HISTORIC AND DESIGN REVIEW COMMISSION

January 17, 2024

HDRC CASE NO:	**2023-502**
ADDRESS:	101 LAUREL HEIGHTS PLACE
LEGAL DESCRIPTION:	NCB 6328 BLK 1 LOT B 33 & 34
ZONING:	R-5, H
CITY COUNCIL DIST.:	1
DISTRICT:	Monte Vista Historic District
APPLICANT:	Roman Puentes
OWNER:	Sara Davis/DAVIS JASON M & SARA A
TYPE OF WORK:	Partial demolition, additions, fenestration modifications (accessory); enclosure of a porch (primary)
APPLICATION RECEIVED:	December 18, 2023
60-DAY REVIEW:	February 16, 2024
CASE MANAGER:	Jessica Anderson

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to:

1. Construct a covered patio on the north side of the primary structure.
2. Modify the fenestration pattern on the existing c. 1986 accessory structure.
3. Demolition of the storage room at the east end of the c. 1986 accessory structure.
4. Construct a two-story addition to the c. 1986 accessory structure.
5. Enclose the west inset porch on the primary structure.

APPLICABLE CITATIONS:

UDC Section 35-614. – Demolition

Demolition of a historic landmark constitutes an irreplaceable loss to the quality and character of the City of San Antonio. Accordingly, these procedures provide criteria to prevent unnecessary damage to the quality and character of the city's historic districts and character while, at the same time, balancing these interests against the property rights of landowners.

a) Applicability. The provisions of this section apply to any application for demolition of a historic landmark (including those previously designated as historic exceptional or historic significant) or a historic district.

(3) Property Located in Historic District and Contributing to District Although Not Designated a Landmark. No certificate shall be issued for property located in a historic district and contributing to the district although not designated a landmark unless the applicant demonstrates clear and convincing evidence supporting an unreasonable economic hardship on the applicant if the application for a certificate is disapproved. When an applicant fails to prove unreasonable economic hardship in such cases, the applicant may provide additional information regarding loss of significance as provided is subsection (c)(3) in order to receive a certificate for demolition of the property.

b) Unreasonable Economic Hardship.

(1) Generally. The historic and design review commission shall be guided in its decision by balancing the historic, architectural, cultural and/or archaeological value of the particular landmark or eligible landmark against the special merit of the proposed replacement project. The historic and design review commission shall not consider or be persuaded to find unreasonable economic hardship based on the presentation of circumstances or items that are not unique to the property in question (i.e. the current economic climate).

(2) Burden of Proof. The historic and design review commission shall not consider or be persuaded to find unreasonable economic hardship based on the presentation of circumstances or items that are not unique to the property in question (i.e. the current economic climate). When a claim of unreasonable economic hardship is made, the owner must prove by a preponderance of the evidence that:

A. The owner cannot make reasonable beneficial use of or realize a reasonable rate of return on a structure or site, regardless of whether that return represents the most profitable return possible, unless the highly significant endangered, historic and cultural landmark, historic and cultural landmarks district or demolition delay designation, as applicable, is removed or the proposed demolition or relocation is allowed;

B. The structure and property cannot be reasonably adapted for any other feasible use, whether by the current owner or by a purchaser, which would result in a reasonable rate of return; and

C. The owner has failed to find a purchaser or tenant for the property during the previous two (2) years, despite having made substantial ongoing efforts during that period to do so. The evidence of unreasonable economic hardship introduced by the owner may, where applicable, include proof that the owner's affirmative obligations to maintain the structure or property make it impossible for the owner to realize a reasonable rate of return on the structure or property.

c) Criteria. The public benefits obtained from retaining the cultural resource must be analyzed and duly considered by the historic and design review commission.

As evidence that an unreasonable economic hardship exists, the owner may submit the following information to the historic and design review commission by affidavit:

A. For all structures and property:

i. The past and current use of the structures and property;
ii. The name and legal status (e.g., partnership, corporation) of the owners;
iii. The original purchase price of the structures and property;
iv. The assessed value of the structures and property according to the two (2) most recent tax assessments;
v. The amount of real estate taxes on the structures and property for the previous two (2) years;
vi. The date of purchase or other acquisition of the structures and property;
vii. Principal balance and interest rate on current mortgage and the annual debt service on the structures and property, if any, for the previous two (2) years;
viii. All appraisals obtained by the owner or applicant within the previous two (2) years in connection with the owner's purchase, financing or ownership of the structures and property;
ix. Any listing of the structures and property for sale or rent, price asked and offers received;
x. Any consideration given by the owner to profitable adaptive uses for the structures and property;
xi. Any replacement construction plans for proposed improvements on the site;
xii. Financial proof of the owner's ability to complete any replacement project on the site, which may include but not be limited to a performance bond, a letter of credit, a trust for completion of improvements, or a letter of commitment from a financial institution; and
xiii. The current fair market value of the structure and property as determined by a qualified appraiser.
xiv. Any property tax exemptions claimed in the past five (5) years.

B. For income producing structures and property:

i. Annual gross income from the structure and property for the previous two (2) years;
ii. Itemized operating and maintenance expenses for the previous two (2) years; and
iii. Annual cash flow, if any, for the previous two (2) years.

C. In the event that the historic and design review commission determines that any additional information described above is necessary in order to evaluate whether an unreasonable economic hardship exists, the historic and design review commission shall notify the owner. Failure by the owner to submit such information to the historic and design review commission within fifteen (15) days after receipt of such notice, which time may be extended by the historic and design review commission, may be grounds for denial of the owner's claim of unreasonable economic hardship.

When a low-income resident homeowner is unable to meet the requirements set forth in this section, then the historic and design review commission, at its own discretion, may waive some or all of the requested information and/or request substitute information that an indigent resident homeowner may obtain without incurring any costs. If the historic and design review commission cannot make a determination based on information submitted and an appraisal has not been provided, then the historic and design review commission may request that an appraisal be made by the city.

d) Documentation and Strategy.

(1) Applicants that have received a recommendation for a certificate shall document buildings, objects, sites or structures which are intended to be demolished with 35mm slides or prints, preferably in black and white, and supply a set of slides or prints to the historic preservation officer.

(2) Applicants shall also prepare for the historic preservation officer a salvage strategy for reuse of building materials deemed valuable by the historic preservation officer for other preservation and restoration activities.

(3) Applicants that have received an approval of a certificate regarding demolition shall be permitted to receive a demolition permit without additional commission action on demolition, following the commission's recommendation of a certificate for new construction. Permits for demolition and construction shall be issued simultaneously if requirements of section 35-609, new construction, are met, and the property owner provides financial proof of his ability to complete the project.

(4) When the commission recommends approval of a certificate for buildings, objects, sites, structures designated as landmarks, or structures in historic districts, permits shall not be issued until all plans for the site have received
approval from all appropriate city boards, commissions, departments and agencies. Permits for parking lots shall not be issued, nor shall an applicant be allowed to operate a parking lot on such property, unless such parking lot plan was approved as a replacement element for the demolished object or structure.

(e) Issuance of Permit. When the commission recommends approval of a certificate regarding demolition of buildings, objects, sites, or structures in historic districts or historic landmarks, permits shall not be issued until all plans for the site have received approval from all appropriate city boards, commissions, departments and agencies. Once the replacement plans are approved a fee shall be assessed for the demolition based on the approved replacement plan square footage. The fee must be paid in full prior to issuance of any permits and shall be deposited into an account as directed by the historic preservation officer for the benefit, rehabilitation or acquisition of local historic resources. Fees shall be as follows and are in addition to any fees charged by planning and development services:

0—2,500 square feet = $2,000.00
2,501—10,000 square feet = $5,000.00
10,001—25,000 square feet = $10,000.00
25,001—50,000 square feet = $20,000.00
Over 50,000 square feet = $30,000.00

Historic Design Guidelines, Chapter 2, Exterior Maintenance and Alterations

2. Materials: Masonry and Stucco

A. MAINTENANCE (PRESERVATION)

i. *Paint*—Avoid painting historically unpainted surfaces. Exceptions may be made for severely deteriorated material where other consolidation or stabilization methods are not appropriate. When painting is acceptable, utilize a water permeable paint to avoid trapping water within the masonry.
ii. *Clear area*—Keep the area where masonry or stucco meets the ground clear of water, moisture, and vegetation.
iii. *Vegetation*—Avoid allowing ivy or other vegetation to grow on masonry or stucco walls, as it may loosen mortar and stucco and increase trapped moisture.
iv. *Cleaning*—Use the gentlest means possible to clean masonry and stucco when needed, as improper cleaning can damage the surface. Avoid the use of any abrasive, strong chemical, sandblasting, or high-pressure cleaning method.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Patching*—Repair masonry or stucco by patching or replacing it with in-kind materials whenever possible. Utilize similar materials that are compatible with the original in terms of composition, texture, application technique, color, and detail, when in-kind replacement is not possible. EIFS is not an appropriate patching or replacement material for stucco.
ii. *Repointing*—The removal of old or deteriorated mortar should be done carefully by a professional to ensure that masonry units are not damaged in the process. Use mortar that matches the original in color, profile, and composition when repointing. Incompatible mortar can exceed the strength of historic masonry and results in deterioration. Ensure that the new joint matches the profile of the old joint when viewed in section. It is recommended that a test panel is prepared to ensure the mortar is the right strength and color.
iii. *Removing paint*—Take care when removing paint from masonry as the paint may be providing a protectant layer or hiding modifications to the building. Use the gentlest means possible, such as alkaline poultice cleaners and strippers, to remove paint from masonry.
iv. *Removing stucco*—Remove stucco from masonry surfaces where it is historically inappropriate. Prepare a test panel to ensure that underlying masonry has not been irreversibly damaged before proceeding.

7. Architectural Features: Porches, Balconies, and Porte-Cocheres

A. MAINTENANCE (PRESERVATION)

i. *Existing porches, balconies, and porte-cocheres*—Preserve porches, balconies, and porte-cocheres. Do not add new porches, balconies, or porte-cocheres where not historically present.

ii. *Balusters—*Preserve existing balusters. When replacement is necessary, replace in-kind when possible or with balusters that match the originals in terms of materials, spacing, profile, dimension, finish, and height of the railing.
iii. *Floors*—Preserve original wood or concrete porch floors. Do not cover original porch floors of wood or concrete with carpet, tile, or other materials unless they were used historically.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Front porches*—Refrain from enclosing front porches. Approved screen panels should be simple in design as to not change the character of the structure or the historic fabric.
ii. *Side and rear porches—*Refrain from enclosing side and rear porches, particularly when connected to the main porch or balcony. Original architectural details should not be obscured by any screening or enclosure materials. Alterations to side and rear porches should result in a space that functions, and is visually interpreted as, a porch.
iii. *Replacement—*Replace in-kind porches, balconies, porte-cocheres, and related elements, such as ceilings, floors, and columns, when such features are deteriorated beyond repair. When in-kind replacement is not feasible, the design should be compatible in scale, massing, and detail while materials should match in color, texture, dimensions, and finish.
iv. *Adding elements*—Design replacement elements, such as stairs, to be simple so as to not distract from the historic character of the building. Do not add new elements and details that create a false historic appearance.
v. *Reconstruction*—Reconstruct porches, balconies, and porte-cocheres based on accurate evidence of the original, such as photographs. If no such evidence exists, the design should be based on the architectural style of the building and historic patterns.

Historic Design Guidelines, Chapter 3, Guidelines for Additions

1. Massing and Form of Residential Additions

A. GENERAL

i. *Minimize visual impact*—Site residential additions at the side or rear of the building whenever possible to minimize views of the addition from the public right-of-way. An addition to the front of a building would be inappropriate.
ii. *Historic context*—Design new residential additions to be in keeping with the existing, historic context of the block. For example, a large, two-story addition on a block comprised of single-story homes would not be appropriate.
iii. *Similar roof form*—Utilize a similar roof pitch, form, overhang, and orientation as the historic structure for additions.
iv. *Transitions between old and new*—Utilize a setback or recessed area and a small change in detailing at the seam of the historic structure and new addition to provide a clear visual distinction between old and new building forms.

B. SCALE, MASSING, AND FORM

i. *Subordinate to principal facade*—Design residential additions, including porches and balconies, to be subordinate to the principal façade of the original structure in terms of their scale and mass.
ii. *Rooftop additions*—Limit rooftop additions to rear facades to preserve the historic scale and form of the building from the street level and minimize visibility from the public right-of-way. Full-floor second story additions that obscure the form of the original structure are not appropriate.
iii. *Dormers*—Ensure dormers are compatible in size, scale, proportion, placement, and detail with the style of the house. Locate dormers only on non-primary facades (those not facing the public right-of-way) if not historically found within the district.
iv. *Footprint*—The building footprint should respond to the size of the lot. An appropriate yard to building ratio should be maintained for consistency within historic districts. Residential additions should not be so large as to double the existing building footprint, regardless of lot size.
v. *Height*—Generally, the height of new additions should be consistent with the height of the existing structure. The maximum height of new additions should be determined by examining the line-of-sight or visibility from the street. Addition height should never be so contrasting as to overwhelm or distract from the existing structure.

3. Materials and Textures

A. COMPLEMENTARY MATERIALS

i. *Complementary materials*— Use materials that match in type, color, and texture and include an offset or reveal to distinguish the addition from the historic structure whenever possible. Any new materials introduced to the site as a result of an addition must be compatible with the architectural style and materials of the original structure.

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

iii. *Other roofing material*s—Match original roofs in terms of form and materials. For example, when adding on to a building with a clay tile roof, the addition should have a roof that is clay tile, synthetic clay tile, or a material that appears similar in color and dimension to the existing clay tile.

B. INAPPROPRIATE MATERIALS

i. *Imitation or synthetic materials*—Do not use imitation or synthetic materials, such as vinyl siding, brick or simulated stone veneer, plastic, or other materials not compatible with the architectural style and materials of the original structure.

C. REUSE OF HISTORIC MATERIALS

i. *Salvage*—Salvage and reuse historic materials, where possible, that will be covered or removed as a result of an addition.

4. Architectural Details

A. GENERAL

i. *Historic context*—Design additions to reflect their time while respecting the historic context. Consider character-defining features and details of the original structure in the design of additions. These architectural details include roof form, porches, porticos, cornices, lintels, arches, quoins, chimneys, projecting bays, and the shapes of window and door openings.

ii. *Architectural details*—Incorporate architectural details that are in keeping with the architectural style of the original structure. Details should be simple in design and compliment the character of the original structure. Architectural details that are more ornate or elaborate than those found on the original structure should not be used to avoid drawing undue attention to the addition.

iii. *Contemporary interpretations*—Consider integrating contemporary interpretations of traditional designs and details for additions. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the addition is new.

Standard Specifications for Windows in Additions and New Construction

- GENERAL: New windows on additions should relate to the windows of the primary historic structure in terms of materiality and overall appearance. 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. Whole window systems should match the size of historic windows on property unless otherwise approved.
- 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.
    - TRIM: Window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail. Window track components such as jamb liners must be painted to match the window trim or concealed by a wood window screen set within the opening.
- 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 real exterior muntins.
- COLOR: Wood windows should feature a painted finished. If a clad product is approved, white or metallic manufacturer’s color is not allowed, and color selection must be presented to staff.
- INSTALLATION: Wood windows should be supplied in a block frame and exclude nailing fins. Window opening sizes should not be altered to accommodate stock sizes prior to approval.
- FINAL APPROVAL: If the proposed window does not meet the aforementioned stipulations, then the applicant must submit updated window specifications to staff for review, prior to purchase and installation. For more assistance, the applicant may request the window supplier to coordinate with staff directly for verification.

FINDINGS:

a. The property at 101 Laurel Heights includes a two-story Spanish Revival primary structure and a two-story accessory structure, both built c. 1924 by Atlee Ayres for George and Caro Eichlitz. The property first appears in city directories in 1924-25, and on Sanborn Fire Insurance maps in 1931. The one-story addition to the accessory structure appears on aerial photos by 1986. The c. 1924 structures are stucco-clad with wood windows and a hipped standing-seam metal roof. The c. 1986 addition has an end-gabled standing-seam metal roof and is clad in stucco. A split-bay two-car garage opens to the south onto a large parking pad. There is an in-ground pool at the center of the property, surrounded by hardscaping. The property contributes to the Monte Vista Historic District.

b. COVERED PATIO: The applicant requests approval to construct an approx. 24.5'x35' roof structure to cover a concrete patio of the same dimensions. The roof will be standing-seam metal to match the primary structure, with metal columns and bases to match others on the property. Historic Design Guidelines for additions 3.A.i states that any new materials introduced to the site as a result of an addition must be compatible with the architectural style and materials of the original structure. Staff finds the covered patio appropriate.

c. FENESTRATION MODIFICATIONS (ACCESSORY): The applicant proposes to enclose the existing two-car garage on the south side of the accessory with stucco-clad walls and to pairs of metal French doors with side lites. They also which to add to pairs of metal French doors with side lites to the south side of the existing single-story portion of the accessory between the existing garage and the westernmost two-story portion of the accessory. The applicant also proposes to add clad-wood fixed windows to the north elevation of the accessory structure. Both portions of the accessory structure date to c. 1986. Standard specifications for windows in additions and new construction state that windows on additions should relate to the windows of the primary historic structure in terms of materiality and overall appearance. Though windows on the primary structure appear to be wood, modifications to the existing two-story accessory include two pairs of metal French doors with side lites. Staff finds the French doors with side lites generally appropriate, but that they should match the material and dimensions of the existing French doors with side lites.

d. Staff finds the fixed windows do not conform to guidelines, and that one-over-one windows be proposed for the north elevation.

e. PARTIAL DEMOLITION (ACCESSORY): The applicant requests approval to demolish the storage room at the east end of the c. 1986 accessory structure. Due to its date of construction, staff finds the storage room does not contribute to the designated property, and loss of the storage room would not compromise the property's integrity. Staff finds the request to demolish the storage room appropriate.

f. ADDITION (ACCESSORY): The applicant proposes a two-story addition to the c. 1986 accessory structure. The addition features stucco cladding to match the existing accessory structure, a hipped standing-seam metal roof, pairs of ganged six-over-six clad-wood windows on the south and west elevations, and one-bay and full-width two-car garage doors on the south elevation. The north and east elevations have no fenestration. Staff finds the addition generally appropriate, but that the applicant should propose windows on the north and east elevations where the structure is currently void of fenestration.

g. PORCH ENCLOSURE (PRIMARY): The applicant proposes to enclose the west porch on the primary structure. The enclosure includes two fixed six-lite metal windows and a metal French door with side lites. The porch faces McCullough and is visible from the right-of-way. Historic Design Guidelines for Exterior Maintenance and Alterations 7.A.i says to preserve porches, balconies, and porte-cocheres. Guideline 7.B.ii says to refrain from enclosing side and rear porches, particularly when connected to the main porch or balcony. Alterations to side and rear porches should result in a space that functions, and is visually interpreted as, a porch. Staff finds the request to enclose the west porch generally appropriate, but that the north and west sides of the enclosure should be fully glass to maintain its legibility as a porch.

RECOMMENDATION:

Staff recommends approval of item 1, construction of a covered patio, based on finding b, with the following stipulation:

i. That the applicant installs a standing seam metal roof featuring panels that are 18 to 21 inches wide, seams that are 1 to 2 inches high, a crimped ridge seam, and match the current finish or a standard galvalume finish. Panels should be smooth without striation or corrugation. Ridges are to feature a double-munch or crimped ridge configuration; no vented ridge caps or end caps are allowed. All chimney, flue, and related existing roof details must be preserved. An inspection must be scheduled with OHP staff prior to the start of work to verify that the roofing material matches the approved specifications.

Staff recommends approval of item 2, modification to fenestration on the existing c, 1986 additions to the accessory structure, based on finding c, with the following stipulations:

i. That the new French doors with side lites match the existing French doors with side lites in material and dimensions.
ii. That the applicant proposes one-over-one windows for the north elevation.

Staff recommends approval to partially demolish the c. 1986 addition to the accessory structure, specifically demolition of the east storage room to the accessory structure, based on finding d.

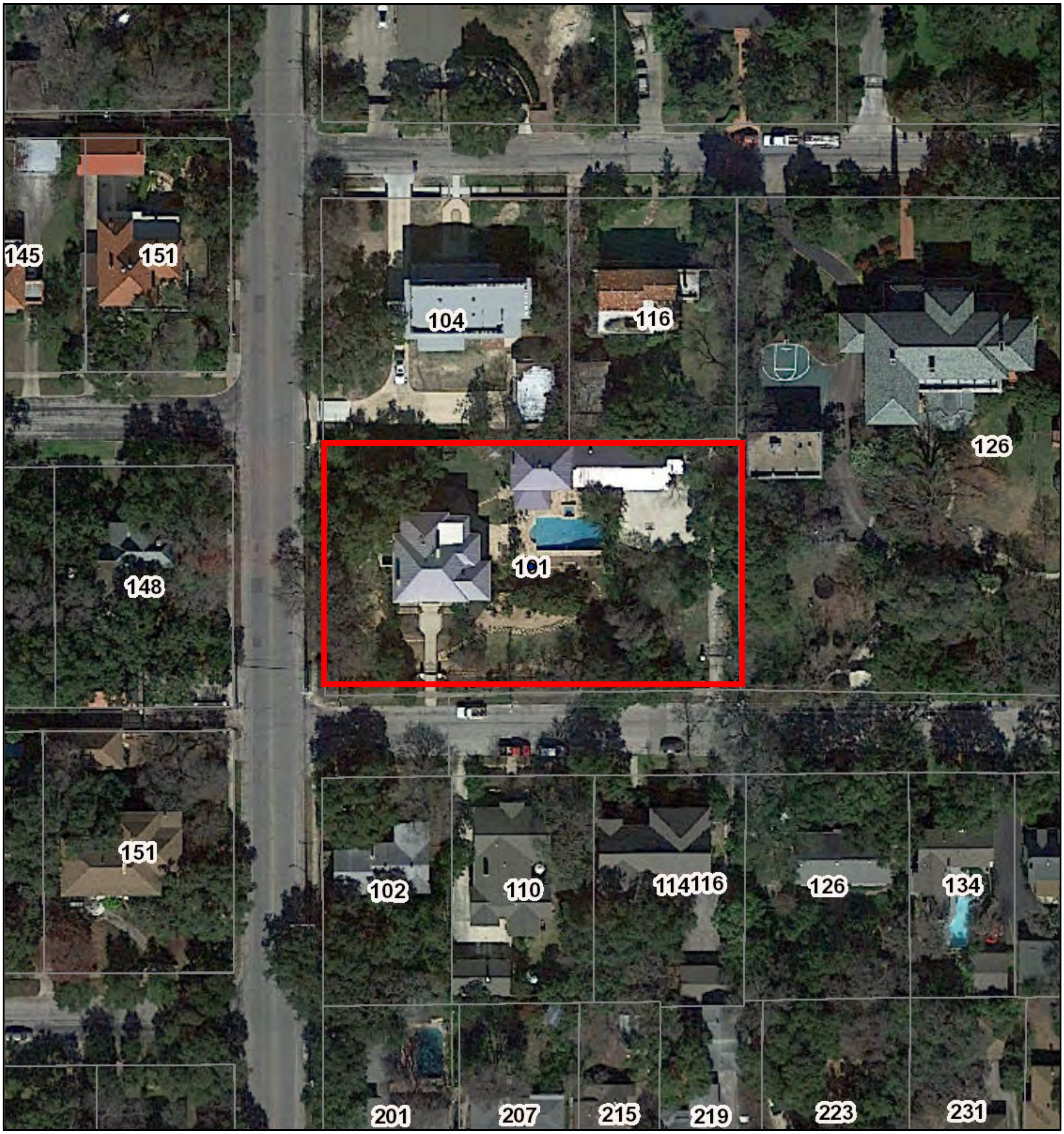
Staff recommends approval of item 5, construction of a two-story addition to the accessory structure, based on finding f, with the following stipulations:

i. That the windows feature true divide lites.
ii. That the applicant proposes additional fenestration on the north and east elevations.
iii. That the garage doors are wood or wood look.
iv. That the applicant installs a standing seam metal roof featuring panels that are 18 to 21 inches wide, seams that are 1 to 2 inches high, a crimped ridge seam, and match the current finish or a standard galvalume finish. Panels should be smooth without striation or corrugation. Ridges are to feature a double-munch or crimped ridge configuration; no vented ridge caps or end caps are allowed. All chimney, flue, and related existing roof details must be preserved. An inspection must be scheduled with OHP staff prior to the start of work to verify that the roofing material matches the approved specifications.
v. That the applicant meets all setback standards as required by city zoning and obtain a variance from the Board of Adjustment if applicable.

Staff recommends approval of item 4, enclosure of the west porch, based on finding g, with the following stipulation:

i. That the north and south sides of the enclosure be fully glass.

City of San Antonio One Stop



January 11, 2024

CoSA Addresses

Community Service Centers

Pre-K Sites

CoSA Parcels

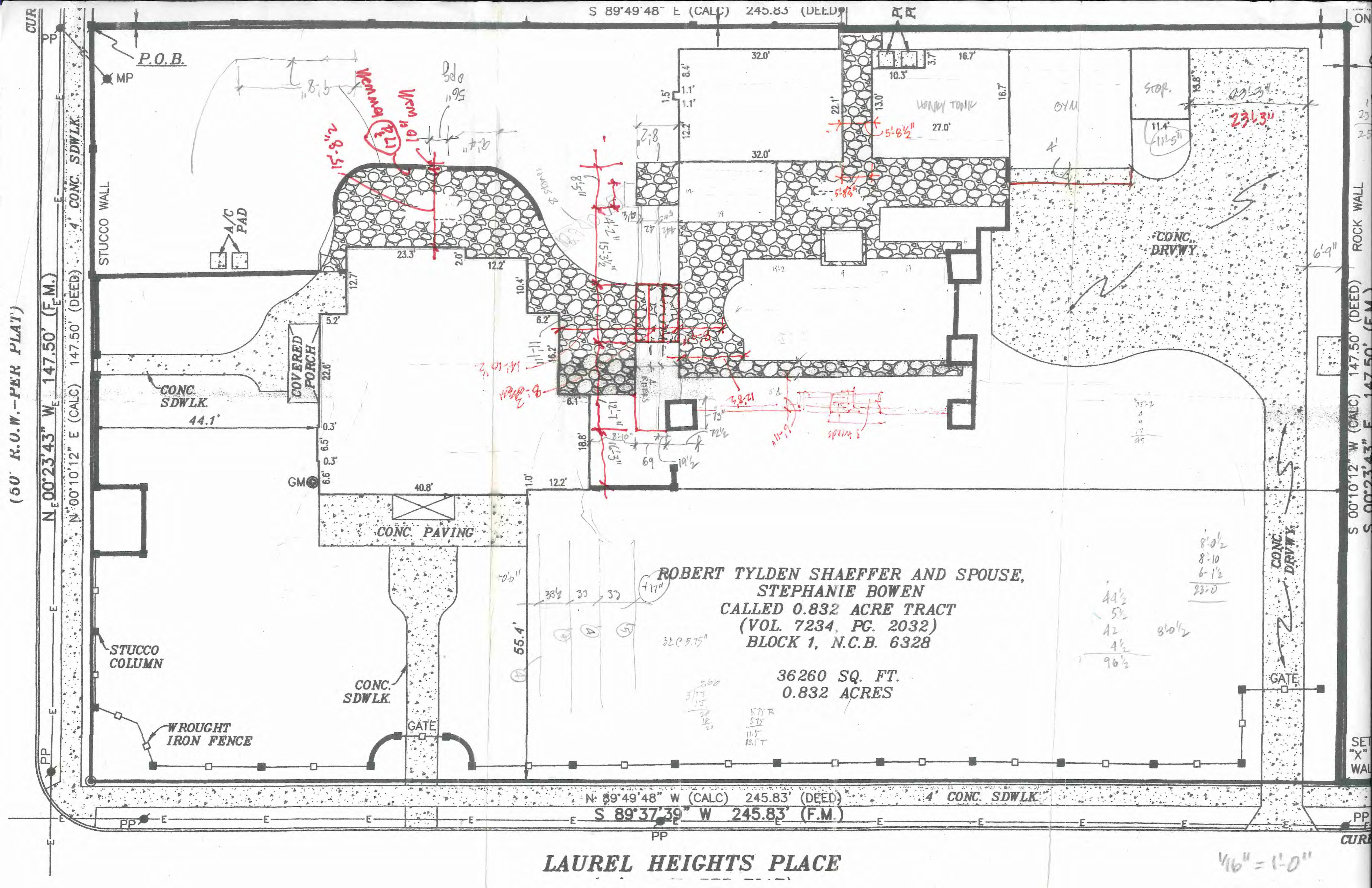
BCAD Parcels

COSA City Limit Boundary

1:1,000

0 0.0075 0.015 0.03 mi

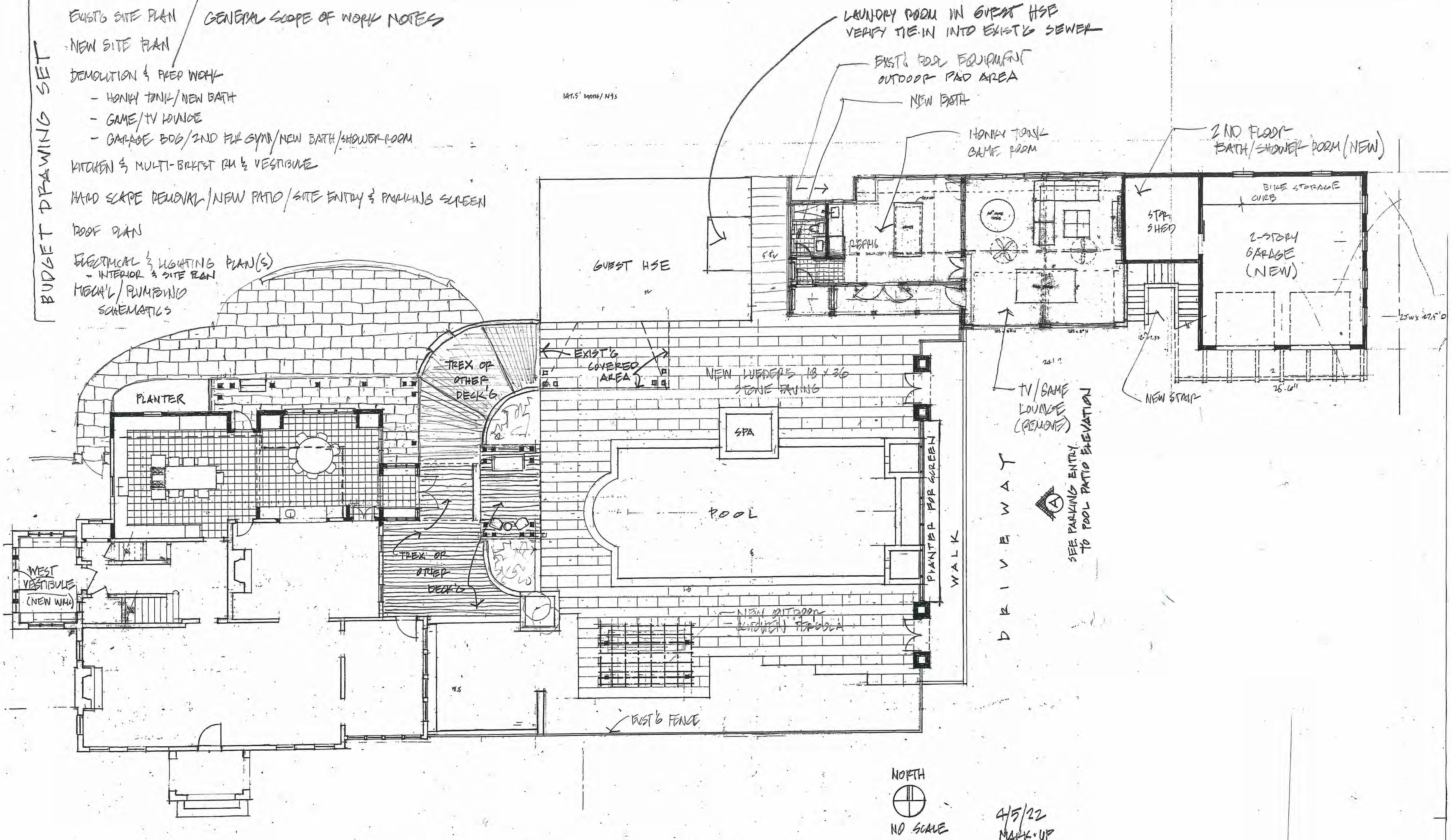
0 0.0125 0.025 0.05 km

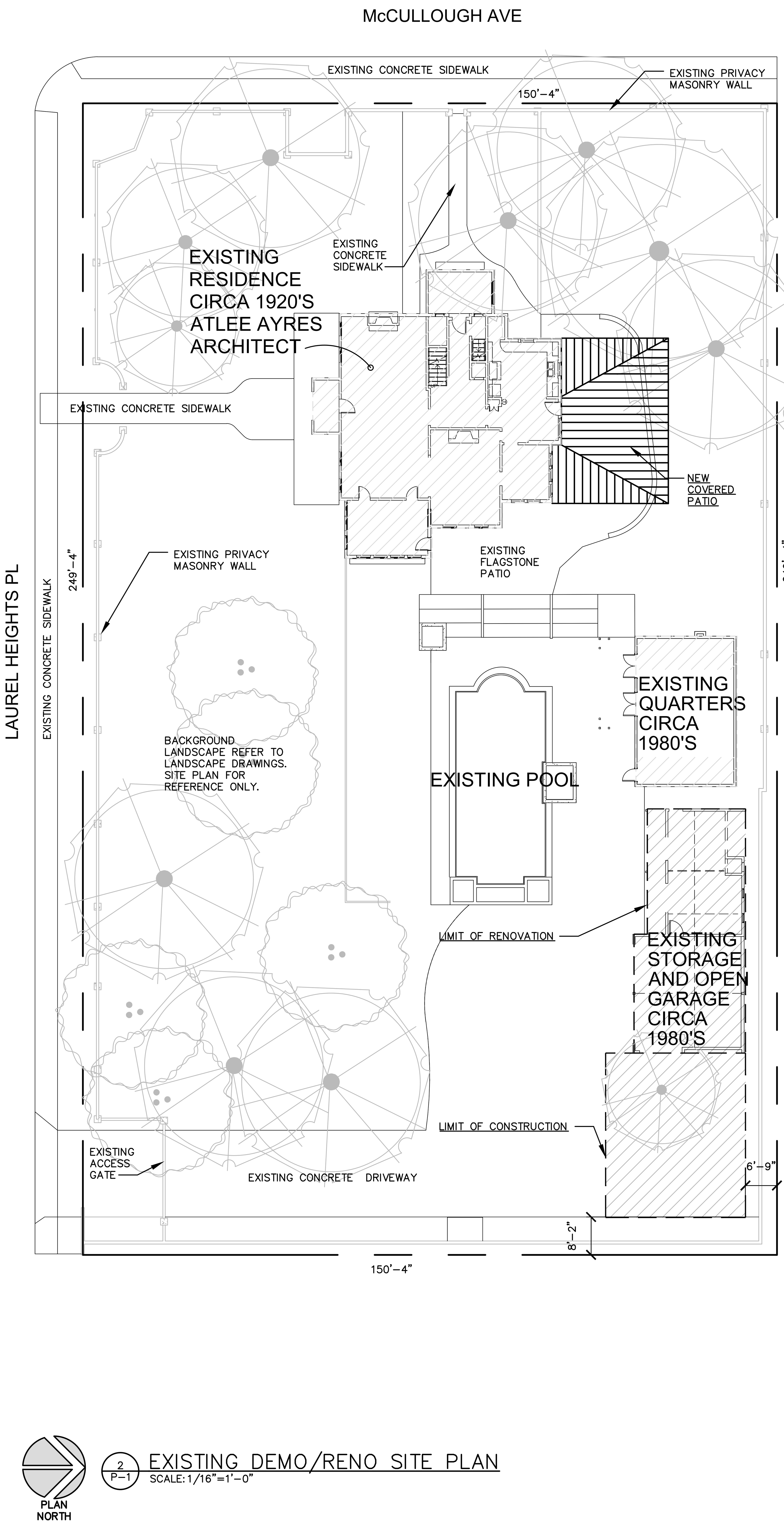


S 89°49'48" E (CALC) 245.83' (DEED)
P.O.B.
MP
PP
STUCCO WALL
4' CONC. SDWLK.
A/C PAD
N 00°23'43" W 147.50' (F.M.)
N 00°10'12" E (CALC) 147.50' (DEED)
(50' R.O.W.-PER PLAT)
COVERED PORCH
CONC. SDWLK.
44.1'
GM
40.8'
CONC. PAVING
55.4'
STUCCO COLUMN
WROUGHT IRON FENCE
CONC. SDWLK.
GATE
ROBERT TYLDEN SHAEFFER AND SPOUSE,
STEPHANIE BOWEN
CALLED 0.832 ACRE TRACT
(VOL. 7234, PG. 2032)
BLOCK 1, N.C.B. 6328
36260 SQ. FT.
0.832 ACRES
CONC. DRVWY.
ROCK WALL
CONC. DRVWY.
S 00°10'12" W (CALC) 147.50' (DEED)
S 00°23'43" E 147.50' (F.M.)
GATE
N 89°49'48" W (CALC) 245.83' (DEED)
4' CONC. SDWLK.
S 89°37'39" W 245.83' (F.M.)
LAUREL HEIGHTS PLACE
SET "X" WALL
CURB
32.0'
32.0'
16.7'
10.3'
27.0'
22.1'
13.0'
11.4'
23.3'
12.2'
12.7'
5.2'
22.6'
6.2'
16.2'
6.1'
18.8'
12.2'
HONKY TONK
GYM
STOR.
23'3"
1/16" = 1'-0"

BUDGET DRAWING SET

- COVER SHEET
- EXIST'G SITE PLAN / GENERAL SCOPE OF WORK NOTES
- NEW SITE PLAN
- DEMOLITION & PREP WORK
  - HONKY TONK/NEW BATH
  - GAME/TV LOUNGE
  - GARAGE BDG/2ND FLR GYM/NEW BATH/SHOWER-ROOM
- KITCHEN & MULTI-BRKFST RM & VESTIBULE
- HARD SCAPE REMOVAL/NEW PATIO/SITE ENTRY & PARKING SCREEN
- ROOF PLAN
- ELECTRICAL & LIGHTING PLAN(S) - INTERIOR & SITE PLAN
- MECH'L/PLUMBING SCHEMATICS





2 P-1 EXISTING DEMO/RENO SITE PLAN
SCALE: 1/16"=1'-0"

DEMOLITION KEYNOTE LEGEND

D1 EXISTING WOOD POST TO BE REMOVED. RETURN TO OWNER.

D2 REMOVE PORTION OF EXISTING WOOD FRAME WALL. TEMPORARY BRACING.

D3 REMOVE EXISTING WINDOWS. RETURN TO OWNER.

D4 REMOVE EXISTING WOOD DOOR AND FRAME.

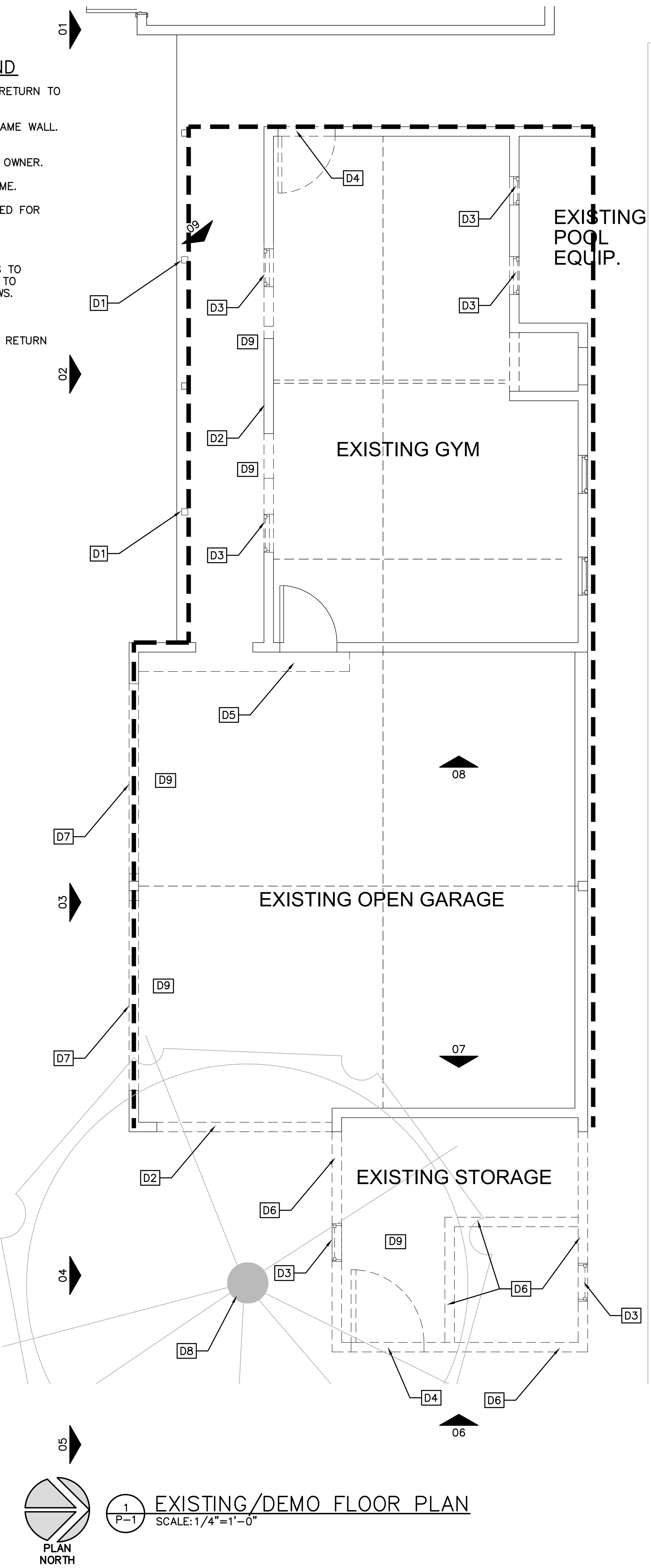
D5 EXISTING CONCRETE STEP TO BE REMOVED FOR NEW LANDING.

D6. REMOVE WOOD FRAME WALL AND ROOF.

D7. EXISTING WOOD FRAME CASED OPENINGS TO REMAIN. VERIFY EXTEND OF DEMOLITION TO ACCOMMODATE NEW DOORS AND WINDOWS.

D8. REMOVE EXISTING TREE.

D9. REMOVE EXISTING ELECTRICAL FIXTURES. RETURN TO OWNER.



1 P-1 EXISTING/DEMO FLOOR PLAN
SCALE: 1/4"=1'-0"

GENERAL DEMOLITION NOTES:

1. ALL DEMOLITION WORK TO BE DONE IN COMPLETE ACCORDANCE WITH: —LOCAL CODES AND ORDINANCES
   —FEDERAL SAFETY AND ENVIRONMENTAL REGULATIONS
   —INDUSTRY STANDARDS.
2. DEMOLITION DRAWINGS INDICATE GENERAL EXTENT OF DEMOLITION OF EXISTING ITEMS OF CONSTRUCTION AS REQUIRED FOR NEW CONSTRUCTION, INSTALLATION OF NEW FINISHES, ITEMS OF EQUIPMENT, ETC. AS INDICATED ELSEWHERE ON THESE DRAWINGS AND ARE NOT INTENDED TO INDICATE EVERY ITEM OF DEMOLITION REQUIRED TO COMPLETE THE WORK.
3. CONTRACTOR SHALL SCHEDULE DEMOLITION OF EXTERIOR RELATED ITEMS (I.E. ROOFS, WALLS, DOORS AND WINDOWS) TO COORDINATE WITH INSTALLATION OF NEW CONSTRUCTION. PROVIDE POSITIVE, WATER TIGHT PROTECTION OF OPENINGS IN BUILDING ENVELOPE DURING COMPLETION OF REPLACEMENT ITEMS OF CONSTRUCTION.
4. CONTRACTOR TO VERIFY LOAD—BEARING REQUIREMENTS OF ALL WALLS INDICATED FOR REMOVAL WITH THE STRUCTURAL ENGINEER PRIOR TO REMOVAL OF WALL.
5. REFER TO BALANCE OF DRAWINGS FOR ADDITIONAL INFORMATION.
6. REMOVE ALL EXISTING FLOOR FINISH, APPLIANCES, MILLWORK, LIGHTING FIXTURES, ELECTRICAL OUTLETS AND DAMAGED GYPSUM WALLBOARD, IN PREPARATION FOR NEW INSTALLATION OF NEW SCHEDULED CONSTRUCTION.
7. CONTRACTOR TO CAP OFF OR TERMINATE ALL ELECTRIC, WATER AND GAS LINES REMAINING FOLLOWING REMOVAL OF EXISTING CONSTRUCTION. PROVIDE PERMANENT TERMINATION AS REQUIRED BY CODE. REMOVE ALL ABANDONED WIRING, PIPING AND DUCTWORK.
8. ALL DEBRIS AND DEMOLISHED MATERIALS ARE TO BE REMOVED FROM THE JOBSITE ON A REGULAR BASIS. DO NOT ALLOW DEBRIS TO ACCUMULATE ON THE INTERIOR OF THE PROJECT OR ON THE EXTERIOR OF THE SITE. PROTECT ALL TREES DURING DEMOLITION AND CONSTRUCTION.
9. CONTRACTOR SHALL VERIFY ACCURACY OF DEMOLITION INFORMATION PROVIDED AND REPORT ANY DISCREPANCIES TO THE OWNER. THE COST OF ALL REQUIRED DEMOLITION, INDICATED OR NOT, AS DEEMED NECESSARY FOR COMPLETION OF THE WORK NOTED ELSEWHERE ON THESE DRAWINGS, SHALL BE INCLUDED IN THE CONSTRUCTION BID FOR THIS PROJECT.
10. GENERAL CONTRACTOR TO PROTECT ALL HARDSCAPE, SOFTSCAPE AND ALL OTHER BUILT—IN ELEMENTS TO REMAIN DURING DEMOLITION AND CONSTRUCTION
11. IF CONTRACTOR ENCOUNTERS OR SUSPECTS THE PRESENCE OF ASBESTOS DURING DEMOLITION OR DURING THE CONSTRUCTION PROCESS, HE WILL NOTIFY THE OWNER PRIOR TO REMOVAL OF ANY MATERIAL IN ORDER THAT PROPER ABATEMENT CAN BE DONE IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES.
12. CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO DEMOLITION.
13. LIMITS OF EXCAVATION FOR NEW ADDITION TO BE RESTRICTED TO THE LEAST AMOUNT OF AREA, AS NOT TO DISTURB THE HOUSE AND OTHER SITE FEATURES NOT INCLUDED IN THIS PROJECTS SCOPE OF WORK.
14. SALVAGE ALL MATERIAL AS REQUESTED BY OWNER.
15. PROVIDE PROPER DEBRIS AND DUST BARRIERS DURING CONSTRUCTION TO MINIMIZE AREAS NOT INCLUDED IN EXPANSION FROM CONSTRUCTION DEBRIS.
16. NOTIFY OWNER IN ADVANCE OF ANY DISCONNECTION OF UTILITY SERVICES PRIOR TO PROCEEDING.
17. NOTIFY OWNER PRIOR TO REMOVAL OF ANY TREES, LIMBS, OR LANDSCAPING FEATURES.
18. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE AWAY FROM THE HOUSE DURING THE DURATION OF CONSTRUCTION.
19. CONTRACTOR TO SECURE MATERIALS REQUIRED TO BE STORED ON THE JOB SITE.
20. CONTRACTOR TO MAINTAIN THE SECURITY OF THE EXISTING RESIDENCE DURING THE ENTIRETY OF THIS CONSTRUCTION PROJECT.

INDEX OF DRAWINGS

DESIGNS

DAVIS RESIDENCE RENOVATION

Sara & Jason Davis
101 Laurel Heights Place
San Antonio, Texas 78212

Roman Designs
P.O. BOX 674 Helotes, Texas 78023
210 834-2623 romvic@gmail.com

Date: November 11th, 2023

A-1

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02

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04

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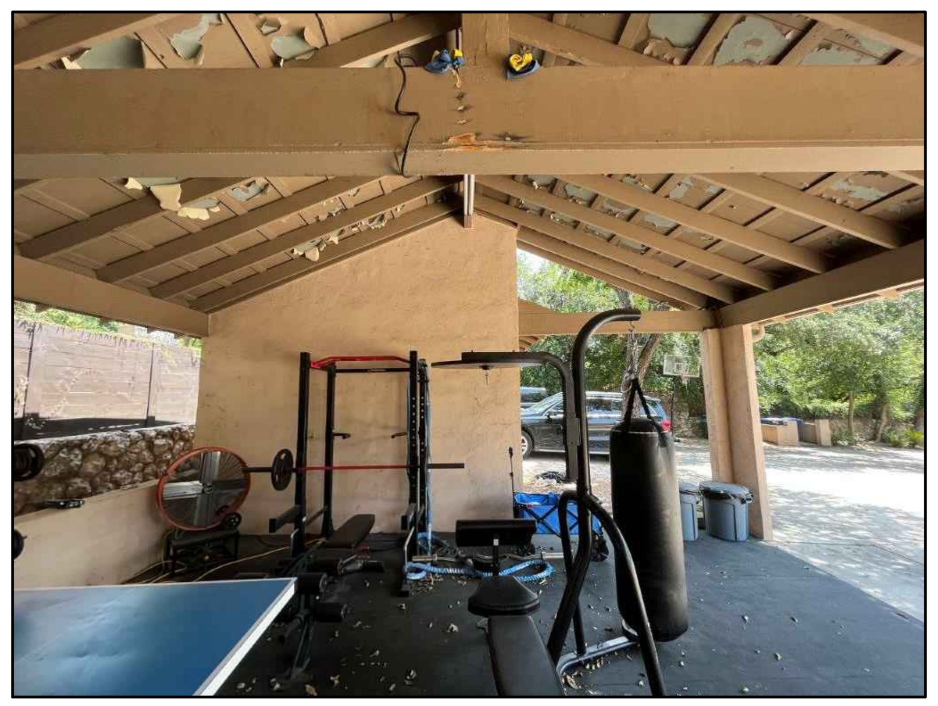
06



07

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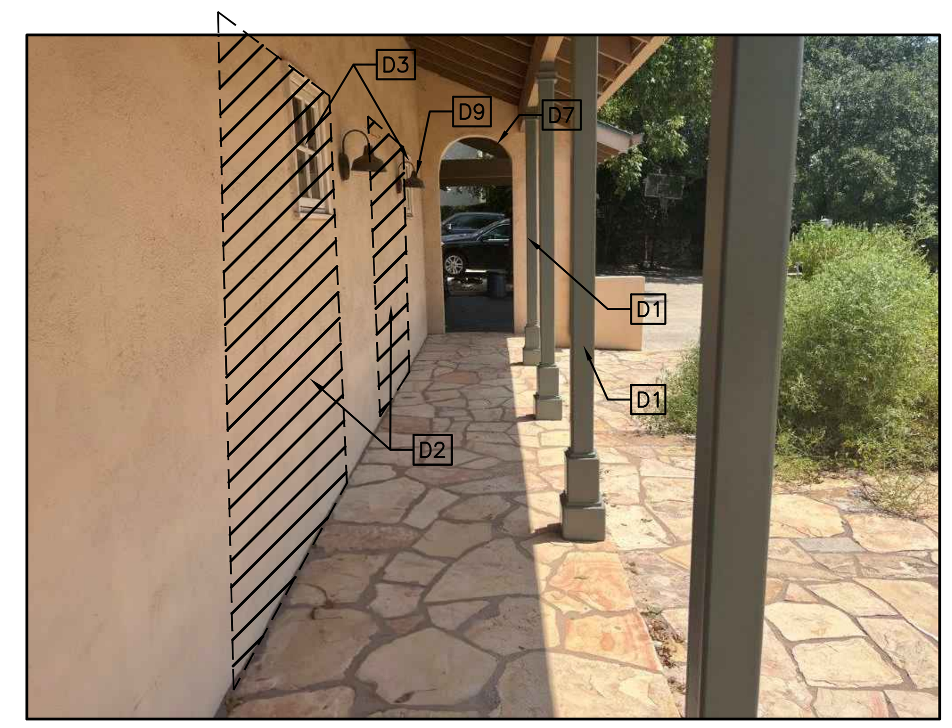

09

DEMOLITION KEYNOTE LEGEND

D1 EXISTING POST TO BE REMOVED. RETURN TO OWNER.

D2 REMOVE PORTION OF EXISTING WOOD FRAME WALL. TEMPORARY BRACING.

D3 REMOVE EXISTING WINDOWS. RETURN TO OWNER.

D4 REMOVE EXISTING WOOD DOOR AND FRAME.

D5 EXISTING CONCRETE STEP TO BE REMOVED FOR NEW LANDING.

D6. REMOVE WOOD FRAME WALL AND ROOF.

D7. EXISTING WOOD FRAME CASED OPENINGS TO REMAIN. VERIFY EXTEND OF DEMOLITION TO ACCOMMODATE NEW DOORS AND WINDOWS.

D8. REMOVE EXISTING TREE.

D9. REMOVE EXISTING ELECTRICAL

101 LAUREL HEIGHTS (CIRCA 1970'S)

6 / P-1 EXISTING DOOR / WINDOW TYPES
SCALE: N.T.S.

Drwn. By:	RP
Plan No:	
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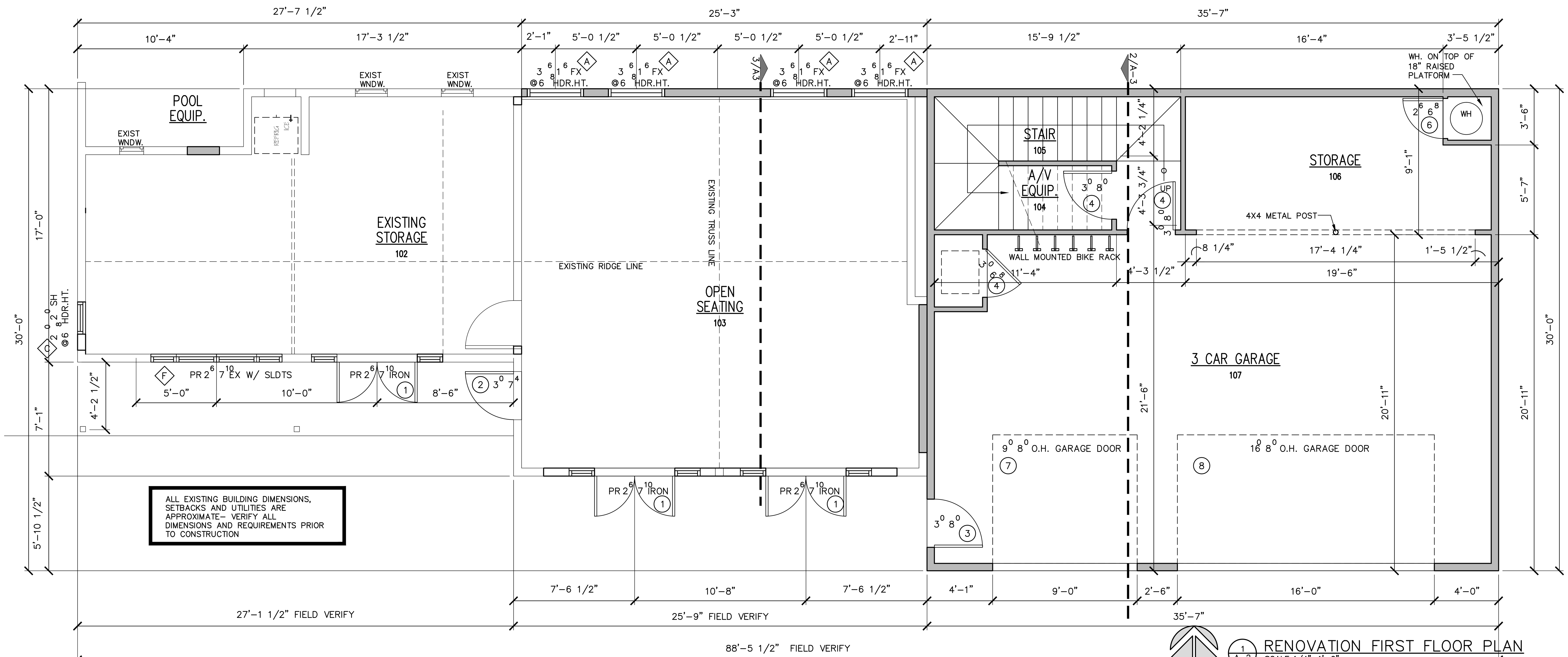
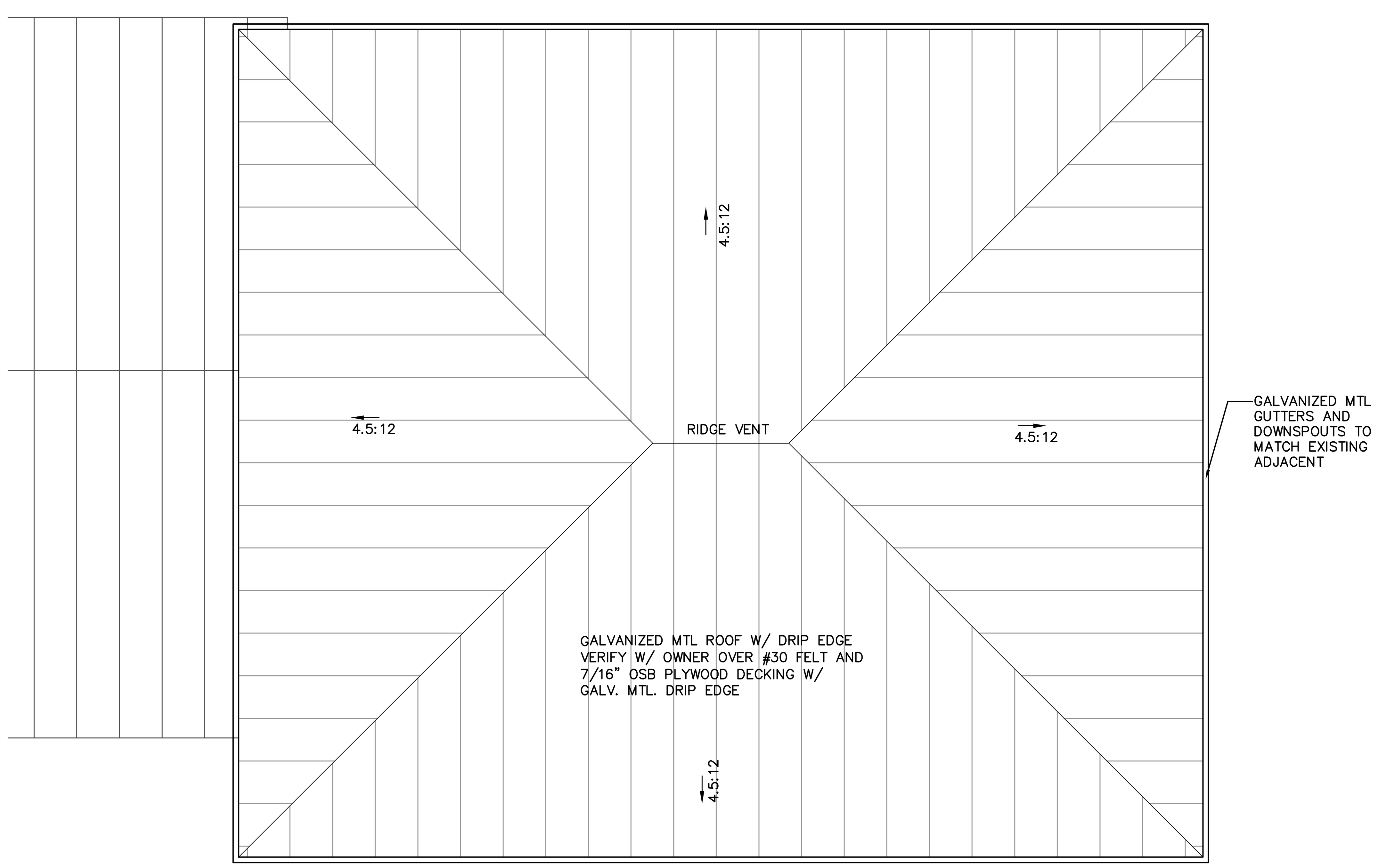


PLAN NORTH

1 A-2 RENOVATION FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"



PLAN NORTH

2 A-2 ROOF PLAN
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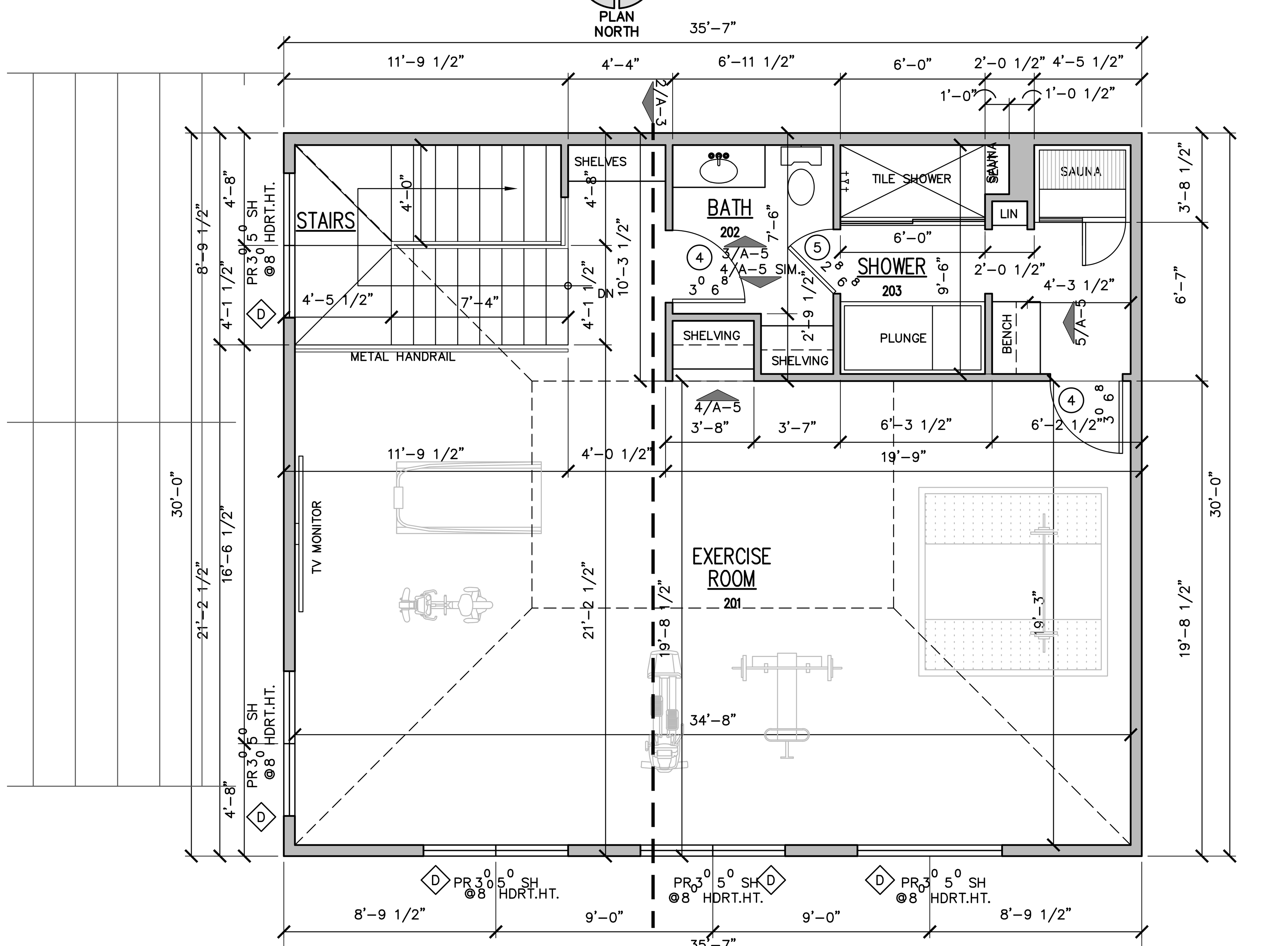

PLAN NORTH

2 A-2 RENOVATION SECOND FLOOR PLAN
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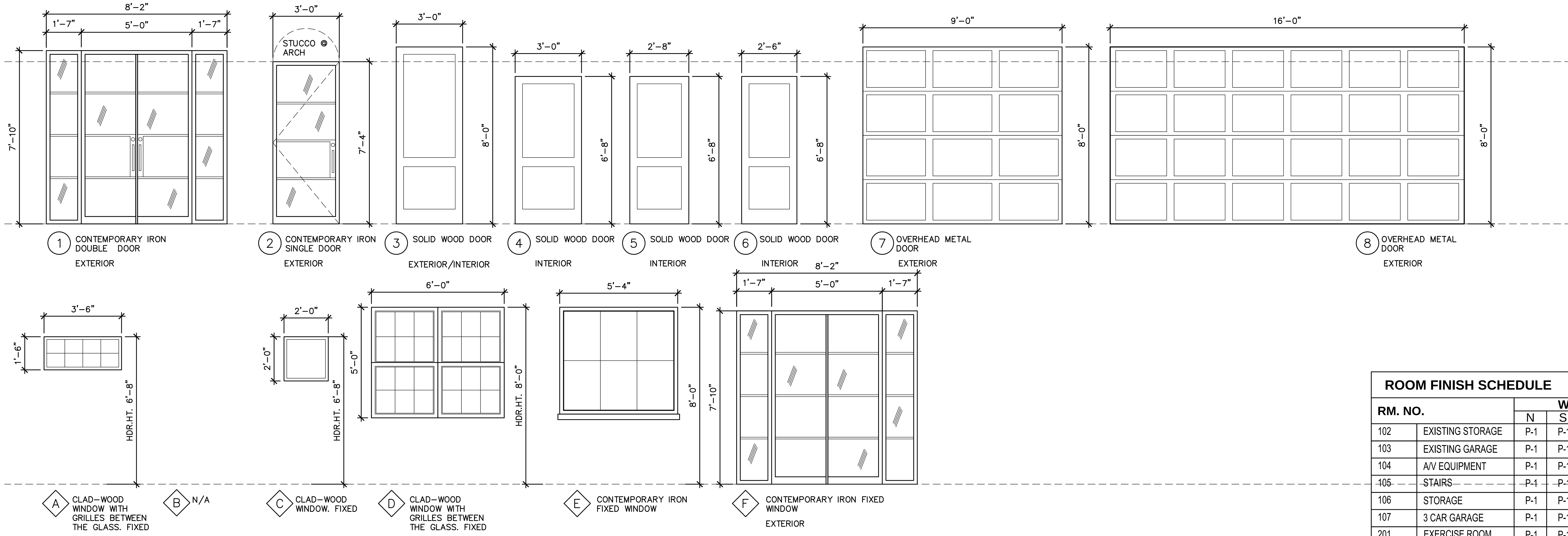

1 / A-2.1 DOOR AND WINDOW TYPES
SCALE: 1/4"=1'-0"

DOOR-SCHEDULE

MARK	DOOR				FRAME MAT'L
	SIZE	MATERIAL	TYPE	FIN	
1	PAIR $3^0 \times 8^2$ W/ SIDELITES	METAL	ENTRY	PAINT	IRON
2	$3^0 \times 8^0$	METAL	ENTRY	PAINT	IRON
3	$3^0 \times 8^0$	WOOD CLAD	ENTRY	PAINT	WOOD
4	$3^0 \times 6^8$	SC HARDBD	INTERIOR	PAINT	WOOD
5	$2^8 \times 6^8$	SC HARDBD	INTERIOR	PAINT	WOOD
6	$2^6 \times 6^8$	SC HARDBD	ENTRY	PAINT	WOOD
7	$9^0 \times 8^0$	METAL	O.H. GARAGE	PAINT	METAL
8	$16^0 \times 8^0$	METAL	O.H. GARAGE	PAINT	METAL

WINDOW SCHEDULE

MARK	WINDOW			REMARKS
	SIZE	MATERIAL	TYPE	
A	$3^6 \times 1^6$	WOOD-CLAD	FIXED	
B	$3^0 \times 1^6$	WOOD-CLAD	FIXED	
C	$2^0 \times 2^0$	WOOD-CLAD	FIXED	
D	$3^0 \times 5^0$	WOOD-CLAD	SH	SINGLE HUNG
E	$5^4 \times 4^{10}$	METAL	FIXED	METAL AND GLASS
F	$8^2 \times 8^2$	METAL	FIXED	METAL AND GLASS

ROOM FINISH SCHEDULE

RM. NO.		WALLS N	S	E	W	FLOOR	BASE	CLG	CABINET	COUNTERTOP	REMARKS
102	EXISTING STORAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
103	EXISTING GARAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
104	A/V EQUIPMENT	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
105	STAIRS	P-1	P-1	P-1	P-1	WD-1	B-1	CL-1	-	-	
106	STORAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
107	3 CAR GARAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
201	EXERCISE ROOM	P-1	P-1	P-1	P-1	LVT-1	B-1	CL-1	MP-1	CT-1	
202	BATH	P-1	P-1	P-1	P-1	TILE-1	B-2	CL-1	MP-1	CT-2	
203	SHOWER	P-1	P-1	P-1	P-1	TILE-1	B-2	CL-1	-	-	

WALL FINISH

P-1: PAINT, SEMI-GLOSS
MFG:SHERWIN WILLIAMS
COLOR: SW7004 SNOWBOUND
WALL TEXTURE: MEDIUM

FLOOR FINISH

CONCR: EXPOSED POLISHED CONCRETE.

WD-1: 3" SOLID PINE PLANK FLOORING WITH POLYURETHANE FINISH.

LVT-1: MOHAWK HOT AND HEAVY COLLECTION. STYLE: GROWN UP C0075. COLOR: VERA

TILE-1: T.B.D.

BASE FINISH

B-1: WOOD 6" PTD. WHITE

B-2: 4" TILE BASE: T.B.D.

CEILING FINISH

CL-1 : 5/8" GYPSUMB BOARD CEILING OVER WOOD JOISTS.

CABINET FINISH:

MP-1: COLOR: PEARL WHITE (VERIFY WITH OWNER)

COUNTER:

CT-1: GRANITE - 1" OR EQ. - WHITE

CT-2: SILESTONE - 1" OR EQ. - WHITE

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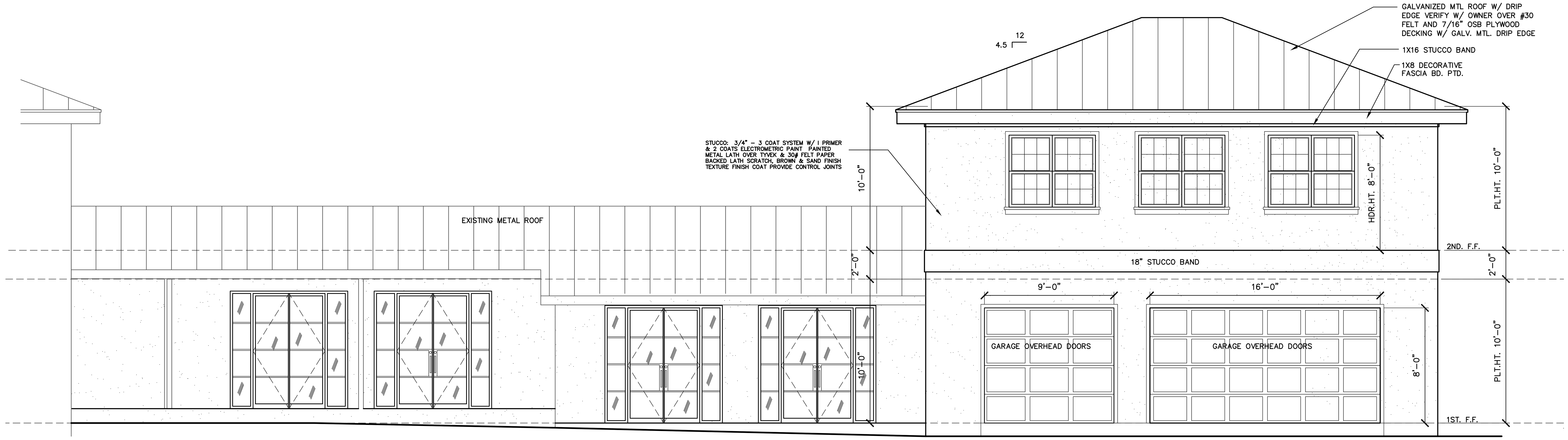
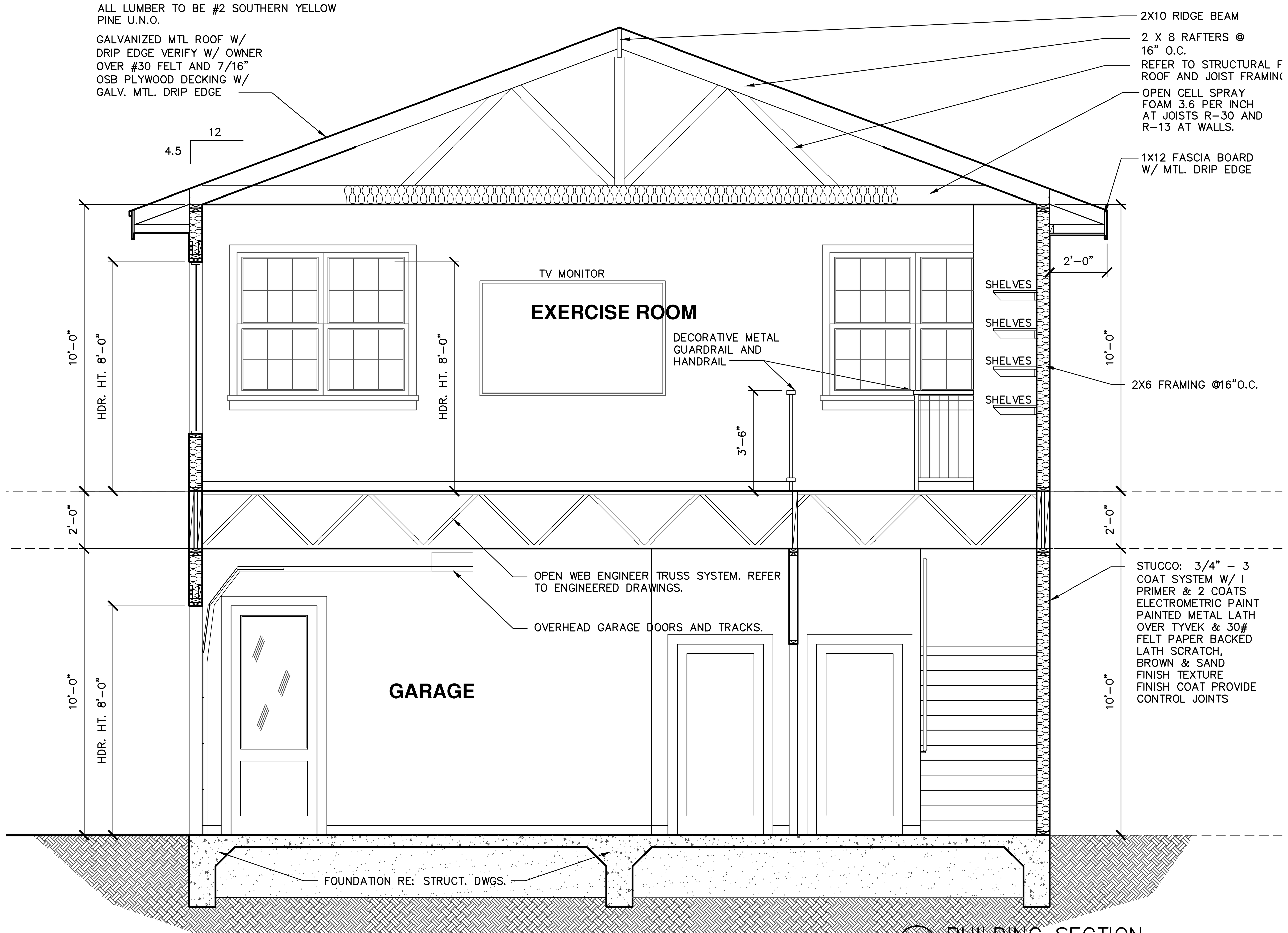


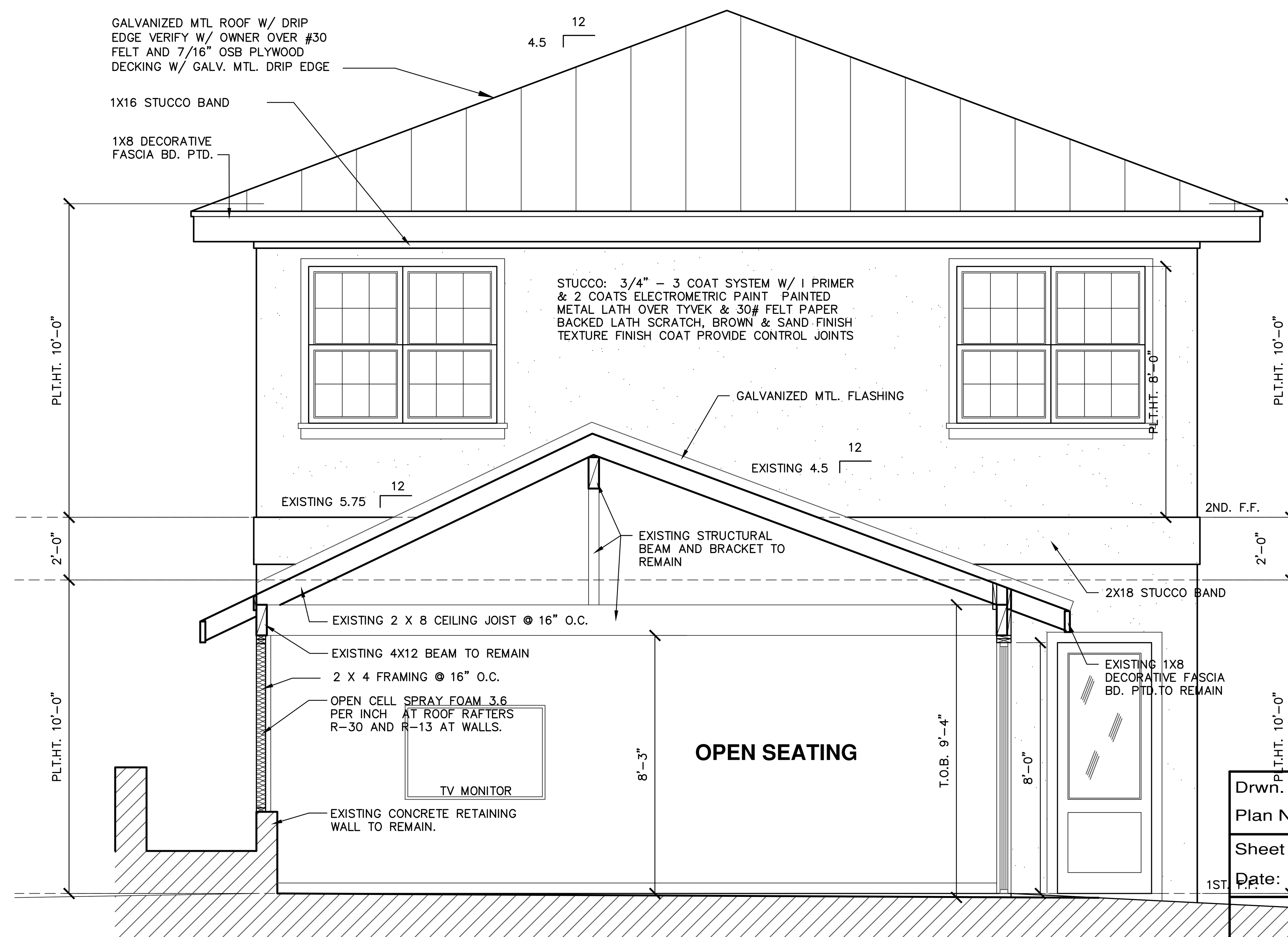
1 A-3 SOUTH ELEVATION
SCALE: 1/4"=1'-0"

NOTE:
ALL WINDOW AND DOOR HEADERS SHALL BE COMPOSED OF 2X6 MATERIAL.

ALL LUMBER TO BE #2 SOUTHERN YELLOW PINE U.N.O.



2 A-3 BUILDING SECTION
SCALE: 1/4"=1'-0"



3 A-3 WEST ELEVATION
SCALE: 1/4"=1'-0"

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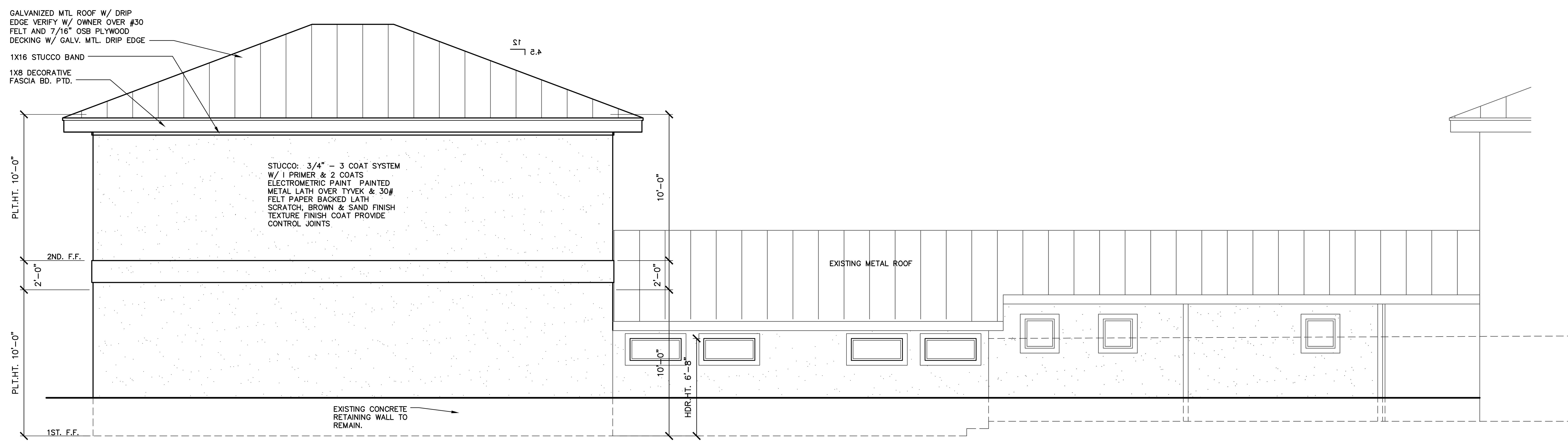
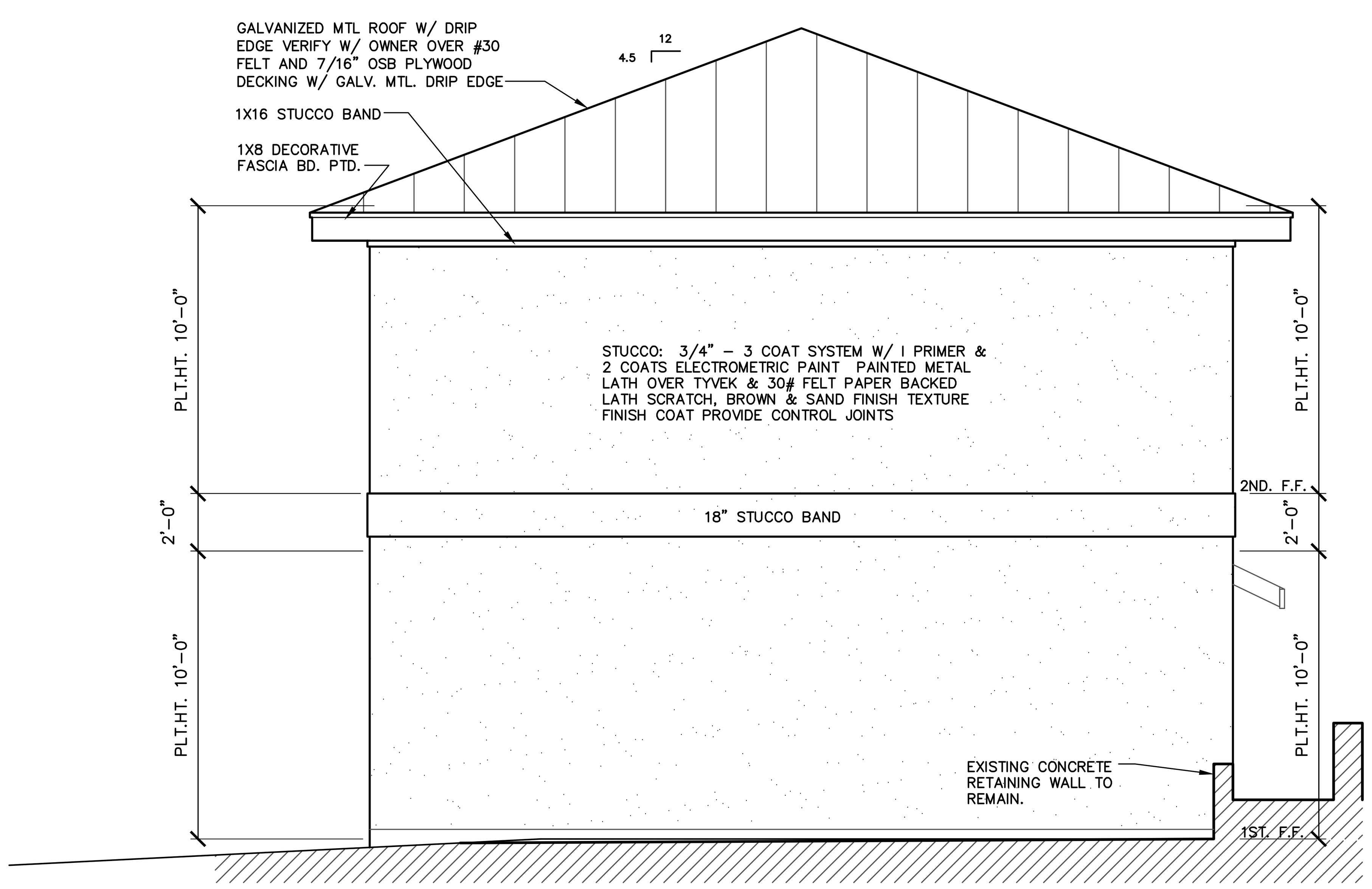
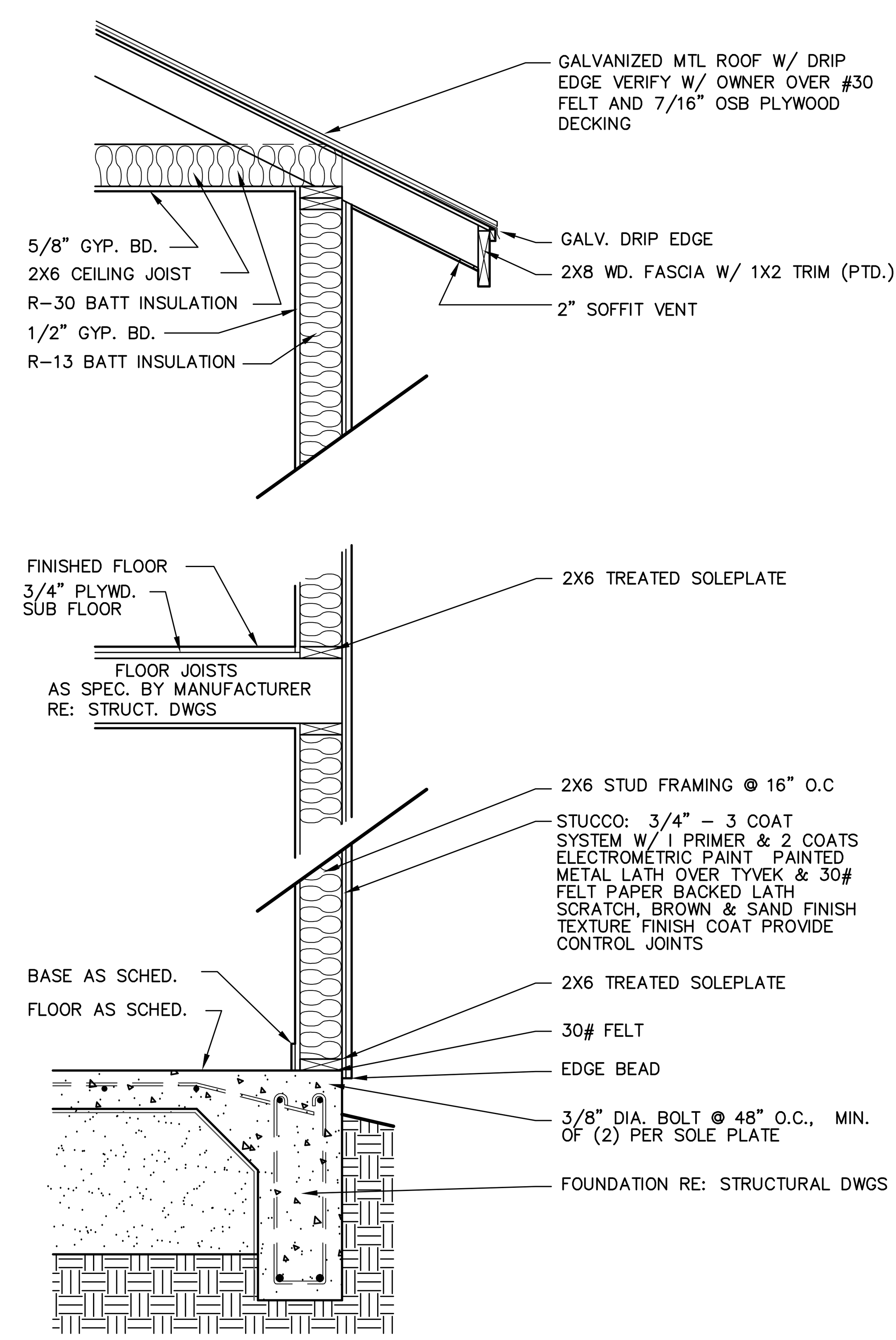


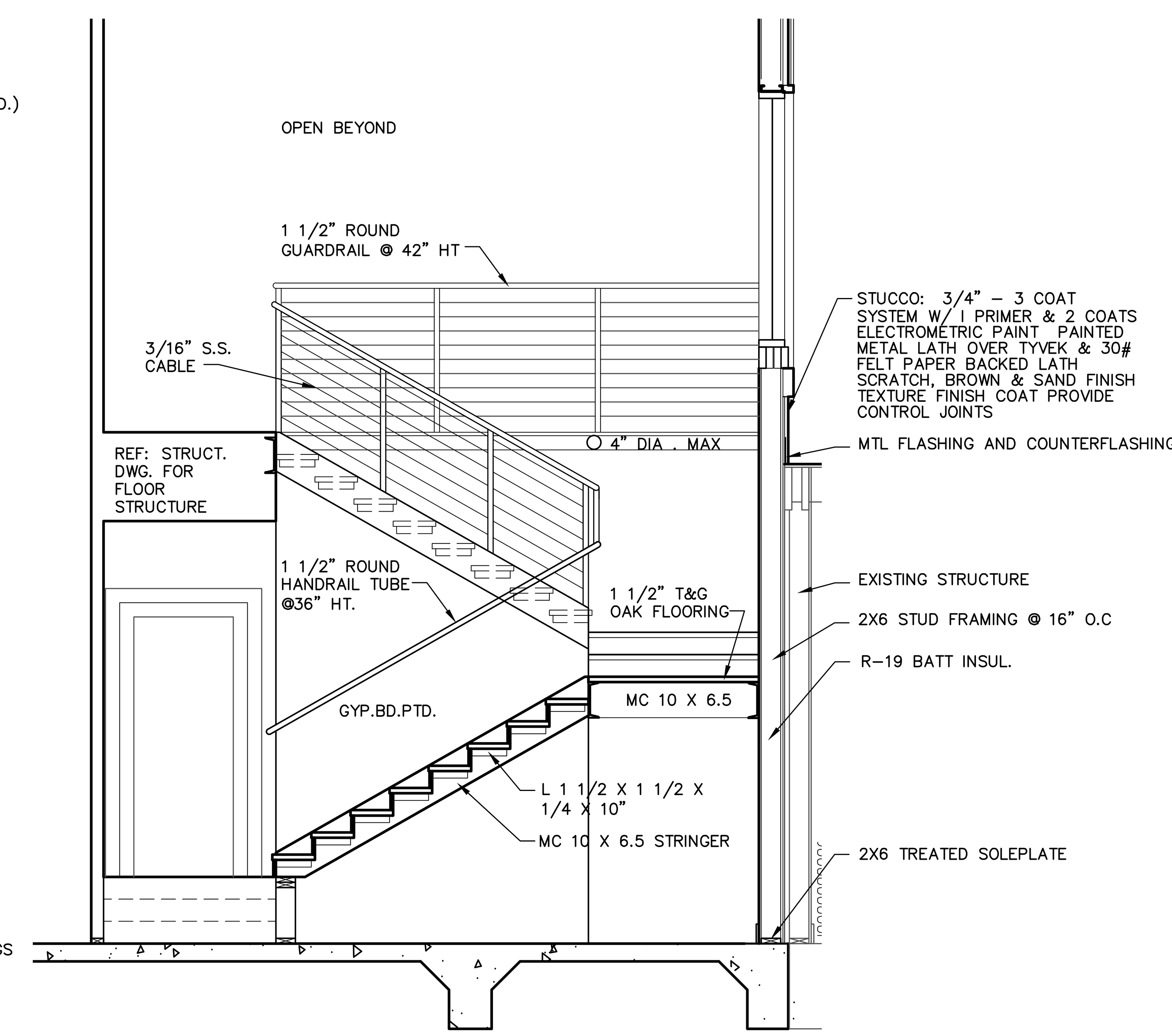
1 A-4 NORTH ELEVATION
SCALE: 1/4"=1'-0"



2 A-3 EAST ELEVATION
SCALE: 1/4"=1'-0"



3 A-3 TYP. WALL SECTION – STUCCO
SCALE: 3/4" – 1'-0"



4 A-3 STAIR WALL SECTION
SCALE: 3/8" – 1'-0"

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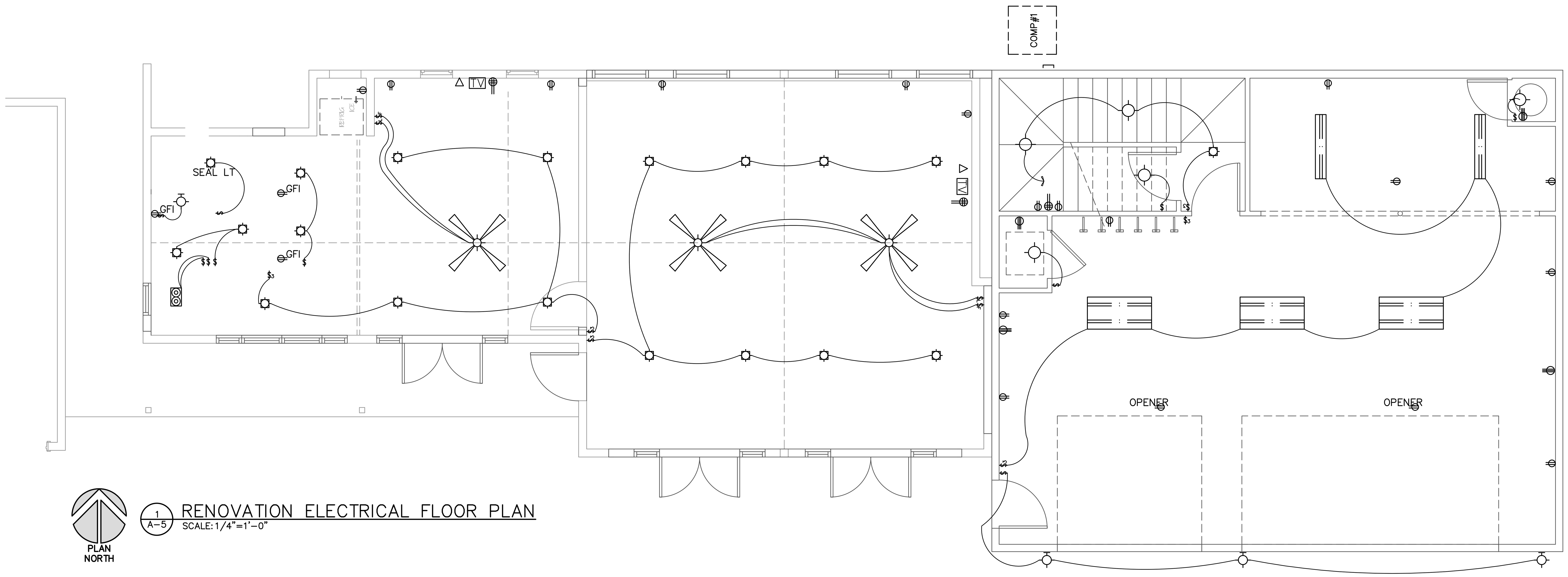
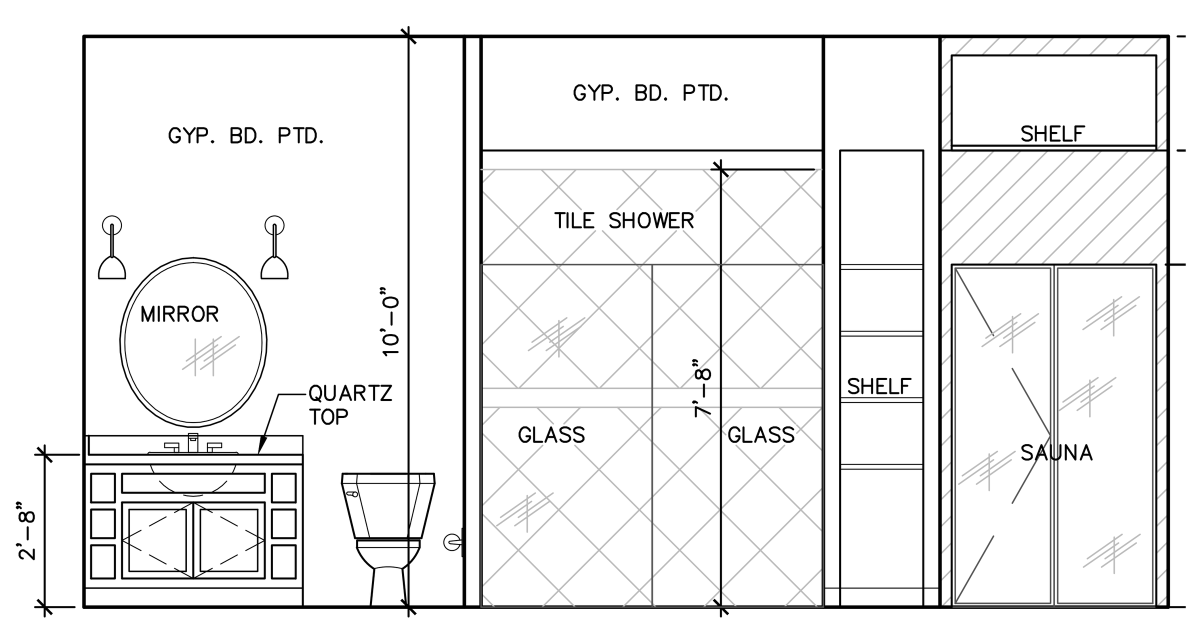
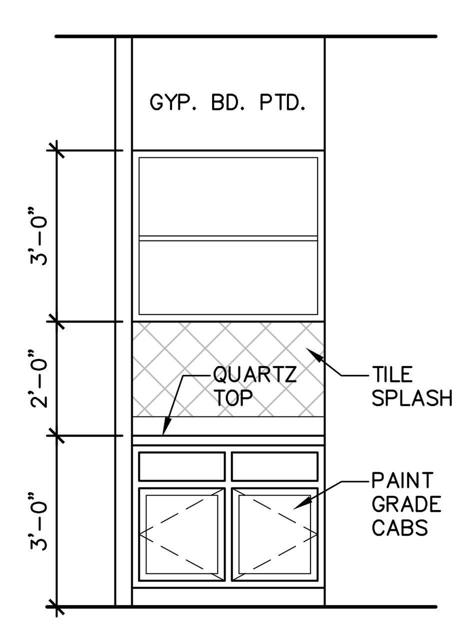


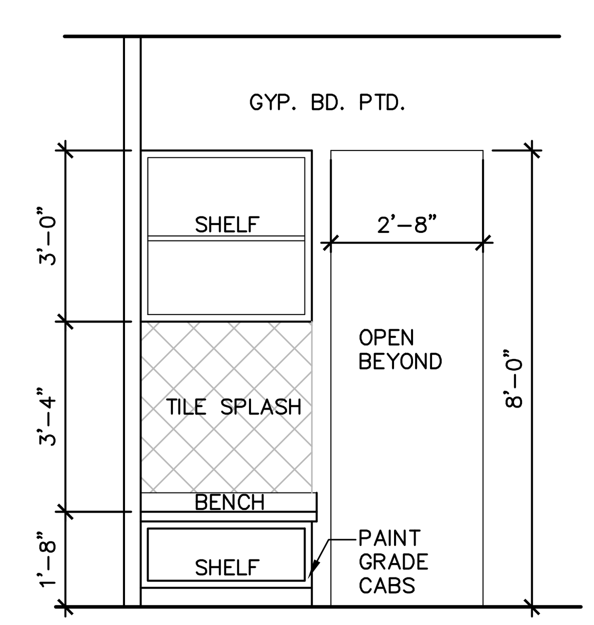
1 A-5 RENOVATION ELECTRICAL FLOOR PLAN
SCALE: 1/4"=1'-0"



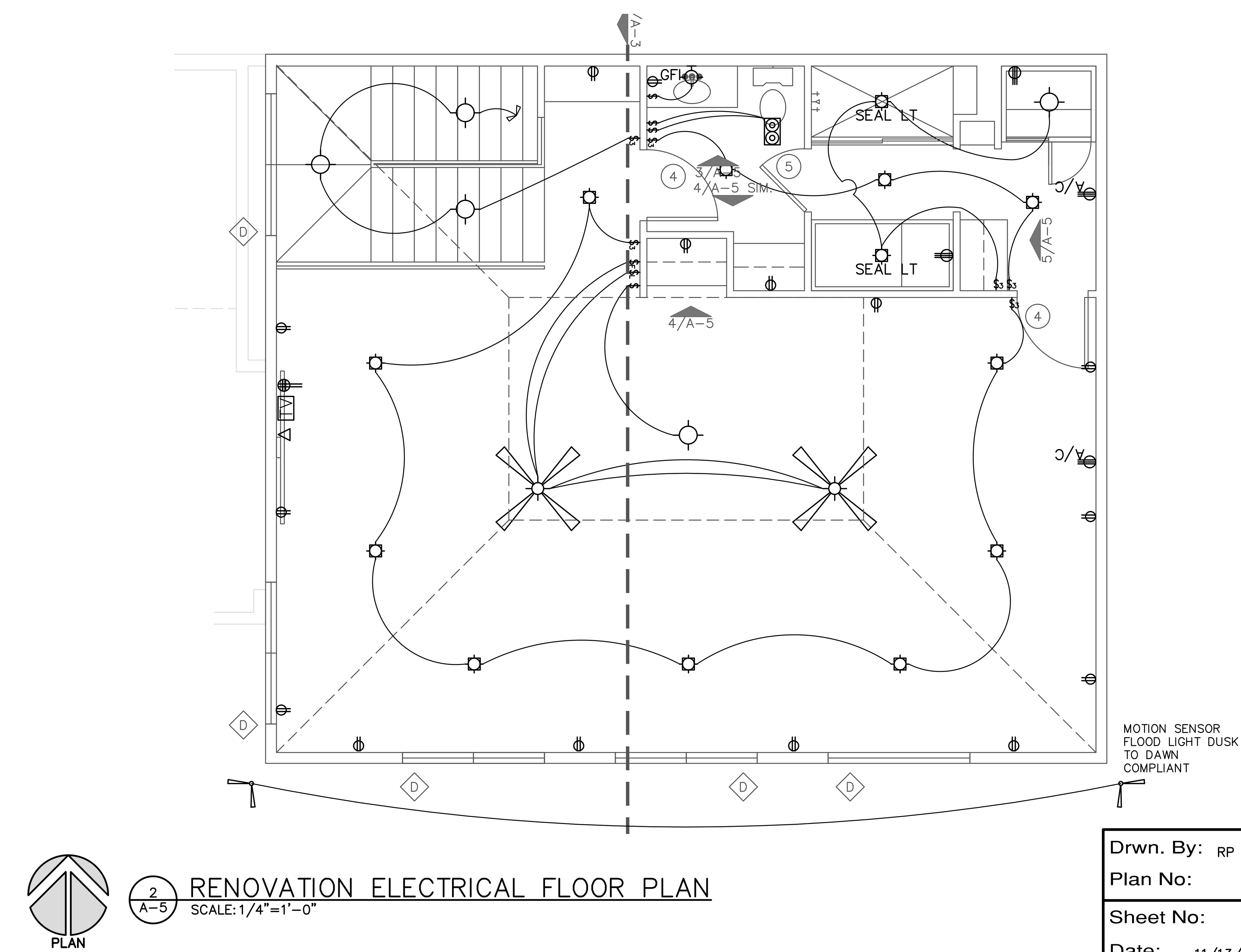
3 A-6 GYM. BATH
SCALE: 3/8"=1'-0"



4 A-6 STORAGE
SCALE: 3/8"=1'-0"



5 A-6 BENCH
SCALE: 3/8"=1'-0"



2 A-5 RENOVATION ELECTRICAL FLOOR PLAN
SCALE: 1/4"=1'-0"

ELECTRICAL NOTES:

1. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO FLOOR PLANS FOR LOCATIONS OF ALL EQUIPMENT. CONFIRM LOCATIONS WITH OWNER OR OWNERS REPRESENTATIVE.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT INTERNATIONAL ELECTRIC CODES AND ORDINANCES.
3. ALL WORK SHALL CO-ORDINATED WITH OTHER TRADES, TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
4. ELECTRICAL SYSTEMS SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE INTERNATIONAL ELECTRIC CODES.
5. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS LABELS WHERE APPLICABLE.
6. ALL WORKSHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER.
7. VERIFY HEIGHT OF DATA AND OUTLETS AND LIGHTS W/OWNER.
8. ALL RECESSED DOWNLIGHTS TO BE "1C" RATED FOR CONTACT WITH THERMAL INSULATION

	FOUR PLEX OUTLET		WALL BRACKET LIGHT
	110 DUPLEX OUTLET		FLOOD LIGHT
UC	110 DUPLEX OUTLET UNDER COUNTER		FLUORESCENT LIGHT
220	220 OUTLET		HEAT-VENT-LIGHT
	SPLIT-WIRED OUTLET		VENT-LIGHT
GFI	GROUND FAULT INTERRUPT		SURFACE HEATER
WP	WATER PROOF	220	WALL HEATER
JB	JUNCTION BOX		SMOKE DETECTOR
	PHOTO CELL		TELEPHONE
S	SWITCH AND RECEPTACLE	IC	INTERCOM
$	SINGLE POLE SWITCH	SP	SPEAKER
$3	THREE-WAY SWITCH	TV	TELEVISION
$D	DIMMER SWITCH	FP	FLOOR PLUG
	SURFACE MOUNT INCANDESCENT	WP	WEATHERPROOF
PC	PULL CHAIN LIGHT	VAC	VACUUM
	RECESSED DOWN-LIGHT		2' X 4' FLUORESCENT FIXTURE
V/L	RECESSED VENT-LIGHT	P.C.	ATTIC STAIR W/ PULL CHAIN LITE
	CEILING FAN		TRACT LIGHTING

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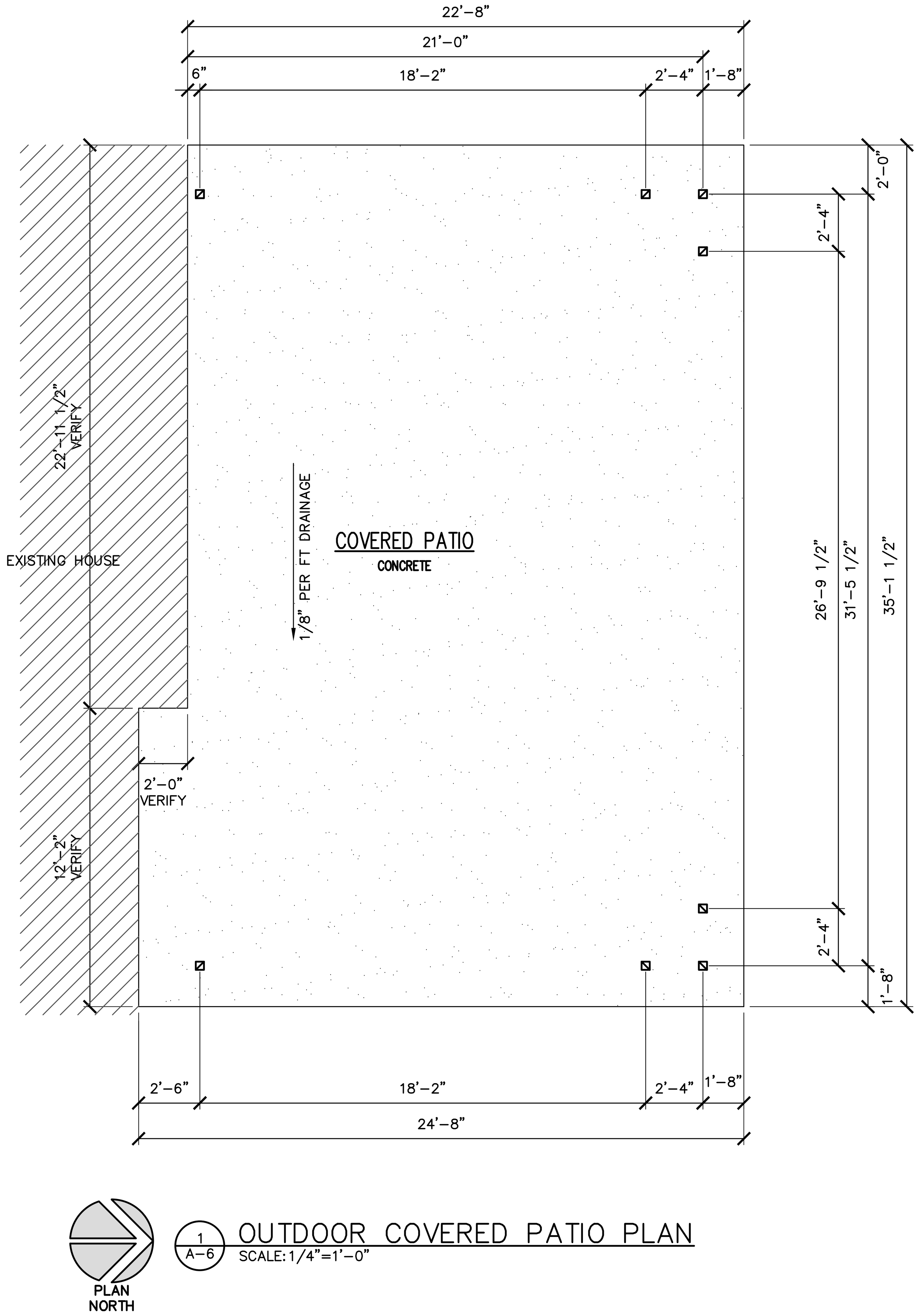
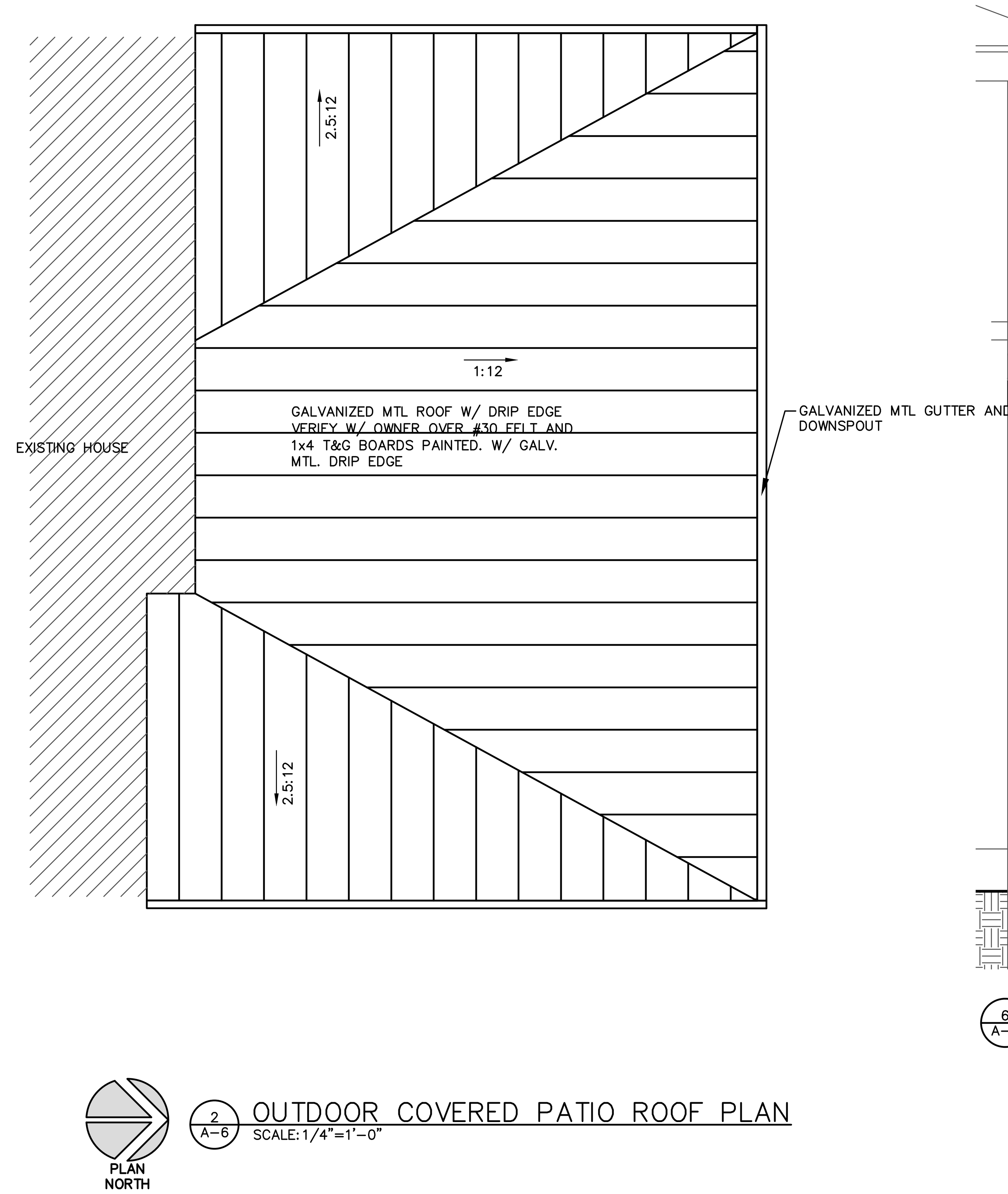
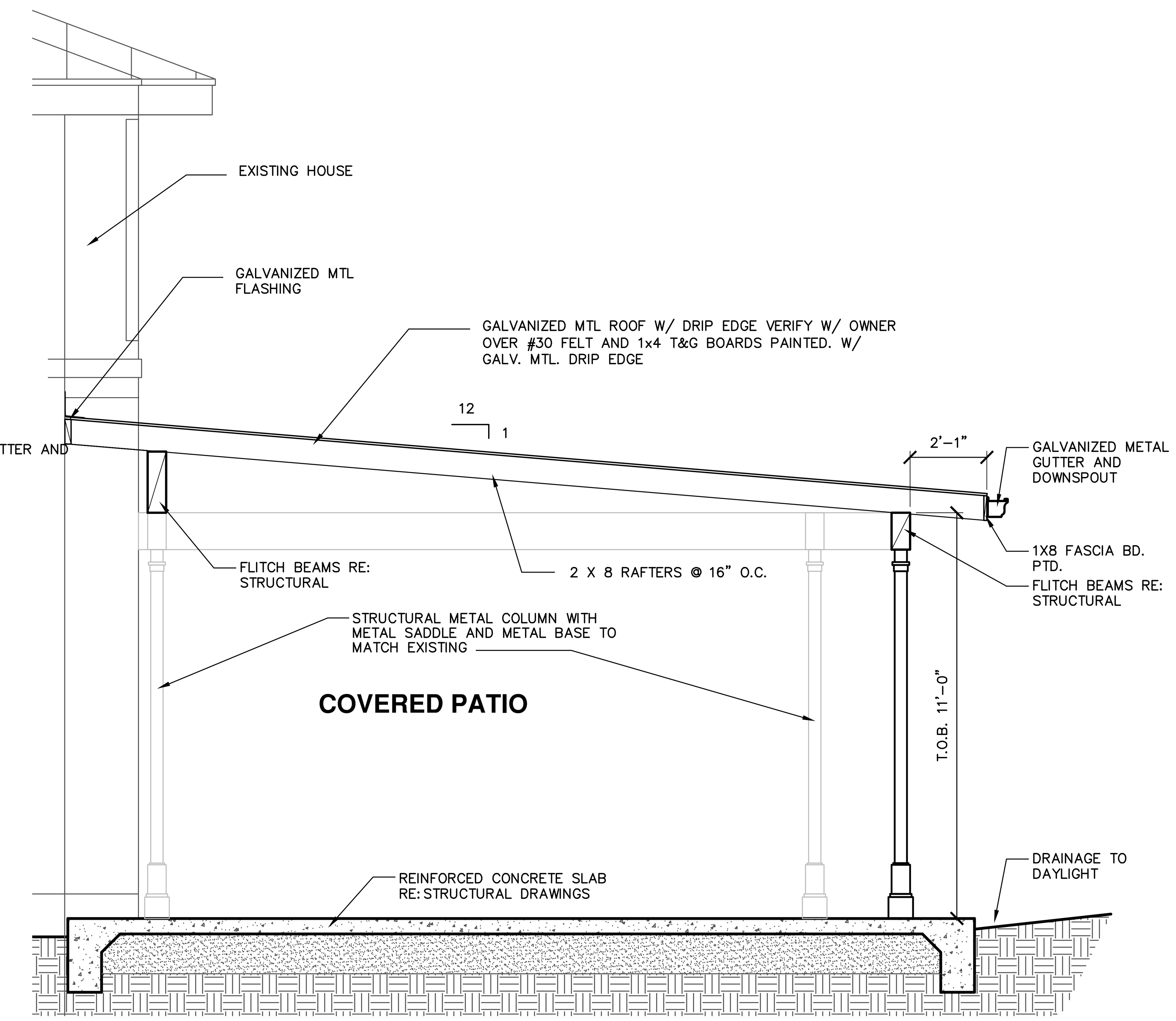


1 A-6 OUTDOOR COVERED PATIO PLAN
SCALE: 1/4"=1'-0"



2 A-6 OUTDOOR COVERED PATIO ROOF PLAN
SCALE: 1/4"=1'-0"



6 A-6 PATIO SECTION
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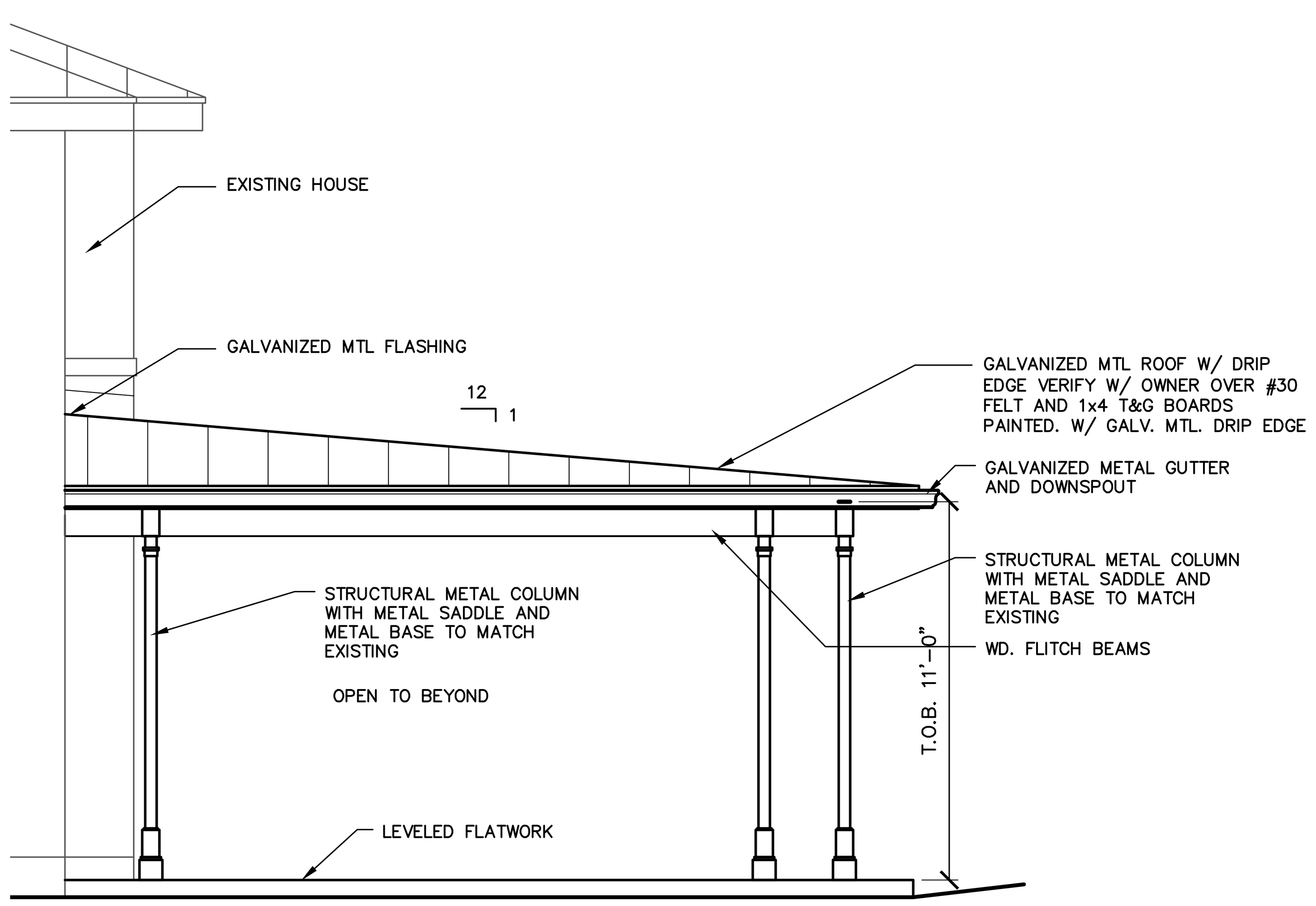
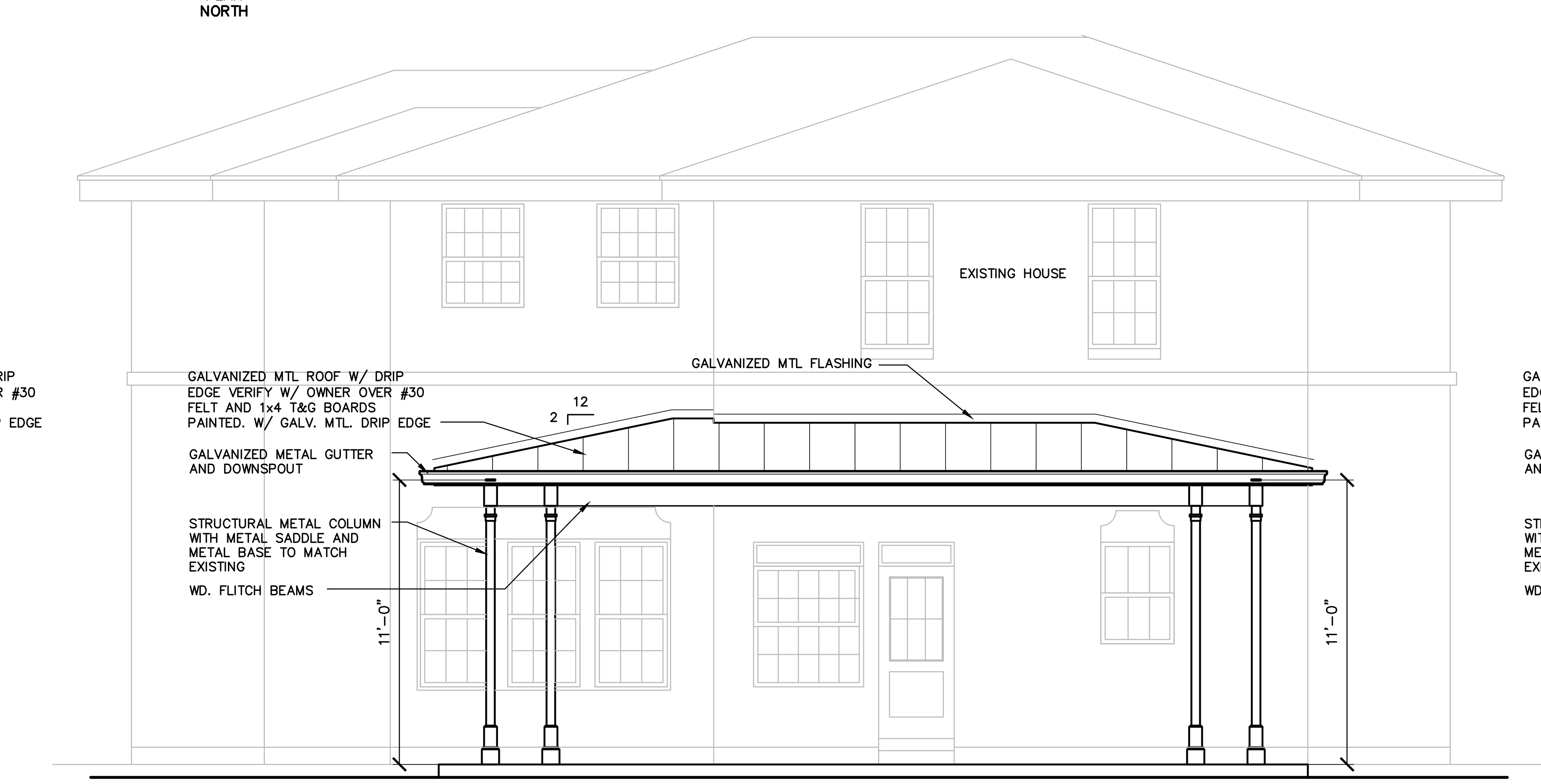
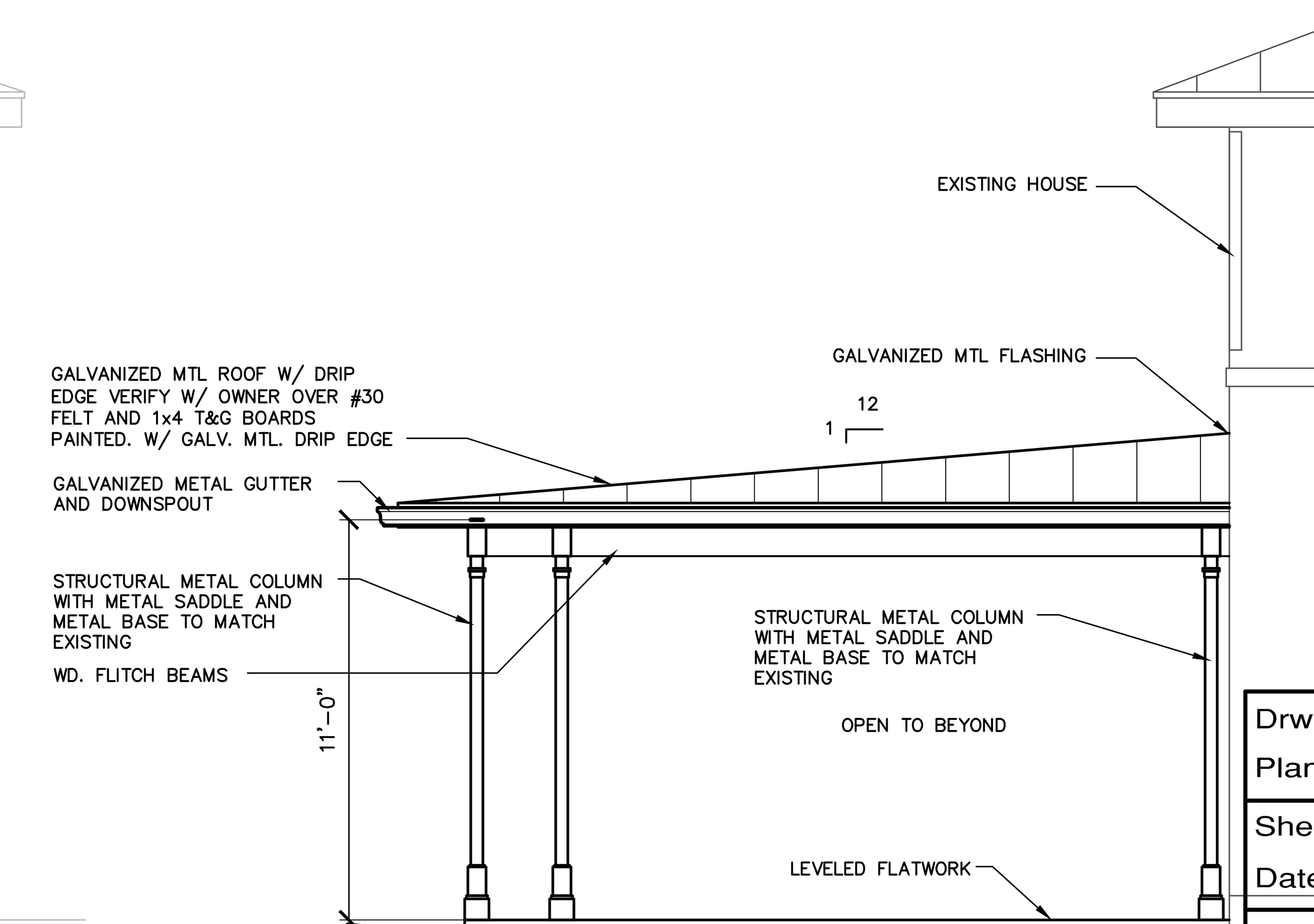


3 A-6 EAST ELEVATION
SCALE: 1/4"=1'-0"



4 A-6 NORTH ELEVATION
SCALE: 1/4"=1'-0"



5 A-6 WEST ELEVATION
SCALE: 1/4"=1'-0"

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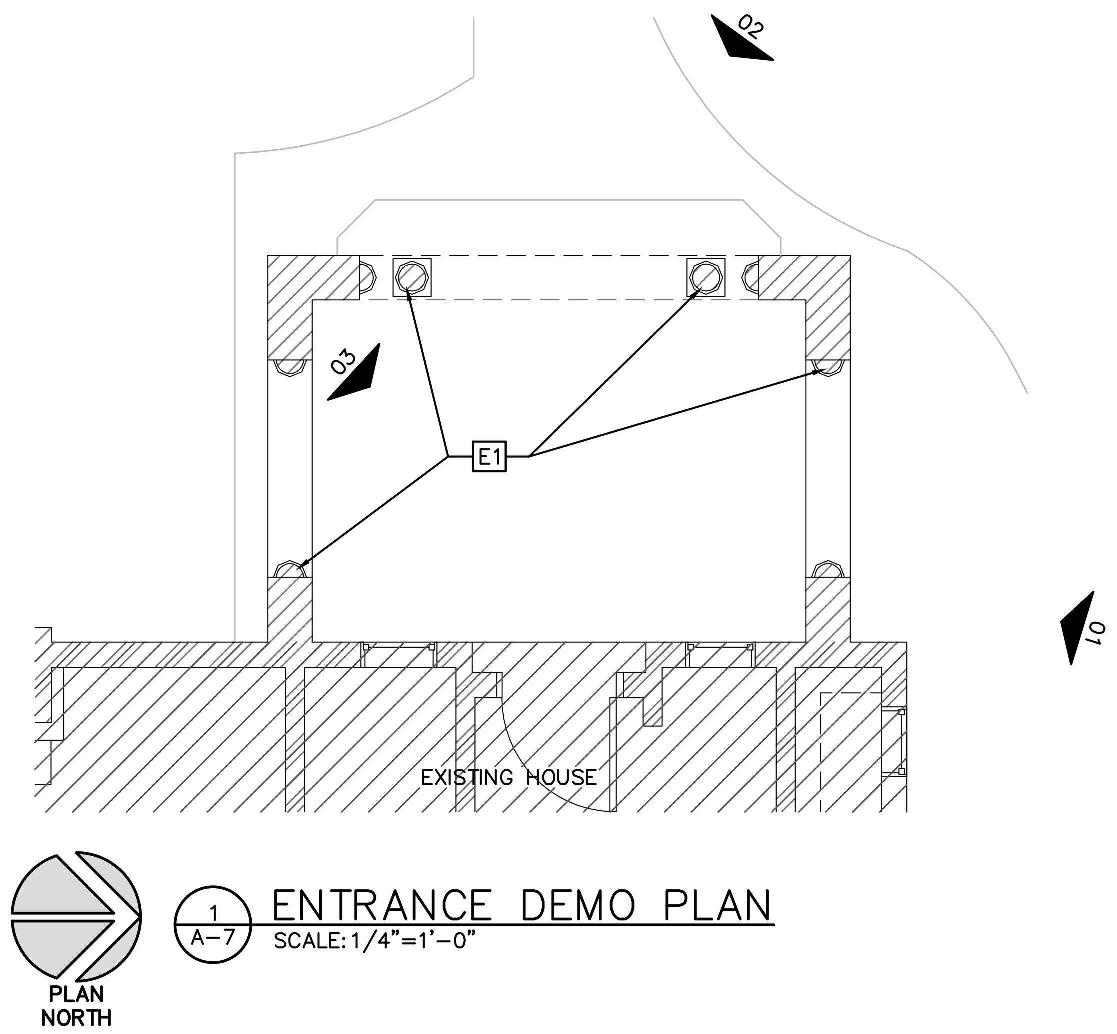
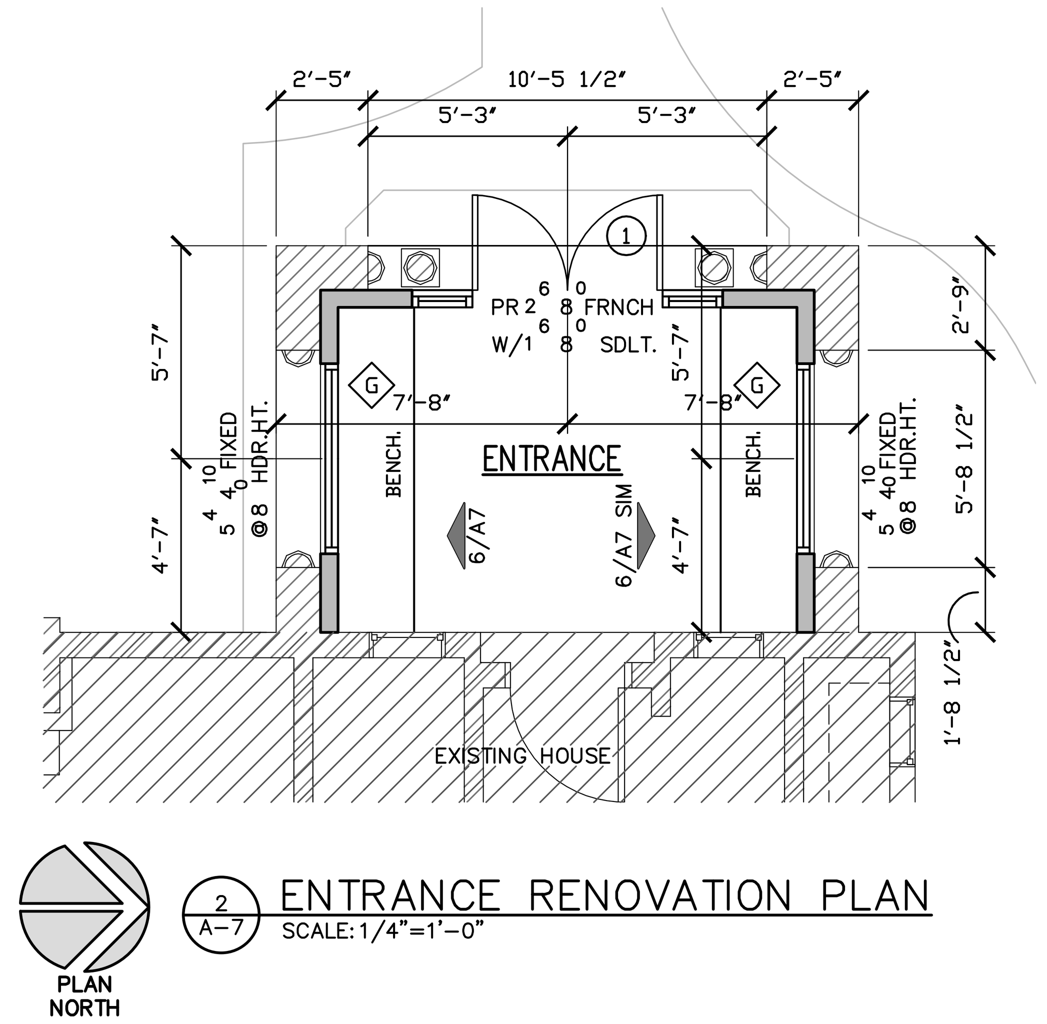


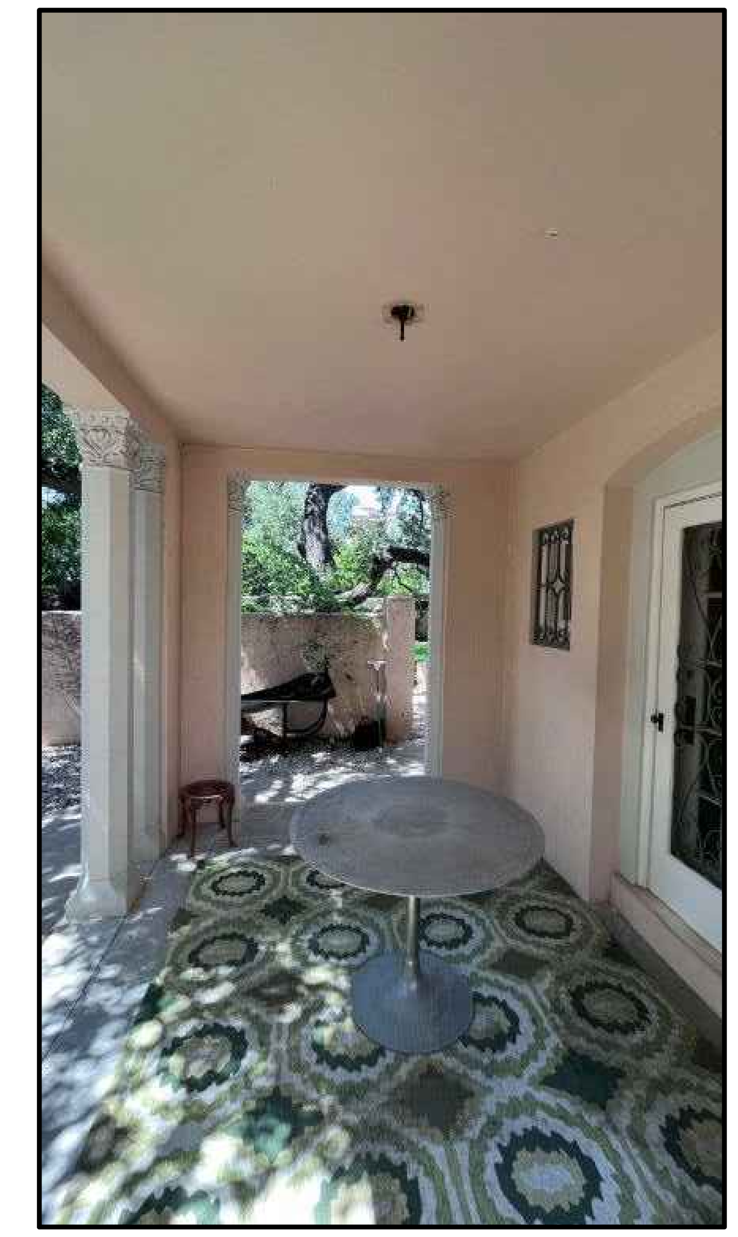
1 A-7 ENTRANCE DEMO PLAN
SCALE: 1/4"=1'-0"



2 A-7 ENTRANCE RENOVATION PLAN
SCALE: 1/4"=1'-0"

01
EXISTING REFERENCE PHOTOS

01

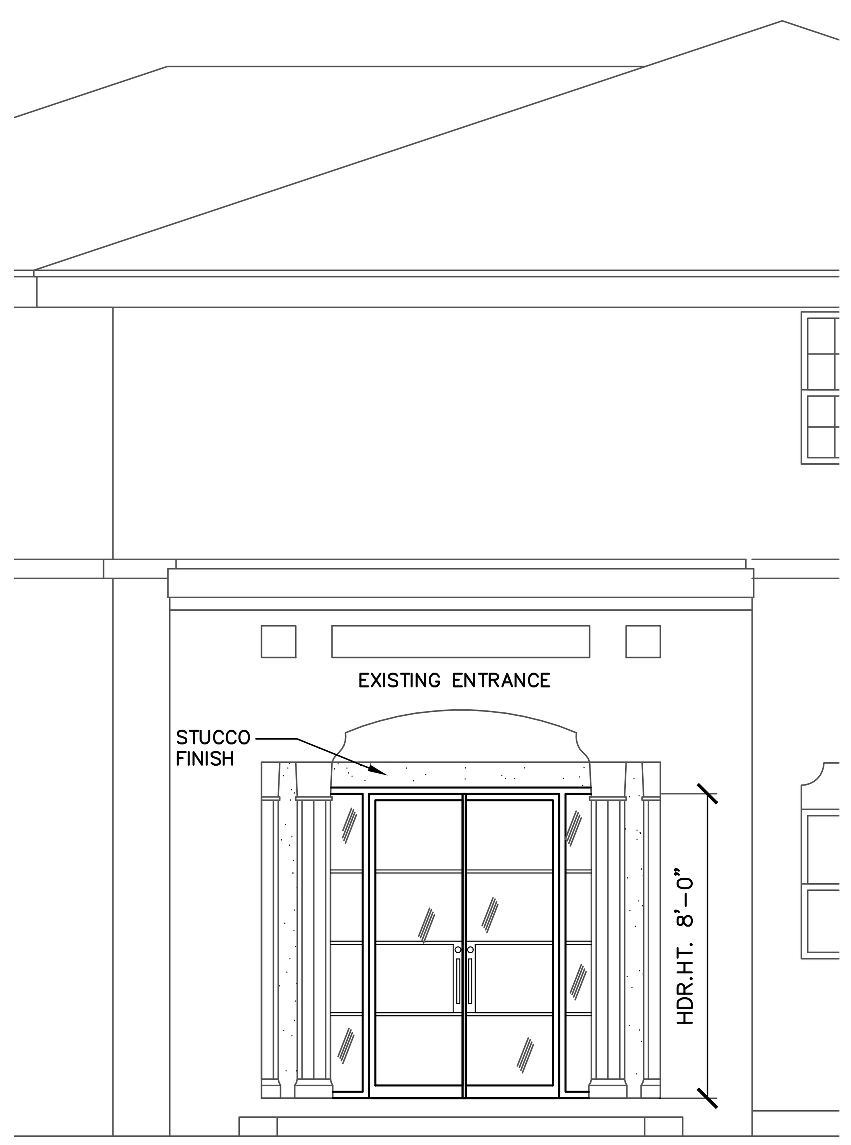


01

EXISTING KEYNOTE LEGEND

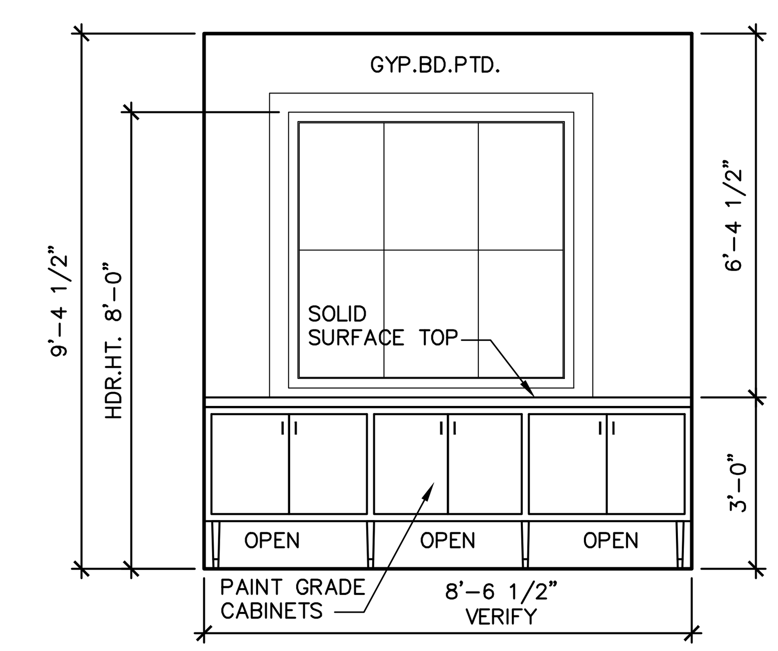
E1 EXISTING DECORATIVE STONE COLUMNS TO REMAIN.

3 A-7 NORTH ELEVATION
SCALE: 1/4"=1'-0"



4 A-7 WEST ELEVATION
SCALE: 1/4"=1'-0"

5 A-7 NORTH ELEVATION
SCALE: 1/4"=1'-0"



6 A-7 CABINET ELEVATION
SCALE: 3/8"=1'-0"

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FOUNDATION GENERAL NOTES:

1. GENERAL:
A. THIS FOUNDATION HAS BEEN DESIGNED AS A SOIL SUPPORTED STIFFENED GRID TYPE BEAM AND SLAB FOUNDATION; AND AS SUCH, WILL MOVE WITH THE SOILS UPON WHICH IT BEARS.
B. CONTRACTOR IS TO VERIFY ALL DIMENSIONS, DROP AREAS, FLOOR PENETRATIONS, AND BLOCK OUT LOCATIONS WITH THE ARCHITECT'S FLOOR PLAN.
C. CONTRACTOR SHALL VERIFY ANY DEVIATION FROM THE INFORMATION ON THIS FOUNDATION DESIGN WITH ENGINEER OF RECORD.
D. THE CONTRACTOR SHALL NOT PLACE ANY CONCRETE UNTIL ENGINEER OF RECORD HAS CONDUCTED A PRE-POUR INSPECTION AND HAS GIVEN APPROVAL TO PLACE THE CONCRETE.
E. CONTRACTOR IS TO CALL ENGINEER OF RECORD IF FOUNDATION REQUIRES MULTIPLE CONCRETE POURS OF THREE (3) OR MORE.
F. CONTRACTOR SHALL FURNISH THE LABOR, MATERIALS, EQUIPMENT AND SUPERVISION NECESSARY TO PERFORM ALL WORK SHOWN ON PLANS AND SPECIFICATIONS.
G. IT IS THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR TO NOTIFY THE HOMEOWNER OF THE IMPORTANCE OF ITEMS 2C AND 2D BELOW AND OF THE LIMITATIONS AS EXPRESSED IN ITEM NO. 1 ABOVE. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED.

2. FOUNDATION SITE PREPARATION & FINISH:
A. AREA OF FOUNDATION IS TO BE CLEARED AND GRUBBED OF ALL DELETERIOUS AND ORGANIC MATERIALS DOWN TO A SOLID BASE.
B. PROVIDE A VAPOR BARRIER BENEATH THE FLOOR SLAB BY USING A WATERPROOFING MEMBRANE OF 10 MIL POLYETHYLENE. THE MEMBRANE SHALL BE TAPED AT ALL SPLICES AND TEARS. THE MEMBRANE SHALL EXTEND TO WITHIN 6-INCHES OF THE BOTTOM OF THE BEAM TRENCHES.
C. POSITIVE DRAINAGE AWAY FROM THE PERIMETER OF THE FINISHED FOUNDATION MUST BE PROVIDED. THE TOP OF THE FOUNDATION SLAB SHOULD BE A MINIMUM OF 8-INCHES ABOVE THE FINISHED GRADE. THE GROUND ADJACENT TO THE FOUNDATION SHOULD SLOPE AWAY A MINIMUM OF 6-INCHES IN THE FIRST 5-FEET.
D. ANY TREES PLANTED AFTER PLACEMENT OF THE FOUNDATION SHOULD BE PLANTED NO CLOSER TO THE FOUNDATION THAN ONE-HALF THE POTENTIAL HEIGHT OF THE TREE.
E. ALL AIR CONDITIONING CONDENSER DRAIN LINES SHOULD DISCHARGE A MINIMUM OF 5-FEET FROM THE PERIMETER OF THE FOUNDATION.

3. CONCRETE:
A. CONCRETE TO BE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, AND SHALL BE IN ACCORDANCE ACI 301. CEMENT SHALL BE TYPE 1 AND FLY ASH (IF USED) SHALL BE MONEX RESOURCES CLASS C. IF FLY ASH IS USED, IT SHALL NOT EXCEED 20% OF THE TOTAL AMOUNT OF FLY ASH AND CEMENT USED BY WEIGHT. NO AIR ENTRAINMENT OR CALCIUM CHLORIDE SHALL BE USED. CONTRACTOR SHALL SATISFY HIMSELF THAT THE MIX DESIGN IS ACCEPTABLE FOR IT'S INTENDED PURPOSE.
B. CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH ACI 302.1R. FINISH TOLERANCE SHALL BE IN ACCORDANCE WITH ACI 117. A MINIMUM SET OF TWO TEST CYLINDERS FOR 28-DAY COMPRESSIVE STRENGTH TESTS ARE RECOMMENDED TO BE PERFORMED IN ACCORDANCE WITH ASTM C42.
C. PLACE 1/2" X 10" EMBEDMENT ANCHOR BOLTS FOR ALL SILL PLATES ON EXTERIOR WALLS NOT EXCEEDING 4-0" O.C. AND A MINIMUM OF 2 ANCHOR BOLTS PER WALL AND NOT FARTHER THAN 12-INCHES FROM WALL ENDS.

4. GRADE BEAMS:
A. ALL GRADE BEAM DEPTHS MAY BE REDUCED WHEN BEARING ON SOLID UNFRAGMENTED ROCK. ROUGHEN THE ROCK SURFACE A MINIMUM OF 3" AND MAINTAIN A MINIMUM OF 8" ABOVE THE GRADE. FOR DOWNSLOPING EXTERIOR BEAMS MORE THAN 5% GRADE, REMOVE A 10" DIAMETER BOULDER EVERY 4' TO PROVIDE ADDITIONAL ROUGHNESS AND ENGAGEMENT TO THE HILL.
B. FOR GRADE BEAMS WITH DEPTHS EQUAL TO OR IN EXCESS OF 36-INCHES, INCREASE THE AMOUNT OF REINFORCING STEEL BY ADDING TWO- #4 BARS HORIZONTALLY EVERY 18-INCHES OF VERTICAL. IF THE EXTERIOR GRADE BEAMS EXCEED 8-FEET IN DEPTH, SEE DETAIL 16 PER THIS DRAWING.

5. REINFORCING STEEL:
A. REINFORCING BARS SHALL BE NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A615 GRADE 60.
B. LAPS AND SPLICES PER TABLE 1 THIS SHEET
C. ALL BARS TO BE SUPPORTED IN THE FORMS AND SLAB WITH CHAIRS OR WIRE BOLSTERS, AND SHALL BE TIED AT EVERY OTHER INTERSECTION.
D. ALL BARS SHALL HAVE A MINIMUM CLEAR COVER OF 3-INCHES FROM THE BOTTOM AND SIDES OF THE BEAMS. SLAB REINFORCEMENT SHALL BE IN MID PLANE.
E. CORNER REINFORCING BARS: TWO CORNER BARS AT EACH CORNER OF THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 14, AND FOUR CORNER BARS AT THE INTERSECTION OF ALL INTERIOR GRADE BEAMS WITH THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 13.
F. STIRRUP ANCHOR HOOKS SHALL NEVER BE CUT WITHOUT THE AUTHORIZATION OF THE ENGINEER. IF STIRRUPS ARE TOO LONG, THEY MAY BE BENT IN THE DIRECTION OF THE BEAM.

6. CONSTRUCTION:
A. FOR ALL SLAB DROPS GREATER THAN 36-INCHES, THE CONTRACTOR SHALL CONSTRUCT A FRENCH DRAIN SYSTEM OF CAPACITY SUFFICIENT TO INTERCEPT AND TRANSPORT WATER FROM BENEATH THE FOUNDATION TO A POINT AWAY FROM THE FOUNDATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE DIRECTION OF FLOW AND POINT OF DISCHARGE TO DAYLIGHT. DISCHARGE OUTLET TO BE A MINIMUM OF 5-FEET AWAY FROM FOUNDATION. SOLID WALL PIPE MAY BE USED OUTSIDE OF FOUNDATION. WRAP ALL PERFORATED PIPE WITH MIRAFI N-SERIES FILTER FABRIC.
B. ALL FOUNDATIONS THAT ARE TO HAVE A FILL DEPTH GREATER THAN 2-FEET BELOW BOTTOM OF INTERIOR GRADE BEAM SHALL MEET ONE OF THE FOLLOWING:
1. INTERIOR GRADE BEAMS MAY BE DEEPENED TO MAINTAIN 2-FEET MAXIMUM DEPTH OF FILL BELOW BOTTOM OF BEAM. INTERMEDIATE BARS PER NOTE 4-B SHALL BE ADDED IF REQUIRED.
2. IF BEARING ON SOLID ROCK - 14-INCHES DIA. PIERS, FORMED WITH SONO-TUBES, SHALL BE PLACED AT ALL INTERIOR BEAM INTERSECTIONS. PIERS ARE TO BE REINFORCED WITH A MINIMUM OF FOUR-#4 VERTICAL BARS WITH #3 TIES @ 12-INCHES O.C. VERTICALLY. REFER TO DETAIL 15.
3. IF EARTH SUPPORTED - SELECT FILL EQUAL TO TXDOT NO. 2 BASE SHALL BE COMPACTED TO A MINIMUM 95-PERCENT MODIFIED PROCTOR PER ASTM D-1557. FILL IS TO BE PLACED IN 8-INCH LIFTS AND TESTED BY A SOILS TESTING LAB.
4. ALTERNATIVELY, IF EARTH SUPPORTED - CRUSHED LIMESTONE BASE FILL WITH 100% PASSING 1 1/2-INCH SIEVE, AND 0% PASSING NO. 4 SIEVE, CAN BE PLACED WITHOUT COMPACTION. BEFORE INSTALLATION OF BASE FILL, FILTER FABRIC SUCH AS MIRAFI N-SERIES IS TO BE PLACED OVER EXISTING EARTH.
C. WHERE PIPES PASS THROUGH BEAMS, INCREASE BEAM SIZE AT PIPE PENETRATIONS TO MAINTAIN MINIMUM BEAM WIDTH AND HEIGHT. PLACEMENT OF OVERSIZED DIAMETER SLEEVES IS ALSO RECOMMENDED.
D. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE SLAB PERIMETER DURING CONSTRUCTION.
E. CONCRETE SHALL NOT BE PLACED ON SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR SEEPAGE, AND ALL BEARING SURFACES SHALL BE FREE OF LOOSE SOIL, PONDED WATER, AND DEBRIS PRIOR TO PLACING THE CONCRETE.

SOILS INFORMATION

DESIGN LEVEL	SOIL TYPE	P.I.	BY	DATE
A	ROCK	---		

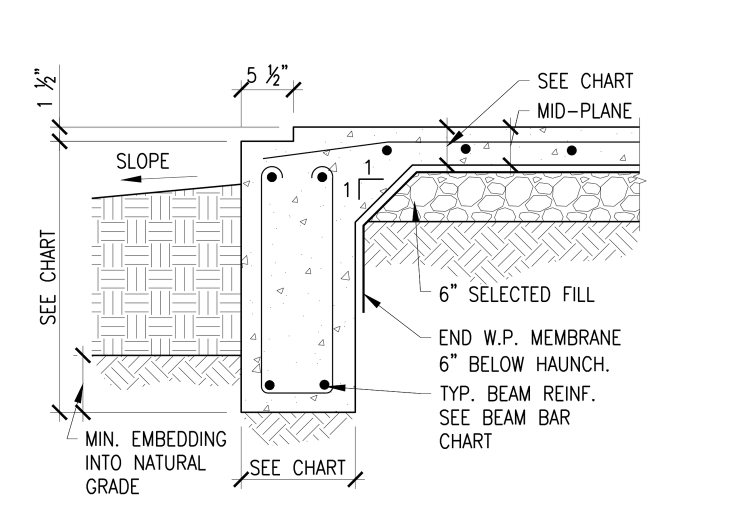
BEAM AND SLAB INFORMATION

BEAM WIDTH	EXT. BEAM DEPTH	EXT.BM. DEPTH IN GRADE	INT. BEAM DEPTH	BEAM BARS	STIRRUP EXT. BEAM	STIRRUP INT. BEAM	PAD BARS	SLAB THICKNESS
12"MIN.	33"MIN.	12"MIN.	30"MIN.	2-#5 TOP 2-#5 BOT.	#3 @18"O.C.	#3 @18"O.C.		4"

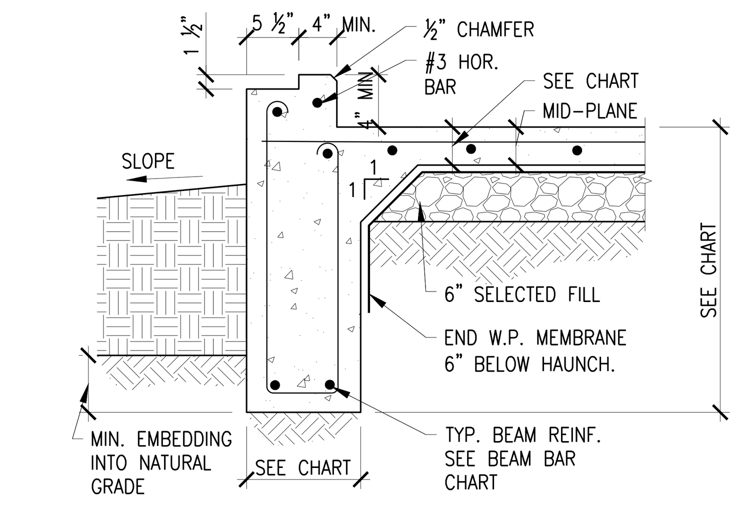
TABLE 1 REBAR SPLICE DISTANCES (INCHES) FOR 3000 PSI CONCRETE

BAR SIZE	BEAM TOP BARS	OTHER BARS
3	22	17
4	29	22
5	36	28
6	43	33
7	63	48
8	72	55
9	81	62

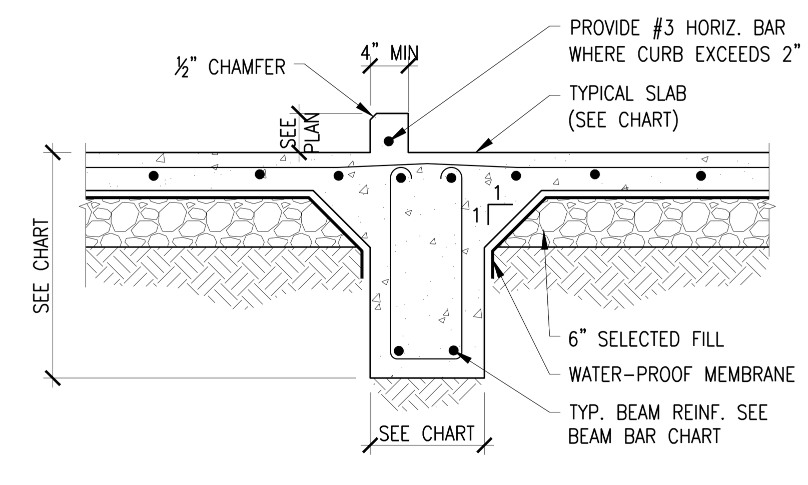
FOUNDATIONS ON EXPANSIVE CLAY SUBGRADES ARE SUBJECT DIFFERENTIAL SETTLEMENT AND MOVEMENT WITH CHANGES TO MOISTURE CONTENT OF THE SOILS UNDER THE FOUNDATION. THESE MOVEMENTS ARE EXPECTED TO STAY WITHIN INDUSTRY ACCEPTED RANGES. HOWEVER, SOIL IMPROVEMENT BY REMOVAL OF THE TOP 5' OF SOIL, TO 5' OUT FROM THE BUILDING PERIMETER AND REPLACING IT WITH LOW PLASTICITY SELECT FILL CAN MITIGATE SOME OF THE FOUNDATION MOVEMENT. THE DEPTH OF SOIL REPLACEMENT IS THE OWNER'S DECISION BASED ON AN EVALUATION OF THE RISK



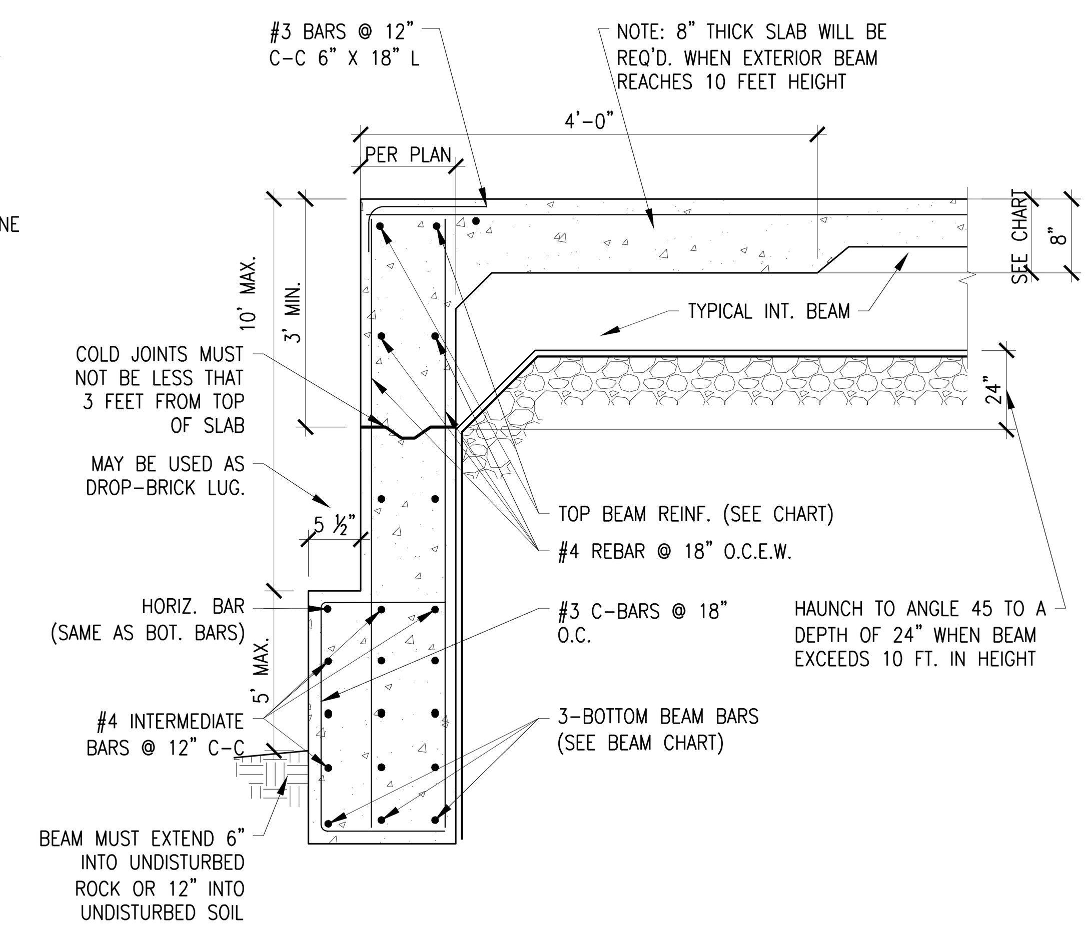
1 SECTION
EXTERIOR BEAM W/BRICK LUG
SCALE: 3/4"=1'-0"



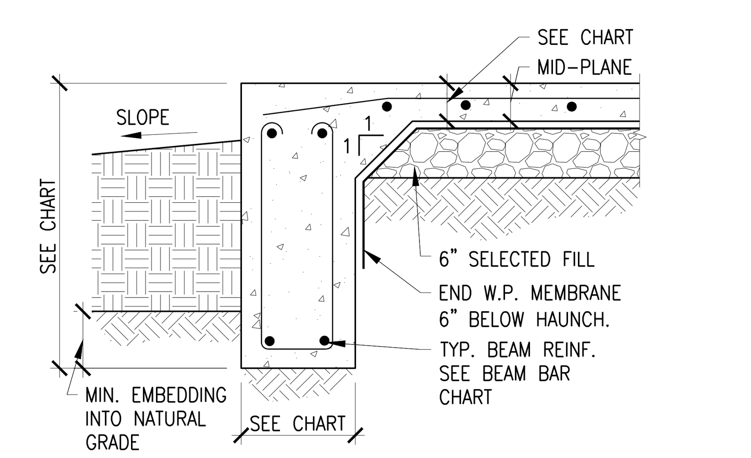
6 SECTION
EXTERIOR BEAM W/BRICK LUG
SCALE: 3/4"=1'-0"



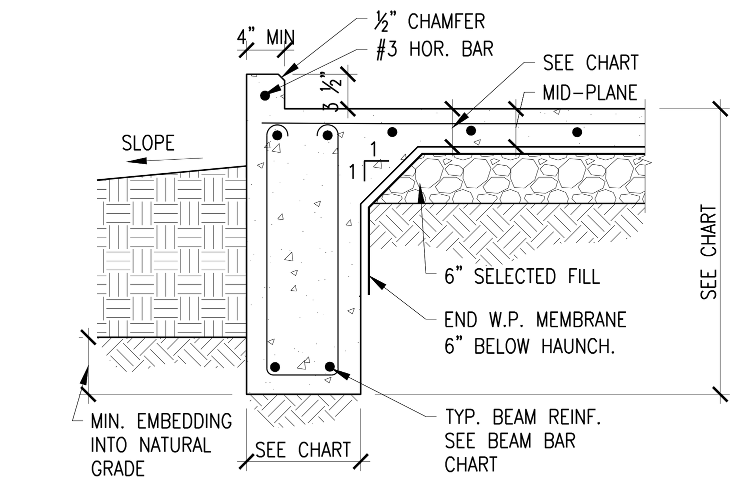
11 SECTION
CURB @ BEAM
SCALE: 3/4"=1'-0"



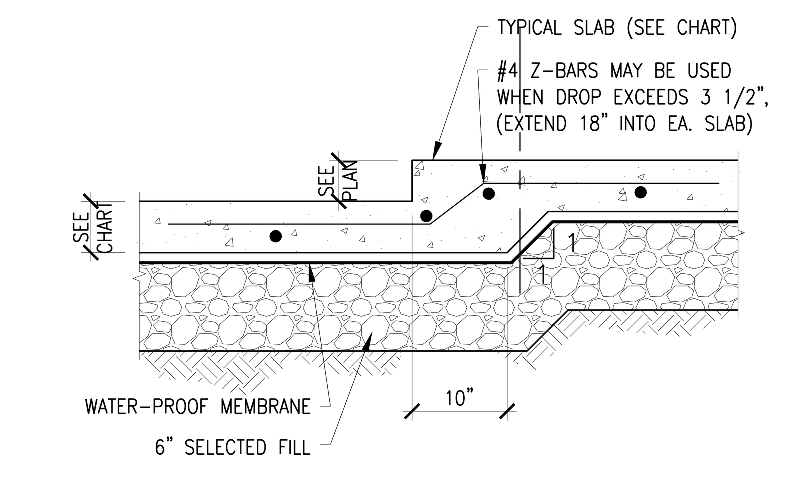
16 TYP. DEEP BEAM
DEEP BEAMS 10-15 FEET DEEP
SCALE: 3/4"=1'-0"



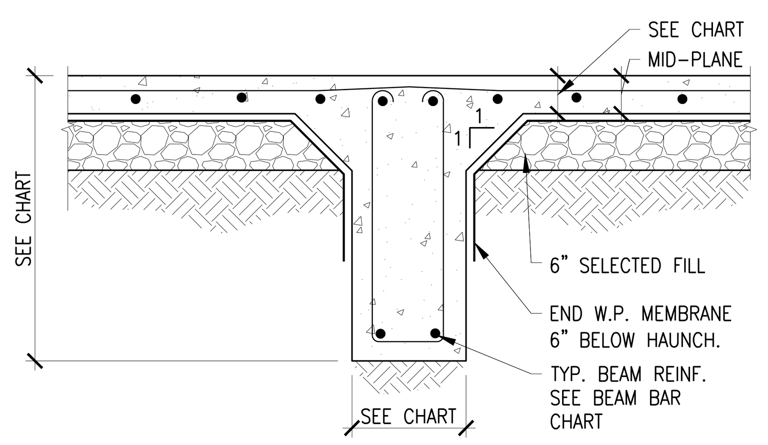
2 SECTION
EXTERIOR BEAM - NO BRICK LUG
SCALE: 3/4"=1'-0"



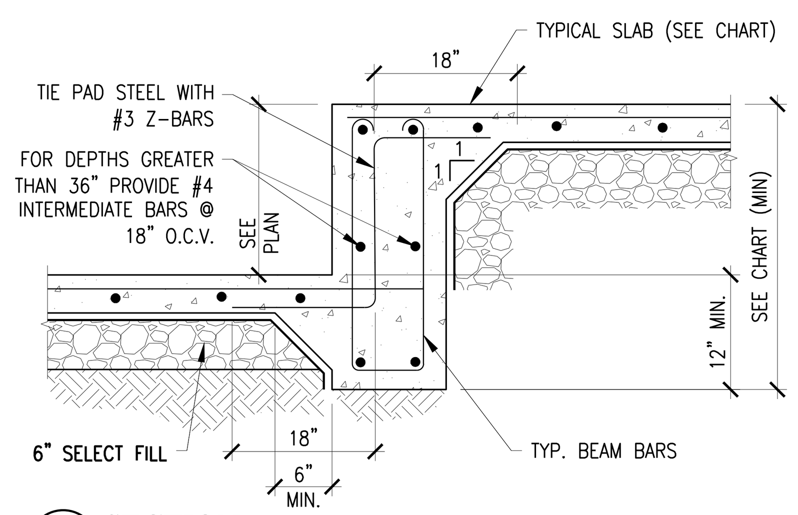
7 SECTION
EXTERIOR BEAM W/BRICK LUG
SCALE: 3/4"=1'-0"



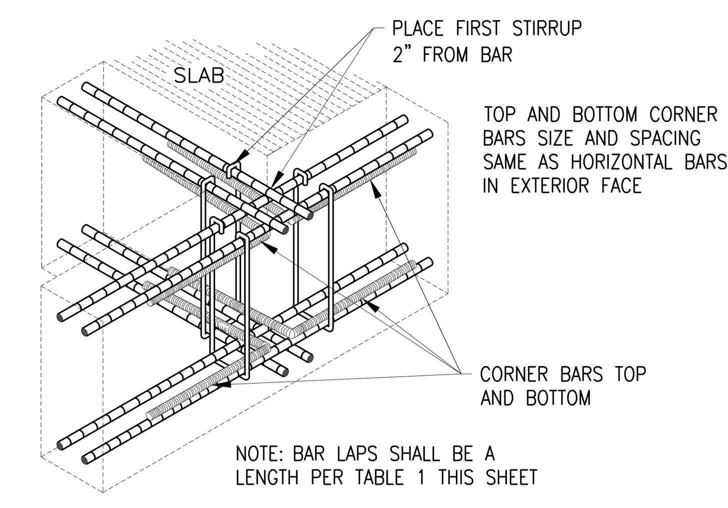
12 SECTION
DROPS IN BEAM AREA UP TO 5 ½" OR SMALLER
SCALE: 3/4"=1'-0"



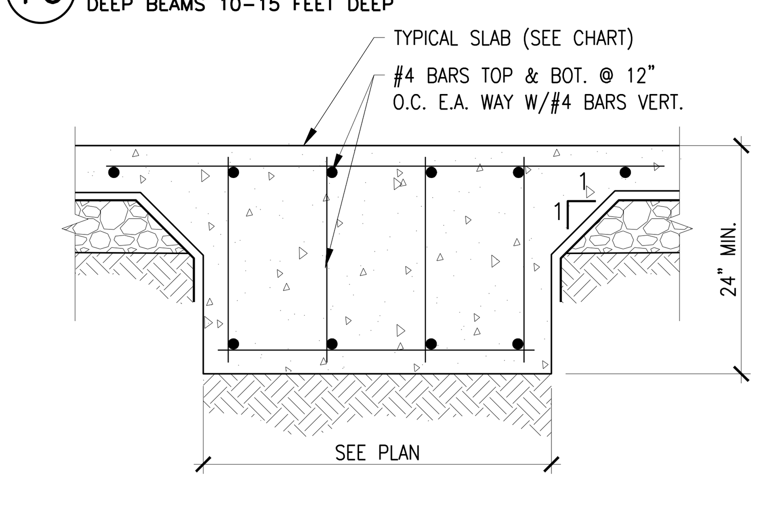
3 SECTION
TYPICAL INTERIOR BEAM DETAIL
SCALE: 3/4"=1'-0"



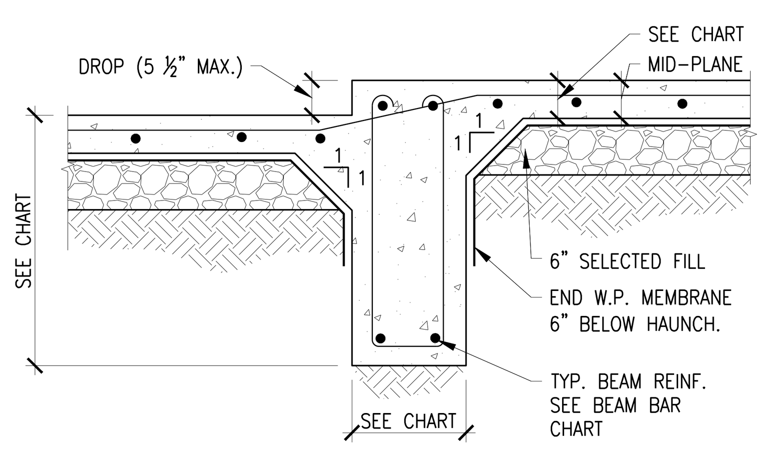
8 SECTION
FOR DROPS 6"-35 1/2"
SCALE: 3/4"=1'-0"



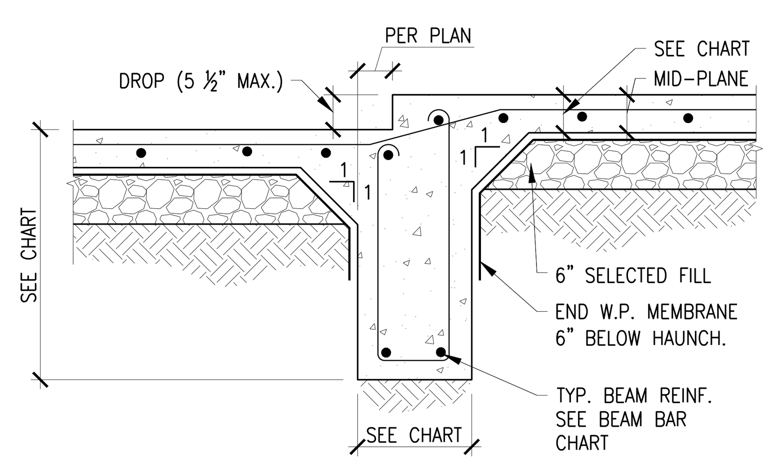
13 DETAIL
SCALE: 3/4"=1'-0"



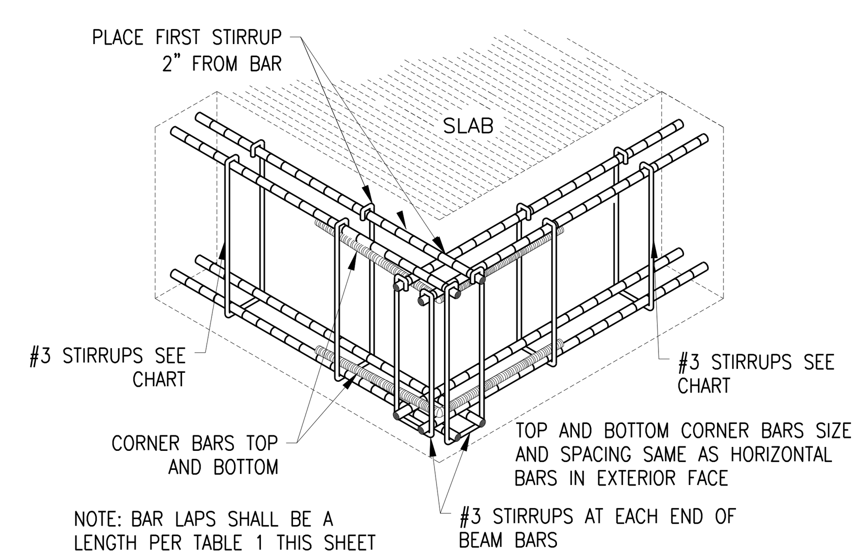
17 SECTION
INTERIOR FIREPLACE BLOCK
SCALE: 3/4"=1'-0"



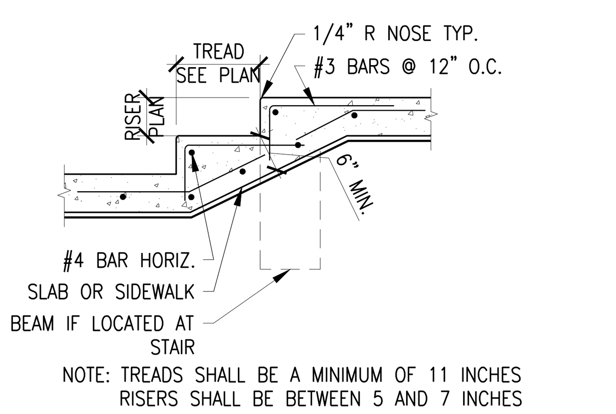
4 SECTION
DROPS 5 ½" OR SMALLER
SCALE: 3/4"=1'-0"



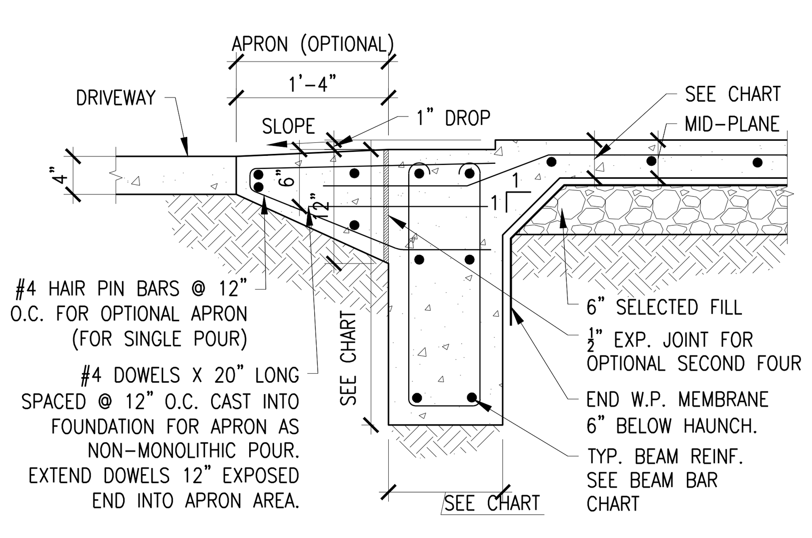
9 SECTION
DROPS IN BEAM AREA UP TO 5 ½" OR SMALLER
SCALE: 3/4"=1'-0"



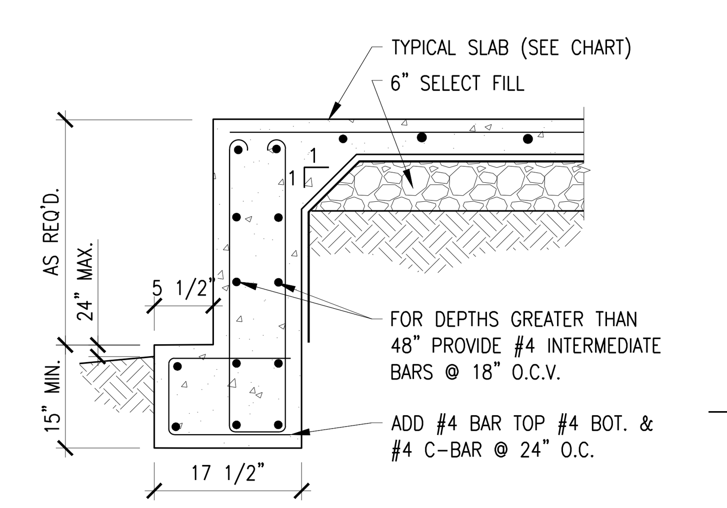
14 DETAIL
SCALE: 3/4"=1'-0"



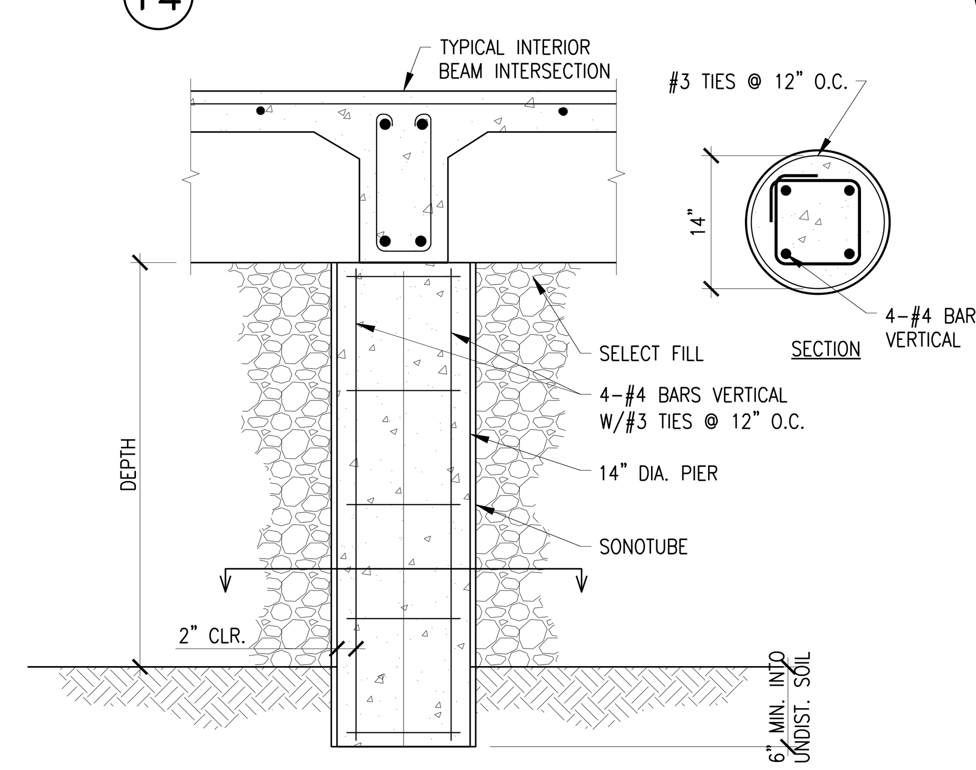
18 TYP. CONC. STAIRS
SCALE: 3/4"=1'-0"



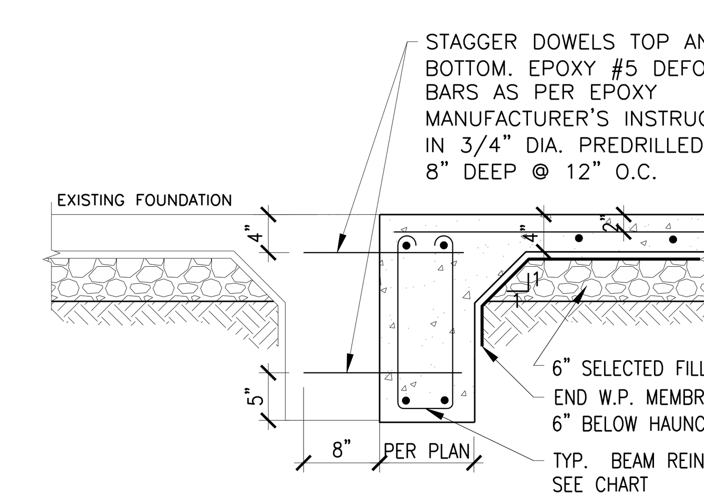
5 SECTION
GARAGE RAMP DETAIL
SCALE: 3/4"=1'-0"



10 TYP. DROP LUG
EXTERIOR DROP BRICK/ROCK LUGS
SCALE: 3/4"=1'-0"



15 TYP. BEAM INTERSECT PIER
RECOMMENDED WHEN DEPTH EXCEEDS 2'-0"
SCALE: 3/4"=1'-0"



19 SECTION
EXISTING SLAB TO NEW SLAB
SCALE: 3/4"=1'-0"

REVISIONS

NO.	DESCRIPTION	DATE	APPR.

FILE:

SEAL: 10/31/23

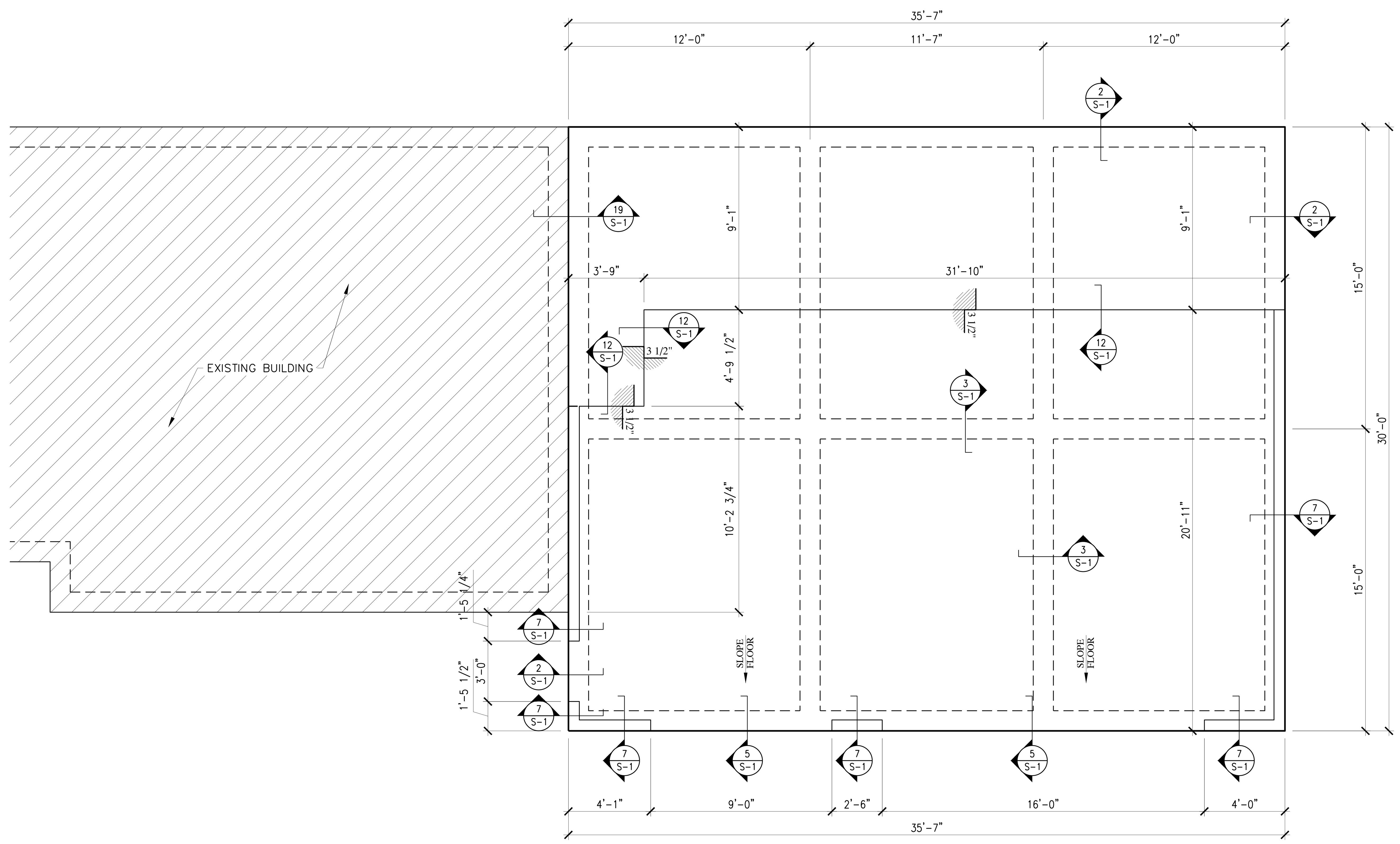

Villarreal Design Group, LLC
Jose@VillarrealDesign.com
Texas Firm 12109
(210) 725-6100

SHEET TITLE:
FOUNDATION DETAILS

RESIDENCE - ADDITION
101 LAUREL HEIGHTS PI
SAN ANTONIO, TX 78212

JOB NO:	23-370
DATE:	9/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

SHEET:
S-1
OF 6



FOUNDATION PLAN
Scale: 1/4"= 1'-0"

NO.	DESCRIPTION	DATE	APPR.

REVISIONS

FILE:

10/31/23

SEAL:
STATE OF TEXAS
JOSE I. VILLARREAL
91208
LICENSED PROFESSIONAL ENGINEER

Villarreal Design Group, LLC
Jose@VillarrealDesign.com
Texas Firm 12109
(210) 725-6100

SHEET TITLE:
FOUNDATION PLAN

RESIDENCE - ADDITION
101 LAUREL HEIGHTS Pl
SAN ANTONIO, TX 78212

JOB NO:	23-370
DATE:	9/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

SHEET:
S-2
OF 6

DESIGN CRITERIA NOTES

1. THE INTENDED DESIGN STANDARDS (LATEST EDITION) AND/OR CRITERIA ARE AS FOLLOWS:

GENERAL	INTERNATIONAL RESIDENTIAL/BUILDING CODE 2021 EDITION
WOOD	AITC
WOOD TRUSSES	TPI

2. DESIGN LOADS

DEAD LOADS
ROOF 10 PSF – COMPOSITION SHINGLE OR METAL
LIVE LOADS
FLOORS 40 PSF
ROOF 20 PSF
CEILING JOIST 10 PSF

3. SNOW LOAD : 5PSF
4. WIND LOAD : 115MPH APPLIED PER I(B/R)C I = 1.0 EXPOSURE "B"
5. SEISMIC : SEISMIC CATEGORY "A"

ROUGH CARPENTRY

1. ALL WOOD FRAMING MATERIAL SHALL BE SURFACE DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALL FRAMING LUMBER SHALL BE NO. 2 SOUTHERN YELLOW PINE (SYP) OR BETTER.

2. ALL LOAD BEARING PARTITIONS SHALL RECEIVE A DOUBLE 2X TOP PLATE AND LAPPED AT CORNERS.

3. ALL EXTERIOR AND LOAD BEARING WALLS SHALL BE 2X4 @ 16" O.C. UNLESS ARCHITECTURAL DRAWINGS ARE SHOWING 2X6 STUD WALLS OR IT IS 3 STORY BUILDING. FOR 3 STORY BUILDING EXTERIOR AND LOAD BEARING WALLS ON THE FIRST FLOOR SHALL BE 2X6 @ 16" O.C. OR DOUBLE 2X4 STUDS @ 16" O.C.

4. ALL PARTITIONS SHALL BE BRACED ON THE TOP AT INTERVALS NOT EXCEEDING 6 FEET ON CENTER.

5. ALL MULTIPLE GIRDERS, BEAMS AND JOISTS SHALL BE GANG NAILED.

6. ALL FRAMING EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

7. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS, AND OTHER ACCESSORIES SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE" OR APPROVED EQUAL.

8. PREFABRICATED LVL'S, GLULAMS, AND PSL HEADERS AND BEAMS SHALL BE MANUFACTURED BY "TRUS JOIST MacMILLAN CORP." OR APPROVED EQUAL. MINIMUM BENDING STRESSES SHALL BE AS FOLLOWS:

LVL'S = 2,600 PSI
PSL'S = 2,900 PSI
GLULAMS = 2,400 PSI

9. ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS AND OTHER HARDWARE EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED.

10. INSTALL ALL BLOCKING NECESSARY FOR ATTACHING ALL FINISHES, GYPSUM WALLBOARD, CABINETRY , ETC.

11 ATTACH WOOD SILL PLATES FOR EXTERIOR WALLS AND SHEAR WALLS TO FOUNDATIONS WITH 1/2" ANCHOR BOLTS AT 5'-0" O.C. MAXIMUM SPACING WITH AT LEAST 2 BOLTS PER PLATE.

12. INSTALL COLUMNS AT ALL LINTELS, BEAMS, HEADERS EQUAL TO THE WIDTH OF THE BEAM. ALL MEMBERS WITH SPANS LESS THAN 5 FOOT SHALL HAVE SINGLE JACK STUDS.

13. ATTACH WALL AND ROOF SHEATHING TO FRAMING WITH 8d NAILS AT 12" O.C. INTERMEDIATE SUPPORTS AND 6" O.C. EDGE SUPPORTS.

14. THE CONTRACTOR SHALL INSURE THAT ALL LOADS AND REACTIONS FROM BEAMS, BEARINGS WALLS, COLUMNS, ETC. ARE CONTINUOUSLY SUPPORTED TO THE FOUNDATION.

15. ALL FLOOR SHEATHING SHALL BE A MINIMUM 3/4" TONGUE AND GROOVE SHEATHING GLUED AND NAILED AT 6" O.C. WITH 8d NAILS.

16. FLOOR DECK SHALL BE 3/4" T&G APA RATED SHEATHING WITH MINIMUM SPAN INDEX OD 48/24. NAIL PLYWOOD TO FRAMING MEMBERS WITH 10d NAILS AS FOLLOWS:

FLOOR ZONE: FIRST 8' FROM SHEARWALLS – OTHERS

PANEL EDGES	4" O.C.	6" O.C.
PANEL FIELD	6" O.C.	6" O.C.

17. FOR METAL AND COMPOSITE SHINGLE ROOFING PLYWOOD ROOF DECKING SHALL BE 15/32"OSB AND FOR CLAY AND CONCRETE ROOFING PLYWOOD ROOF DECKING SHALL BE 5/8" OSB APA RATED CD INTERIOR WITH EXTERIOR GLUE. NAIL PLYWOOD TO FRAMING WITH 6d NAILS AS FOLLOWS:

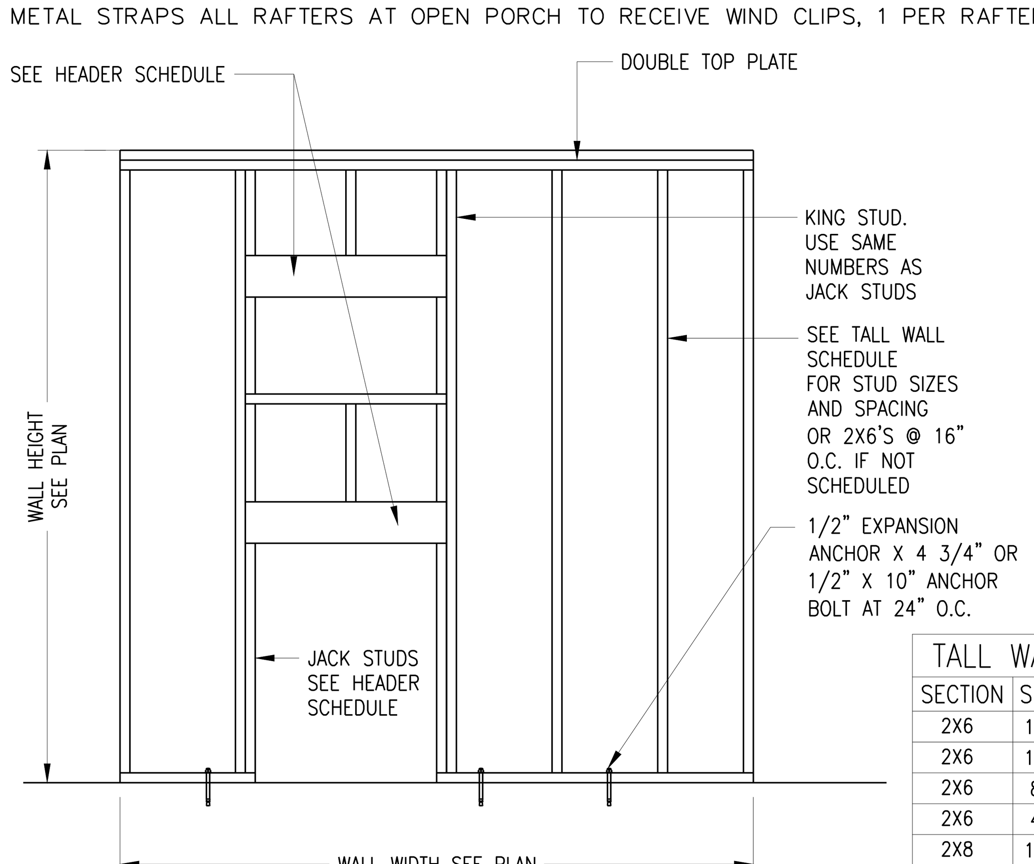
ROOF ZONE: FIRST 5' FROM END – FIRST 4' FROM EDGE & RIDGE – OTHERS & SHEAR WALLS

PANEL EDGES	4" O.C.	6" O.C.	6" O.C.
PANEL FIELD	6" O.C.	6" O.C.	6" O.C.

18. TAPERED END CUTS SHALL MEET MANUFACTURERS REQUIREMENTS.

19. NOTCHING OF PREFABRICATED LUMBER SHALL NOT BE PERMITTED. WEB HOLES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

20. PORCH COLUMNS TO BE ANCHORED IN GALVANIZED POST BASES BEAMS TO BE CONNECTED TO POSTS WITH METAL STRAPS ALL RAFTERS AT OPEN PORCH TO RECEIVE WIND CLIPS, 1 PER RAFTER.

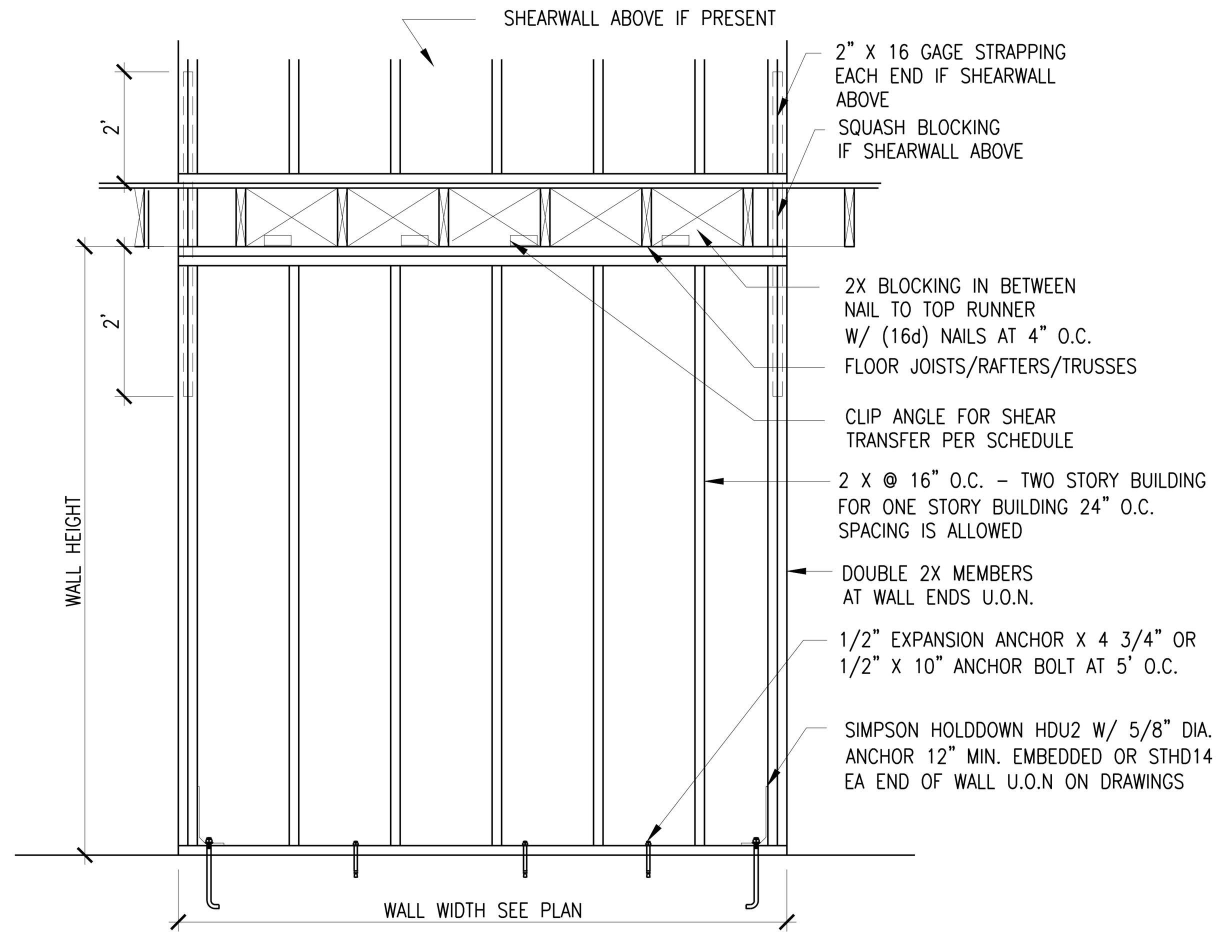


TALL WALL SCHEDULE		
SECTION	SPACING	MAX HEIGHT
2X6	16" O.C.	10'-0"
2X6	12" O.C.	12'-0"
2X6	8" O.C.	14'-0"
2X6	4" O.C.	21'-0" *
2X8	16" O.C.	15'-0"
2X8	12" O.C.	16'-5"
2X8	8" O.C.	15'-5"

TYPICAL TALLWALL DETAIL

NO SCALE

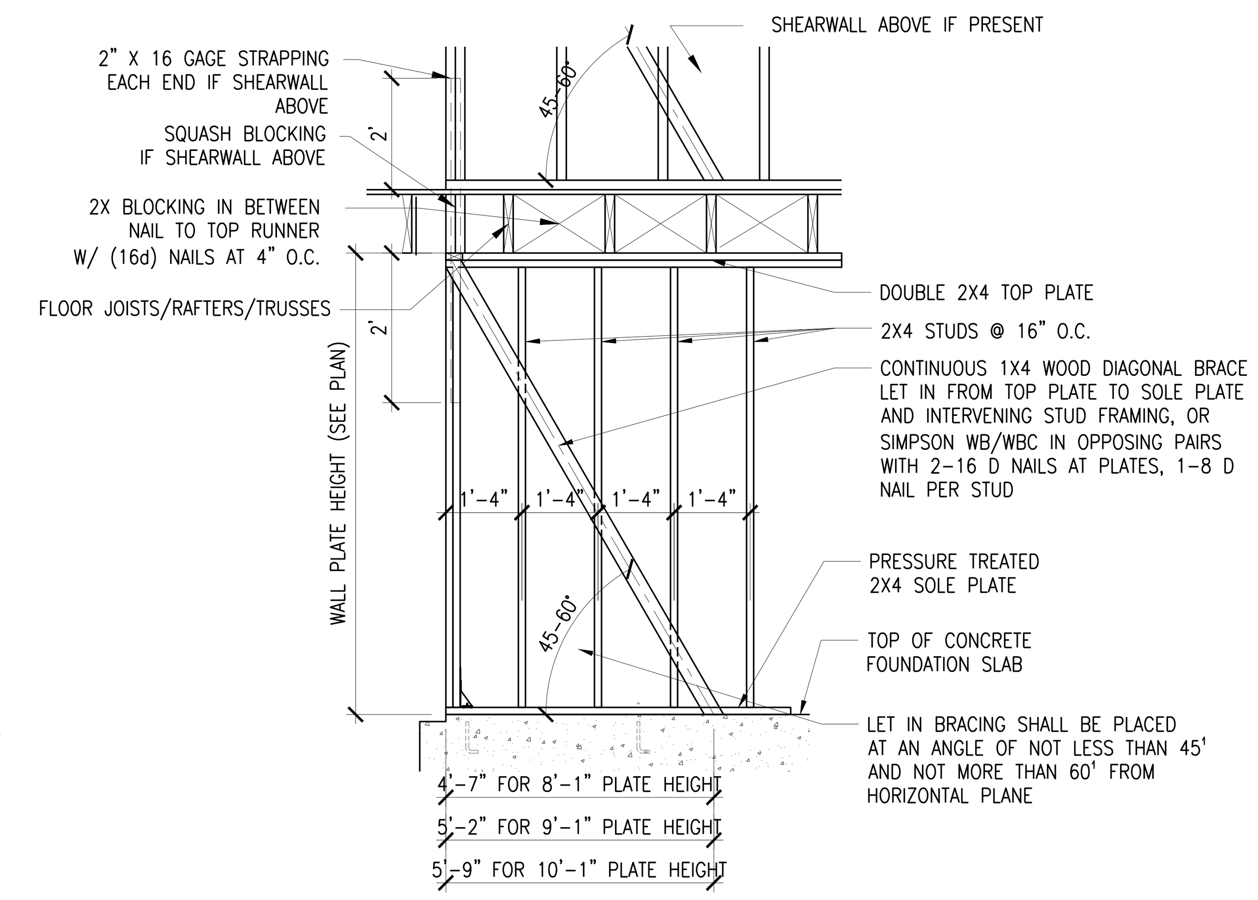
* BASED ON ALLOWABLE DEFLECTION OF H/240 PER IRC TABLE R301.7, USE NON BRITTLE FINISHES



NOTE: WALL HEIGHT/WALL WIDTH < 3.5

TYPICAL BRACED WALL DETAIL

NO SCALE



TYPICAL LET IN BRACING DETAIL

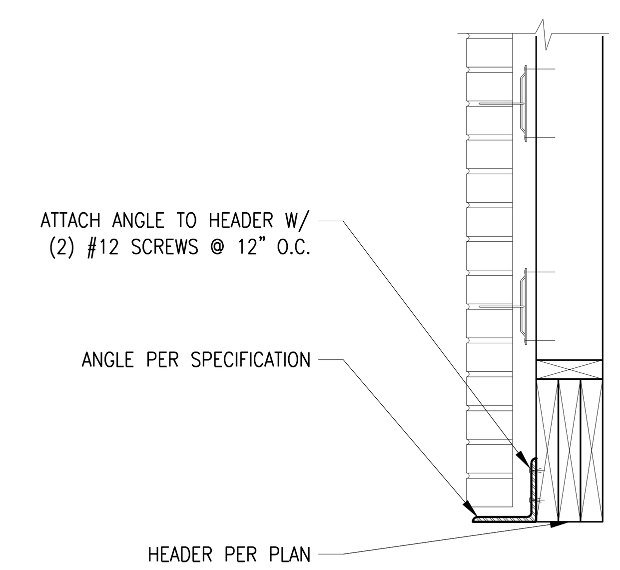
NO SCALE

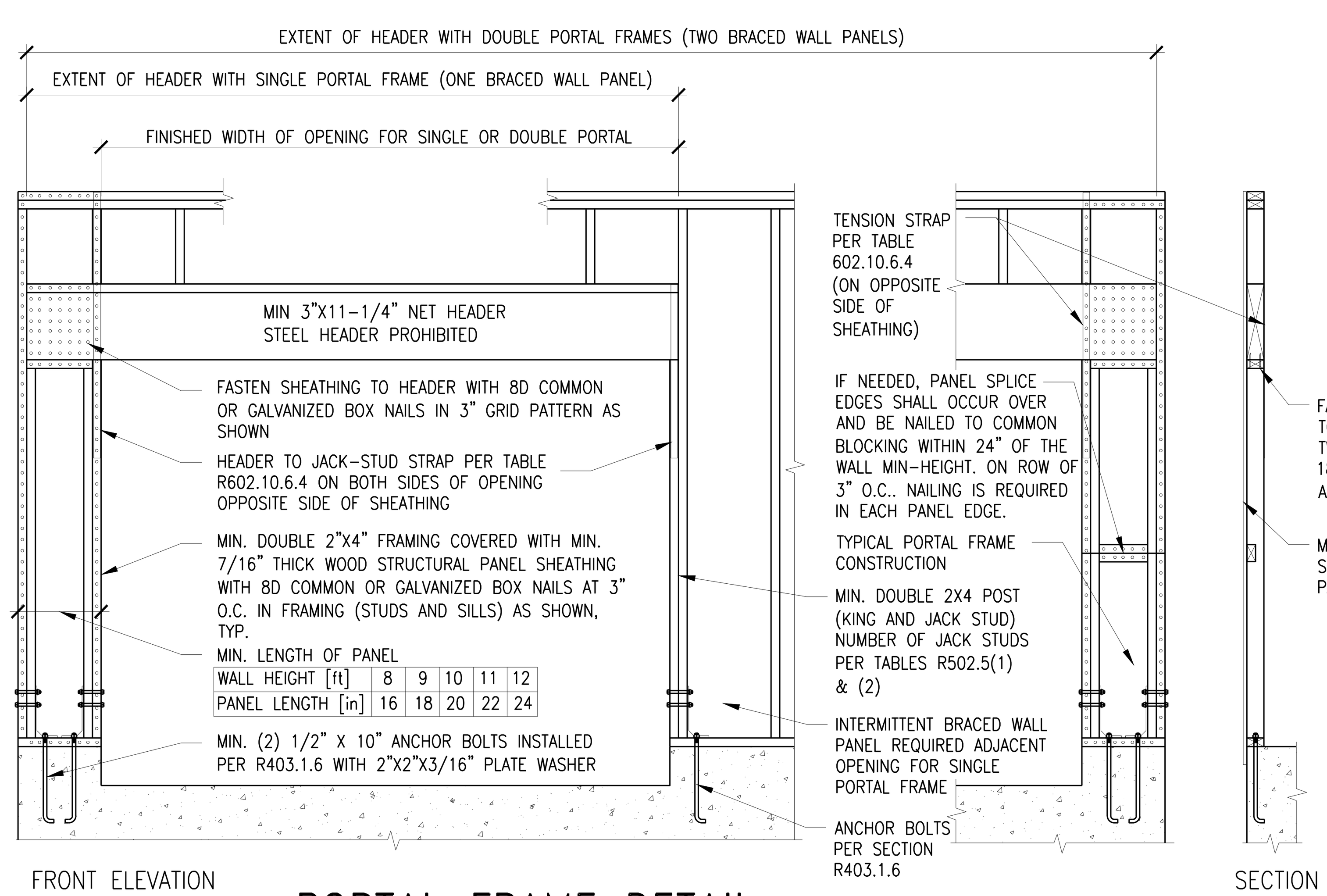
SHEAR WALL SCHEDULE								
ALLOWABLE LOAD	MARK/TYPE	DESCRIPTION*	NO. OF SIDES	SILL BOLTING	SHEAR TRANSFER	SILL NAILING	ALT. SHEAR TRANSFER	IRC METHOD
150 PLF	A	1/2" GYP. BOARD @ INT. FACE BLOCKED W/ 6D COOLER NAILS @ 4" O.C. AND 1/2" GYP. SHEATHING @ EXT. FACE BLOCKED W/ 5D COOLER NAILS @ 4" O.C. (ALL SUPPORTS EA. FACE NAILED @ 4" O.C.)	TWO	1/2"ø@ 60" O.C.	A35F @ 18"	16D @ 6" O.C.	A35 @ 20"	GB
175 PLF	B	1/2" GYP. BOARD BLOCKED W/ 6D COOLER @ 4" O.C. (ALL SUPPORTS NAILED @ 4" O.C.) OR 1X4 LET-IN BRACING OR SIMPSON RCWB ROLLED COMPRESSION WALL BRACING	TWO	1/2"ø@ 60" O.C.	A35F @ 15"	16D @ 3" O.C.	A35 @ 17"	GB
280 PLF	C	1/2" PLYWOOD STRUCT. 1 BLOCKED W/ 8DNAILS @ 6" O.C. AT EDGES OR RED T-PLY STAPLED @ 3" O.C., 6"IN THE FIELD OR METAL LET IN BRACING PER DETAIL	ONE	1/2"ø@ 60" O.C.	A35F @ 21"	16D @ 7 " O.C.	A35 @ 19"	WSP
560 PLF	D	1/2" PLYWOOD STRUCT. 1 BLOCKED W/ 8D NAILS @ 6" O.C. EDGES	TWO	1/2"ø@ 18" O.C. OR 5/8"ø@ 27" O.C.	A35F @ 10"	16D @ 3 1/2" O.C.	A35 @ 9"	WSP

1. NAIL ALL PANELS 12" O.C. AT INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE. (ALL PANEL EDGES SHALL BE BLOCKED.)

2. SHEATHING AT ONE SIDED WALLS MAY BE PLACED ON EITHER FACE OF STUDS. PLACE ON EXTERIOR FACE AT EXTERIOR WALLS. PLACE ON GUEST ROOM SIDE AT INTERIOR WALLS.

STEEL LINTEL SCHEDULE		
OPENING SIZES	LINTEL SIZE	MIN. END BEARING
UP TO 5'	L6X4X5/16 LLV	6"
5' – 7'	L6X4X3/8 LLV	6"
7' – 8'	L6X4X7/16 LLV	6"
8' – 10'	L6X4X7/16 LLV	6"
10' – 12'	L6X4X7/16 LLV	6"
12' – 14'	L6X4X7/16 LLV	6"
14' – 16'	L6X4X7/16 LLV	6"
16' – 18'	L6X4X7/16 LLV	6"





PORTAL FRAME DETAIL

NO SCALE

HANGER SCHEDULE		
MEMBER	HANGER	REACTION (LBS)
(1) 2x'S	HU SERIES	500 MIN.
(2) 2x10	HU210-2	1,650
(2) 2x12	HU212-2	2,145
(3) 2x10	HU210-3	1,875
(3) 2x12	HU212-3	2,145
3.5X9.25	HUS410	1,860
3.5x11.875	HUS412	2,510
3.5x14	HU416	2,680
3.5x16	HHUS410	5,190
3.5x18	HGUS414	11,180
5.25X9.25	HU5.31/9	1,875
5.25x11.875	HHUS5.5/10	5,190
5.25x14	HHUS5.5/10	5,190
5.25x16	HHUS5.5/10	5,190
5.25x18	HGUS5.5/14	11,180
TJI'S	IUT SERIES	730 MIN
TRUSSES	H SERIES	

* THESE HANGERS ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN

* ALL HANGERS ARE SIMPSON STRONG TIE.

HEADER SCHEDULE		
	MAXIMUM SPAN	
SIZE	ONE STORY B.R.	TWO STORY B.R.
2-2x6	3'-6"	2'-5"
2-2x8	4'-5"	3'-2'
2-2x10	5'-5"	3'-10"
2-2x12	6'-3"	4'-5"

* THESE HEADER SIZES ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN

* ALL MATERIAL TO BE NO.2 S.P.

* NUMBER OF STORIES BELOW ROOF LEVEL (B.R.)

* USE (2) JACK STUDS FOR 2X12 (1) JACK STUD FOR OTHERS. KING STUDS NO. EQUALS JACK STUD

BEAM SCHEDULE		
MARK	SIZE	JACK STUDS
L1	(2) 1 3/4" X 11 1/4" LVL	(2) 2 X 4/6
L2	(2) 1 3/4" X 14" LVL	(2) 2 X 4/6
L3	(2) 1 3/4" X 16" LVL	(2) 2 X 4/6
L4	(2) 1 3/4" X 18" LVL	(3) 2 X 4/6
L5	(3) 1 3/4" X 11 1/4" LVL	(2) 2 X 6
L6	(3) 1 3/4" X 14" LVL	(2) 2 X 6
L7	(3) 1 3/4" X 16" LVL	(2) 2 X 6
L8	(3) 1 3/4" X 18" LVL	(3) 2 X 6
L9	(3) 1 3/4" X 20" LVL	(4) 2 X 6

NAILING SCHEDULE	
CONNECTIONS	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8D
2. BRIDGING TO JOIST, TOENAIL EA END	2-8D
3. 1"X6" SUBFLOOR OR LESS TO EA JOIST, FACE NAIL	2-8D
4. WIDER THAN 1"X6" SUBFLOOR TO EA JOIST, FACE NAIL	3-8D
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16D
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16D @ 16" OC
7. TOP PLATE TO STUD, END NAIL	2-16D
8. STUD TO SOLE PLATE	4-8, TOENAIL OR 2-16D, END NAIL
9. DOUBLE STUDS, FACE NAIL	16D @ 24" OC
10. DOUBLE TOP PLATES, FACE NAIL	16D @ 16" OC
11. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16D
12. CONTINUOUS HEADER, TWO PIECES	16D @ 16" OC ALONG EA EDGE
13. CEILING JOIST TO PLATE, TOENAIL	3-8D
14. CONTINUOUS HEADER TO STUD, TOENAIL	4-8D
15. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16D
16. CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3-16D
17. RAFTER TO PLATE, TOENAIL	3-8D
18. 1" BRACE TO EA STUD AND PLATE, FACE NAIL	2-8D
19. 1"X8" SHEATHING OR LESS TO EA BEARING, FACE NAIL	2-8D
20. WIDER THAN 1"X8" SHEATHING TO EA BEARING, FACE NAIL	3-8D
21. BUILT-UP CORNER STUDS	16D @ 24" OC
22. BUILT-UP GIRDER AND BEAMS	20D @ 32" OC AT TOP AND BOTTOM AND STAGGERED 2-20D @ EA ENDS AND AT EA SPLICE
23. TRUSS TO PLATE, TOENAIL	3-16D

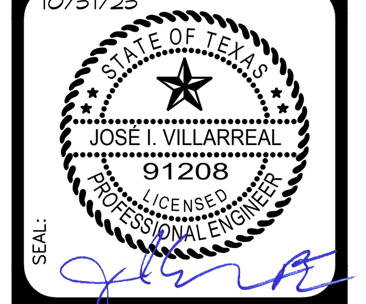
NO.	DESCRIPTION	DATE	APPR.

REVISIONS

FILE:

SEAL:

10/31/23



Villarreal Design Group, LLC
Jose@VillarrealDesign.com
Texas Firm 12109
(210) 725-6100

SHEET TITLE:

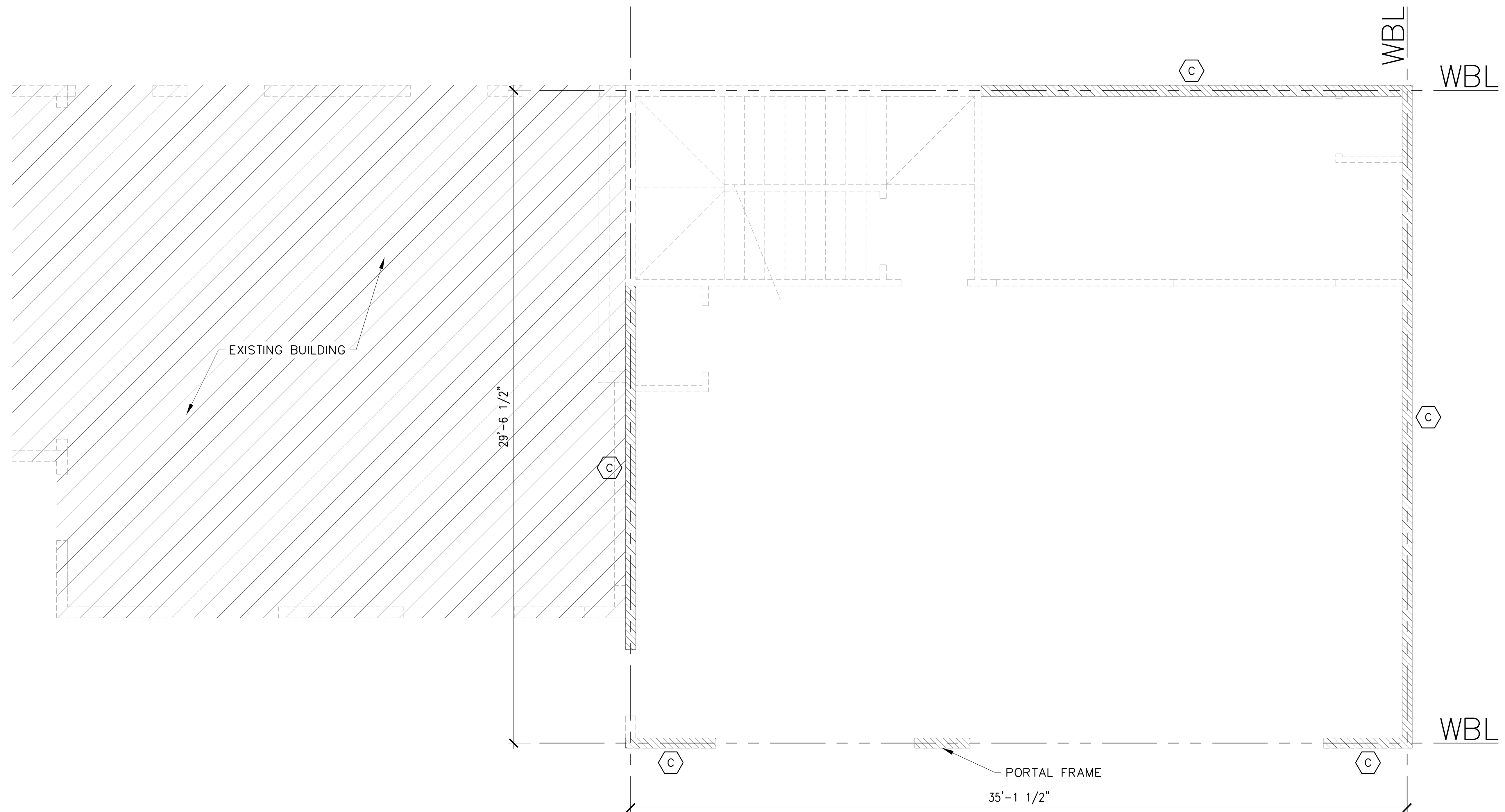
DETAILS

RESIDENCE - ADDITION
101 LAUREL HEIGHTS PI
SAN ANTONIO, TX 78212

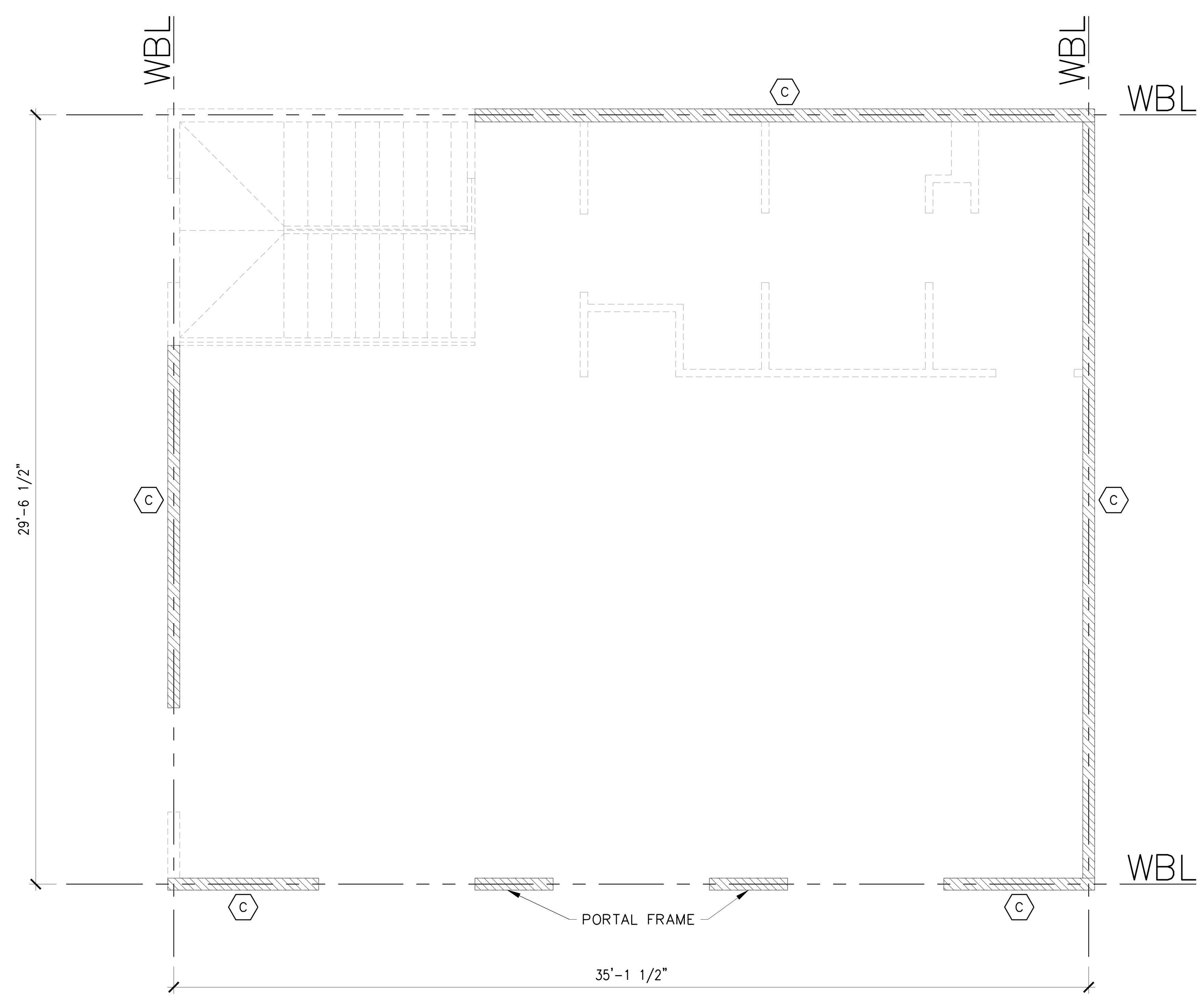
JOB NO:	23-370
DATE:	9/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

SHEET:

S-3
OF 6



FIRST FLOOR WIND BRACING PLAN
Scale: 1/4"= 1'-0"



SECOND FLOOR WIND BRACING PLAN
Scale: 1/4"= 1'-0"

REVISIONS

NO.	DESCRIPTION	DATE	APPR.

FILE:

10/31/23

SEAL:

Villarreal Design Group, LLC
Jose@VillarrealDesign.com
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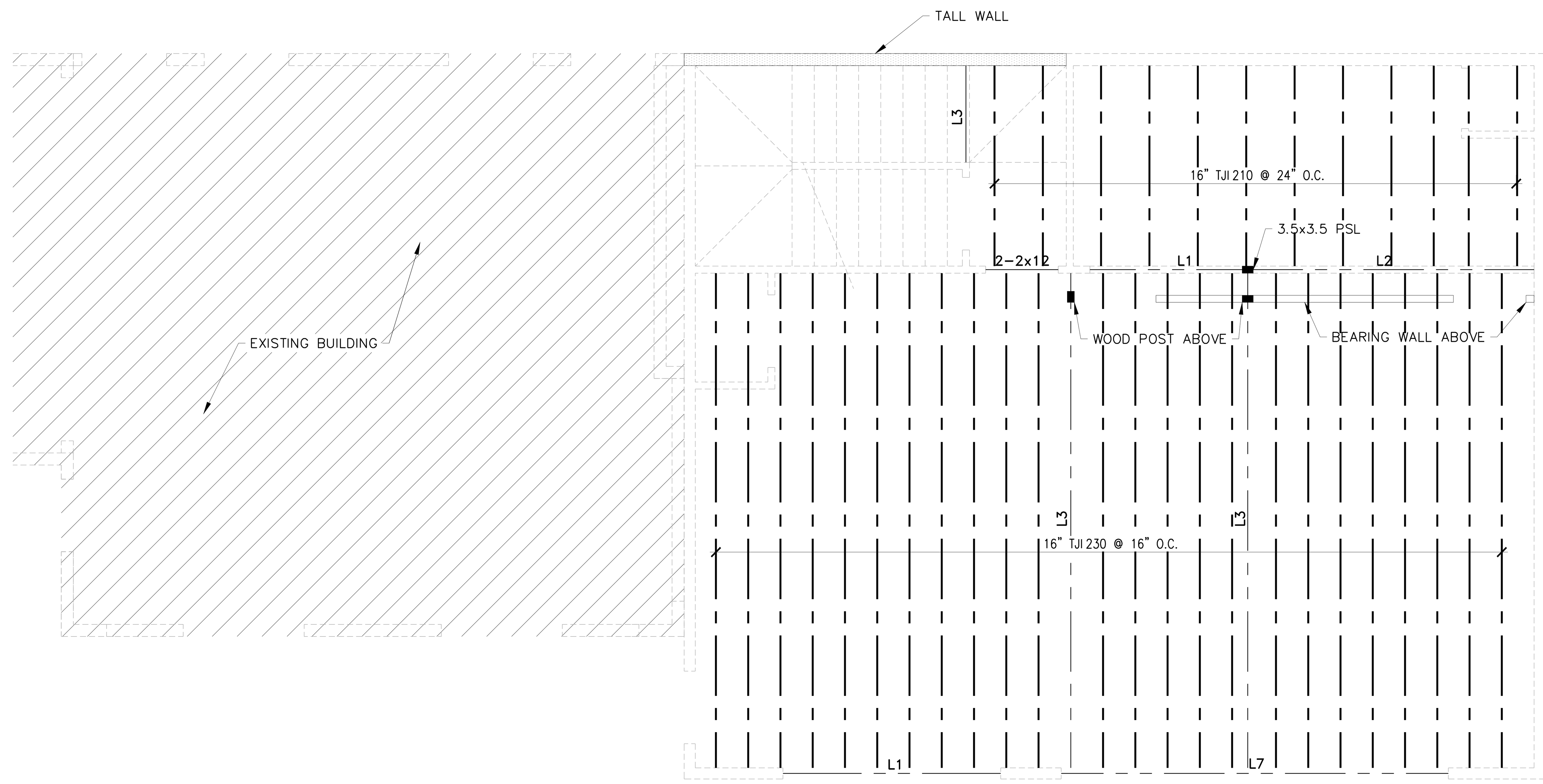
(210) 725-6100

SHEET TITLE:
WIND BRACING PLANS

RESIDENCE - ADDITION
101 LAUREL HEIGHTS Pl
SAN ANTONIO, TX 78212

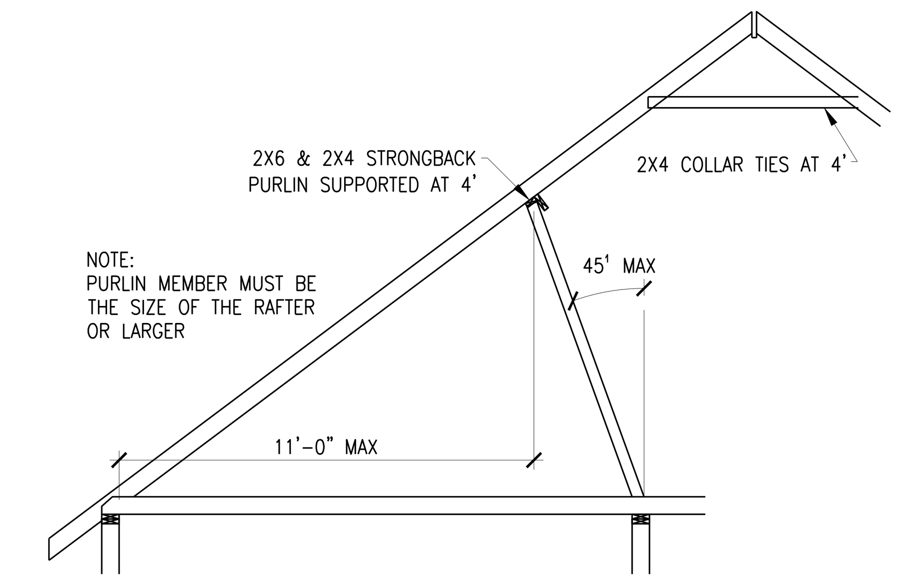
JOB NO:	23-370
DATE:	9/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

SHEET:
S-4
OF 6



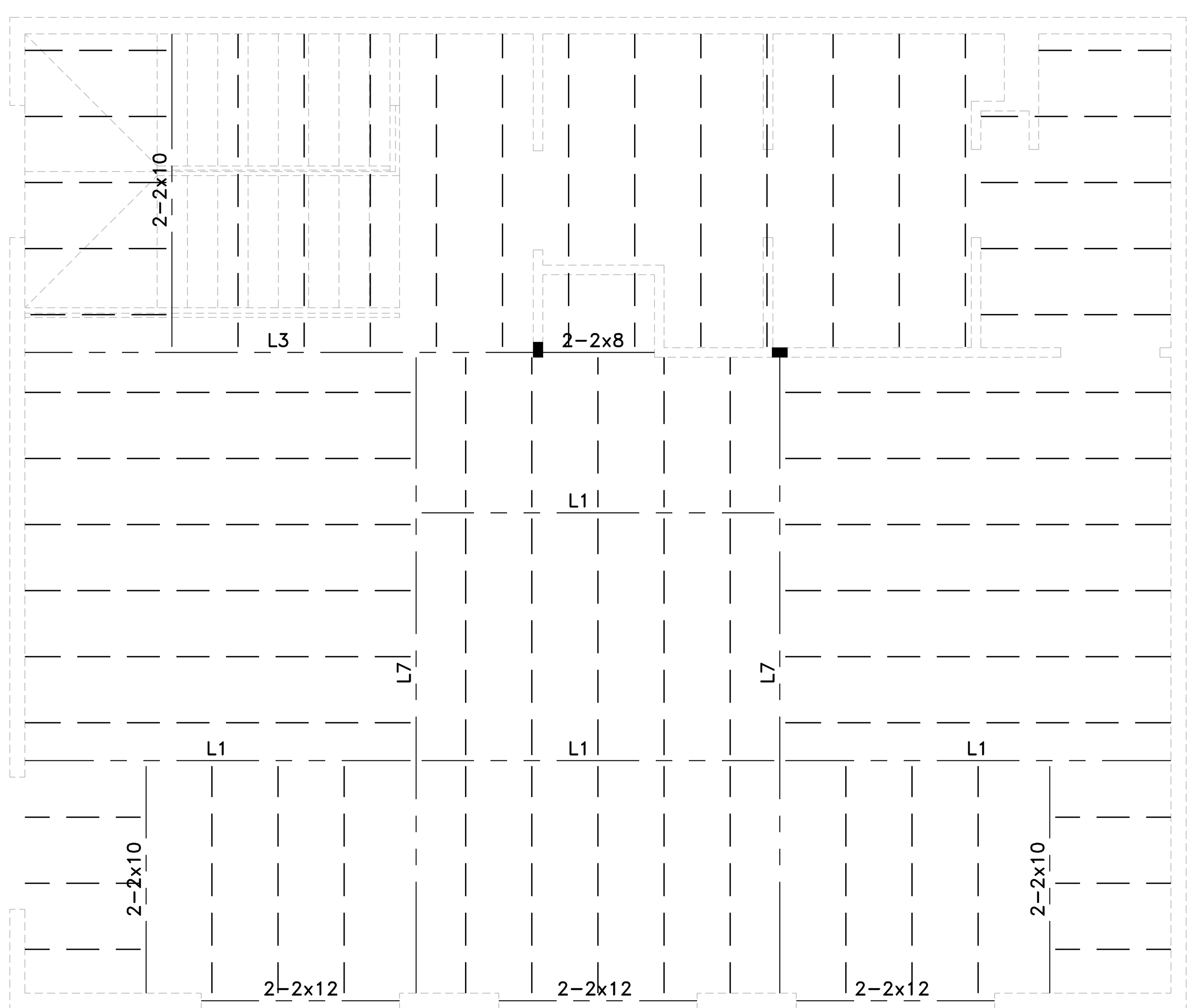
SECOND FLOOR FRAMING PLAN

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



PURLIN SUPPORT FOR
2X6 RAFTERS @ 24"

SIMILAR CONFIGURATION FOR LARGER RAFTERS WITH THE SUPPORT DISTANCE EQUAL TO ALLOWABLE SPAN

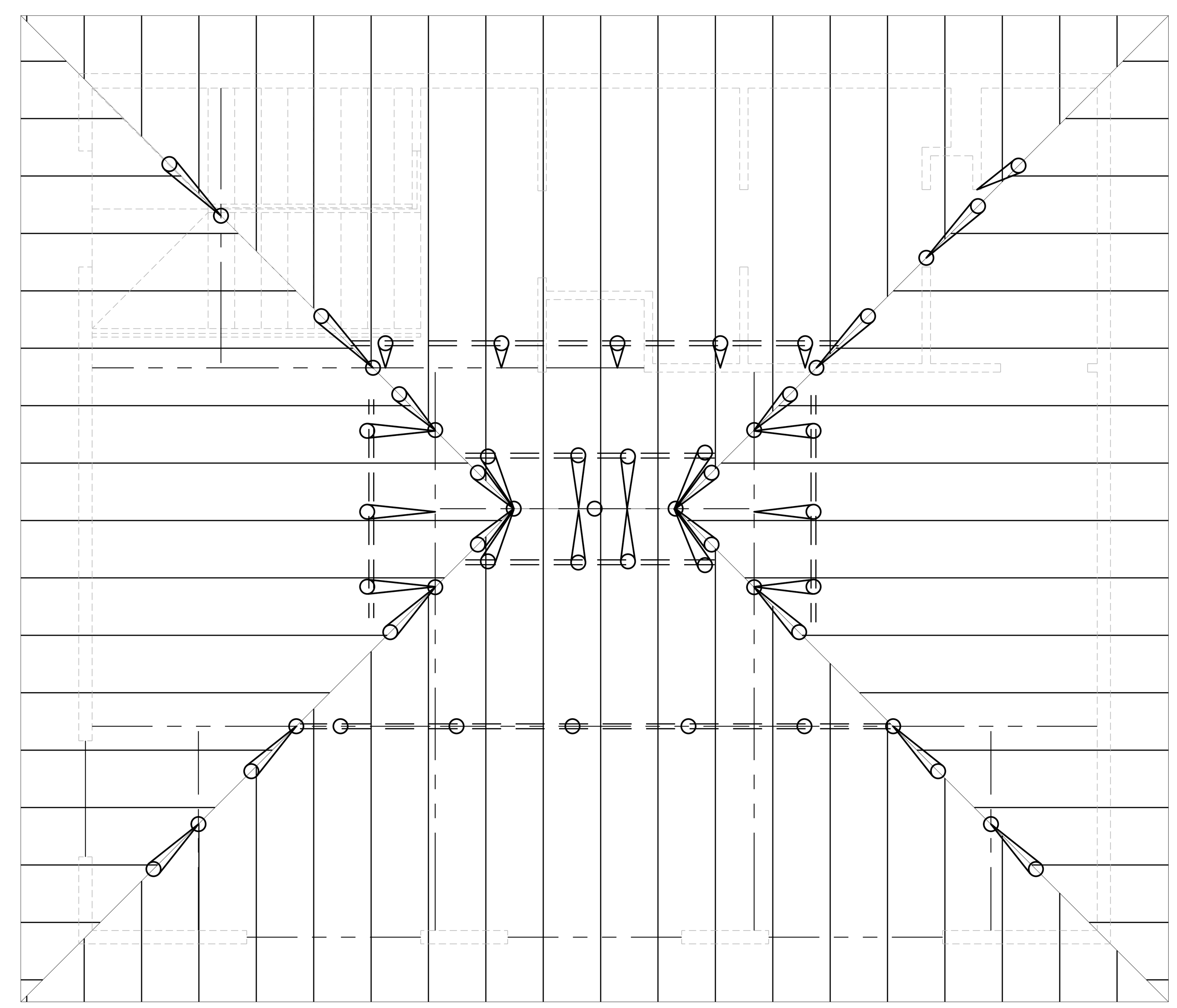


CEILING PLAN

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

ALL CEILING JOISTS TO BE 2X6 @ 24" O.C.

ALL CEILING TO BE 10'-0" HIGH U.O.N. ON DRAWINGS



ROOF FRAMING PLAN

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

ALL RAFTERS TO BE 2X6 @ 24" O.C. U.O.N

ALL VALLEY BEAMS TO BE (2) 2X8 U.O.N

NO.	DESCRIPTION	DATE	APPR.

REVISIONS

FILE:

10/31/23

STATE OF TEXAS
JOSE I. VILLARREAL
91208
LICENSED
PROFESSIONAL ENGINEER

SEAL:

Villarreal Design Group, LLC
Jose@VillarrealDesign.com
Texas Firm 12109
(210) 725-6100

SHEET TITLE:

FRAMING PLANS

RESIDENCE - ADDITION
101 LAUREL HEIGHTS PI
SAN ANTONIO, TX 78212

JOB NO:	23-370
DATE:	9/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

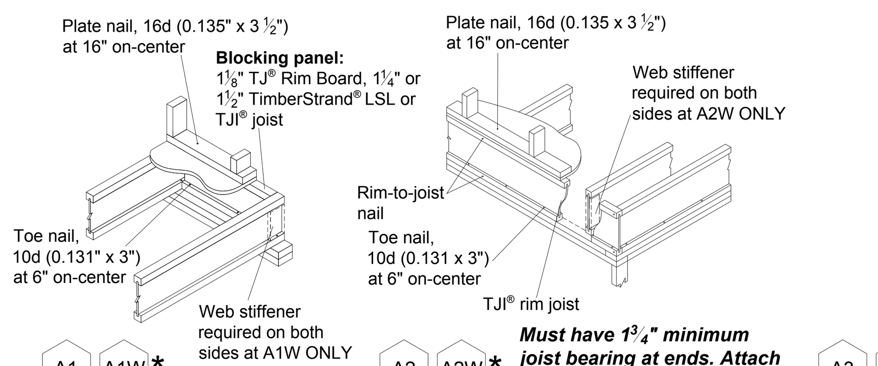
SHEET:

S-5

OF 6

Plate nail, 16d (0.135" x 3½") at 16" on-center
Blocking panel: 1⅛" TJ® Rim Board, 1¼" or 1½" TimberStrand® LSL or TJI® joist
Toe nail, 10d (0.131" x 3") at 6" on-center
Web stiffener required on both sides at A1W ONLY

Plate nail, 16d (0.135 x 3½") at 16" on-center
Web stiffener required on both sides at A2W ONLY
Rim-to-joist nail
Toe nail, 10d (0.131 x 3") at 6" on-center
TJI® rim joist



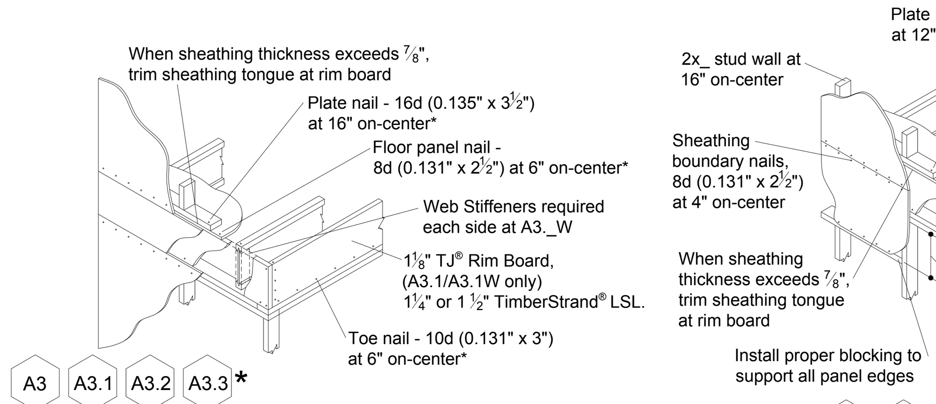
A1 A1W * A2 A2W *

Must have 1¾" minimum joist bearing at ends. Attach rim joist per A3 detail.

* For additional installation specifications see Rim Board Details and Installation in *Weyerhaeuser Installation Guide for Floor and Roof Framing, TJ-9001.*

When sheathing thickness exceeds ⅞", trim sheathing tongue at rim board
Plate nail - 16d (0.135" x 3½") at 16" on-center*
Floor panel nail - 8d (0.131" x 2½") at 6" on-center*
Web Stiffeners required each side at A3_W
1⅛" TJ® Rim Board, (A3.1/A3.1W only) 1¼" or 1½" TimberStrand® LSL.
Toe nail - 10d (0.131" x 3") at 6" on-center*

2x_ stud wall at 16" on-center
Sheathing boundary nails, 8d (0.131" x 2½") at 4" on-center
When sheathing thickness exceeds ⅞", trim sheathing tongue at rim board
Plate nail - 16d (0.135" x 3½") at 12" on-center
Floor panel nail - 8d (0.131" x 2½") at 6" on-center
Web stiffeners required on both sides at A3.4W ONLY
1¼" or 1½" TimberStrand® LSL rim board.
Toe nail - 10d (0.131" x 3") at 6" on-center
12" min.
Install proper blocking to support all panel edges



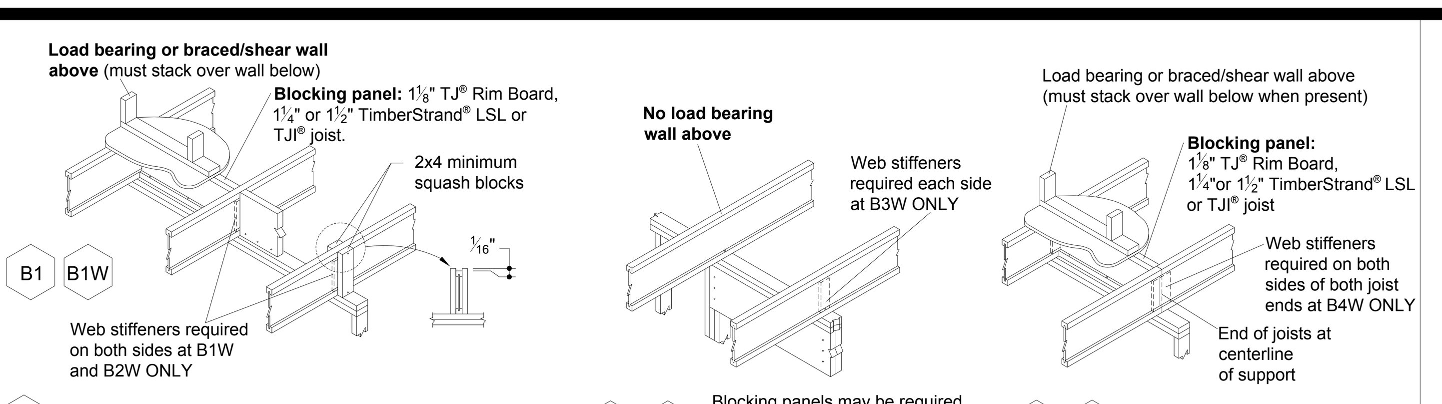
A3 A3.1 A3.2 A3.3 *
A3W A3.1W A3.2W A3.3W
A3.4 A3.4W *

* For additional installation specifications see Rim Board Details and Installation in *Weyerhaeuser Installation Guide for Floor and Roof Framing, TJ-9001.*

Load bearing or braced/shear wall above (must stack over wall below)
Blocking panel: 1⅛" TJ® Rim Board, 1¼" or 1½" TimberStrand® LSL or TJI® joist.
2x4 minimum squash blocks
Web stiffeners required on both sides at B1W and B2W ONLY

No load bearing wall above
Web stiffeners required each side at B3W ONLY

Load bearing or braced/shear wall above (must stack over wall below when present)
Blocking panel: 1⅛" TJ® Rim Board, 1¼" or 1½" TimberStrand® LSL or TJI® joist
Web stiffeners required on both sides of both joist ends at B4W ONLY
End of joists at centerline of support



B1 B1W B2 B2W — Blocking panels may be required with braced/shear walls above or below — see detail B1
B3 B3W — Blocking panels may be required with braced/shear walls above or below — see detail B1
B4 B4W

Load from above
⅟₁₆"
2x4 minimum squash blocks
Use 2x4 minimum squash blocks to transfer load around TJI® joist

Web stiffeners required on both sides at E1W ONLY
8" diameter maximum hole for 11⅞" - 16" deep blocking panels; 6" diameter maximum for blocking panels 9½" deep or shorter than 12" long. **Do not cut flanges.**
1⅛" TJ® Rim Board or 1¼" or 1½" TimberStrand® LSL. Nail with 10d (0.131" x 3") nails, one each at top and bottom flange.

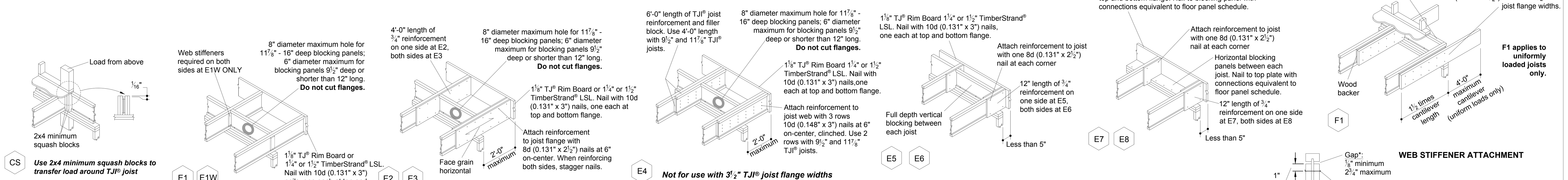
4'-0" length of ¾" reinforcement on one side at E2, both sides at E3
8" diameter maximum hole for 11⅞" - 16" deep blocking panels; 6" diameter maximum for blocking panels 9½" deep or shorter than 12" long. **Do not cut flanges.**
1⅛" TJ® Rim Board or 1¼" or 1½" TimberStrand® LSL. Nail with 10d (0.131" x 3") nails, one each at top and bottom flange.
Attach reinforcement to joist flange with 8d (0.131" x 2½") nails at 6" on-center. When reinforcing both sides, stagger nails.
Face grain horizontal
2'-0" maximum

6'-0" length of TJI® joist reinforcement and filler block. Use 4'-0" length with 9½" and 11⅞" TJI® joists.
8" diameter maximum hole for 11⅞" - 16" deep blocking panels; 6" diameter maximum for blocking panels 9½" deep or shorter than 12" long. **Do not cut flanges.**
1⅛" TJ® Rim Board 1¼" or 1½" TimberStrand® LSL. Nail with 10d (0.131" x 3") nails,one each at top and bottom flange.
Attach reinforcement to joist web with 3 rows 10d (0.148" x 3") nails at 6" on-center, clinched. Use 2 rows with 9½" and 11⅞" TJI® joists.
2'-0" maximum

1⅛" TJ® Rim Board 1¼" or 1½" TimberStrand® LSL. Nail with 10d (0.131" x 3") nails, one each at top and bottom flange.
Attach reinforcement to joist with one 8d (0.131" x 2½") nail at each corner
12" length of ¾" reinforcement on one side at E5, both sides at E6
Full depth vertical blocking between each joist
Less than 5"

1⅛" TJ® Rim Board or 1¼" or 1½" TimberStrand® LSL. Nail with 10d (0.131" x 3") nails, one each at top and bottom flange. Nail to blocking panel with connections equivalent to floor panel schedule.
Attach reinforcement to joist with one 8d (0.131" x 2½") nail at each corner
Horizontal blocking panels between each joist. Nail to top plate with connections equivalent to floor panel schedule.
12" length of ¾" reinforcement on one side at E7, both sides at E8
Less than 5"

Blocking panel
Nail through 2x_cantilever, wood backer and TJI® joist web with 2 rows 10d (0.148" x 3") nails at 6" on-center, clinched. Use 16d (0.135" x 3½") nails with 3½" TJI® joist flange widths.
F1 applies to uniformly loaded joists only.
Wood backer
1½ times cantilever length
4'-0" maximum cantilever (uniform loads only)



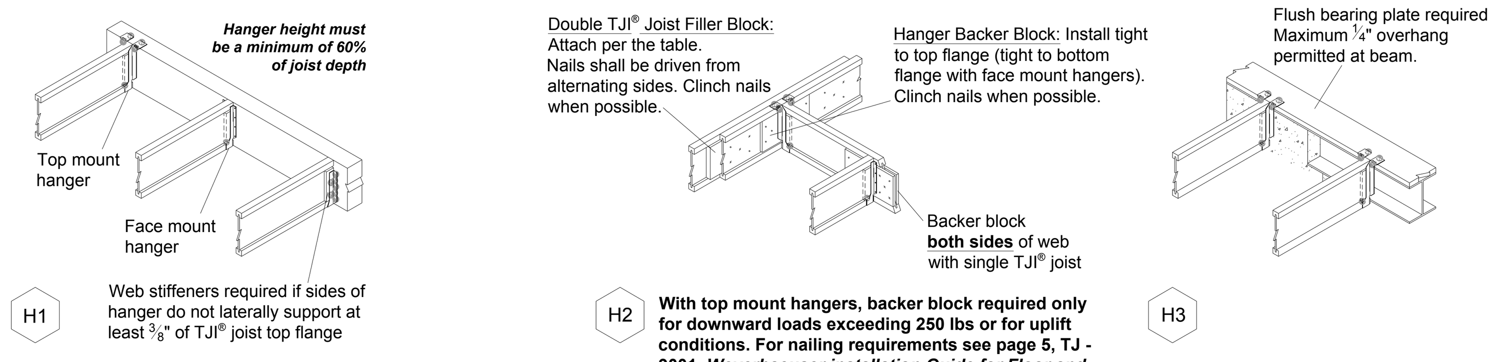
CS E1 E1W E2 E3 E4 E5 E6 E7 E8 F1

Not for use with 3½" TJI® joist flange widths

Hanger height must be a minimum of 60% of joist depth
Top mount hanger
Face mount hanger
Web stiffeners required if sides of hanger do not laterally support at least ⅜" of TJI® joist top flange

Double TJI® Joist Filler Block: Attach per the table. Nails shall be driven from alternating sides. Clinch nails when possible.
Hanger Backer Block: Install tight to top flange (tight to bottom flange with face mount hangers). Clinch nails when possible.
Backer block **both sides** of web with single TJI® joist
With top mount hangers, backer block required only for downward loads exceeding 250 lbs or for uplift conditions. For nailing requirements see page 5, TJ - 9001, *Weyerhaeuser Installation Guide for Floor and Roof Framing, TJ-9001.*

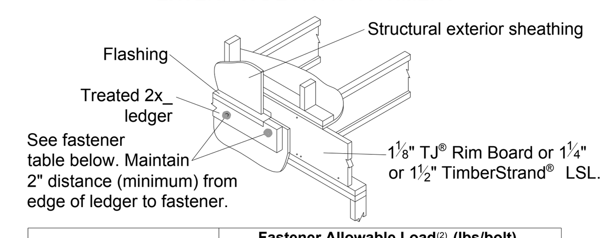
Flush bearing plate required. Maximum ¼" overhang permitted at beam.



H1 H2 H3

EXTERIOR DECK ATTACHMENT

Flashing
Structural exterior sheathing
Treated 2x_ ledger
See fastener table below. Maintain 2" distance (minimum) from edge of ledger to fastener.
1⅛" TJ® Rim Board or 1¼" or 1½" TimberStrand® LSL.

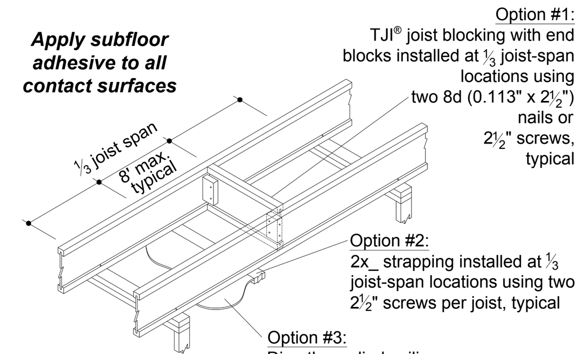


LA

Rim Board Material	Fastener Allowable Load(1) (lbs/bolt) ½" lag bolt	½" Through bolt	½" Through bolt with Air Space
1⅛" TJ® Rim Board(3)	480	695	
1¼" TimberStrand® LSL	610	725	615(4)
1½" TimberStrand® LSL	675	725	

(1) Corrosion-resistant fasteners required for wet-service applications.
(2) Allowable load determined in accordance with ASTM D7672.
(3) 1⅛" TJ® Rim Board is allowed with joist depths ≤16" only.
(4) Maximum ½" shimmed air space.

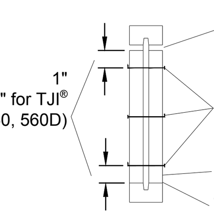
Apply subfloor adhesive to all contact surfaces
⅓ joist span
8' max. typical
Option #1: TJI® joist blocking with end blocks installed at ⅓ joist-span locations using two 8d (0.113" x 2½") nails or 2½" screws, typical
Option #2: 2x_ strapping installed at ⅓ joist-span locations using two 2½" screws per joist, typical
Option #3: Directly applied ceiling



PB1 ***When specified on the layout, one of the bracing options above is required***

WEB STIFFENER ATTACHMENT

1" (1½" for TJI® 560, 560D)
Gap*: ⅛" minimum 2¾" maximum
Nailing: See table below.
Web stiffener both sides. See table below.
Tight fit*
* With point load from above, and no support below, install web stiffener tight to top flange (gap at bottom flange)



TJI® Joist Series	Depth (in.)	Minimum Web Stiffener Size	Nailing Requirements: Type	Number Nails: End	Number Nails: Intermediate
110 210 230 & 360	All All All	⅝" x 2⁵⁄₁₆"(1) ¾" x 2⁵⁄₁₆"(1) ⅞" x 2⁵⁄₁₆"(1)	8d (0.113" x 2½")	3	3
560	All	2x4 (2)	16d (0.135" x 3½")		
560D	18" 20" 22"(3) 24"(3)	2x4 (2)	16d (0.135" x 3½")	4 5 6 6	4 5 11 13

W

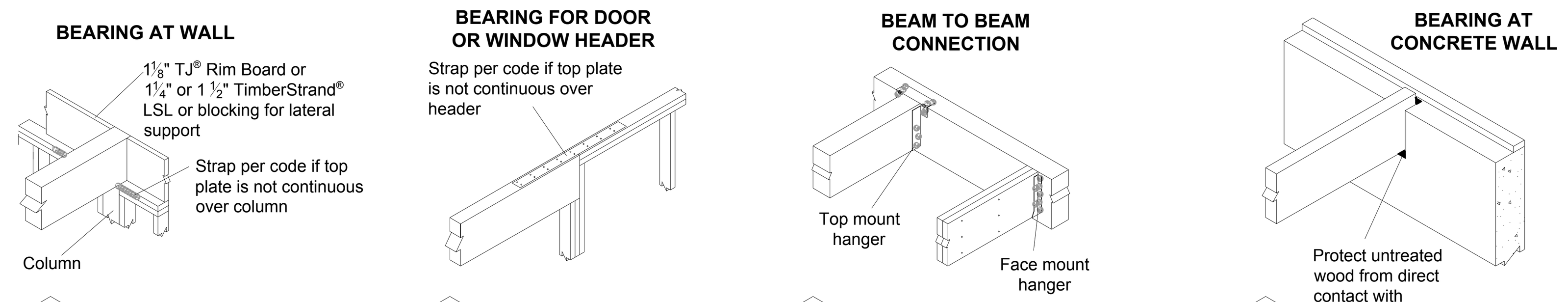
(1) PS1 or PS2 sheathing, face grain vertical
(2) Construction grade or better
(3) Web stiffeners are always required for 22" and 24" TJI® 560D Joists

BEARING AT WALL
1⅛" TJ® Rim Board or 1¼" or 1½" TimberStrand® LSL or blocking for lateral support
Strap per code if top plate is not continuous over column
Column

BEARING FOR DOOR OR WINDOW HEADER
Strap per code if top plate is not continuous over header

BEAM TO BEAM CONNECTION
Top mount hanger
Face mount hanger

BEARING AT CONCRETE WALL
Protect untreated wood from direct contact with concrete



L1 L2 L3 L4 — ***See current Weyerhaeuser literature for framing connectors***

FASTENING of FLOOR PANELS
Guidelines for Closest On-Center Spacing per Row

Nail Size	TJI®(1)(2) 110, 210, and 230	TJI® 360 and 560	Rim Board: 1⅛" TJ® Rim Board	Rim Board: TimberStrand® LSL 1¼"	Rim Board: TimberStrand® LSL 1½"	1¾" TimberStrand® LSL or wider	Microllam® LVL	Parallam® PSL
8d (0.113" x 2½"), 8d (0.131" x 2½")	4"	3"	6"	4"	3"	3"	4"	4"
10d (0.148"x 3"), 12d (0.148"x 3¼")	4"(3)	4"(3)	6"	4"	3"	3"	4"	4"
16d (0.162"x 3½")	6"	6"	16"(4)	6"(5)	6"(5)	6"(6)	8"(6)	6"

(1) Stagger nails when using 4" on-center spacing and maintain ⅜" joist and panel edge distance. One row of fasteners is permitted (two at abutting panel edges) for diaphragms. Fastener spacing for TJI® joists in diaphragm applications cannot be less than shown in table. When fastener spacing for blocking is less than spacing shown above, rectangular blocking must be used in lieu of TJI® joists.
(2) For non-diaphragm applications, multiple rows of fasteners are permitted if the rows are offset at least ¼" and staggered.
(3) With 10d (0.148" x 1½") nails, spacing can be reduced to 3" on-center for light gauge steel straps.
(4) Can be reduced to 5" on-center if nail penetration into the narrow edge is no more than 1⅜" (to minimize splitting).
(5) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1⅜" (to minimize splitting).
(6) Can be reduced to 3½" on-center if nail penetration into the narrow edge is no more than 1⅜" (to minimize splitting).
■ Recommended nailing is 12" on-center in field and 6" on-center along panel edge. Fastening requirements on engineered drawings supersede recommendations listed above.
■ Maximum nail spacing for TJI® joists is 18" on-center.
■ 14 ga. staples may be substituted for 8d (0.113" x 2½") nails if minimum penetration of 1" into the TJI® joist or rim board is achieved.
■ To minimize splitting, maintain edge distance and row spacing of 2½ x nail diameter or ⅜", whichever is greater.
■ Nailing rows must be offset at least ½" and staggered.
■ For recommended nailing and adhesives, see INSTALLATION RECOMMENDATIONS on page 2 of the *Weyerhaeuser Installation Guide for Floor and Roof Framing, TJ-9001.*

FILLER and BACKER BLOCK SIZES

TJI® Joists	110	110	210	210	230 or 360	230 or 360	360	560	560	560	560D
Depth	9½"-11⅞"	14"-16"	9½"-11⅞"	14"-16"	9½"-11⅞"	14"-16"	18"-20"	11⅞"	14"-16"	18"-20"	22"-24"
Filler Block (1) (Detail H2)	2x6	2x8	2x6 + ⅜" sheathing	2x8 + ⅜" sheathing	2x6 + ½" sheathing	2x8 + ½" sheathing	2x12 + ½" sheathing	Two 2x6	Two 2x8	Two 2x12	Four ¾" x 15" sheathing
Cantilever Filler (Detail E4)	2x6 4'-0" long	2x10 6'-0" long	2x6 + ⅜" sheathing 4'-0" long	2x10 + ⅜" sheathing 6'-0" long	2x6 + ½" sheathing 4'-0" long	2x10 + ½" sheathing 6'-0" long	Not applicable	Not applicable			
Backer Block (1) (Detail F1 or H2)	⅝" or ¾"		¾" or ⅞"		⅞" or 1" Net			2x6	2x8	2x12	Two ¾" x 15" sheathing
Nail Size: Filler	(0.131" x 3")							(0.131" x 3½")			
Nail Size: Backer								(0.131" x 3")			
Nail Quantity(2): Filler	15							32			50
Nail Quantity(2): Backer								15			15

(1) If necessary, increase filler and backer block height for face mount hangers and maintain ⅛" gap at top of joist; see detail W. Filler and backer block dimensions should accommodate required nailing without splitting (12" minimum for backer blocks and 24" minimum for filler blocks).
(2) Clinch nails when possible.

Multiple-Member Connections for Top-Loaded Beams

Fastener Installation Requirements

Piece Width	# of Plies	Fastener Type(1)	Min. Length	# Rows	O.C. Spacing	Location
1¾"	2	10d nails	3"	3(2)	12"	One side
		12d-16d nails	3 ¼"	2(2)		
		Screws	3⅜" or 3½"	2	24"	
	3	10d nails	3"	3(2)	12"	Both sides
		12d-16d nails	3 ¼"	2(2)		
		Screws	3⅜" or 3½"	2	24"	Both sides
			5"			One side
	4	10d nails(3)	3"	3(2)	12"	One side (per ply)
		12d-16d nails(3)	3 ¼"	2(2)		
		Screws	5" or 6"	2	24"	Both sides
			6 ¾"			One side
3½"	2	Screws	5" or 6"	2	24"	Both sides
			6 ¾"			One side
		½" bolts	8"	2	24"	-

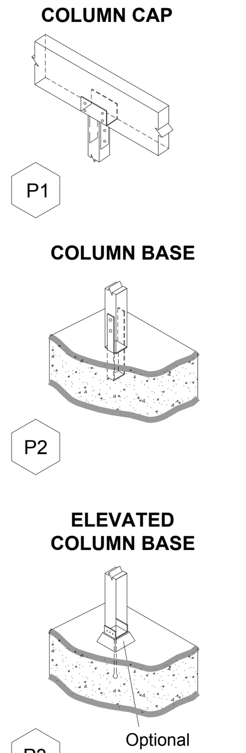
(1) 10d nails are 0.128" diameter; 12d-16d nails are 0.148" - 0.162" diameter; screws are SDS, SDW, USP WS, or TrussLOK®
(2) An additional row of nails is required with depths of 14" or greater.
(3) When connecting 4-ply members, nail each ply to the other and offset nail rows by 2" from the rows in the ply below.

BEARING AT COLUMN
Verify column capacity and beam bearing length. See current Weyerhaeuser literature.

When fasteners are required on both sides, stagger fasteners on the second side so they fall halfway between fasteners on the first side.
Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.
Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

L5 L6

BEAM ON COLUMN CAP
P1
COLUMN BASE
P2
ELEVATED COLUMN BASE
P3
Optional non-shrink grout



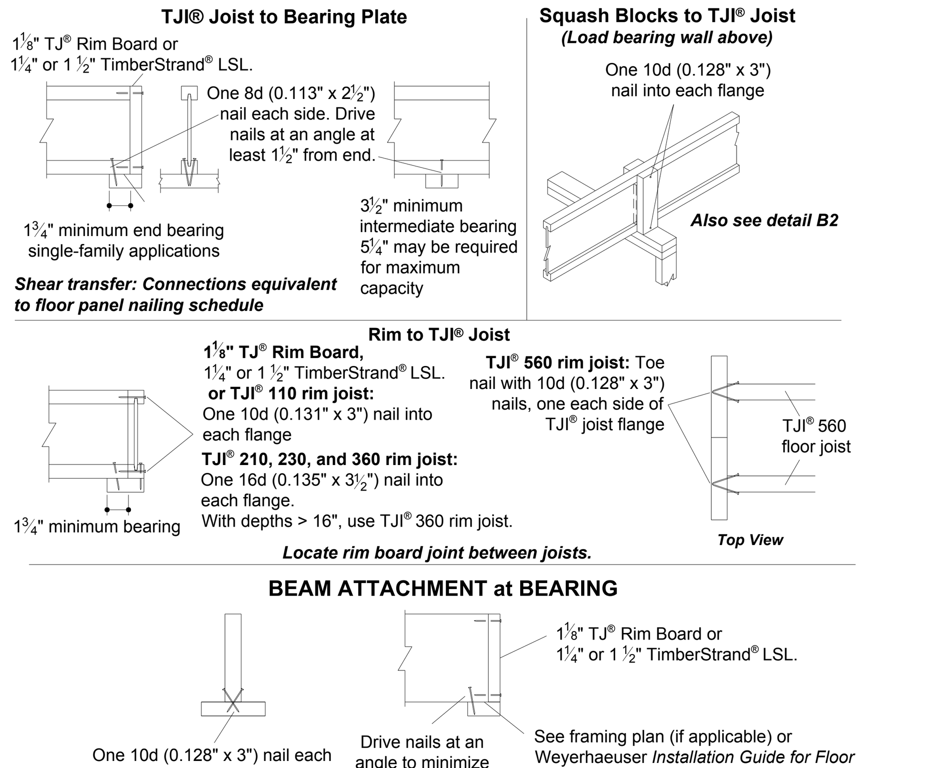
NAILING AT BEARING (FLOOR)

TJI® Joist to Bearing Plate
1⅛" TJ® Rim Board or 1¼" or 1½" TimberStrand® LSL.
One 8d (0.113" x 2½") nail each side. Drive nails at an angle at least 1½" from end.
1¾" minimum end bearing single-family applications
3½" minimum intermediate bearing 5¼" may be required for maximum capacity
Shear transfer: Connections equivalent to floor panel nailing schedule

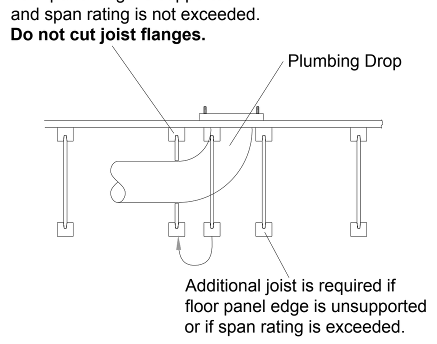
Squash Blocks to TJI® Joist
(Load bearing wall above)
One 10d (0.128" x 3") nail into each flange
Also see detail B2

Rim to TJI® Joist
1⅛" TJ® Rim Board, 1¼" or 1½" TimberStrand® LSL. **or TJI® 110 rim joist:** One 10d (0.131" x 3") nail into each flange
TJI® 210, 230, and 360 rim joist: One 16d (0.135" x 3½") nail into each flange.
With depths > 16", use TJI® 360 rim joist.
1¾" minimum bearing
TJI® 560 rim joist: Toe nail with 10d (0.128" x 3") nails, one each side of TJI® joist flange
TJI® 560 floor joist
Top View
Locate rim board joint between joists.

BEAM ATTACHMENT at BEARING
1⅛" TJ® Rim Board or 1¼" or 1½" TimberStrand® LSL.
One 10d (0.128" x 3") nail each side of member at bearing, 1½" minimum from end
Drive nails at an angle to minimize splitting of plate
See framing plan (if applicable) or Weyerhaeuser *Installation Guide for Floor and Roof Framing, TJ-9000.* For minimum end and intermediate bearing lengths.



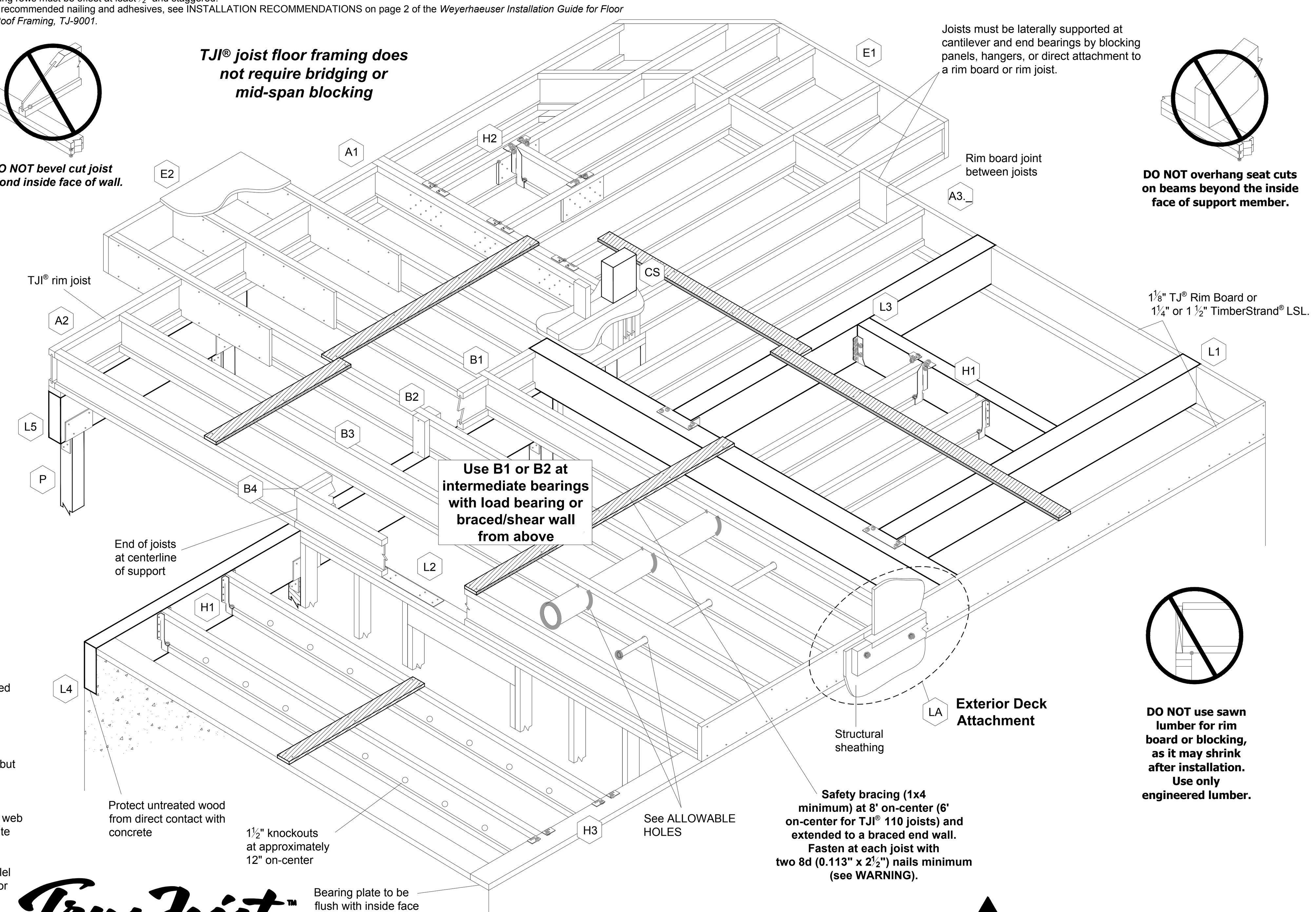
Joist may be shifted up to 3" if floor panel edge is supported and span rating is not exceeded. **Do not cut joist flanges.**
Plumbing Drop
Additional joist is required if floor panel edge is unsupported or if span rating is exceeded.



INSTALLATION TIPS
- Subfloor adhesive will improve floor performance, but may not be required.
- Squash blocks and blocking panels carry stacked vertical loads (details B1 and B2). Packout out the web of a TJI® joist (with web stiffeners) is not a substitute for squash blocks or blocking panels.
- When joists are doubled at non-load bearing parallel partitions, space joists apart the width of the wall for plumbing or HVAC.
- Additional joist at plumbing drop (see detail).

TJI® joist floor framing does not require bridging or mid-span blocking

DO NOT bevel cut joist beyond inside face of wall.



DO NOT overhang seat cuts on beams beyond the inside face of support member.

DO NOT use sawn lumber for rim board or blocking, as it may shrink after installation. Use only engineered lumber.

TrusJoist — A Weyerhaeuser

Weyerhaeuser

ALLOWABLE HOLES - TJI® Joists

DO NOT cut or notch flange.
DO NOT cut holes in cantilever reinforcement.

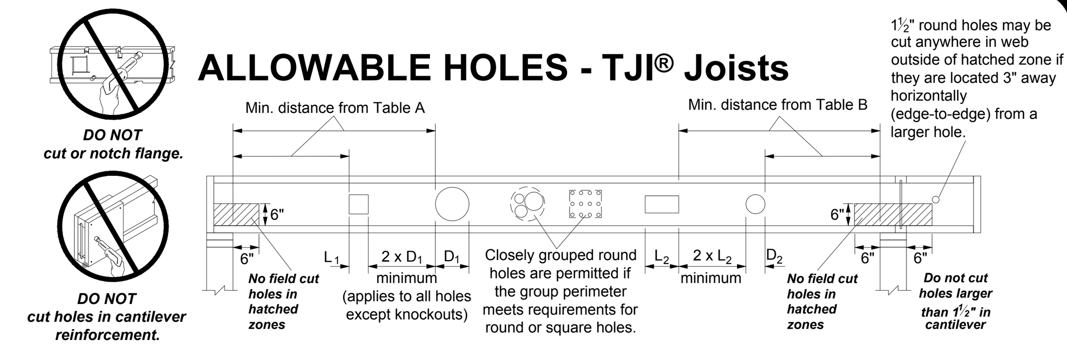


Table A - End Support
Minimum distance from edge of hole to inside face of nearest end support

JOIST DEPTH	TJI®	Round 2"	Round 3"	Round 4"	Round 5"	Round 6½"	Round 7"	Round 8⅞"	Round 11"	Round 13"	Sq/Rect 2"	Sq/Rect 3"	Sq/Rect 4"	Sq/Rect 5"	Sq/Rect 6½"	Sq/Rect 7"	Sq/Rect 8⅞"	Sq/Rect 11"	Sq/Rect 13"
9½"	110	1'-0"	1'-6"	2'-0"	3'-0"	5'-0"					1'-0"	1'-6"	2'-6"	3'-6"	4'-6"				
	210	1'-0"	1'-6"	2'-6"	3'-0"	5'-6"					1'-0"	2'-0"	2'-6"	4'-0"	5'-0"				
	230	1'-6"	2'-0"	2'-6"	3'-6"	5'-6"					1'-0"	2'-0"	3'-0"	4'-6"	5'-0"				
	360	1'-6"	2'-0"	3'-0"	4'-0"	6'-0"					1'-6"	2'-6"	3'-6"	5'-0"	5'-6"				
	560	1'-6"	2'-6"	3'-6"	5'-0"	7'-0"					2'-0"	3'-0"	4'-0"	5'-6"	6'-0"				
11⅞"	110	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	5'-6"			1'-0"	1'-6"	2'-0"	2'-6"	4'-6"	5'-0"	6'-0"		
	210	1'-0"	1'-6"	2'-0"	2'-0"	3'-0"	3'-6"	6'-0"			1'-0"	1'-6"	2'-6"	3'-0"	5'-0"	5'-6"	6'-6"		
	230	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	6'-6"			1'-0"	2'-0"	2'-6"	3'-6"	5'-6"	5'-6"	7'-0"		
	360	1'-6"	2'-0"	3'-0"	3'-6"	4'-6"	5'-0"	7'-0"			1'-6"	2'-6"	3'-6"	4'-6"	6'-6"	6'-6"	7'-6"		
	560	1'-6"	2'-6"	3'-0"	4'-0"	5'-6"	6'-0"	8'-0"			2'-6"	3'-6"	4'-6"	5'-6"	7'-0"	7'-6"	8'-0"		
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	3'-0"	5'-6"		1'-0"	1'-0"	1'-6"	2'-0"	3'-6"	4'-0"	6'-0"	8'-0"	
	210	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-6"	6'-0"		1'-0"	1'-0"	2'-0"	2'-6"	4'-0"	4'-6"	6'-6"	8'-6"	
	230	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	2'-6"	4'-0"	7'-0"		1'-0"	1'-0"	2'-0"	3'-0"	4'-0"	5'-0"	7'-0"	9'-0"	
	360	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	4'-0"	5'-6"	8'-0"		1'-0"	1'-6"	2'-6"	4'-0"	6'-0"	6'-6"	8'-0"	9'-6"	
	560	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	6'-6"	9'-0"		1'-6"	3'-0"	4'-0"	5'-0"	7'-0"	7'-6"	9'-0"	10'-0"	
16"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-0"	5'-0"	1'-0"	1'-0"	1'-0"	1'-6"	3'-0"	3'-0"	5'-6"	7'-6"	10'-0"
	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	6'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-0"	3'-6"	6'-6"	8'-0"	11'-0"
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-6"	3'-0"	4'-0"	7'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-6"	4'-0"	7'-0"	9'-0"	11'-0"
	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	2'-6"	4'-6"	6'-6"	9'-0"	1'-0"	1'-0"	1'-6"	3'-0"	5'-0"	5'-6"	9'-0"	10'-0"	11'-6"
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-0"	7'-6"	10'-0"	1'-0"	2'-0"	3'-0"	4'-6"	6'-6"	7'-0"	10'-0"	11'-0"	12'-0"

JOIST DEPTH	TJI®	Round 4"	Round 6"	Round 7"	Round 8"	Round 10"	Round 12"	Round 14¾"	Round 16¾"		Sq/Rect 4"	Sq/Rect 6"	Sq/Rect 7"	Sq/Rect 8"	Sq/Rect 10"	Sq/Rect 12"	Sq/Rect 14¾"	Sq/Rect 16¾"	
18"	360	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	5'-6"	9'-6"			1'-0"	3'-0"	4'-6"	6'-0"	10'-0"	11'-0"	13'-6"		
	560	1'-0"	1'-0"	1'-0"	2'-0"	4'-6"	7'-0"	10'-6"			2'-0"	5'-0"	6'-6"	8'-0"	11'-0"	12'-0"	14'-0"		
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	7'-0"	10'-0"		1'-0"	1'-6"	3'-0"	4'-6"	8'-0"	11'-6"	13'-6"	15'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-6"	8'-6"	11'-0"		1'-0"	3'-6"	5'-0"	7'-0"	10'-6"	13'-0'	14'-6"	15'-6"	

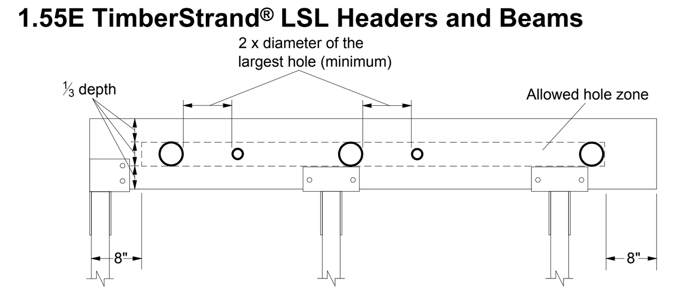
Table B - Intermediate or Cantilever Support
Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support

JOIST DEPTH	TJI®	Round 2"	Round 3"	Round 4"	Round 5"	Round 6½"	Round 7"	Round 8⅞"	Round 11"	Round 13"	Sq/Rect 2"	Sq/Rect 3"	Sq/Rect 4"	Sq/Rect 5"	Sq/Rect 6½"	Sq/Rect 7"	Sq/Rect 8⅞"	Sq/Rect 11"	Sq/Rect 13"
9½"	110	2'-0"	2'-6"	3'-6"	4'-6"	7'-6"					1'-6"	2'-6"	3'-6"	5'-6"	6'-6"				
	210	2'-0"	2'-6"	3'-6"	5'-0"	8'-0"					2'-0"	3'-0"	4'-0"	6'-6"	7'-6"				
	230	2'-6"	3'-0"	4'-0"	5'-6"	8'-6"					2'-0"	3'-6"	4'-6"	6'-6"	7'-6"				
	360	3'-0"	4'-0"	5'-6"	6'-6"	9'-0"					3'-0"	4'-6"	5'-6"	7'-6"	8'-0"				
	560	3'-6"	5'-0"	6'-0"	7'-6"	10'-0"					4'-0"	5'-6"	6'-6"	8'-0"	9'-0"				
11⅞"	110	1'-0"	1'-0"	1'-6"	2'-6"	4'-0"	4'-6"	8'-6"			1'-0"	1'-6"	2'-6"	4'-0"	7'-0"	7'-0"	9'-6"		
	210	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	9'-0"			1'-0"	2'-0"	3'-0"	4'-6"	8'-0"	8'-0"	10'-0"		
	230	1'-0"	2'-0"	2'-6"	3'-6"	5'-0"	5'-6"	10'-0"			1'-0"	2'-6"	3'-6"	5'-0"	8'-6"	9'-0"	10'-6"		
	360	2'-0"	3'-0"	4'-0"	5'-6"	7'-0"	7'-6"	11'-0"			2'-0"	3'-6"	5'-0"	7'-0"	9'-6"	9'-6"	11'-0"		
	560	1'-6"	3'-0"	4'-6"	5'-6"	8'-0"	8'-6"	12'-0"			3'-0"	4'-6"	6'-0"	8'-0"	10'-6"	11'-0"	12'-0"		
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	2'-6"	4'-6"	8'-6"		1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	6'-0"	9'-0"	12'-0"	
	210	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-6"	9'-6"		1'-0"	1'-0"	2'-0"	3'-6"	6'-0"	7'-0"	10'-0"	13'-0"	
	230	1'-0"	1'-0"	1'-0"	2'-0"	3'-6"	4'-0"	6'-0"	10'-6"		1'-0"	1'-0"	2'-6"	4'-0"	6'-6"	7'-6"	11'-0"	13'-6"	
	360	1'-0"	1'-0"	2'-0"	3'-6"	5'-6"	6'-0"	8'-6"	12'-6"		1'-0"	2'-0"	4'-0"	5'-6"	9'-0"	10'-0"	12'-0"	14'-0"	
	560	1'-0"	1'-0"	1'-6"	3'-6"	5'-6"	6'-6"	9'-6"	13'-6"		1'-0"	3'-0"	5'-0"	7'-0"	10'-0"	11'-0"	13'-6"	15'-0"	
16"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	8'-6"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	4-6"	8'-6"	11'-6"	15'-0"
	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	6'-0"	10'-0"	1'-0"	1'-0"	1'-0"	1'-6"	4'-6"	5'-6"	10'-0"	12'-6"	16'-0"
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	4'-0"	6'-6"	11'-0"	1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	6'-0"	10'-6"	13'-6"	16'-6"
	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"	6'-6"	10'-0"	13'-6"	1'-0"	1'-0"	2'-0"	4'-0"	7'-6"	8'-6"	13'-0"	14'-6"	17'-0"
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	7'-0"	11'-0"	15'-0"	1'-0"	1'-0"	3'-6"	5'-6"	9'-0"	10'-0"	14'-6"	16'-0"	18'-0"

JOIST DEPTH	TJI®	Round 4"	Round 6"	Round 7"	Round 8"	Round 10"	Round 12"	Round 14¾"	Round 16¾"		Sq/Rect 4"	Sq/Rect 6"	Sq/Rect 7"	Sq/Rect 8"	Sq/Rect 10"	Sq/Rect 12"	Sq/Rect 14¾"	Sq/Rect 16¾"	
18"	360	1'-0"	1'-0"	1'-6"	3'-0"	6'-0"	9'-0"	14'-6"			1'-0"	4'-0"	6'-6"	9'-0"	14'-6"	16'-6"	19'-0"		
	560	1'-0"	1'-0"	1'-0"	2'-0"	6'-0"	10'-0"	15'-6"			1'-0"	6'-0"	8'-6"	11'-6"	16'-6"	18'-0"	19'-6"		
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	11'-0"	15'-0"		1'-0"	1'-6"	4'-0"	7'-0"	12'-6"	16'-6"	19'-0"	20'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	5'-6"	11'-6"	15'-6"		1'-0"	3'-0"	6'-0"	8'-6"	14'-0"	17'-6'	19'-0"	20'-6"	

Rectangular holes based on measurement of longest side.
- Leave ⅛" of web (minimum) at top and bottom of hole. **DO NOT cut joist flanges.**
- Tables are based on uniform load tables in current design literature.
- For simple span (5' minimum), uniformly loaded joists used in residential applications, one maximum size round hole may be located at the center of the joist span **provided that no other holes occur in the joist.**

ALLOWABLE HOLES - Headers and Beams
1.55E TimberStrand® LSL Headers and Beams



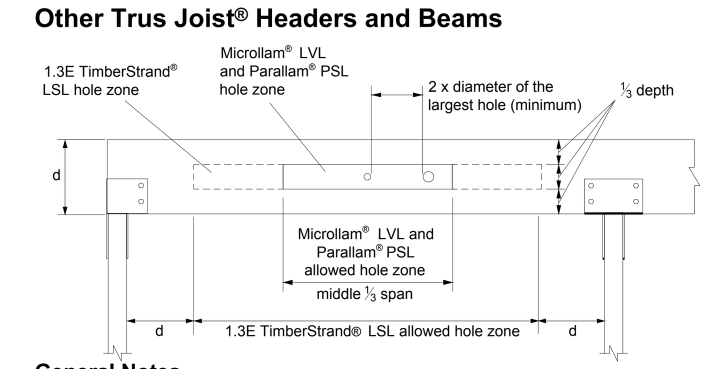
1.55 E TimberStrand® LSL

Header or Beam Depth	Maximum Round Hole Size
9¼"-9½"	3"
11¼"-11⅞"	3⅝"
14"-16"	4⅝"

See illustration for allowed hole zone

General Notes
- Allowed hole zone suitable for headers and beams with **uniform and/or concentrated loads anywhere along the member.**
- Round holes only
- No holes in headers or beams in plank orientation.

Other Trus Joist® Headers and Beams



DO NOT cut, notch or drill holes in headers or beams except as indicated in illustrations and tables.

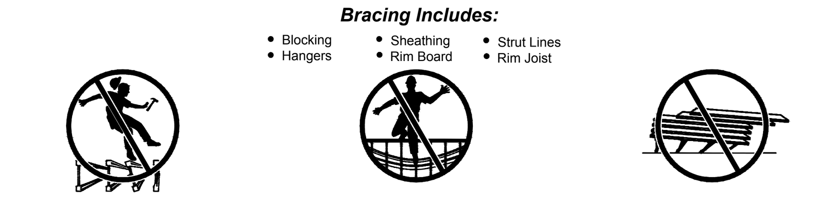
Other Trus Joist® Beams

Header or Beam Depth	Maximum Round Hole Size
4⅜"	1"
5½"	1¾"
7¼"- 20"	2"

See illustration for Allowed Hole Zone

General Notes
- Allowed hole zone suitable for headers and beams with **uniform loads only.**
- Round holes only
- No holes in cantilevers.
- No holes in headers or beams in plank orientation.

WARNING
Joists are unstable until braced laterally
Bracing Includes:
- Blocking
- Hangers
- Sheathing
- Rim Board
- Strut Lines
- Rim Joist



DO NOT walk on joists until braced. INJURY MAY RESULT.
DO NOT walk on joists that are lying flat.
DO NOT stack building materials on unsheathed joists. Stack only over beams or walls.

WARNING NOTES:
Lack of proper bracing during construction can result in serious accidents. Observe the following guidelines:
1. All blocking, hangers, rim boards and rim joists at the end supports of the TJI® joists must be completely installed and properly nailed.
2. Lateral strength, like braced end wall or an existing deck, must be established at the ends of the bay. This can also be accomplished by a temporary or permanent deck (sheathing) fastened to the first 4 feet of joists at the end of the bay.
3. Safety bracing of 1x4 (minimum) must be nailed to a braced end wall or sheathed area (as in note 2) and to each joist. Install bracing with 2 - 8d(.0113" x 2.5") nails each joist and end support at 8 ft on center (6 ft for TJI 110 joists). Without this bracing, buckling sideways or rollover is highly probable under light construction loads - such as a worker or one layer of unnailed sheathing
4. Sheathing must be completely attached to each TJI® joist before additional loads can be placed on the system.
5. Ends of cantilevers require safety bracing on both the top and bottom flanges.
6. The flanges must remain straight within 1/2" from true alignment.
7. See www.wy.com/besafe for additional installation information.

Warning: Drilling, sawing, sanding or machining wood products generates wood dust. The paint and/or coating on this product may contain titanium dioxide. Wood dust and titanium dioxide are substances known to the State of California to cause cancer. For more information on Proposition 65, visit wy.com/inform.

SUSTAINABLE FORESTRY INITIATIVE Certified Sourcing

REVISIONS			
NO.	DESCRIPTION	DATE	APPR.

FILE:

10/31/23
STATE OF TEXAS
JOSE I. VILLARREAL
91208
LICENSED PROFESSIONAL ENGINEER
SEAL:

Villarreal Design Group, LLC
Jose@VillarrealDesign.com
Texas Firm 12109
(210) 725-6100

SHEET TITLE:
TJI JOISTS DETAILS

RESIDENCE - ADDITION
101 LAUREL HEIGHTS PL
SAN ANTONIO, TX 78212

JOB NO:	23-370
DATE:	9/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

SHEET:
S-6
OF 6

FOUNDATION GENERAL NOTES:

1. GENERAL:
A. THIS FOUNDATION HAS BEEN DESIGNED AS A SOIL SUPPORTED STIFFENED GRID TYPE BEAM AND SLAB FOUNDATION; AND AS SUCH, WILL MOVE WITH THE SOILS UPON WHICH IT BEARS.
B. CONTRACTOR IS TO VERIFY ALL DIMENSIONS, DROP AREAS, FLOOR PENETRATIONS, AND BLOCK OUT LOCATIONS WITH THE ARCHITECT'S FLOOR PLAN.
C. CONTRACTOR SHALL VERIFY ANY DEVIATION FROM THE INFORMATION ON THIS FOUNDATION DESIGN WITH ENGINEER OF RECORD.
D. THE CONTRACTOR SHALL NOT PLACE ANY CONCRETE UNTIL ENGINEER OF RECORD HAS CONDUCTED A PRE-POUR INSPECTION AND HAS GIVEN APPROVAL TO PLACE THE CONCRETE.
E. CONTRACTOR IS TO CALL ENGINEER OF RECORD IF FOUNDATION REQUIRES MULTIPLE CONCRETE POURS OF THREE (3) OR MORE.
F. CONTRACTOR SHALL FURNISH THE LABOR, MATERIALS, EQUIPMENT AND SUPERVISION NECESSARY TO PERFORM ALL WORK SHOWN ON PLANS AND SPECIFICATIONS.
G. IT IS THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR TO NOTIFY THE HOMEOWNER OF THE IMPORTANCE OF ITEMS 2C AND 2D BELOW AND OF THE LIMITATIONS AS EXPRESSED IN ITEM NO. 1 ABOVE. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED.

2. FOUNDATION SITE PREPARATION & FINISH:
A. AREA OF FOUNDATION IS TO BE CLEARED AND GRUBBED OF ALL DELETERIOUS AND ORGANIC MATERIALS DOWN TO A SOLID BASE.
B. PROVIDE A VAPOR BARRIER BENEATH THE FLOOR SLAB BY USING A WATERPROOFING MEMBRANE OF 10 MIL POLYETHYLENE. THE MEMBRANE SHALL BE TAPED AT ALL SPLICES AND TEARS. THE MEMBRANE SHALL EXTEND TO WITHIN 6-INCHES OF THE BOTTOM OF THE BEAM TRENCHES.
C. POSITIVE DRAINAGE AWAY FROM THE PERIMETER OF THE FINISHED FOUNDATION MUST BE PROVIDED. THE TOP OF THE FOUNDATION SLAB SHOULD BE A MINIMUM OF 8-INCHES ABOVE THE FINISHED GRADE. THE GROUND ADJACENT TO THE FOUNDATION SHOULD SLOPE AWAY A MINIMUM OF 6-INCHES IN THE FIRST 5-FEET.
D. ANY TREES PLANTED AFTER PLACEMENT OF THE FOUNDATION SHOULD BE PLANTED NO CLOSER TO THE FOUNDATION THAN ONE-HALF THE POTENTIAL HEIGHT OF THE TREE.
E. ALL AIR CONDITIONING CONDENSER DRAIN LINES SHOULD DISCHARGE A MINIMUM OF 5-FEET FROM THE PERIMETER OF THE FOUNDATION.

3. CONCRETE:
A. CONCRETE TO BE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, AND SHALL BE IN ACCORDANCE ACI 301. CEMENT SHALL BE TYPE 1 AND FLY ASH (IF USED) SHALL BE MONEX RESOURCES CLASS C. IF FLY ASH IS USED, IT SHALL NOT EXCEED 20% OF THE TOTAL AMOUNT OF FLY ASH AND CEMENT USED BY WEIGHT. NO AIR ENTRAINMENT OR CALCIUM CHLORIDE SHALL BE USED. CONTRACTOR SHALL SATISFY HIMSELF THAT THE MIX DESIGN IS ACCEPTABLE FOR IT'S INTENDED PURPOSE.
B. CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH ACI 302.1R. FINISH TOLERANCE SHALL BE IN ACCORDANCE WITH ACI 117. A MINIMUM SET OF TWO TEST CYLINDERS FOR 28-DAY COMPRESSIVE STRENGTH TESTS ARE RECOMMENDED TO BE PERFORMED IN ACCORDANCE WITH ASTM C42.
C. PLACE 1/2" X 10" EMBEDMENT ANCHOR BOLTS FOR ALL SILL PLATES ON EXTERIOR WALLS NOT EXCEEDING 4-0" O.C. AND A MINIMUM OF 2 ANCHOR BOLTS PER WALL AND NOT FARTHER THAN 12-INCHES FROM WALL ENDS.

4. GRADE BEAMS:
A. ALL GRADE BEAM DEPTHS MAY BE REDUCED WHEN BEARING ON SOLID UNFRAGMENTED ROCK. ROUGHEN THE ROCK SURFACE A MINIMUM OF 3" AND MAINTAIN A MINIMUM OF 8" ABOVE THE GRADE. FOR DOWNSLOPING EXTERIOR BEAMS MORE THAN 5% GRADE, REMOVE A 10" DIAMETER BOULDER EVERY 4' TO PROVIDE ADDITIONAL ROUGHNESS AND ENGAGEMENT TO THE HILL.
B. FOR GRADE BEAMS WITH DEPTHS EQUAL TO OR IN EXCESS OF 36-INCHES, INCREASE THE AMOUNT OF REINFORCING STEEL BY ADDING TWO- #4 BARS HORIZONTALLY EVERY 18-INCHES OF VERTICAL.

5. REINFORCING STEEL:
A. REINFORCING BARS SHALL BE NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A615 GRADE 60.
B. LAPS AND SPLICES PER TABLE 1 THIS SHEET
C. ALL BARS TO BE SUPPORTED IN THE FORMS AND SLAB WITH CHAIRS OR WIRE BOLSTERS, AND SHALL BE TIED AT EVERY OTHER INTERSECTION.
D. ALL BARS SHALL HAVE A MINIMUM CLEAR COVER OF 3-INCHES FROM THE BOTTOM AND SIDES OF THE BEAMS. SLAB REINFORCEMENT SHALL BE IN MID PLANE.
E. CORNER REINFORCING BARS: TWO CORNER BARS AT EACH CORNER OF THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 9, AND FOUR CORNER BARS AT THE INTERSECTION OF ALL INTERIOR GRADE BEAMS WITH THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 8.
F. STIRRUP ANCHOR HOOKS SHALL NEVER BE CUT WITHOUT THE AUTHORIZATION OF THE ENGINEER. IF STIRRUPS ARE TOO LONG, THEY MAY BE BENT IN THE DIRECTION OF THE BEAM.

6. CONSTRUCTION:
A. FOR ALL SLAB DROPS GREATER THAN 36-INCHES, THE CONTRACTOR SHALL CONSTRUCT A FRENCH DRAIN SYSTEM OF CAPACITY SUFFICIENT TO INTERCEPT AND TRANSPORT WATER FROM BENEATH THE FOUNDATION TO A POINT AWAY FROM THE FOUNDATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE DIRECTION OF FLOW AND POINT OF DISCHARGE TO DAYLIGHT. DISCHARGE OUTLET TO BE A MINIMUM OF 5-FEET AWAY FROM FOUNDATION. SOLID WALL PIPE MAY BE USED OUTSIDE OF FOUNDATION. WRAP ALL PERFORATED PIPE WITH MIRAFI N-SERIES FILTER FABRIC.
B. ALL FOUNDATIONS THAT ARE TO HAVE A FILL DEPTH GREATER THAN 2-FEET BELOW BOTTOM OF INTERIOR GRADE BEAM SHALL MEET ONE OF THE FOLLOWING:
1. INTERIOR GRADE BEAMS MAY BE DEEPENED TO MAINTAIN 2-FEET MAXIMUM DEPTH OF FILL BELOW BOTTOM OF BEAM. INTERMEDIATE BARS PER NOTE 4-B SHALL BE ADDED IF REQUIRED.
2. IF BEARING ON SOLID ROCK - 14-INCHES DIA. PIERS, FORMED WITH SONO-TUBES, SHALL BE PLACED AT ALL INTERIOR BEAM INTERSECTIONS. PIERS ARE TO BE REINFORCED WITH A MINIMUM OF FOUR-#4 VERTICAL BARS WITH #3 TIES @ 12-INCHES O.C. VERTICALLY.
3. IF EARTH SUPPORTED - SELECT FILL EQUAL TO TXDOT NO. 2 BASE SHALL BE COMPACTED TO A MINIMUM 95-PERCENT MODIFIED PROCTOR PER ASTM D-1557. FILL IS TO BE PLACED IN 8-INCH LIFTS AND TESTED BY A SOILS TESTING LAB.
4. ALTERNATIVELY, IF EARTH SUPPORTED - CRUSHED LIMESTONE BASE FILL WITH 100% PASSING 1 1/2-INCH SIEVE, AND 0% PASSING NO. 4 SIEVE, CAN BE PLACED WITHOUT COMPACTION. BEFORE INSTALLATION OF BASE FILL, FILTER FABRIC SUCH AS MIRAFI N-SERIES IS TO BE PLACED OVER EXISTING EARTH.
C. WHERE PIPES PASS THROUGH BEAMS, INCREASE BEAM SIZE AT PIPE PENETRATIONS TO MAINTAIN MINIMUM BEAM WIDTH AND HEIGHT. PLACEMENT OF OVERSIZED DIAMETER SLEEVES IS ALSO RECOMMENDED.
D. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE SLAB PERIMETER DURING CONSTRUCTION.
E. CONCRETE SHALL NOT BE PLACED ON SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR SEEPAGE, AND ALL BEARING SURFACES SHALL BE FREE OF LOOSE SOIL, PONDED WATER, AND DEBRIS PRIOR TO PLACING THE CONCRETE.

SOILS INFORMATION

DESIGN LEVEL	SOIL TYPE	P.I.	BY	DATE
E	CLAY	---		

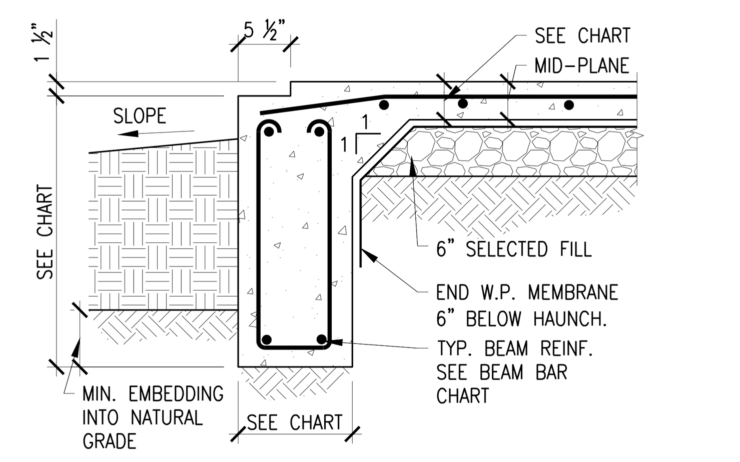
BEAM AND SLAB INFORMATION

BEAM WIDTH	EXT. BEAM DEPTH	EXT.BM. DEPTH IN GRADE	INT. BEAM DEPTH	BEAM BARS	STIRRUP EXT. BEAM	STIRRUP INT. BEAM	PAD BARS	SLAB THICKNESS
12"MIN.	36"MIN.	12"MIN.	30"MIN.	2-#6 TOP 2-#6 BOT.	#3 @18"O.C.	#3 @18"O.C.	#3 @12"O.C.	4"

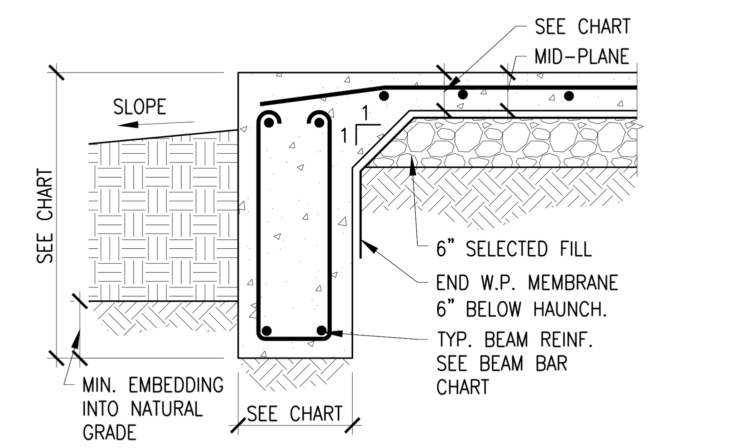
TABLE 1 REBAR SPLICE DISTANCES (INCHES) FOR 3000 PSI CONCRETE

BAR SIZE	BEAM TOP BARS	OTHER BARS
3	22	17
4	29	22
5	36	28
6	43	33
7	63	48
8	72	55
9	81	62

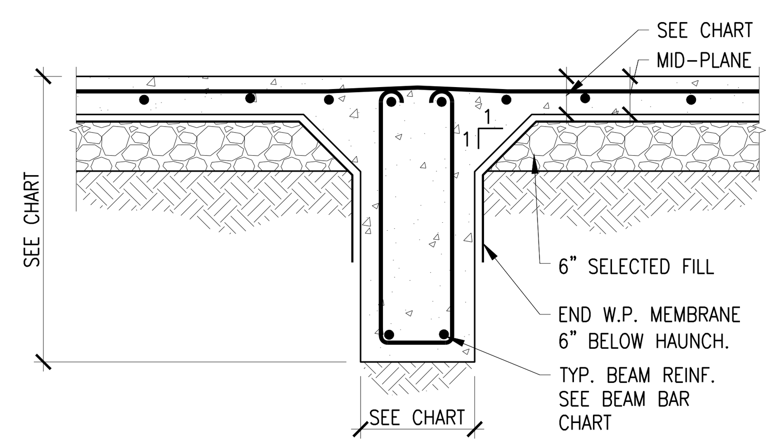
FOUNDATIONS ON EXPANSIVE CLAY SUBGRADES ARE SUBJECT DIFFERENTIAL SETTLEMENT AND MOVEMENT WITH CHANGES TO MOISTURE CONTENT OF THE SOILS UNDER THE FOUNDATION. THESE MOVEMENTS ARE EXPECTED TO STAY WITHIN INDUSTRY ACCEPTED RANGES. HOWEVER, SOIL IMPROVEMENT BY REMOVAL OF THE TOP 5' OF SOIL, TO 5' OUT FROM THE BUILDING PERIMETER AND REPLACING IT WITH LOW PLASTICITY SELECT FILL CAN MITIGATE SOME OF THE FOUNDATION MOVEMENT. THE DEPTH OF SOIL REPLACEMENT IS THE OWNER'S DECISION BASED ON AN EVALUATION OF THE RISK



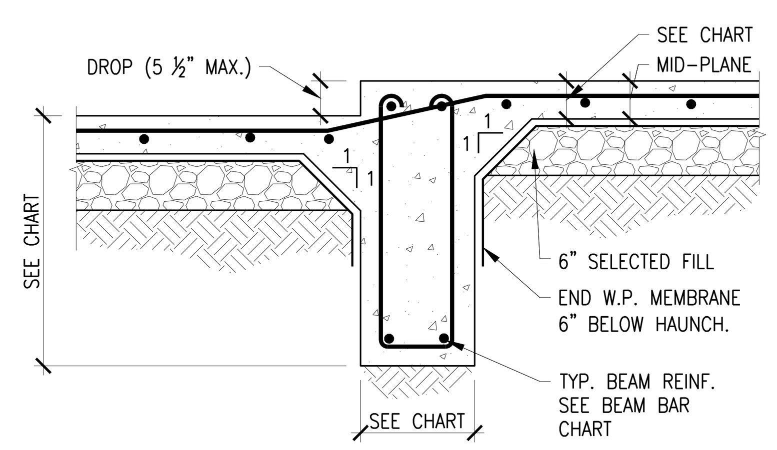
1 SECTION
EXTERIOR BEAM W/BRICK LUG
SCALE: 3/4"=1'-0"



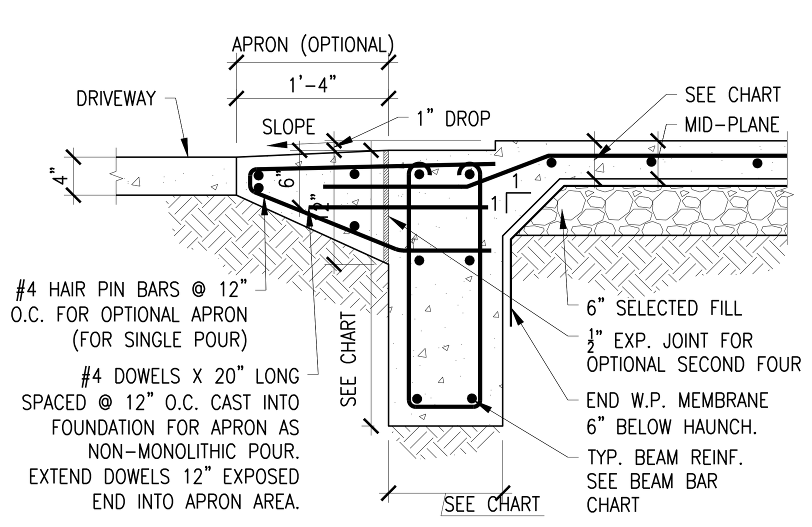
2 SECTION
EXTERIOR BEAM - NO BRICK LUG
SCALE: 3/4"=1'-0"



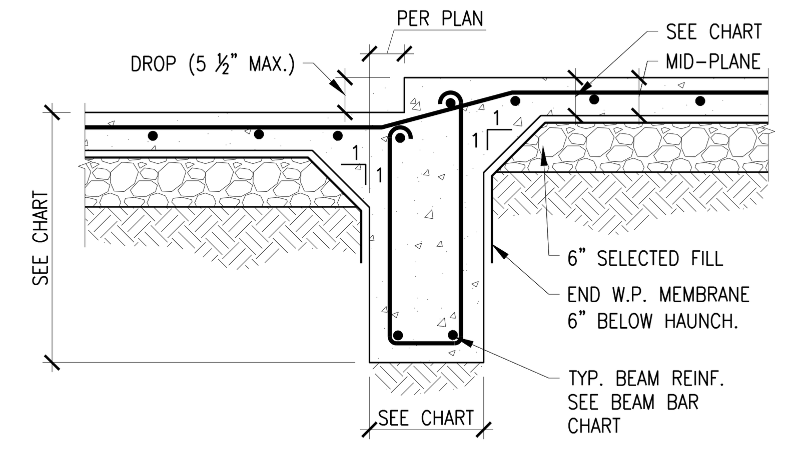
3 SECTION
TYPICAL INTERIOR BEAM DETAIL
SCALE: 3/4"=1'-0"



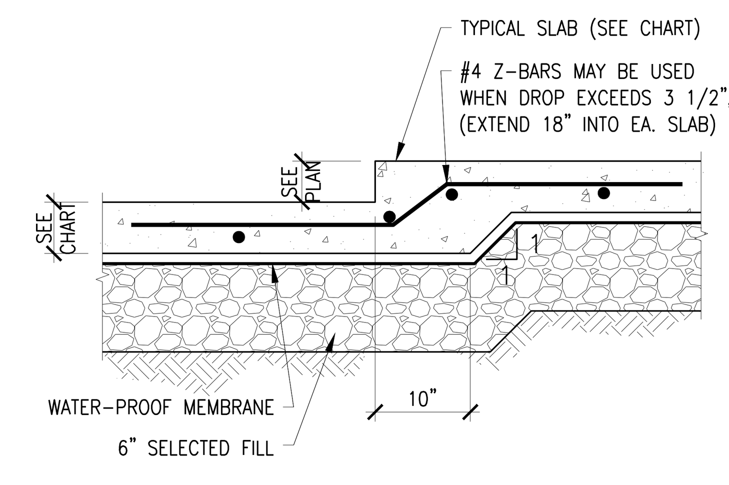
4 SECTION
DROPS 5 ½" OR SMALLER
SCALE: 3/4"=1'-0"



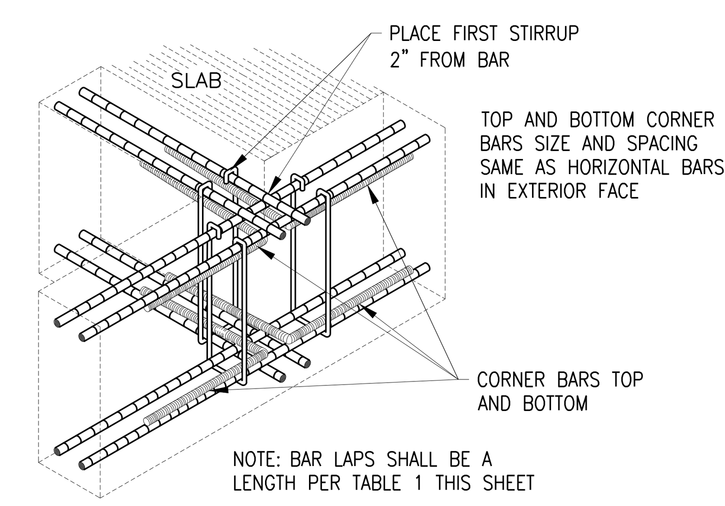
5 SECTION
GARAGE RAMP DETAIL
SCALE: 3/4"=1'-0"



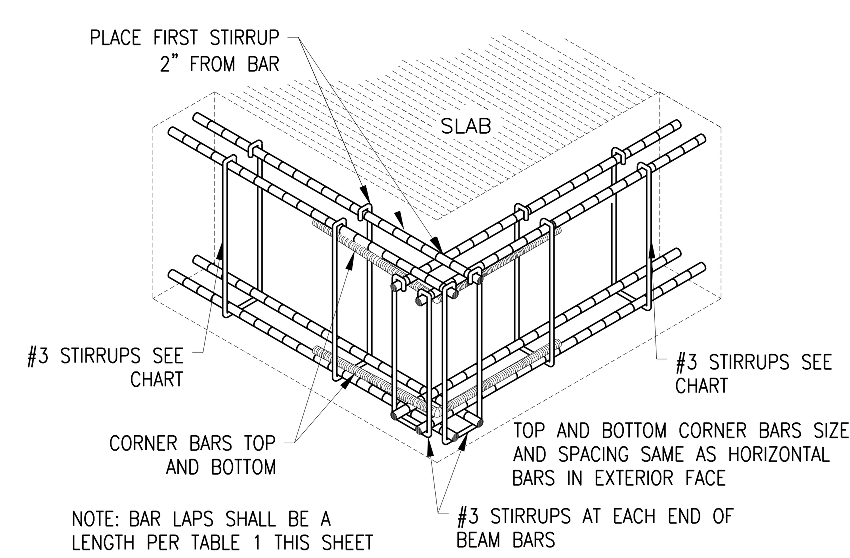
6 SECTION
DROPS IN BEAM AREA UP TO 5 ½" OR SMALLER
SCALE: 3/4"=1'-0"



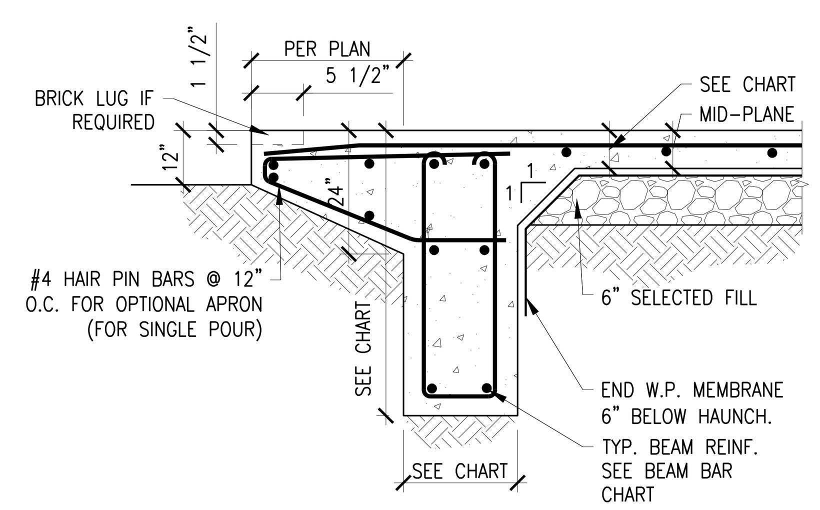
7 SECTION
DROPS IN BEAM AREA UP TO 5 ½" OR SMALLER
SCALE: 3/4"=1'-0"



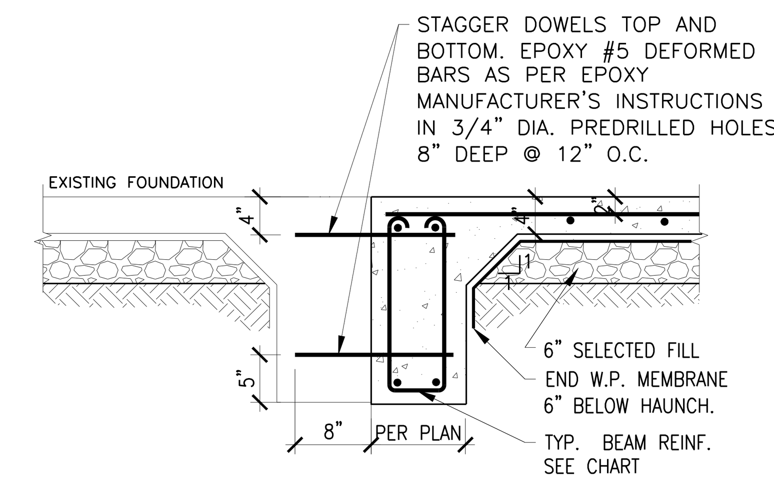
8 DETAIL
SCALE: 3/4"=1'-0"



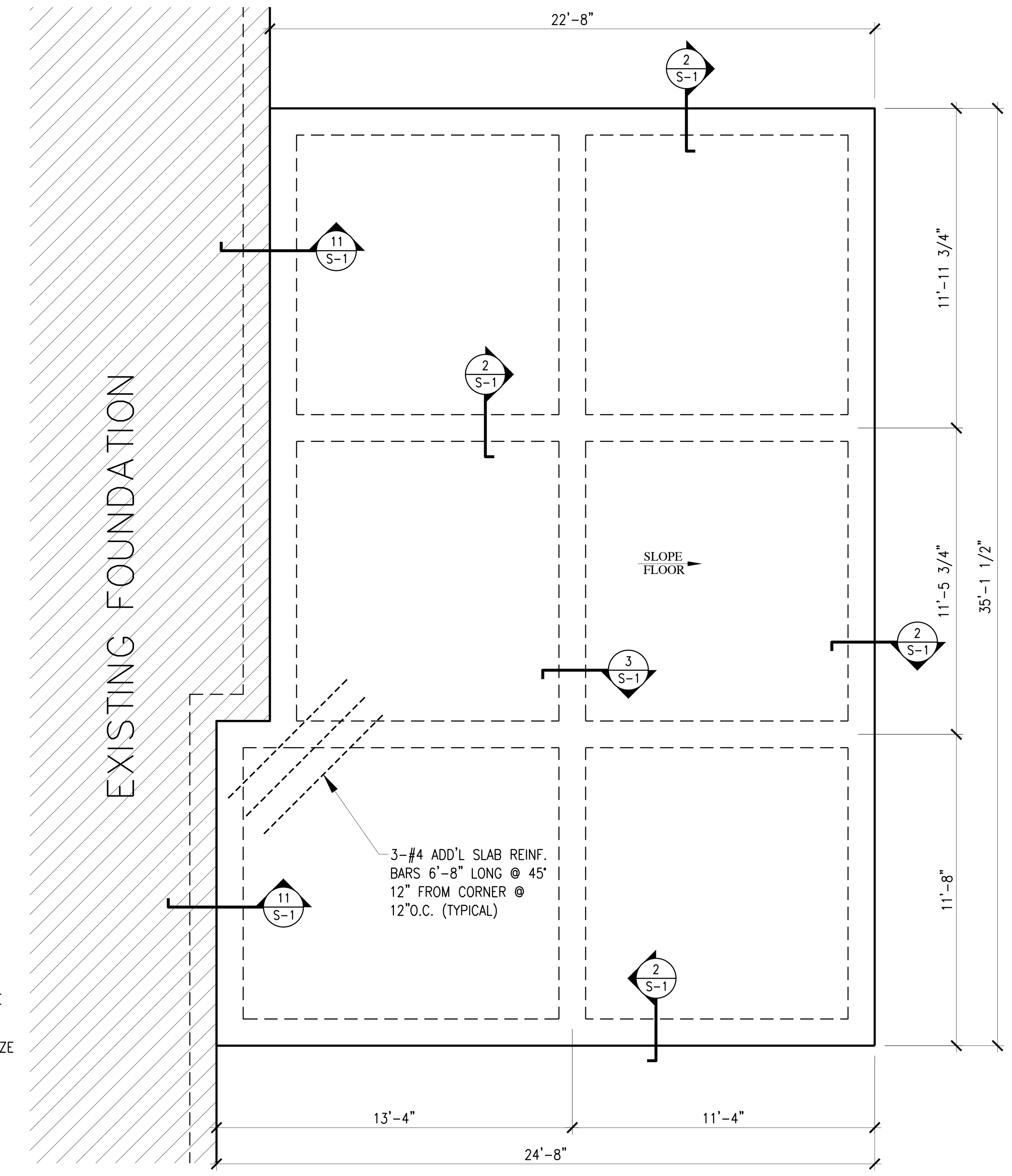
9 DETAIL
SCALE: 3/4"=1'-0"



10 SECTION
CANTILEVER DETAIL
SCALE: 3/4"=1'-0"



11 SECTION
EXISTING SLAB TO NEW SLAB
SCALE: 3/4"=1'-0"



FOUNDATION PLAN
Scale: 1/4"= 1'-0"

REVISIONS

NO.	DESCRIPTION	DATE	APPR.

FILE:

SEAL: STATE OF TEXAS JOSÉ I. VILLARREAL 91208 LICENSED PROFESSIONAL ENGINEER

Villarreal Design Group, LLC
Jose@VillarrealDesign.com
Texas Firm 12109
(210) 725-6100

SHEET TITLE: FOUNDATION PLAN AND DETAILS

RESIDENCE ADDITION
101 LAUREL HEIGHTS PI
SAN ANTONIO, TX 78212

JOB NO:	23-464
DATE:	11/10/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

SHEET: S-1 OF 2

DESIGN CRITERIA NOTES

1. THE INTENDED DESIGN STANDARDS (LATEST EDITION) AND/OR CRITERIA ARE AS FOLLOWS:

GENERAL	INTERNATIONAL RESIDENTIAL/BUILDING CODE 2021 EDITION
WOOD	AITC
WOOD TRUSSES	TPI

2. DESIGN LOADS

DEAD LOADS
ROOF 10 PSF – COMPOSITION SHINGLE OR METAL
LIVE LOADS
FLOORS 40 PSF
ROOF 20 PSF
CEILING JOIST 10 PSF
3. SNOW LOAD : 5PSF
4. WIND LOAD : 115MPH APPLIED PER I(B/R)C I = 1.0 EXPOSURE "B"
5. SEISMIC : SEISMIC CATEGORY "A"

ROUGH CARPENTRY

1. ALL WOOD FRAMING MATERIAL SHALL BE SURFACE DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALL FRAMING LUMBER SHALL BE NO. 2 SOUTHERN YELLOW PINE (SYP) OR BETTER.

2. ALL LOAD BEARING PARTITIONS SHALL RECEIVE A DOUBLE 2X TOP PLATE AND LAPPED AT CORNERS.

3. ALL EXTERIOR AND LOAD BEARING WALLS SHALL BE 2X4 @ 16" O.C. UNLESS ARCHITECTURAL DRAWINGS ARE SHOWING 2X6 STUD WALLS OR IT IS 3 STORY BUILDING. FOR 3 STORY BUILDING EXTERIOR AND LOAD BEARING WALLS ON THE FIRST FLOOR SHALL BE 2X6 @ 16" O.C. OR DOUBLE 2X4 STUDS @ 16" O.C.

4. ALL PARTITIONS SHALL BE BRACED ON THE TOP AT INTERVALS NOT EXCEEDING 6 FEET ON CENTER.

5. ALL MULTIPLE GIRDERS, BEAMS AND JOISTS SHALL BE GANG NAILED.

6. ALL FRAMING EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

7. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS, AND OTHER ACCESSORIES SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE" OR APPROVED EQUAL.

8. PREFABRICATED LVL'S, GLULAMS, AND PSL HEADERS AND BEAMS SHALL BE MANUFACTURED BY "TRUS JOIST MacMILLAN CORP." OR APPROVED EQUAL. MINIMUM BENDING STRESSES SHALL BE AS FOLLOWS:

LVL'S = 2,600 PSI
PSL'S = 2,900 PSI
GLULAMS = 2,400 PSI

9. ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS AND OTHER HARDWARE EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED.

10. INSTALL ALL BLOCKING NECESSARY FOR ATTACHING ALL FINISHES, GYPSUM WALLBOARD, CABINETRY , ETC.

11 ATTACH WOOD SILL PLATES FOR EXTERIOR WALLS AND SHEAR WALLS TO FOUNDATIONS WITH 1/2" ANCHOR BOLTS AT 5'-0" O.C. MAXIMUM SPACING WITH AT LEAST 2 BOLTS PER PLATE.

12. INSTALL COLUMNS AT ALL LINTELS, BEAMS, HEADERS EQUAL TO THE WIDTH OF THE BEAM. ALL MEMBERS WITH SPANS LESS THAN 5 FOOT SHALL HAVE SINGLE JACK STUDS.

13. ATTACH WALL AND ROOF SHEATHING TO FRAMING WITH 8d NAILS AT 12" O.C. INTERMEDIATE SUPPORTS AND 6" O.C. EDGE SUPPORTS.

14. THE CONTRACTOR SHALL INSURE THAT ALL LOADS AND REACTIONS FROM BEAMS, BEARINGS WALLS, COLUMNS, ETC. ARE CONTINUOUSLY SUPPORTED TO THE FOUNDATION.

15. ALL FLOOR SHEATHING SHALL BE A MINIMUM 3/4" TONGUE AND GROOVE SHEATHING GLUED AND NAILED AT 6" O.C. WITH 8d NAILS.

16. FLOOR DECK SHALL BE 3/4" T&G APA RATED SHEATHING WITH MINIMUM SPAN INDEX OD 48/24. NAIL PLYWOOD TO FRAMING MEMBERS WITH 10d NAILS AS FOLLOWS:

FLOOR ZONE:	FIRST 8' FROM SHEARWALLS –	OTHERS
PANEL EDGES	4" O.C.	6" O.C.
PANEL FIELD	6" O.C.	6" O.C.

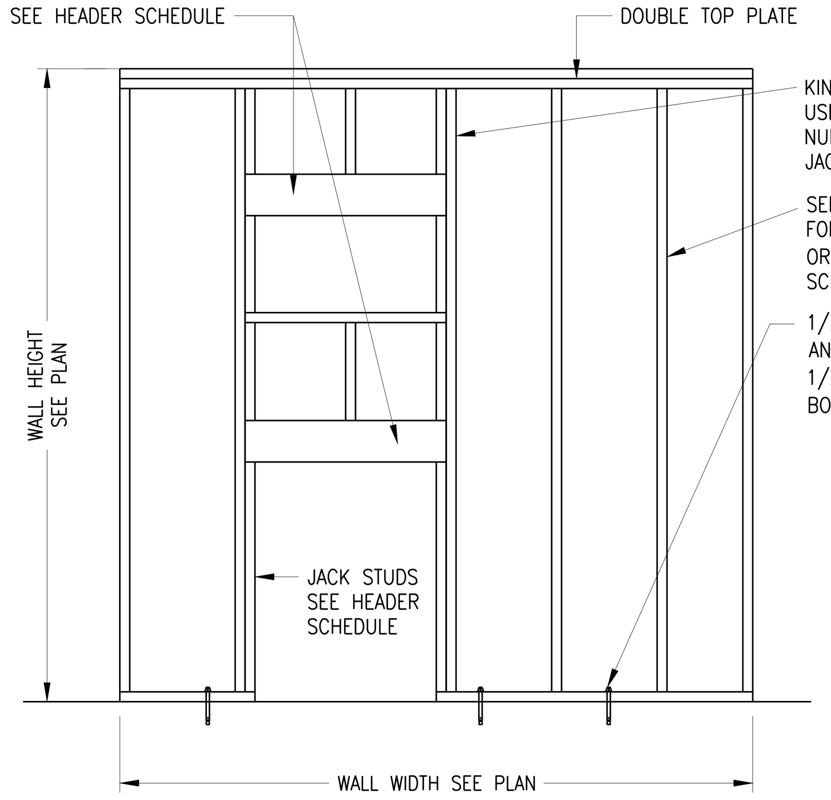
17. FOR METAL AND COMPOSITE SHINGLE ROOFING PLYWOOD ROOF DECKING SHALL BE 15/32"OSB AND FOR CLAY AND CONCRETE ROOFING PLYWOOD ROOF DECKING SHALL BE 5/8" OSB APA RATED CD INTERIOR WITH EXTERIOR GLUE. NAIL PLYWOOD TO FRAMING WITH 6d NAILS AS FOLLOWS:

ROOF ZONE:	FIRST 5' FROM END –	FIRST 4' FROM EDGE & RIDGE –	OTHERS & SHEAR WALLS
PANEL EDGES	4" O.C.	6" O.C.	6" O.C.
PANEL FIELD	6" O.C.	6" O.C.	6" O.C.

18. TAPERED END CUTS SHALL MEET MANUFACTURERS REQUIREMENTS.

19. NOTCHING OF PREFABRICATED LUMBER SHALL NOT BE PERMITTED. WEB HOLES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

20. PORCH COLUMNS TO BE ANCHORED IN GALVANIZED POST BASES BEAMS TO BE CONNECTED TO POSTS WITH METAL STRAPS ALL RAFTERS AT OPEN PORCH TO RECEIVE WIND CLIPS, 1 PER RAFTER.

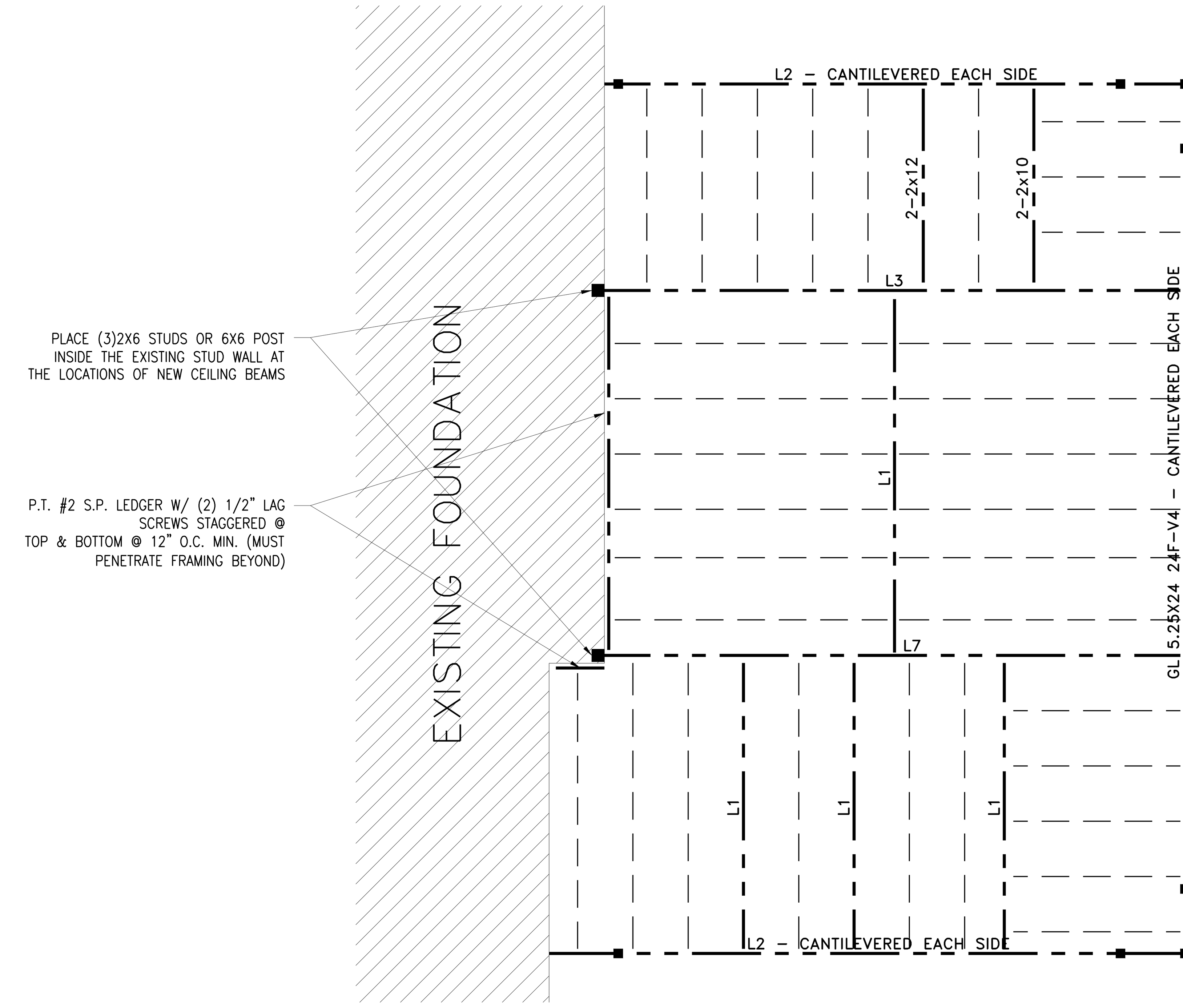


TYPICAL TALLWALL DETAIL

NO SCALE

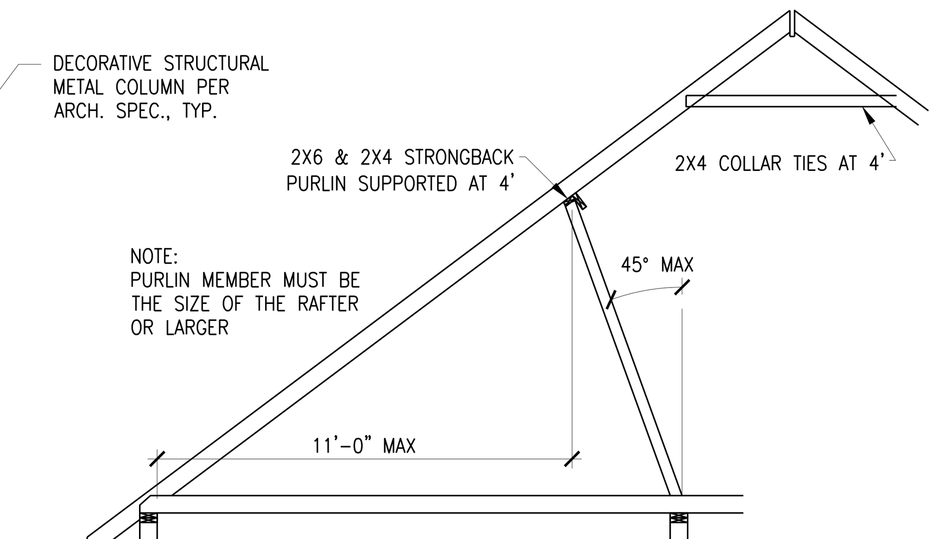
TALL WALL SCHEDULE		
SECTION	SPACING	MAX HEIGHT
2X6	16" O.C.	10'-0"
2X6	12" O.C.	12'-0"
2X6	8" O.C.	14'-0"
2X6	6" O.C.	19'-6" *
2X6	4" O.C.	21'-0" *
2X8	16" O.C.	15'-0"
2X8	12" O.C.	16'-5"
2X8	8" O.C.	15'-5"
2X8	4" O.C.	29-6" **

* BASED ON ALLOWABLE DEFLECTION OF H/240 PER IRC TABLE R301.7, NOT USING STUCCO BRITTLE FINISHES
** BASED ON ALLOWABLE DEFLECTION OF H/180 PER IRC TABLE R301.7, USING EIFS EXTERIOR OR NON BRITTLE FINISH



CEILING PLAN
Scale: 1/4"= 1'-0"

ALL CEILING JOISTS TO BE 2X6 @ 24" O.C.
ALL CEILING JOISTS TO BE 10'-0" U.O.N. ON DRAWINGS



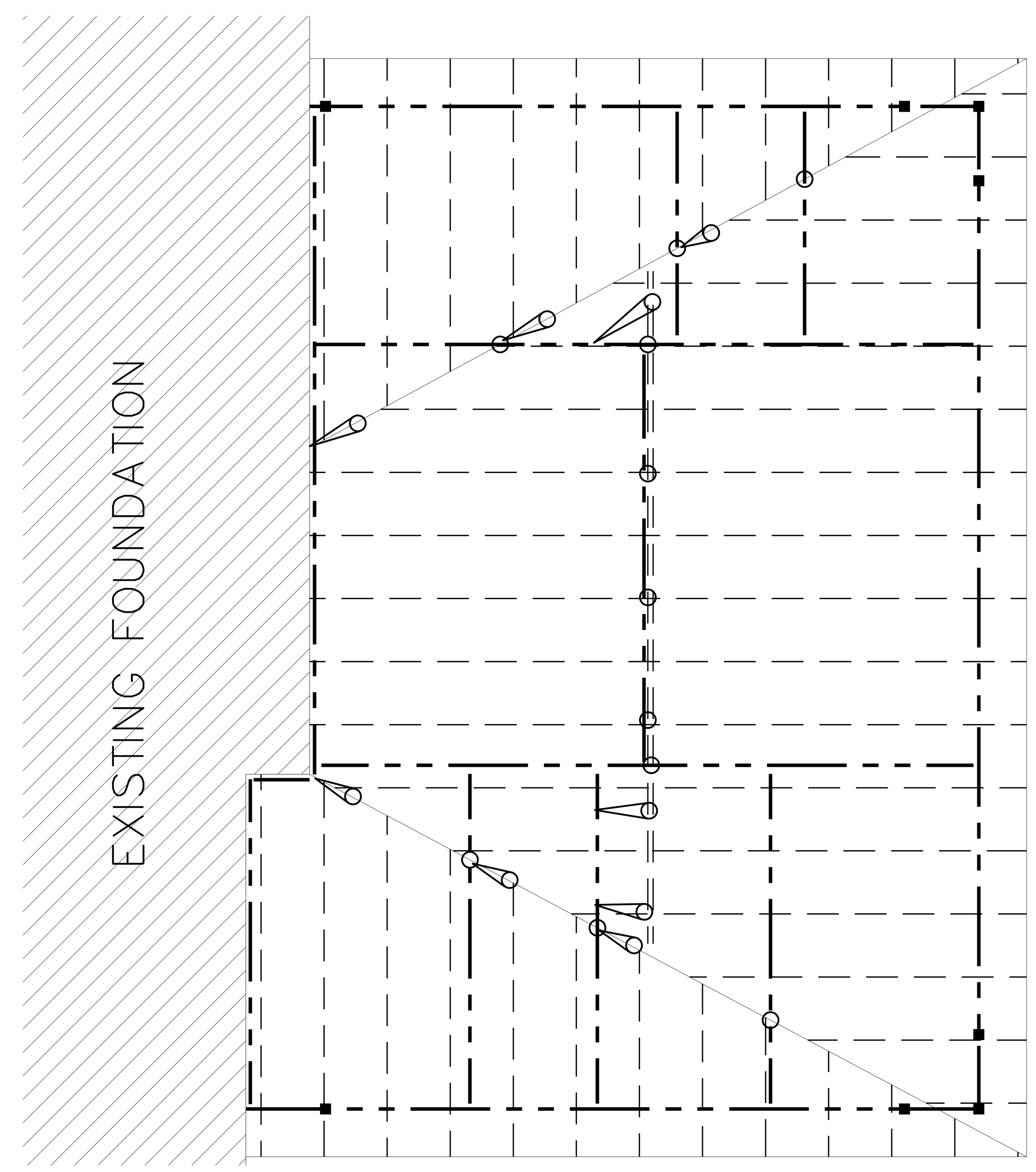
PURLIN SUPPORT FOR 2X6 RAFTERS @ 24"

SIMILAR CONFIGURATION FOR LARGER RAFTERS WITH THE SUPPORT DISTANCE EQUAL TO ALLOWABLE SPAN

HANGER SCHEDULE		
MEMBER	HANGER	REACTION (LBS)
(1) 2x'S	HU SERIES	500 MIN.
(2) 2x10	HU210-2	1,650
(2) 2x12	HU212-2	2,145
(3) 2x10	HU210-3	1,875
(3) 2x12	HU212-3	2,145
3.5X9.25	HUS410	1,860
3.5x11.875	HUS412	2,510
3.5x14	HU416	2,680
3.5x16	HHUS410	5,190
3.5x18	HGUS414	11,180
5.25X9.25	HU5.31/9	1,875
5.25x11.875	HHUS5.5/10	5,190
5.25x14	HHUS5.5/10	5,190
5.25x16	HHUS5.5/10	5,190
5.25x18	HGUS5.5/14	11,180
TJI'S	IUT SERIES	730 MIN
TRUSSES	H SERIES	
* THESE HANGERS ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN		
* ALL HANGERS ARE SIMPSON STRONG TIE.		

HEADER SCHEDULE		
	MAXIMUM SPAN	
SIZE	ONE STORY B.R.	TWO STORY B.R.
2-2x6	3'-6"	2'-5"
2-2x8	4'-5"	3'-2'
2-2x10	5'-5"	3'-10"
2-2x12	6'-3"	4'-5"
* THESE HEADER SIZES ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN		
* ALL MATERIAL TO BE NO.2 S.P. * NUMBER OF STORIES BELOW ROOF LEVEL (B.R.) * USE (2) JACK STUDS FOR 2X12 (1) JACK STUD FOR OTHERS. KING STUDS NO. EQUALS JACK STUD		

NAILING SCHEDULE	
CONNECTIONS	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8D
2. BRIDGING TO JOIST, TOENAIL EA END	2-8D
3. 1"X6" SUBFLOOR OR LESS TO EA JOIST, FACE NAIL	2-8D
4. WIDER THAN 1"X6" SUBFLOOR TO EA JOIST, FACE NAIL	3-8D
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16D
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16D @ 16" OC
7. TOP PLATE TO STUD, END NAIL	2-16D
8. STUD TO SOLE PLATE	4-8, TOENAIL OR 2-16D, END NAIL
9. DOUBLE STUDS, FACE NAIL	16D @ 24" OC
10. DOUBLE TOP PLATES, FACE NAIL	16D @ 16" OC
11. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16D
12. CONTINUOUS HEADER, TWO PIECES	16D @ 16" OC ALONG EA EDGE
13. CEILING JOIST TO PLATE, TOENAIL	3-8D
14. CONTINUOUS HEADER TO STUD, TOENAIL	4-8D
15. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16D
16. CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3-16D
17. RAFTER TO PLATE, TOENAIL	3-8D
18. 1" BRACE TO EA STUD AND PLATE, FACE NAIL	2-8D
19. 1"X8" SHEATHING OR LESS TO EA BEARING, FACE NAIL	2-8D
20. WIDER THAN 1"X8" SHEATHING TO EA BEARING, FACE NAIL	3-8D
21. BUILT-UP CORNER STUDS	16D @ 24" OC
22. BUILT-UP GIRDER AND BEAMS	20D @ 32" OC AT TOP AND BOTTOM AND STAGGERED 2-20D @ EA ENDS AND AT EA SPLICE
23. TRUSS TO PLATE, TOENAIL	3-16D



ROOF FRAMING PLAN
Scale: 1/4"= 1'-0"

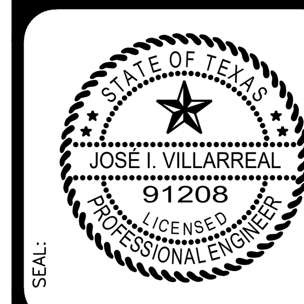
ALL RAFTERS TO BE 2X6 @ 24" O.C. U.O.N
ALL VALLEY BEAMS TO BE (2) 2X8 U.O.N

BEAM SCHEDULE		
MARK	SIZE	JACK STUDS
L1	(2) 1 3/4" X 11 1/4" LVL	(2) 2 X 4/6
L2	(2) 1 3/4" X 14" LVL	(2) 2 X 4/6
L3	(2) 1 3/4" X 16" LVL	(2) 2 X 4/6
L4	(2) 1 3/4" X 18" LVL	(3) 2 X 4/6
L5	(3) 1 3/4" X 11 1/4" LVL	(2) 2 X 6
L6	(3) 1 3/4" X 14" LVL	(2) 2 X 6
L7	(3) 1 3/4" X 16" LVL	(2) 2 X 6
L8	(3) 1 3/4" X 18" LVL	(3) 2 X 6
L9	(3) 1 3/4" X 20" LVL	(4) 2 X 6

NO.	DESCRIPTION	DATE	APPR.
REVISIONS			

FILE:

SEAL:



Villarreal Design Group, LLC
Jose@VillarrealDesign.com
Texas Firm 12109
(210) 725-6100

SHEET TITLE:

FRAMING PLANS

RESIDENCE ADDITION
101 LAUREL HEIGHTS Pl
SAN ANTONIO, TX 78212

JOB NO:	23-464
DATE:	11/10/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR

SHEET:
S-2
OF 2

ROOM FINISH SCHEDULE

RM. NO.		WALLS				FLOOR	BASE	CLG	CABINET	COUNTERTOP	REMARKS
		N	S	E	W						
102	EXISTING STORAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
103	EXISTING GARAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
104	A/V EQUIPMENT	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
105	STAIRS	P-1	P-1	P-1	P-1	WD-1	B-1	CL-1	-	-	
106	STORAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
107	3 CAR GARAGE	P-1	P-1	P-1	P-1	CONCR	B-1	CL-1	-	-	
201	EXERCISE ROOM	P-1	P-1	P-1	P-1	LVT-1	B-1	CL-1	MP-1	CT-1	
202	BATH	P-1	P-1	P-1	P-1	TILE-1	B-2	CL-1	MP-1	CT-2	
203	SHOWER	P-1	P-1	P-1	P-1	TILE-1	B-2	CL-1	-	-	

WALL FINISH

P-1: PAINT, SEMI-GLOSS
MFG:SHERWIN WILLIAMS
COLOR: SW7004 SNOWBOUND
WALL TEXTURE: MEDIUM

FLOOR FINISH

CONCR: EXPOSED POLISHED CONCRETE.

WD-1: 3" SOLID PINE PLANK FLOORING WITH POLYURETHANE FINISH.

LVT-1: MOHAWK HOT AND HEAVY COLLECTION. STYLE: GROWN UP C0075. COLOR: VERA

TILE-1: T.B.D.

BASE FINISH

B-1: WOOD 6" PTD. WHITE

B-2: 4" TILE BASE: T.B.D.

CEILING FINISH

CL-1 : 5/8" GYPSUMB BOARD CEILING OVER WOOD JOISTS.

CABINET FINISH:

MP-1: COLOR: PEARL WHITE (VERIFY WITH OWNER)

COUNTER:

CT-1: GRANITE - 1" OR EQ. - WHITE

CT-2: SILESTONE - 1" OR EQ. - WHITE


POOL SHOT


RAM