IF ONE GOES INTO ALARM, ALL GO INTO ALARM. INSTALL PER 2000 IFC SECTION 907.210.1.2 AND 2000 IRC SECTIONS 317.1 AND 317.2
- \* PROVIDE VACUUM BREAKERS DEVICES ON ALL EXTERIOR HOSE BIBS.
- \* INSTALLARC FAULT CIRCUIT INTERRUPTION PROTECTION ON ALL BEDROOM ELECTRICAL CIRCUITS.
- \* VERIFY LOCATIONS OF ALL CONDENSING UNITS WITH MECHANICAL CONTRACTOR PROVIDE REQUIRED ELECTRICAL PER CODE.



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DIRECTION:



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UNIT 1

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LOCATION:

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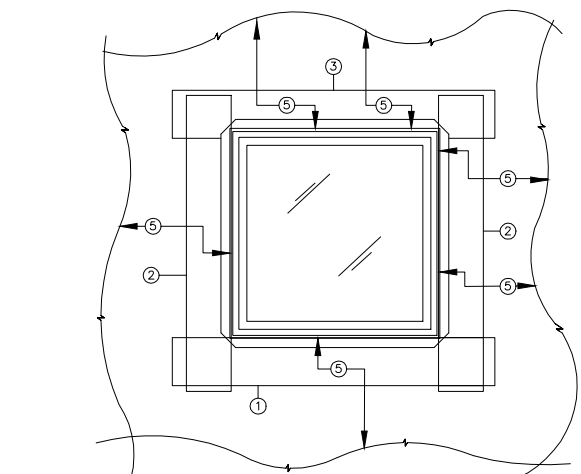
M.R.

PLAN:

WINDOWS/DOORS  
CABINETS

SHEET No.:

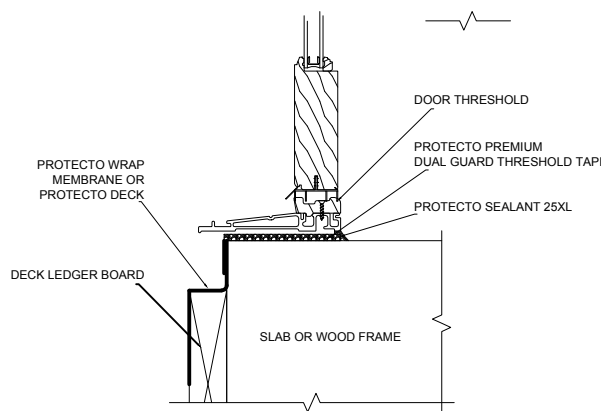
A1.09



ORDER OF INSTALLATION  
1. Sill flashing, wrap into opening  
2. Sill flashing, wrap into opening  
3. Sill flashing, wrap into opening  
4. Sill flashing, wrap into opening  
5. Sill flashing, wrap into opening

## STANDARD WINDOW INSTALLATION DETAIL

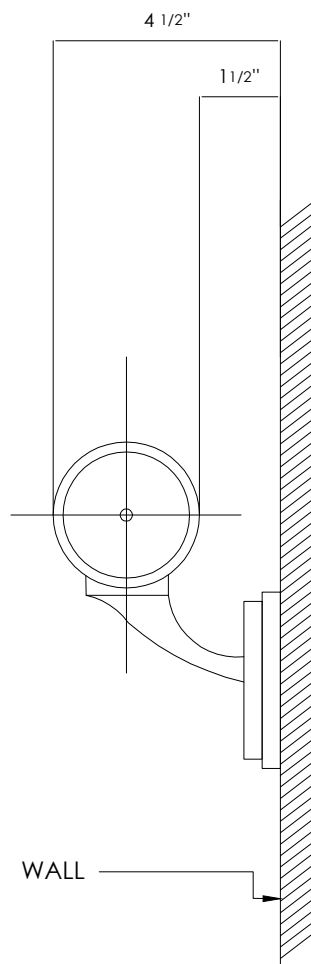
NON SCALE



1. VISIT PROTECTOWRAP.COM FOR THE MOST CURRENT INFORMATION
2. REFER TO TECHNICAL DATA SHEET FOR MORE INFORMATION
3. PROTECTO WRAP UNDERLAYMENTS SHOULD BE INSTALLED TO FORM WATER-SHEDDING LAPS
4. ALL SURFACES MUST BE CLEAN, DRY, FREE OF DIRT AND OTHER FOREIGN MATERIALS.
5. CUT A PIECE OF PROTECTO PREMIUM DUAL GUARD THRESHOLD TAPE THE LENGTH OF THE THRESHOLD OPENING EXTENDING APPROXIMATELY 1" MINIMUM UP THE SIDES OF THE DOOR JAM.
6. PEEL OFF RELEASE LINER AND BEGIN APPLYING PROTECTO PREMIUM DUAL GUARD THRESHOLD TAPE TO THE DOOR SILL PLATE BY SMOOTHING AS THE ADHESIVE COMES INTO CONTACT WITH THE DOOR SILL
7. PLACE THE THRESHOLD OVER THE PROTECTO PREMIUM DUAL GUARD THRESHOLD TAPE AND SECURE.

## EXTERIOR DOOR SILL DETAIL

NON TO SCALE

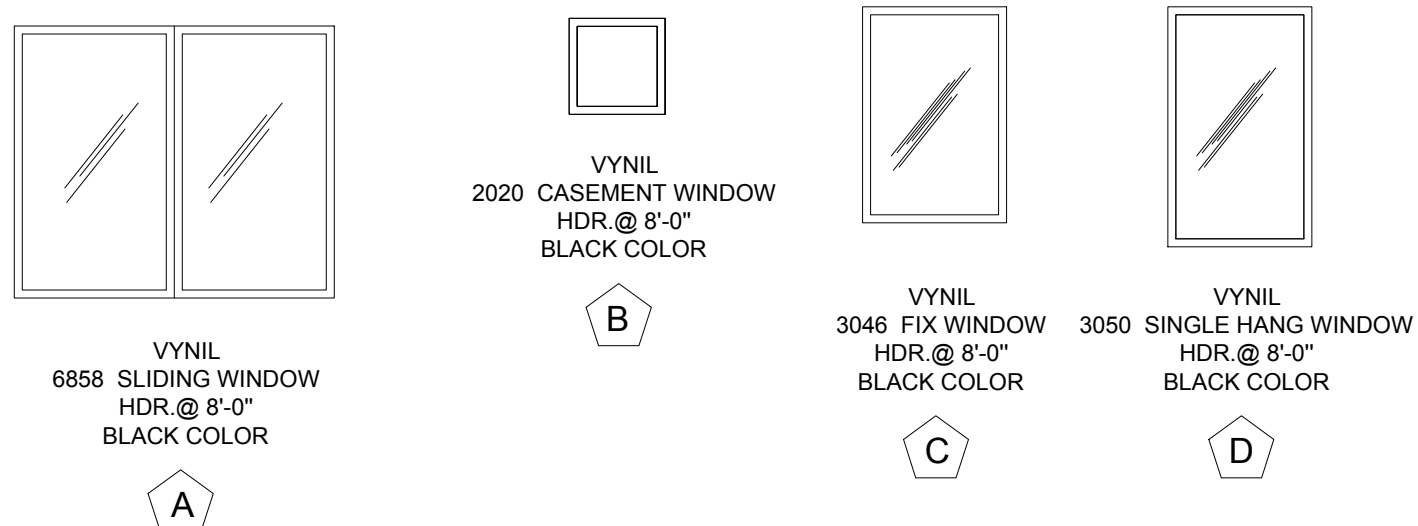


HANDRAILS FOR STAIRWAYS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT, FROM A POINT DIRECTLY ABOVE THE TOPRISER OF THE FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2 INCHES (38 MM) BETWEEN THE WALL AND THE HANDRAILS.

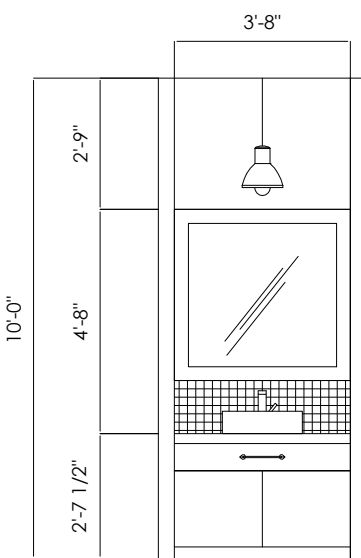
HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE NOT LESS THAN 34 INCHES (864 MM) AND NOT MORE THAN 38 INCHES (965 MM)

## TYPICAL HANDRAIL DETAIL

NON SCALE

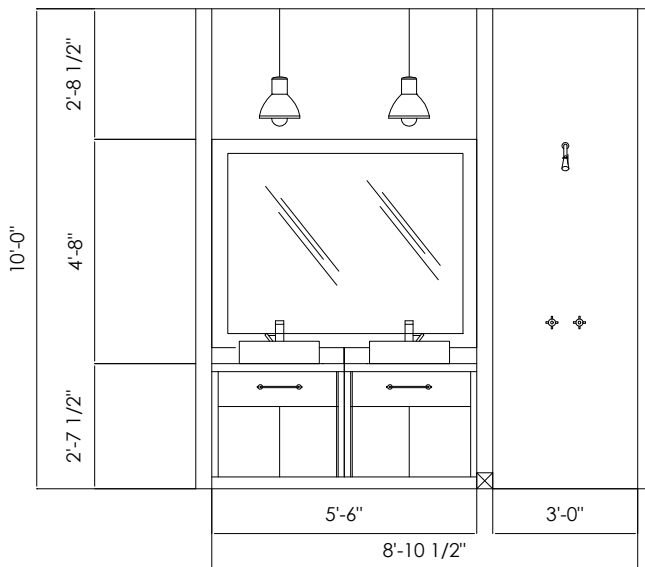


WINDOW SCHEDULE				
WINDOW NUMBER	WIDTH	HEIGHT	COUNT	WINDOW TYPE
A	6' - 8"	5' - 8"	1	SLIDING
B	2' - 0"	2' - 0"	2	CASEMENT
C	3' - 0"	4' - 6"	1	SINGLE HANG
D	3' - 0"	5' - 0"	2	SINGLE HANG
GRAND TOTAL 6				



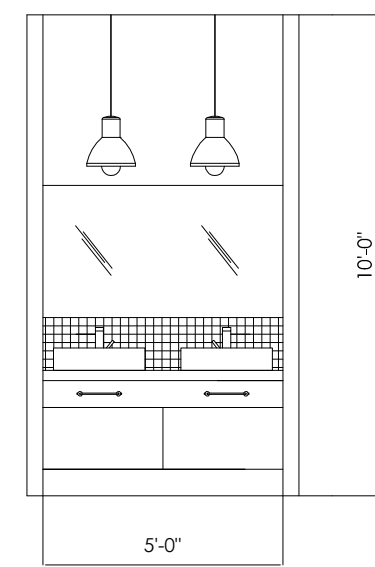
## 1/2 BATH

NON SCALE



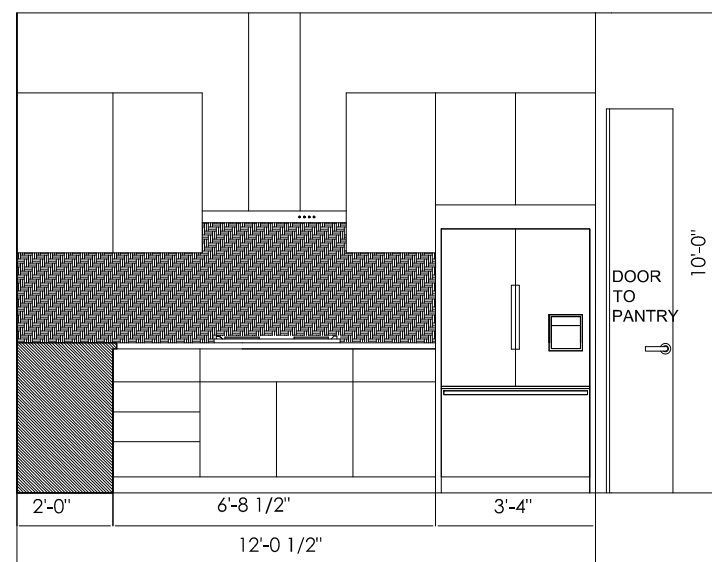
## MASTER BATH

NON SCALE



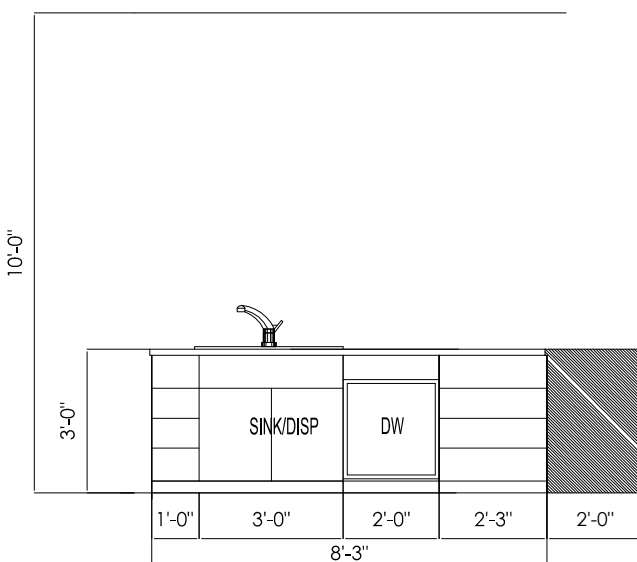
## BATH 2

NON SCALE



## KITCHEN

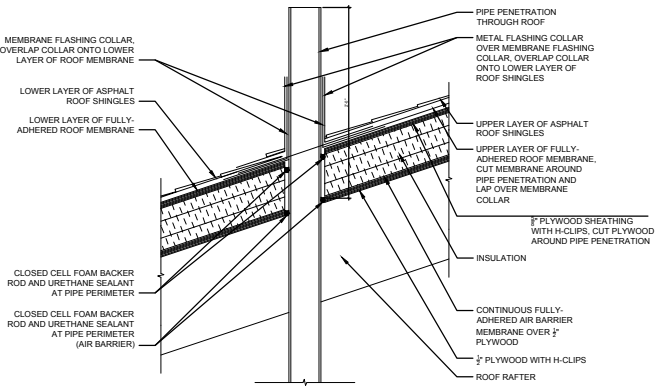
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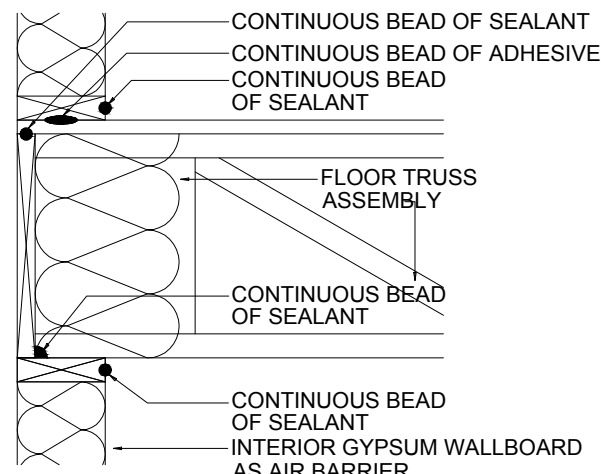
## KITCHEN ISLAND

NON SCALE

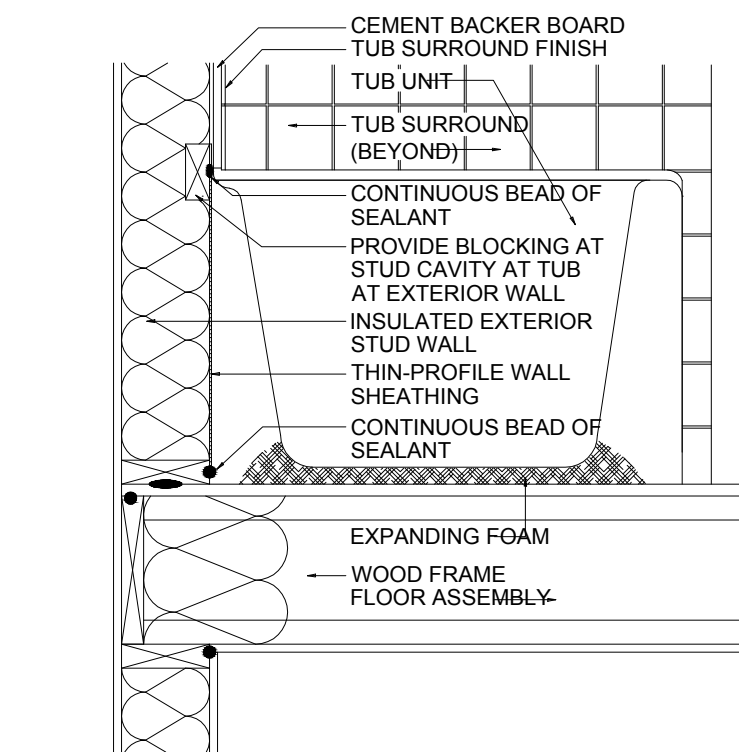




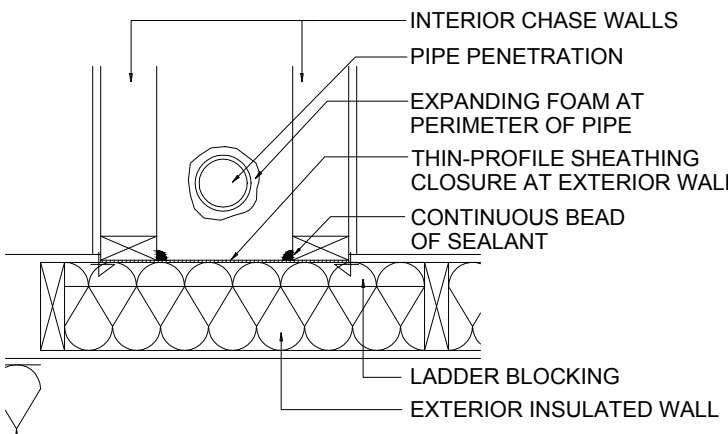
AIR SEAL AT TOP PIPE THROUGH ROOF  
NON SCALE



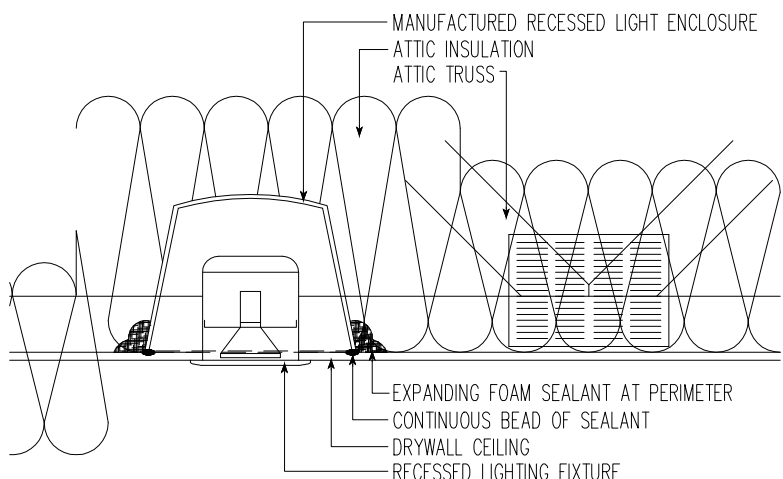
AIR SEAL AT UPPER FLOOR BAND JOIST  
NON SCALE



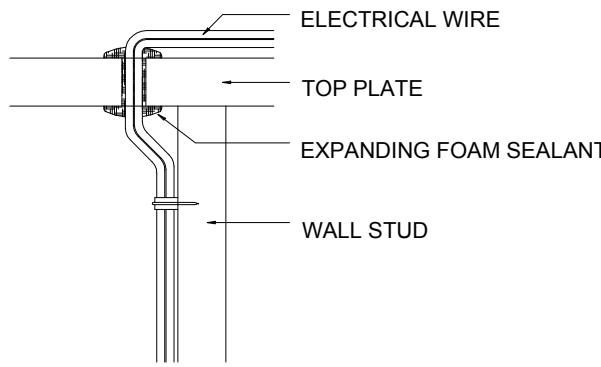
DETAIL AIR SEAL TUB  
NON SCALE



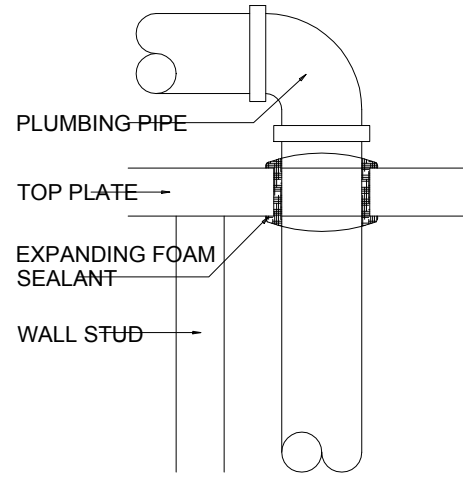
DETAIL AIR SEAL CHASE WALL  
NON SCALE



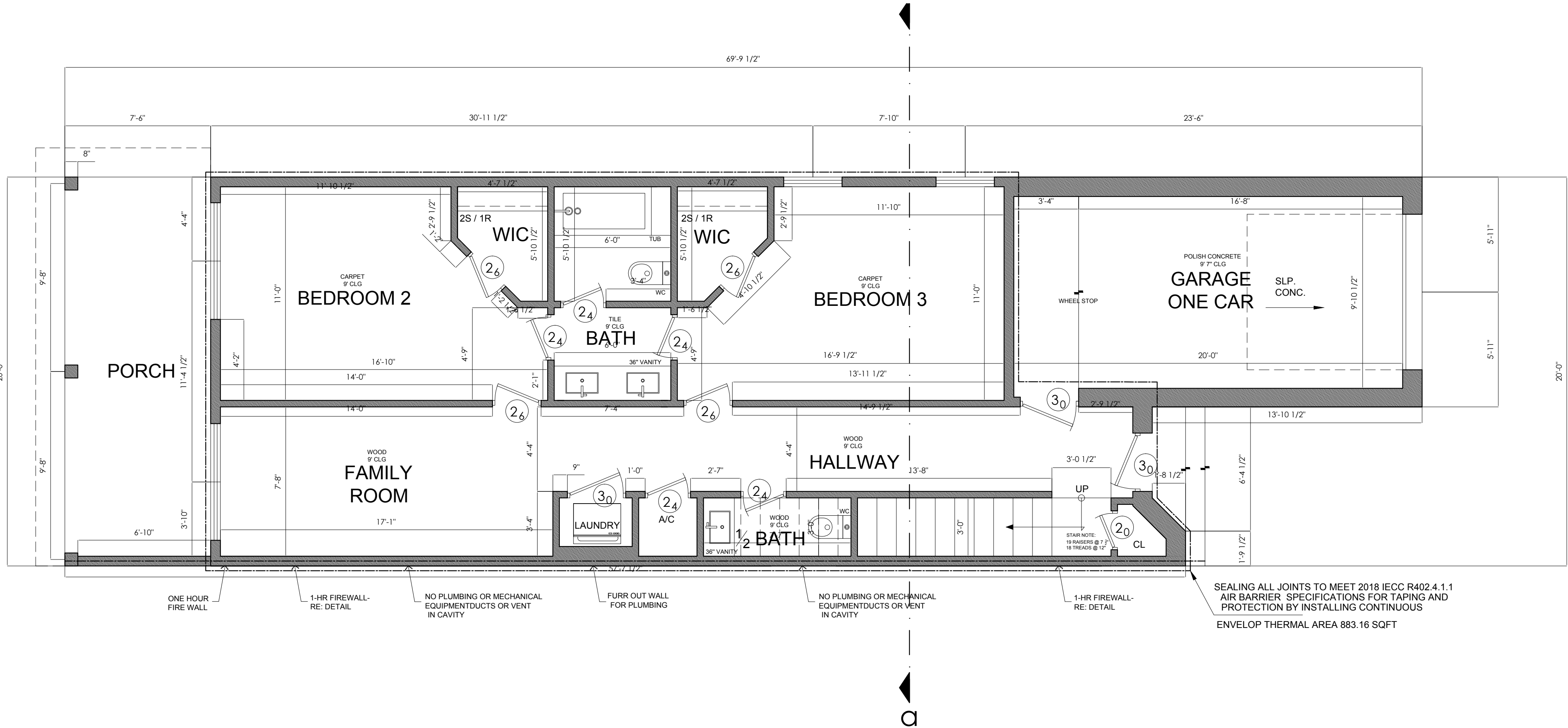
AIR SEAL AT RECESSED LIGHTING IN ATTIC  
NON SCALE



AIR SEAL AT TOP PLATE ELECTRICAL PENETRATION  
NON SCALE



AIR SEAL AT TOP PLATE PIPE PENETRATION  
NON SCALE



FIRST FLOOR PLAN UNIT 2

SCALE: 1/4=1'-0"

TABLE R402.4.1.1 AIR BARRIER AND INSULATION INSTALLATION*		
COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. <b>Breaks or joints in the air barrier shall be sealed.</b> The air barrier in any dropped ceiling or soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic		The insulation in any dropped ceiling/soffits shall be aligned with the air barrier.
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance, R-value, of not less than R-3 per inch. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.
Windows, skylights and doors	The space between framing and skylights, and the jambs of windows and doors, shall be sealed.	—
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.
Floors, including cantilevered floors and floors above garages	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking. Alternatively, floor framing cavity insulation shall be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing, and shall extend from the bottom to the top of all perimeter floor framing members.
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Crawl space insulation, where provided instead of floor insulation, shall be permanently attached to the walls.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	—
Narrow cavities	—	Batts to be installed in narrow cavities shall be cut to fit or narrow cavities shall be filled with insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	—
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the finished surface.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.
Plumbing and wiring	—	In exterior walls, batt insulation shall be cut neatly to fit around wiring and plumbing, or insulation, that on installation readily conforms to available space, shall extend behind piping and wiring.
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate the wall from the shower or tub.	Exterior walls adjacent to showers and tubs shall be insulated.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical and communication boxes. Alternatively, air-sealed boxes shall be installed.	—
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the subfloor, wall covering or ceiling penetrated by the boot.	—
Concealed sprinklers	Where required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	—

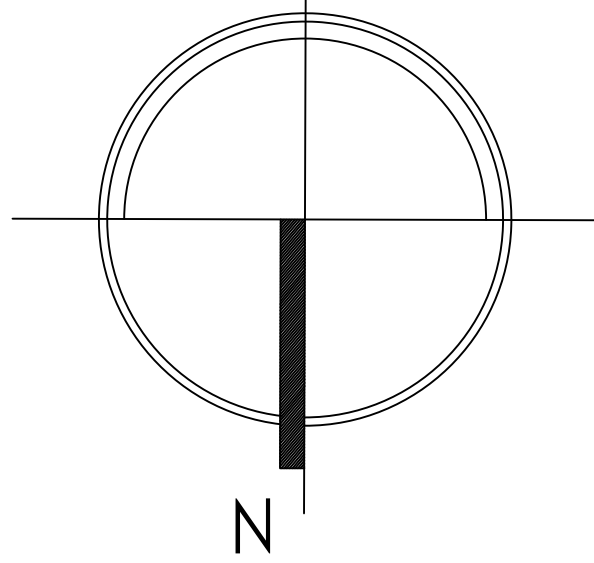
a. Inspection of log walls shall be in accordance with the provisions of ISS 400.



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PROJECT:

## DUPLEX UNIT 2

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 2  
SAN ANTONIO, TEXAS 78202

NOTE:  
GENERAL CONTRACTOR SHALL HAVE THIS FOUNDATION PLAN DESIGN BY A TEXAS REGISTERED ENGINEER TO MEET SOIL TESTS REQUIREMENTS.

THE DESIGNER ASSUMES NO LIABILITY FOR ANY STRUCTURE CONSTRUCTED FROM THIS PLAN IT IS THE RESPONSIBILITY OF THE PURCHASER, OF THIS PLAN, TO PERFORM THE FOLLOWING BEFORE ACTUA CONSTRUCTION COMMENCES

- 1.- BUILDER OR CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 2.- BUILDER OR CONTRACTOR MUST VERIFY COMPLIANCE WITH ALL LOCAL BUILDING CODES OF THE AREA WHERE THE STRUCTURE IS TO BE CONSTRUCTED AND LOCATED.
- 3.- PLANS INDICATE LOCATIONS ONLY: ENGINEERING ASPECTS SHOULD BE INCORPORATED TO ACTUAL SITE CONDITIONS.

THESE PLANS ARE THE PROPERTY OF RH DESIGN CUSTOM HOMES AND ANY USE OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF RH DESIGN CUSTOM HOMES IS PROHIBITED.

DATE:

MAY/2020

DRAWN BY:

M.R.

PLAN:

## FLOOR PLAN

SHEET No.:

# A1.03

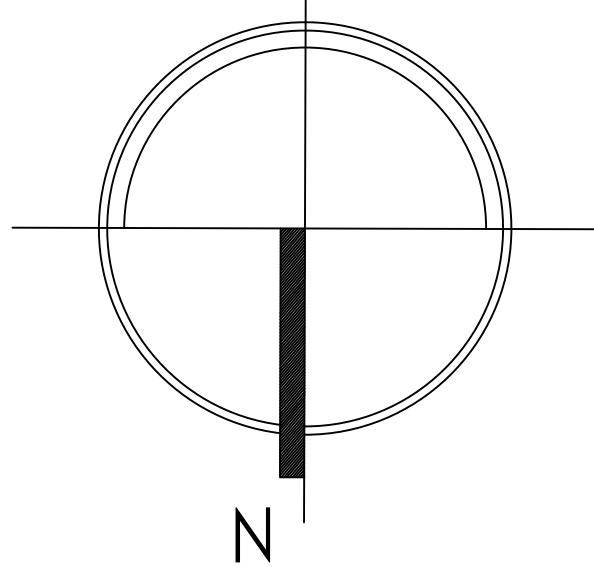
AREA SCHEDULE		
NAME	AREA	COMMENTS
CONDITIONED 1ST FLOOR 2ND FLOOR CONDITIONED: 2	883.16 SF 926.14 SF 1809.30 SF	CONDITIONED CONDITIONED
UNCONDITIONED GARAGE PORCH 3RD FLOOR & PERGOLA	254.16 SF 150.00 SF 264.29 SF	UNCONDITIONED UNCONDITIONED UNCONDITIONED
UNCONDITIONED:0	668.45 SF	
GRAND TOTAL: 1	2477.75 SF	





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DIRECTION:



PROJECT:

# DUPLEX UNIT 2

OWNER: CONSTRU K22

LOCATION:

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SAN ANTONIO, TEXAS 78202

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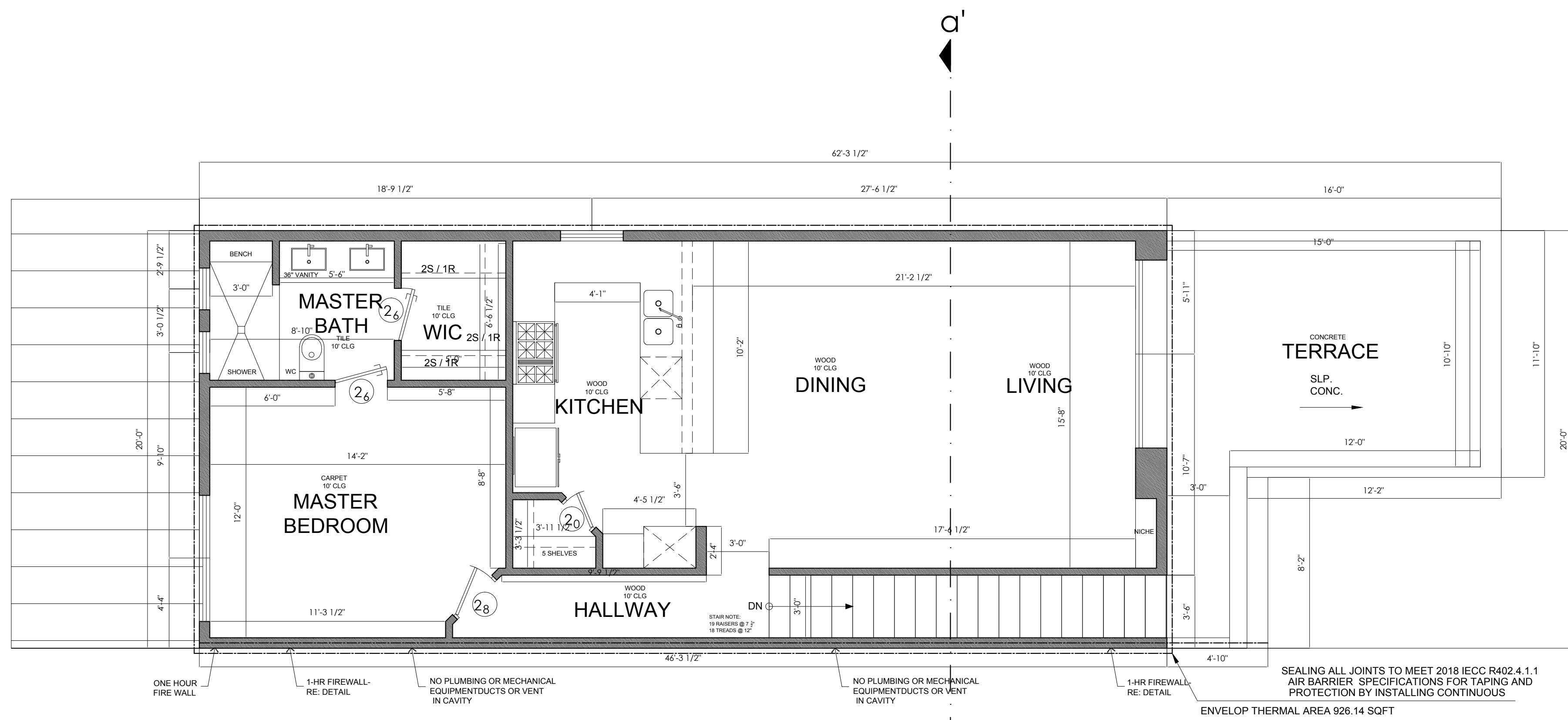
DATE: MAY/2020 DRAWN BY: M.R

PLAN:

# FLOOR PLAN

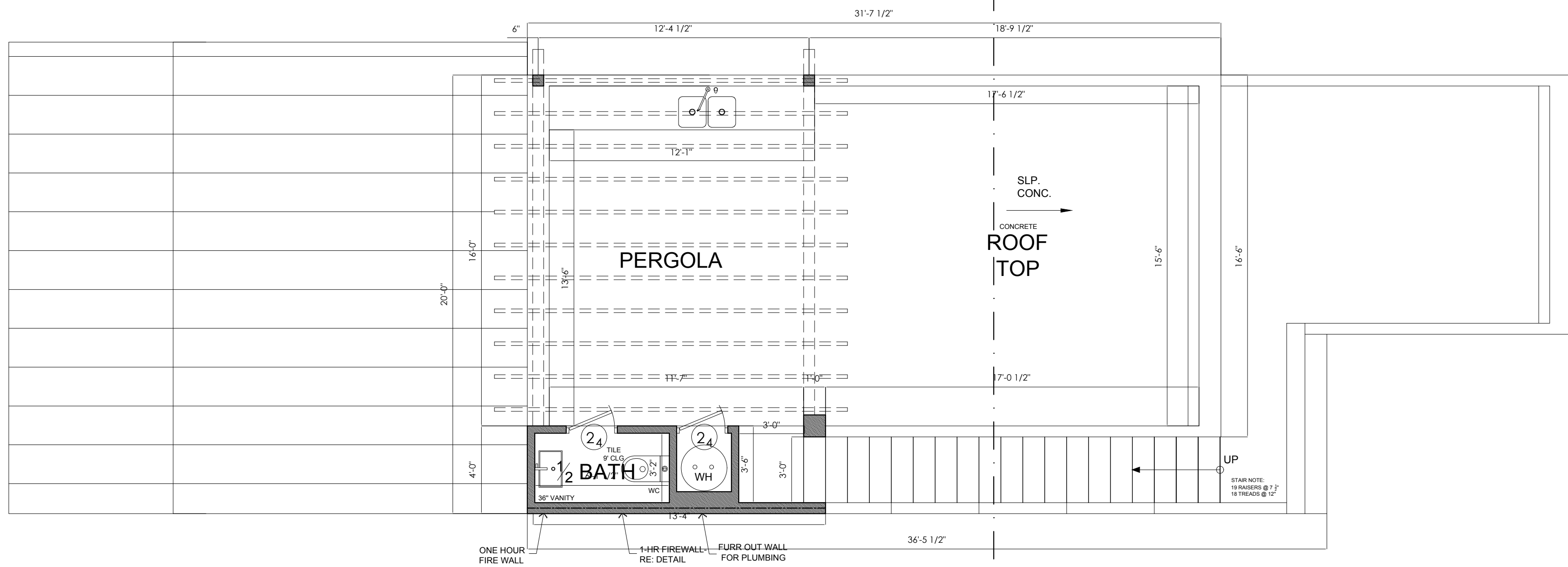
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# A1.04



## SECOND FLOOR PLAN

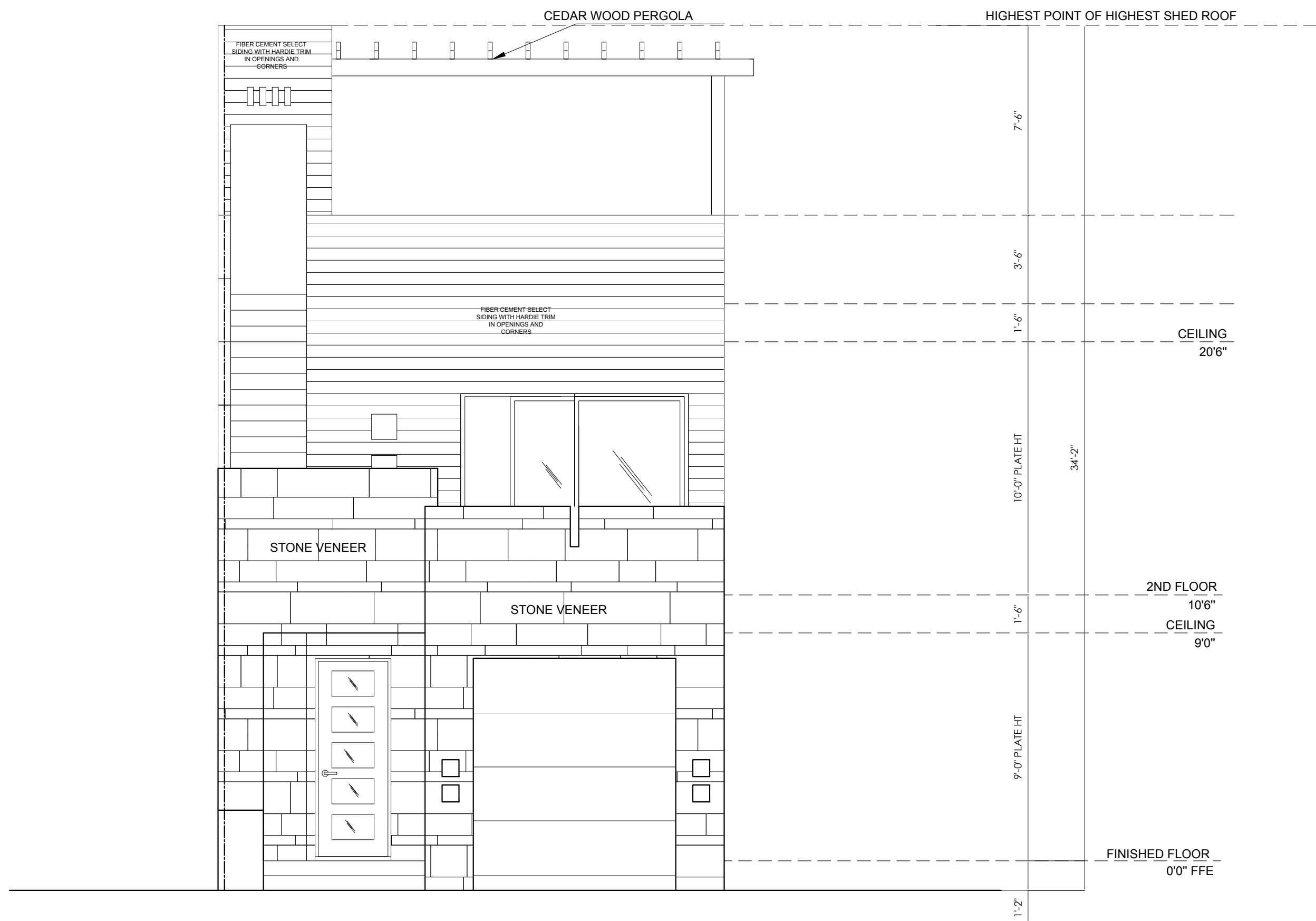
SCALE: 1/4"=1'-0"



## THIRD FLOOR PLAN

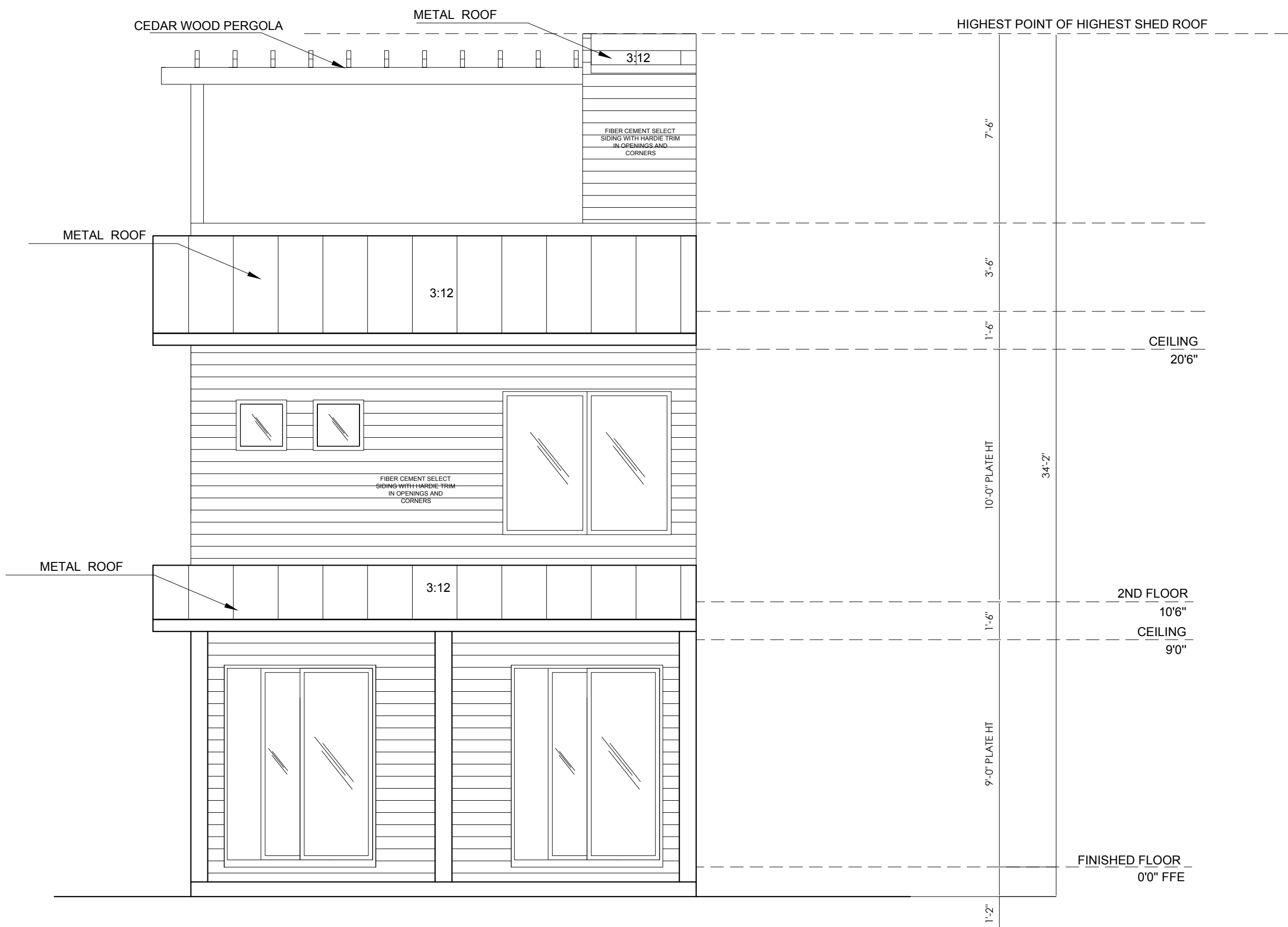
SCALE: 1/4"=1'-0"

SHEET No.:



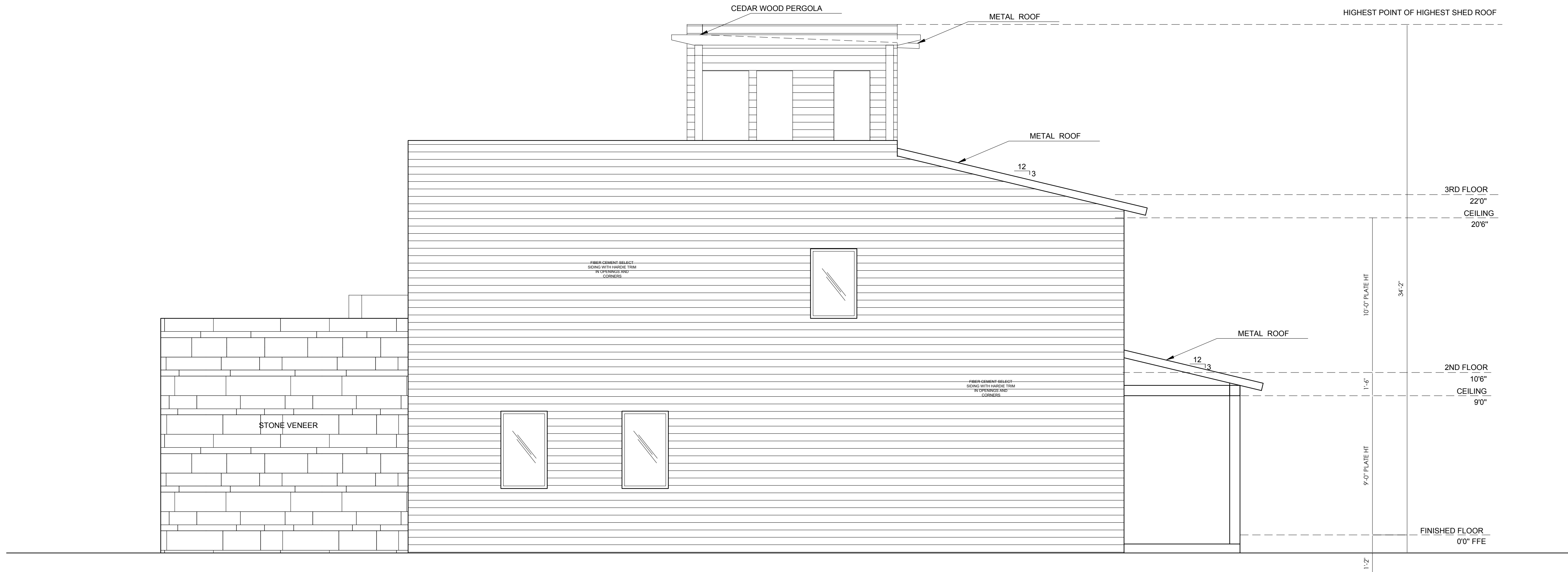
FRONT ELEVATION

SCALE: 1/4=1'-0"



REAR ELEVATION

SCALE: 1/4=1'-0"



RIGHT ELEVATION

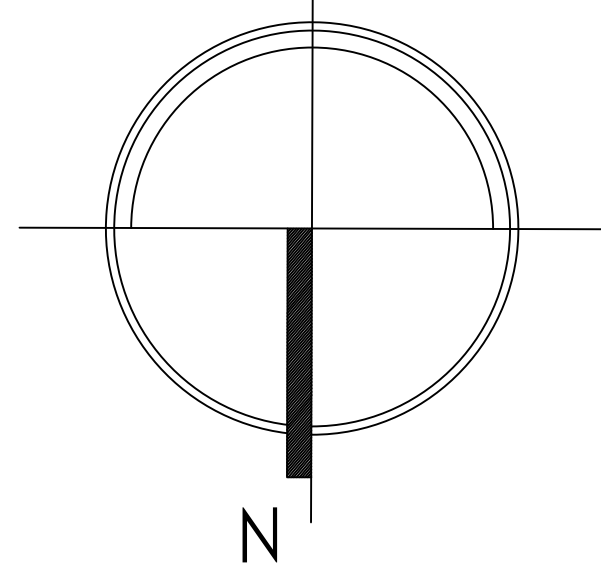
SCALE: 1/4=1'-0"



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DIRECTION:



PROJECT:

DUPLEX  
UNIT 2

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 2  
SAN ANTONIO, TEXAS 78202

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DATE:

MAY/2020

DRAWN BY:

M.R.

PLAN:

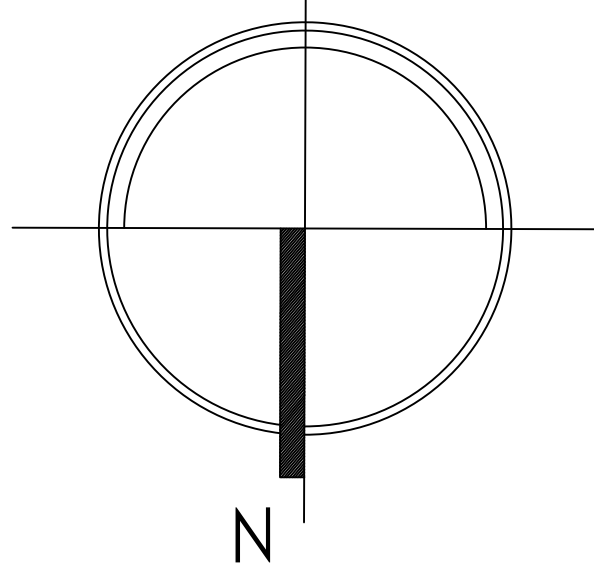
ELEVATION PLAN

SHEET No.:

A1.05



DIRECTION:



PROJECT:

DUPLEX  
UNIT 2

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 2  
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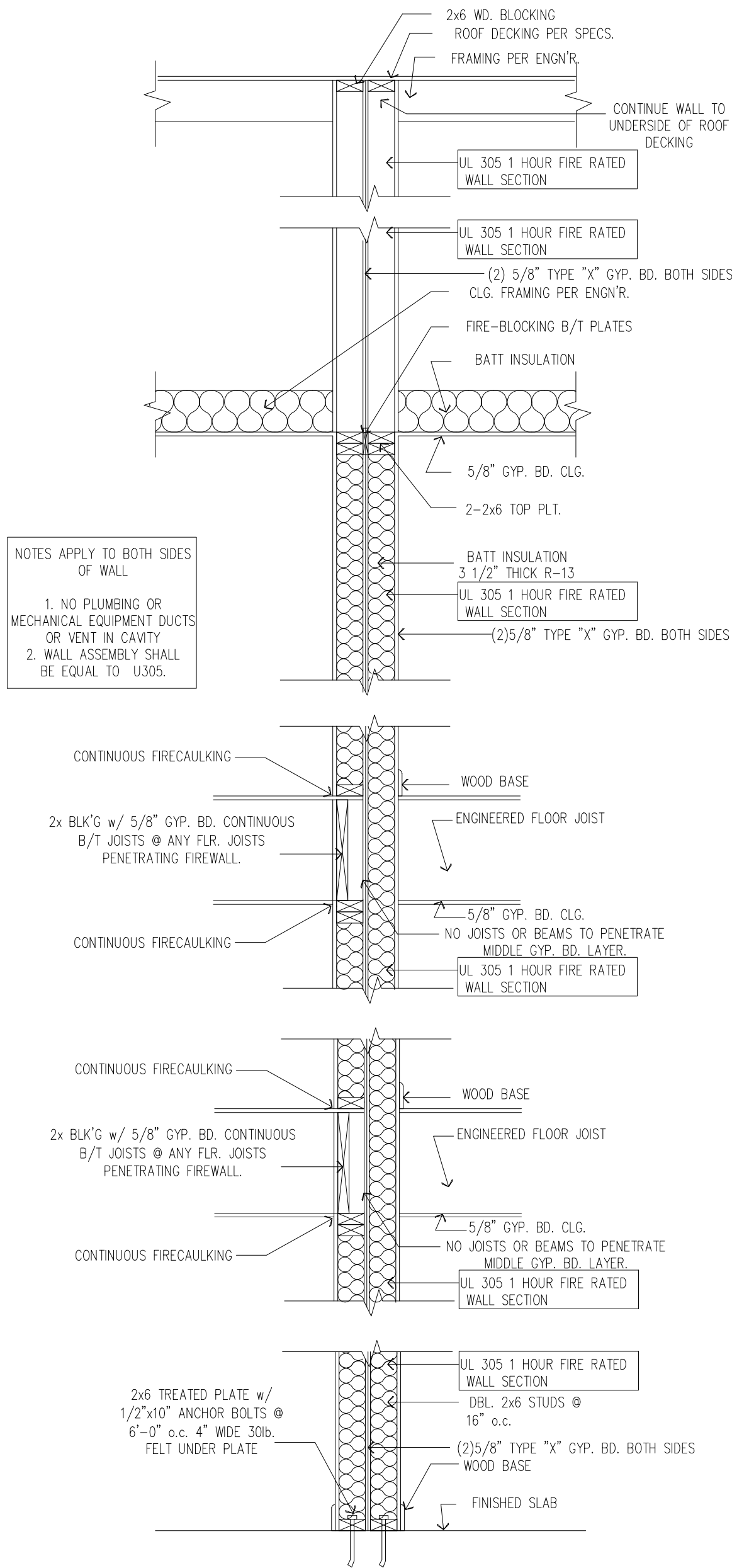
M.R.

PLAN:

ELEVATION PLAN

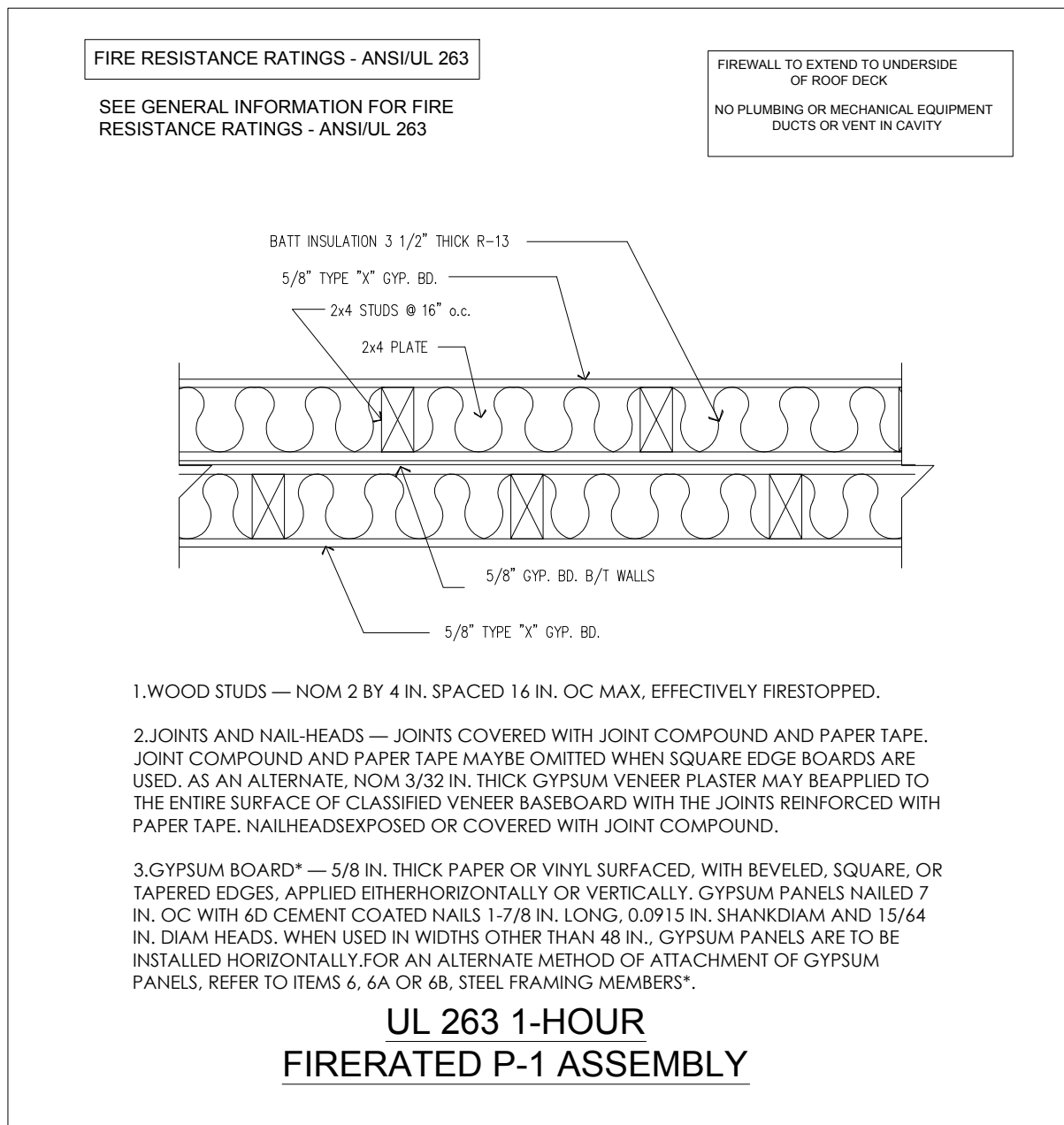
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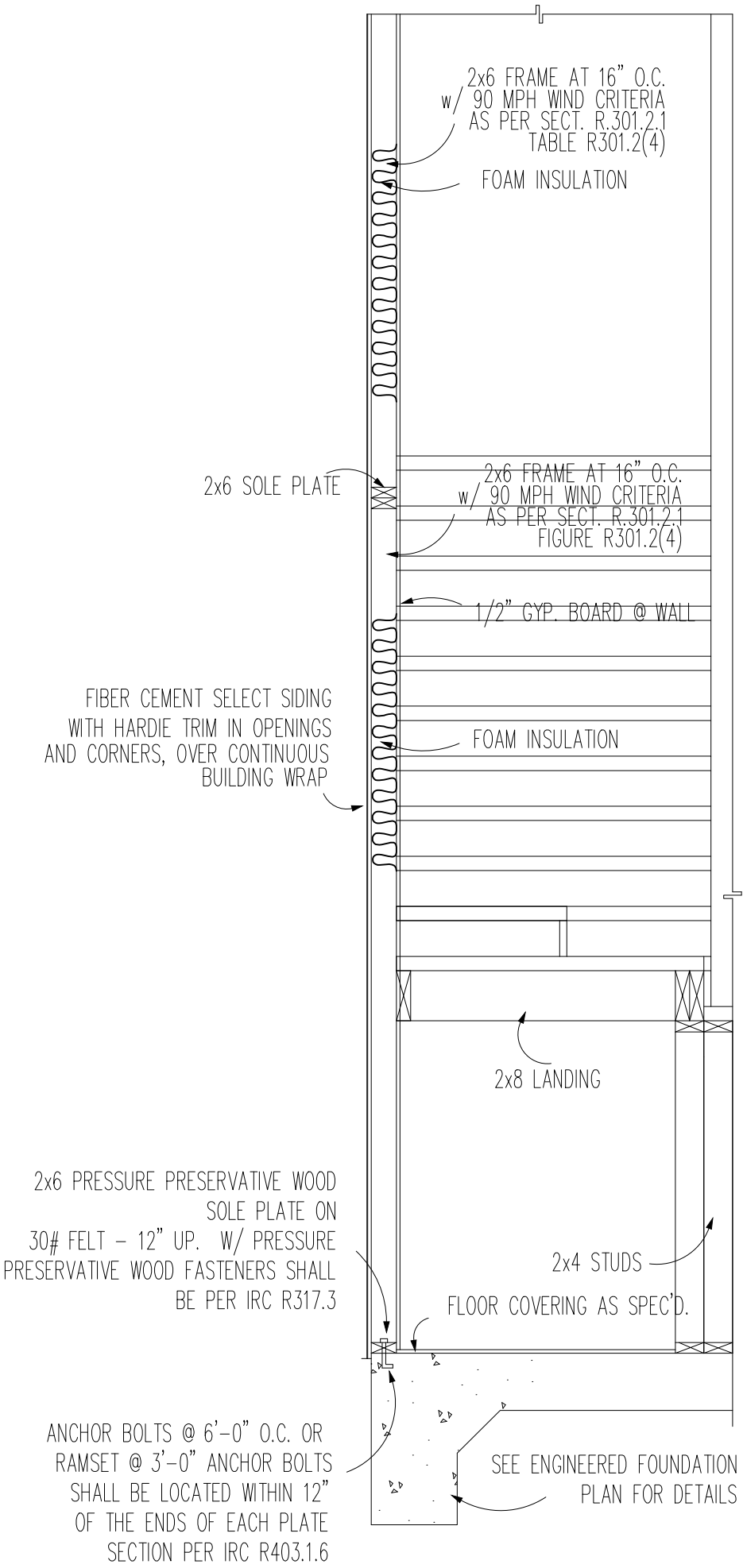
1 HR FIREWALL SECTION

NON TO SCALE



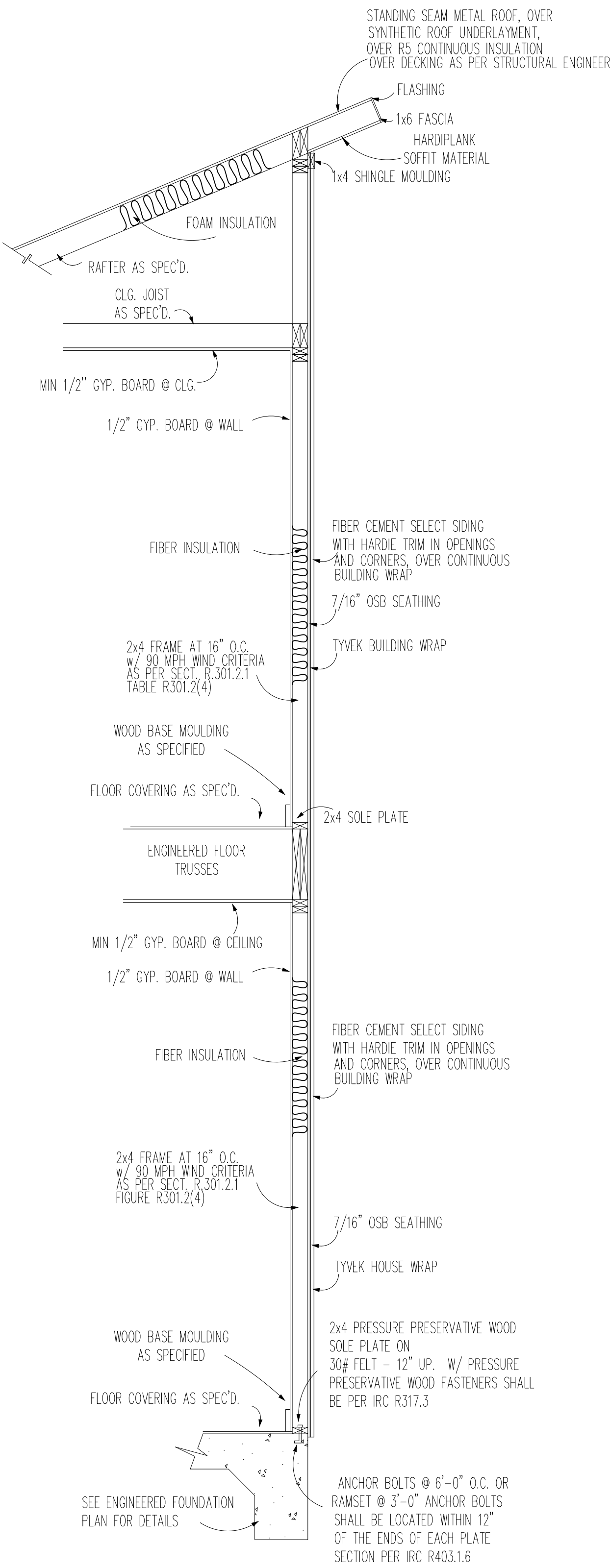
FIREWALL DETAILS

NON TO SCALE



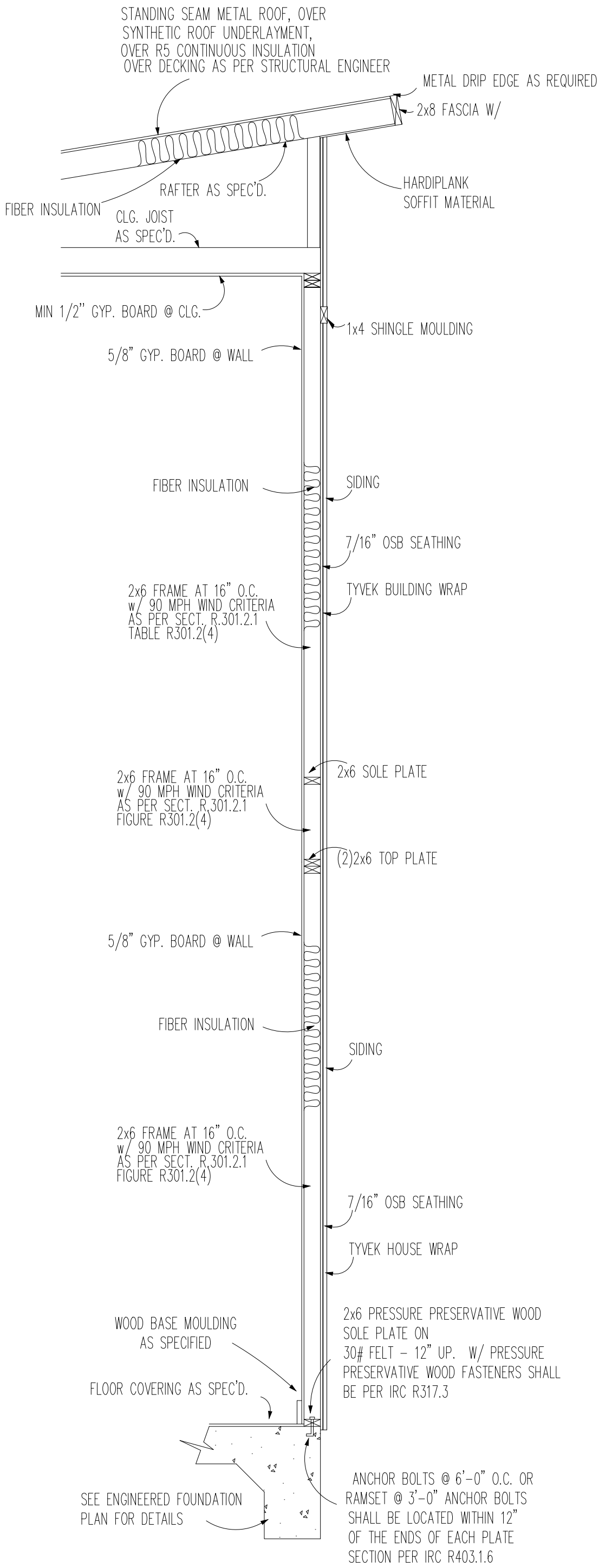
TYP.WALL STAIRS DETAIL

NON TO SCALE



TYP. SIDING WALL SECTION

NON TO SCALE



TYP. WALL TALL SECTION

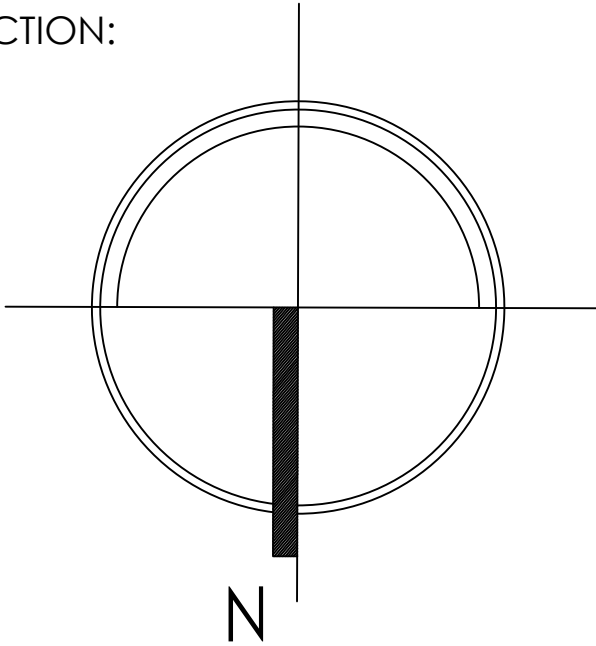
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DIRECTION:



PROJECT:

## DUPLEX UNIT 2

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 2  
SAN ANTONIO, TEXAS 78202

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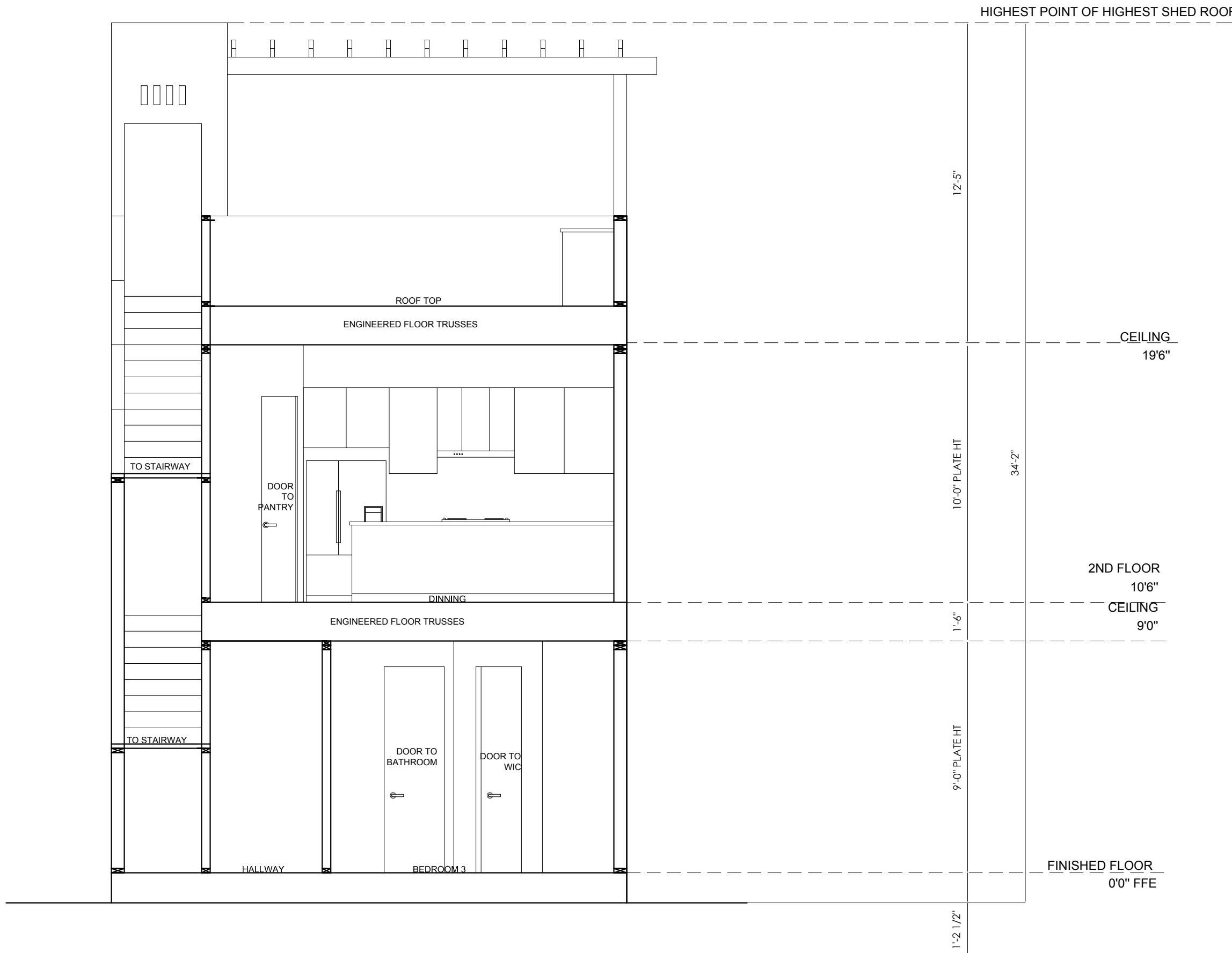
M.R.

PLAN:

## CROSS SECTION ROOF PLAN

SHEET No.:

# A1.07



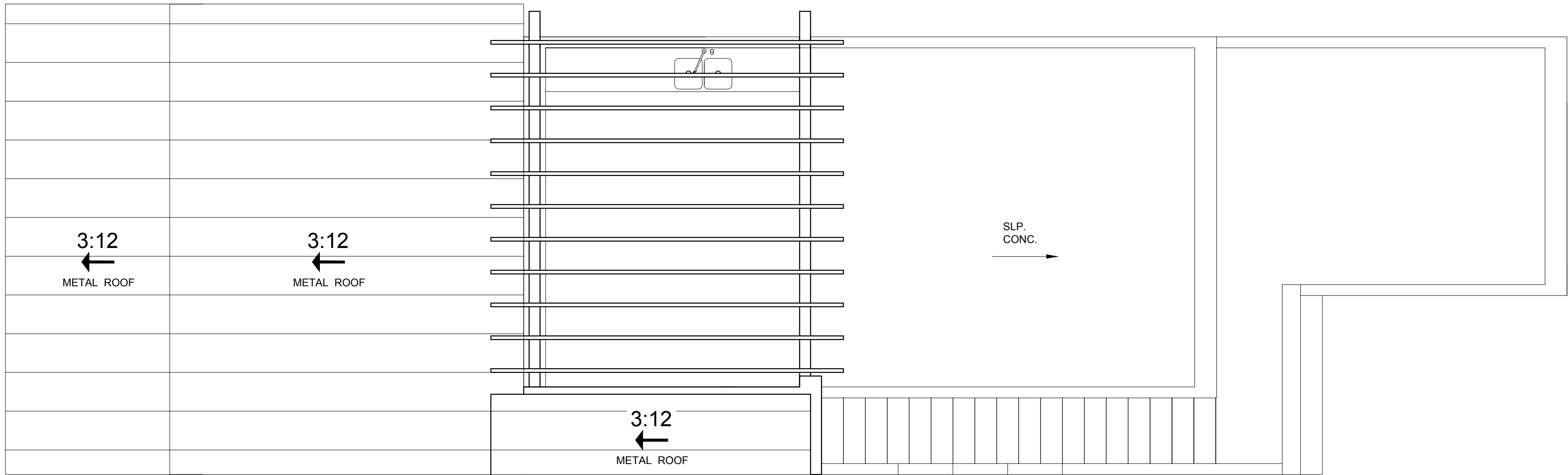
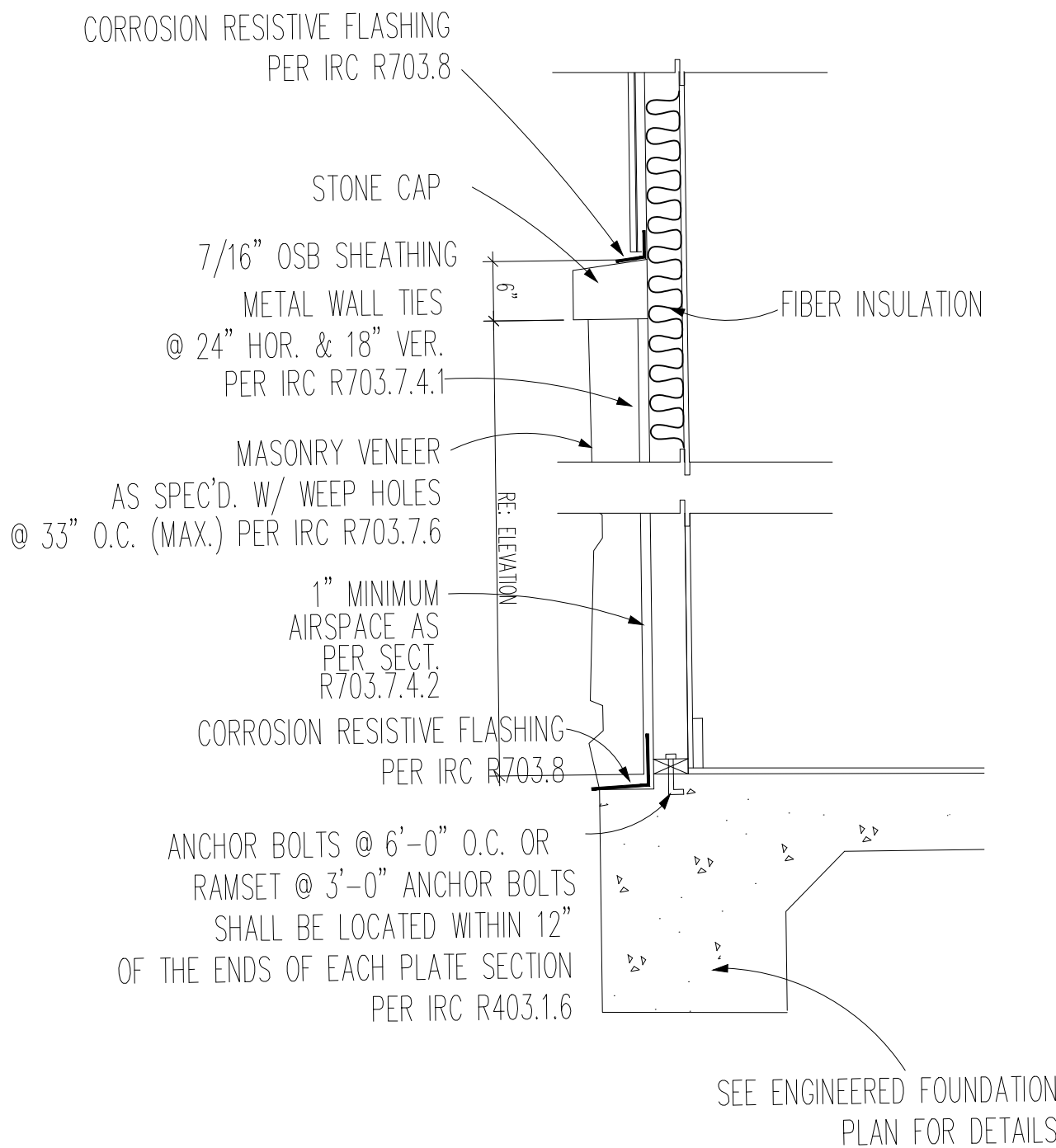
1

## CROSS SECTION a-a'

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

## TYP. MASONRY WAINSCOT

NOT TO SCALE



1

## ROOF PLAN

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

TABLE R602.3(5) SIZE, HEIGHT AND SPACING OF WOOD STUDS*							
STUD SIZE (inches)	BEARING WALLS				NONBEARING WALLS		
	Laterally unsupported stud height <sup>a</sup> (feet)	Maximum spacing when supporting a roof- ceiling assembly or a habitable attic assembly, only (inches)	Maximum spacing when supporting one floor, plus a roof- ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting two floors, plus a roof- ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting one floor height <sup>a</sup> (inches)	Laterally unsupported stud height <sup>a</sup> (feet)	Maximum spacing (inches)
2 x 3 <sup>b</sup>	—	—	—	—	—	10	16
2 x 4	10	24 <sup>c</sup>	16 <sup>c</sup>	—	24	14	24
3 x 4	10	24	24	16	24	14	24
2 x 5	10	24	24	—	24	16	24
2 x 6	10	24	24	16	24	20	24

A. LISTED HEIGHTS ARE DISTANCES BETWEEN POINTS  
OF LATERAL SUPPORT PLACED PERPENDICULAR TO  
THE PLANE OF THE WALL. BEARING WALLS SHALL BE  
SHEATHED ON NOT LESS THAN ONE SIDE OR BRIDGING  
SHALL BE INSTALLED NOT GREATER THAN 4 FEET  
APART MEASURED VERTICALLY FROM EITHER END OF  
THE STUD. INCREASES IN UNSUPPORTED HEIGHT ARE  
PERMITTED WHERE IN COMPLIANCE WITH EXCEPTION 2  
OF SECTION R602.3.1 OR DESIGNED IN ACCORDANCE  
WITH ACCEPTED ENGINEERING PRACTICE.

B. SHALL NOT BE USED IN EXTERIOR WALLS.

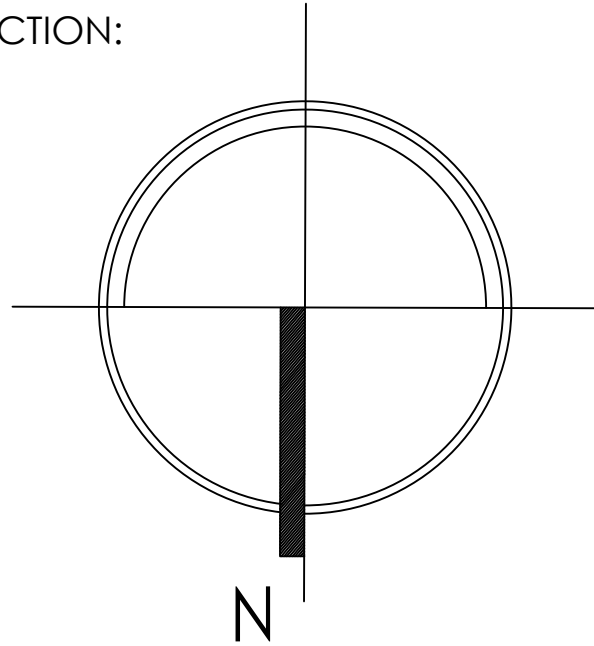
C. A HABITABLE ATTIC ASSEMBLY SUPPORTED BY 2 x 4  
STUDS IS LIMITED TO A ROOF SPAN OF 32 FEET. WHERE  
THE ROOF SPAN EXCEEDS 32 FEET, THE WALL STUDS  
SHALL BE INCREASED TO 2 x 6 OR THE STUDS SHALL BE  
DESIGNED IN ACCORDANCE WITH ACCEPTED  
ENGINEERING PRACTICE.



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marro000@hotmail.com

DIRECTION:



PROJECT:

DUPLEX  
UNIT 2

OWNER:

CONSTRU K22

LOCATION:

522 N HACKBERRY UNIT 2  
SAN ANTONIO, TEXAS 78202

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DRAWN BY:

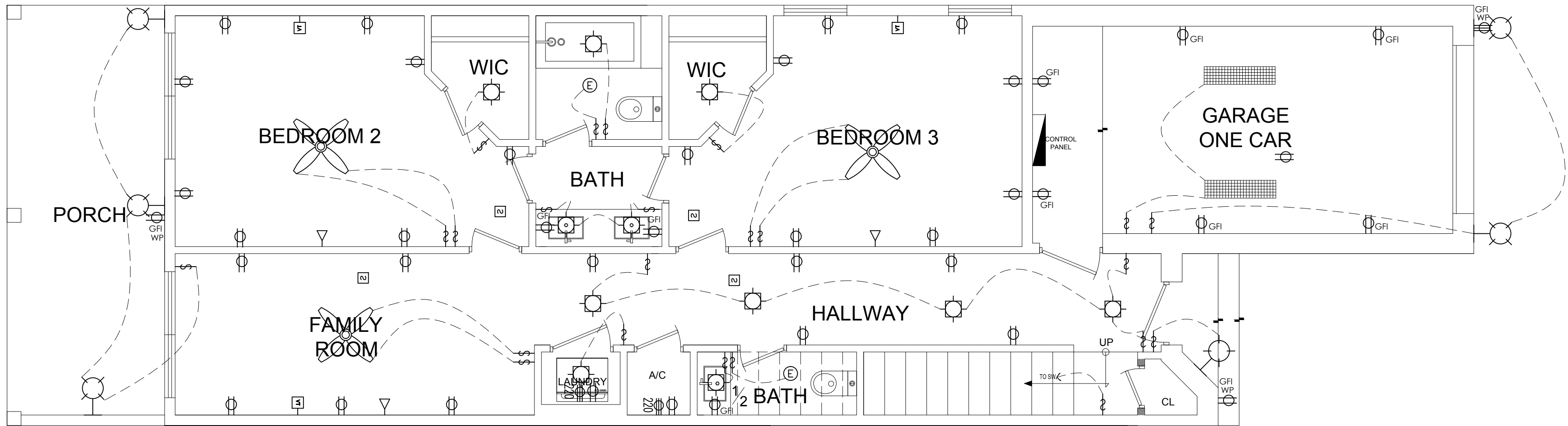
M.R.

PLAN:

ELECTRIC PLAN

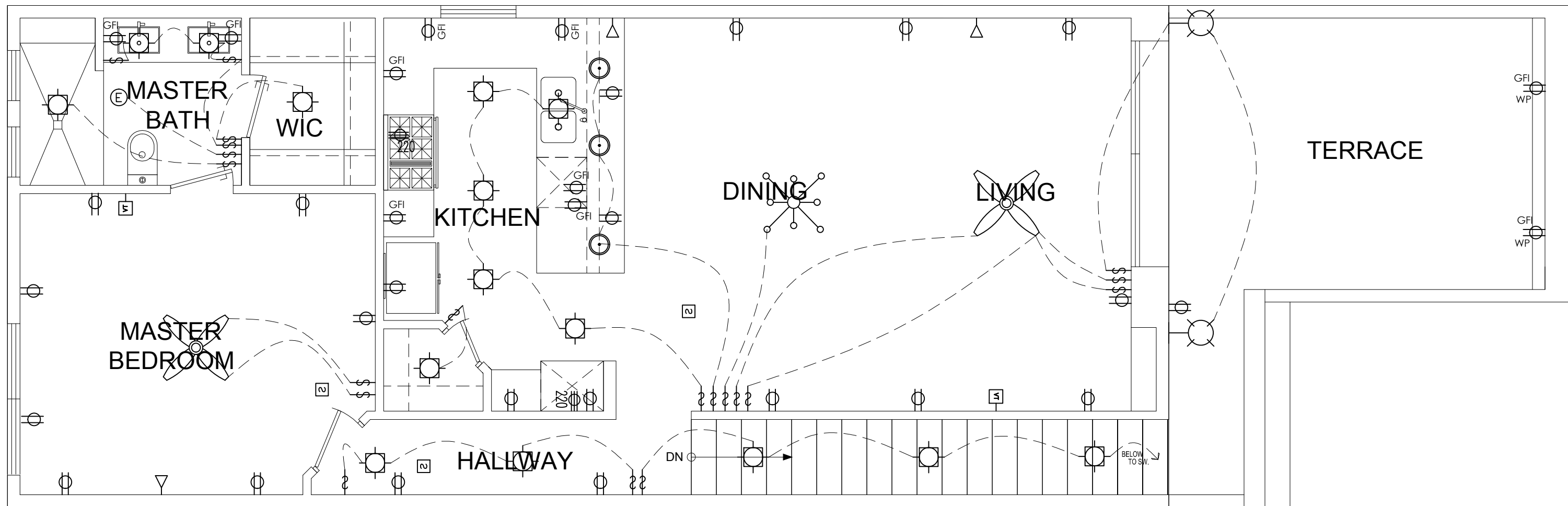
SHEET No.:

A1.08



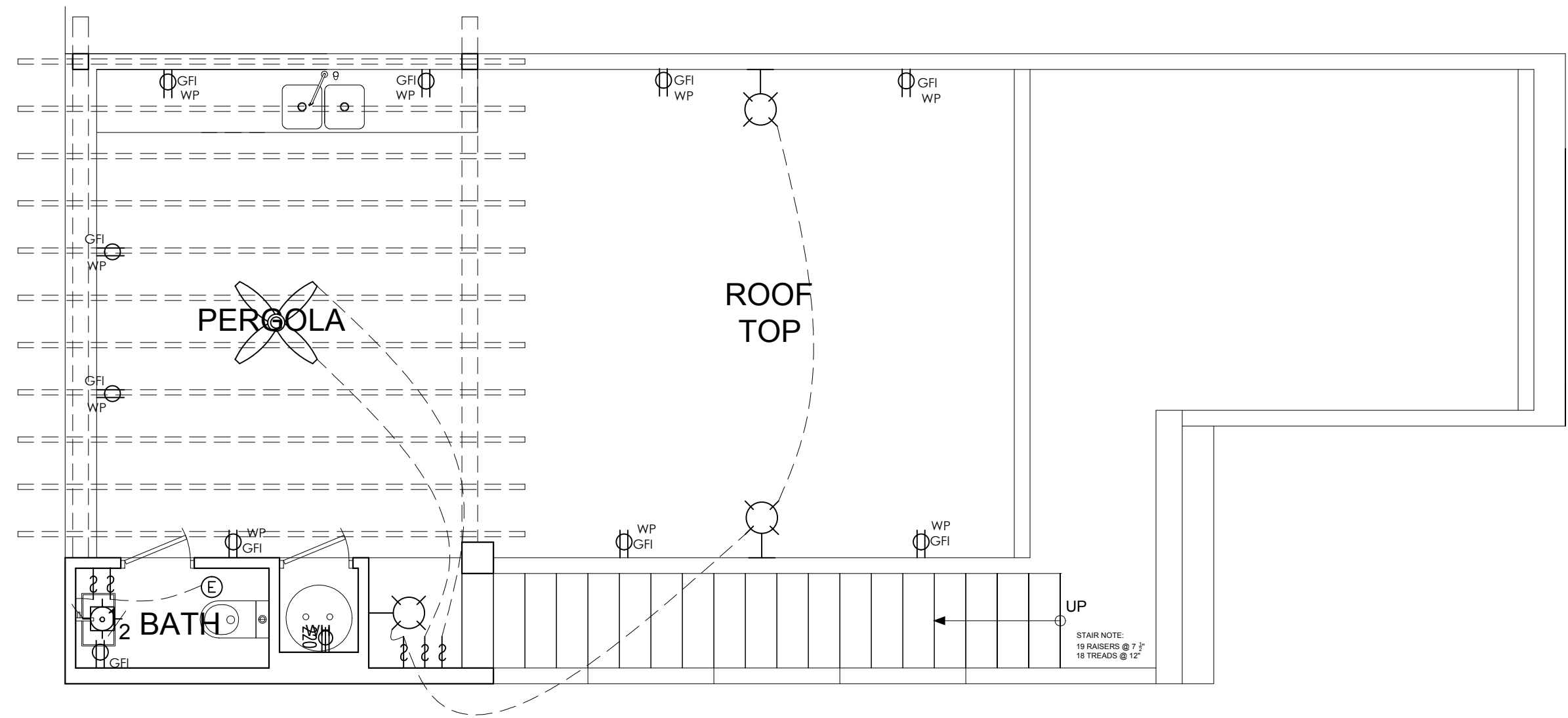
## FIRST FLOOR PLAN

SCALE: 1/4=1'-0"



## SECOND FLOOR PLAN

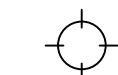
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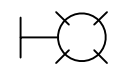
## THIRD FLOOR PLAN

SCALE: 1/4=1'-0"

### LIGHTING & POWER GRAPHIC SYMBOLS:



CEILING LIGHT FIXTURE



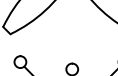
WALL LIGHT FIXTURE



EXHAUST FAN OUTLET



FAN & LIGHT OUTLET



CHANDELIER



ROPE LIGHTING



SINGLE POLE SWITCH



THREE WAY SWITCH



FOUR WAY SWITCH



DIMMER SWITCH



PUSH BUTTON SWITCH



SMOKE DETECTOR



DOUBLE RECEPTACLE



DOUBLE RECEPTACLE 220V



DOUBLE RECEPTACLE GFI



DOUBLE RECEPTACLE WEATHERPROOF



COAXIAL, CAT6e, TELEPHONE OUTLET



HANGING LIGHT



FLO FIX 1'X4'

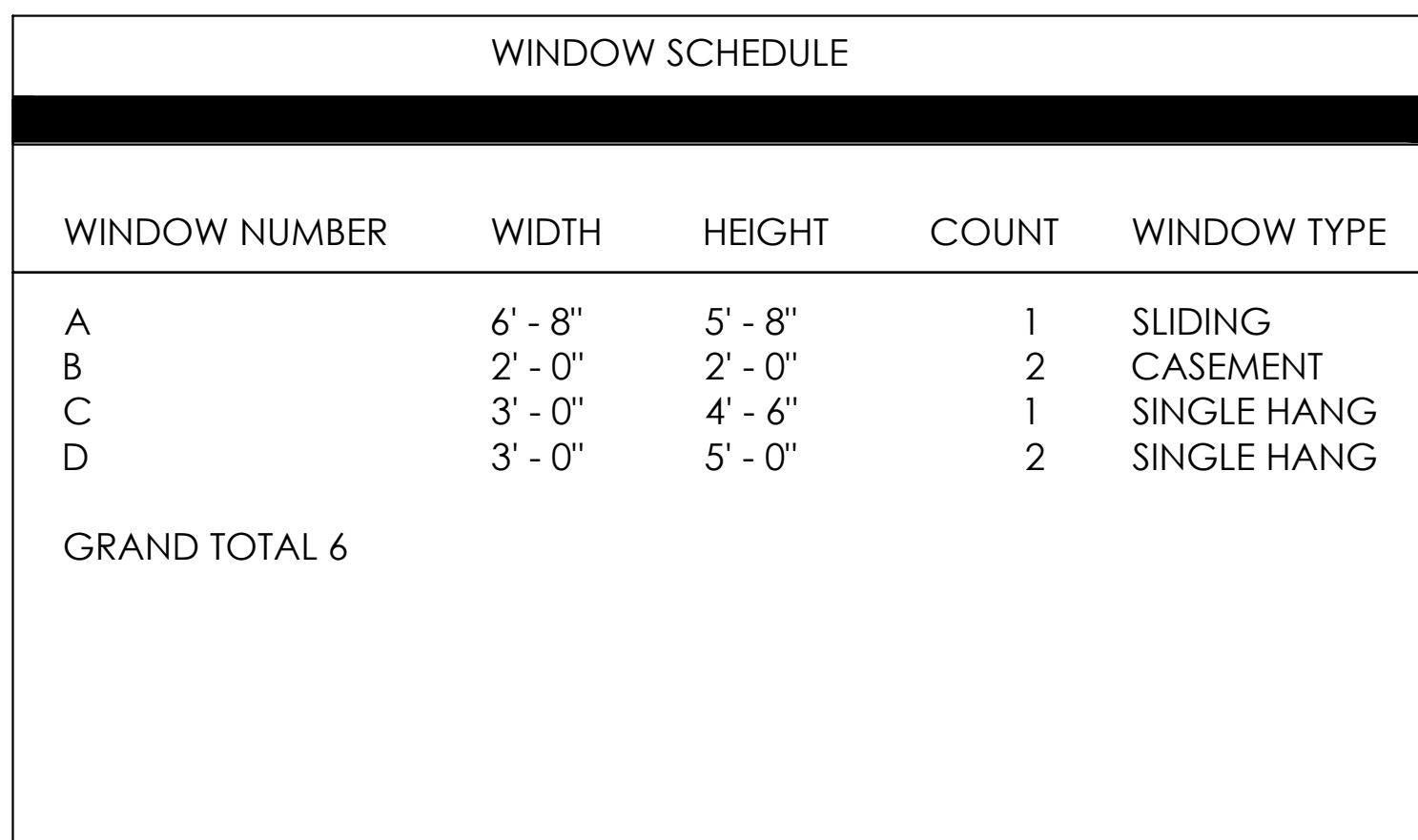


CONTROL PANEL

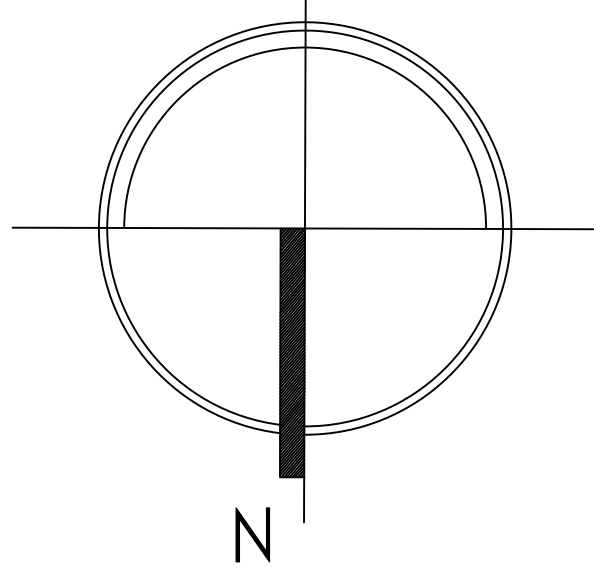
### NOTE:

- \* ALL OUTLETS TO BE SPACED AS PER NEC 6/12' PLACEMENT RULES.
- \* ALL SMOKE DETECTORS SHALL BE ELECTRICALLY HARDWIRES WITH A BATTERY BACKUP.
- \* ALL SMOKE DETECTORS SHALL BE ELECTRICALLY INTERCONNECTED, SO THAT IF ONE GOES INTO ALARM, ALL GO INTO ALARM. INSTALL PER 2000 IFC SECTION 907.210.1.2 AND 2000 IRC SECTIONS 317.1 AND 317.2
- \* PROVIDE VACUUM BREAKERS DEVICES ON ALL EXTERIOR HOSE BIBS.
- \* INSTALLARC FAULT CIRCUIT INTERRUPTION PROTECTION ON ALL BEDROOM ELECTRICAL CIRCUITS.
- \* VERIFY LOCATIONS OF ALL CONDENSING UNITS WITH MECHANICAL CONTRACTOR PROVIDE REQUIRED ELECTRICAL PER CODE.





DOOR SCHEDULE					
MARK	WIDTH	HEIGHT	COUNT	INTERIOR/EXTERIOR	DESCRIPTION & LOCATION
EXTERIOR					
1	3' - 0"	8' - 0"	1	EXTERIOR	ENTRY DOOR
2	(2)4' - 6"	8' - 0"	1	EXTERIOR	SLIDING GLASS DOOR LIVING ROOM
3	(2)3' - 0"	8' - 0"	2	EXTERIOR	SLIDING GLASS DOOR BEDROOM 3 FAMILY ROOM
4	2' - 4"	8' - 0"	2	EXTERIOR	GARAGE
5	2' - 4"	8' - 0"	2	EXTERIOR	½ BATHROOM, WATER HEATER
EXTERIOR 8					
INTERIOR					
5	2' - 0"	8' - 0"	2	INTERIOR	PANTRY,CL
6	2' - 4"	8' - 0"	5	INTERIOR	½ BATH, BATH , A/C CLOSET
7	2' - 6"	8' - 0"	6	INTERIOR	WIC, BEDROOM 2,3,MASTER BATH/WIC
8	2' - 8"	8' - 0"	1	INTERIOR	MASTER BEDROOM
9	3' - 0"	8' - 0"	1	INTERIOR	LAUNDRY
INTERIOR 14					



# DUPLEX UNIT 2

CONSTRU K22

522 N HACKBERRY UNIT 2  
SAN ANTONIO, TEXAS 78202

THE DESIGNER ASSUMES NO LIABILITY FOR ANY STRUCTURE CONSTRUCTED FROM THIS PLAN. IT IS THE RESPONSIBILITY OF THE PURCHASER, OF THIS PLAN, TO PERFORM THE FOLLOWING BEFORE ACTUAL CONSTRUCTION COMMENCES

- 1.- BUILDER OR CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 2.- BUILDER OR CONTRACTOR MUST VERIFY COMPLIANCE WITH ALL LOCAL BUILDING CODES OF THE AREA WHERE THE STRUCTURE IS TO BE CONSTRUCTED AND LOCATED.
- 3.- PLANS INDICATE LOCATIONS ONLY: ENGINEERING ASPECTS SHOULD BE INCORPORATED TO ACTUAL SITE CONDITIONS.

THESE PLANS ARE THE PROPERTY OF RH  
DESIGN CUSTOM HOMES AND ANY USE  
OF THESE PLANS WITHOUT THE WRITTEN  
CONSENT OF RH DESIGN CUSTOM HOMES  
IS PROHIBITED.

MAY/2020

M.R.

WINDOWS/DOORS  
CABINETS

SHEET No.:

# A1.09