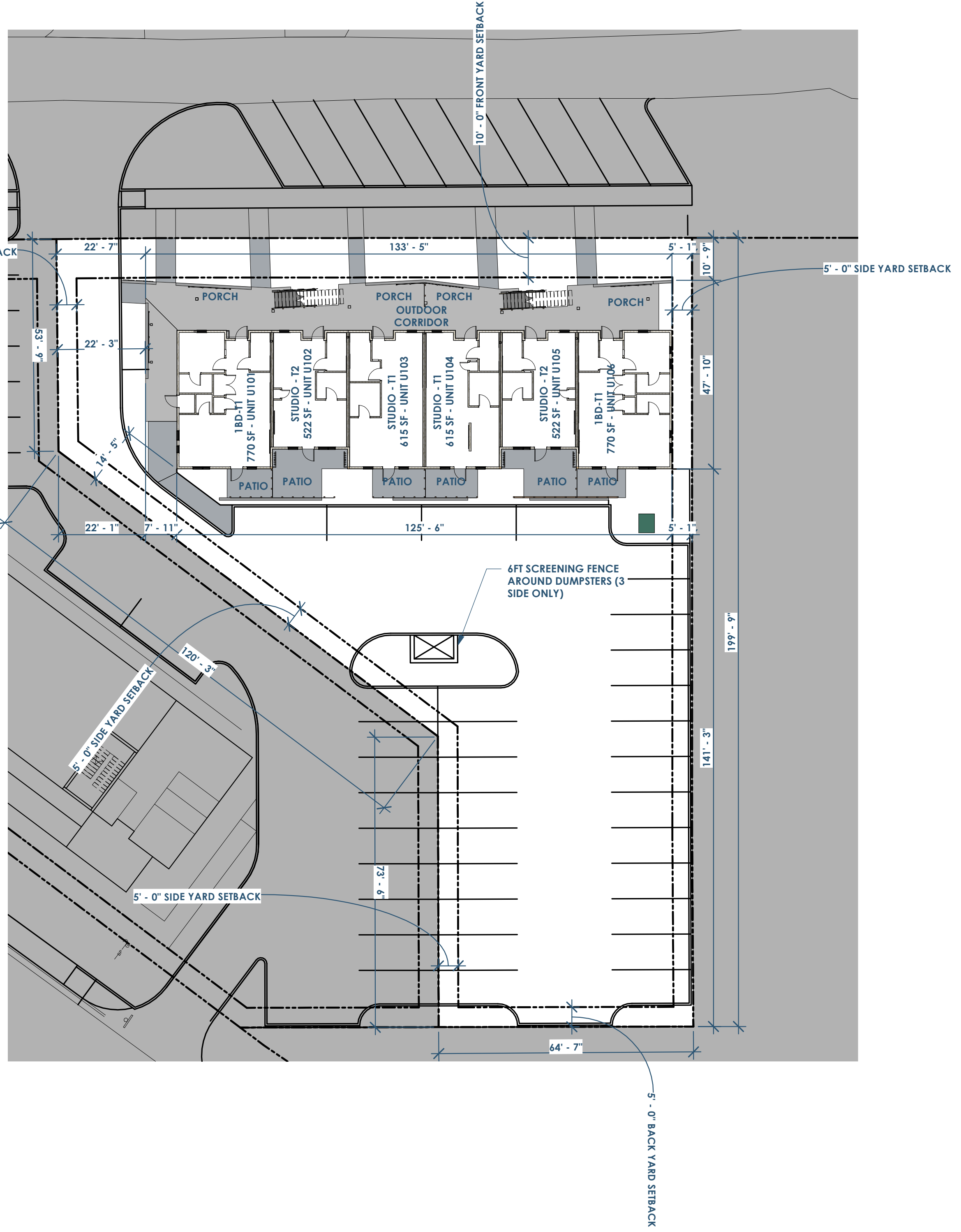


MARCO POLO - 101 W 33RD STREET

CITY OF BRYAN TOWNSITE, BLOCK 96, LOT 3-5 & PT OF 6 & PT OF ALLEY



68 G000 SITE PLAN
1" = 20'-0"

| CODE INFORMATION | |
|-------------------|---|
| APPLICABLE CODES: | <p>GENERAL:</p> <ul style="list-style-type: none"> BUILDING/DWELLING CODE IBC 2015 & AHJ AMENDMENTS EXISTING ENERGY CONSERVATION: INTERNATIONAL ENERGY CONSERVATION CODE 2015 & AHJ AMENDMENTS PLUMBING: MECHANICAL CODE IMC 2015 & AHJ AMENDMENTS ELECTRICAL: ELECTRICAL CODE NEC 2017 & AHJ AMENDMENTS FIRE: FIRE/LIFE SAFETY CODE 2009 NFPA-1 & AHJ AMENDMENTS ACCESSIBILITY: ANSI STANDARD A117.1-2009- FOR ACCESSIBILITY FUEL: INTERNATIONAL FUEL GAS CODE 2015 & AHJ AMENDMENTS <p>CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION: SECTION 420 GROUPS I-1, R-1, R-2, R-3 AND R-4</p> <p>CHAPTER 5 CLASSIFICATION OF WORK: NEW</p> <p>504.3 HEIGHT IN FEET R-2 - TYPE VB (SPRINKLERED): • ACTUAL: 35FT • ALLOWED: 40FT</p> <p>504.4 NUMBER OF STORIES R-2 - TYPE VB (SPRINKLERED): • ACTUAL: 3 • ALLOWED: 4</p> <p>506.2 ALLOWABLE AREA DETERMINATION 506.3 FRONTAGE INCREASE: <ul style="list-style-type: none"> TABULAR PER FLOOR AREA LIMIT PER CHAPTER 5 = 7000 SQ.FT. ALLOW HEIGHT = 40 FT; ALLOW STORIES = 3 NFPA 13 SPRINKLERS COMPUTE AREA INCREASE DUE TO FRONTAGE: FRONTAGE COEFFICIENT, IF 0.589 PERIMETER: P 354 FT FRONTAGE PERIMETER: F 304 FT WEIGHTED AVERAGE DISTANCE FROM "F" = 228.75 FT COMPUTE ALLOWABLE PER STORY AREA, AA = AT + (NS X IF) = 25120.94 SQ.FT. MAXIMUM ALLOWABLE AREA = AA X 3 = 75362.83 SQ.FT. MAXIMUM NUMBER OF STORIES FOR GROUP R WITH NFPA 13R SPRINKLERS, PER SEC. 903.3.1.2 THIS CRITERIA IS MET, SO STORY LIMIT = 3 THE REVISED ALLOWABLE HEIGHT IS 40 FT. </p> <p>508.3 NONSEPARATED OCCUPANCIES: N/A</p> <p>508.4 SEPARATED OCCUPANCIES N/A</p> <p>TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS) TYPE-VB FIRE SEPARATION DISTANCE <ul style="list-style-type: none"> X 5C = 1 HR 5 S X 10 = 1 HR 10 S X 50 = 0 HR X 2-30 = 0 HR </p> <p>708.3 FIRE-RESISTANCE RATING CORRIDORS: 1/2HR RATED DWELLING UNIT AND SLEEPING UNIT SEPARATIONS: 1/2HR RATED</p> <p>711.2.4.3 DWELLING UNITS AND SLEEPING UNITS FOR SPRINKLERED R-2: INTERIOR EXIT STAIRWAYS AND RAMPS AND EXIT PASSAGEWAYS: CLASS C CORRIDORS AND ENCLOSURE FOR EXIT ACCESS STAIRWAYS AND RAMPS: CLASS C ROOMS AND ENCLOSED: CLASS C</p> <p>SPRINKLERS (SECTION 903 AUTOMATIC SPRINKLER SYSTEMS): SECTION 1020 CORRIDORS CORRIDORS: 1/2HR RATED SEE SECTION 1021 EGRESS BALCONIES FOR CORRIDOR RATING AT EXTERIOR WALL</p> <p>SECTION 1004 OCCUPANT LOAD TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT RESIDENTIAL: 200 GROSS</p> <p>1004.2.1 EGRESS BASED ON OCCUPANT LOAD AND COMMON PATH OF EGRESS TRAVEL DISTANCE: SECTION 1017 EXIT ACCESS TRAVEL DISTANCE: SOFT (WITH NFPA13 SPRINKLERS) EXTERIOR EGRESS BALCONIES SHALL BE SEPARATED FROM THE INTERIOR OF THE BUILDING BY WALLS AND OPENING PROTECTIVES AS REQUIRED FOR CORRIDORS.</p> <p>SECTION 1020 CORRIDORS 1020.1 CONSTRUCTION CORRIDORS SHALL BE FIRE-RESISTANCE-RATED IN ACCORDANCE WITH TABLE 1020.1. THE CORRIDOR WALLS REQUIRED TO BE FIRE-RESISTANCE-RATED SHALL COMPLY WITH SECTION 708 FOR FIRE PARTITIONS. EXCEPTIONS: CORRIDORS ADJACENT TO THE EXTERIOR WALLS OF BUILDINGS SHALL BE PERMITTED TO HAVE UNPROTECTED OPENINGS ON UNRATED EXTERIOR WALLS WHERE UNRATED WALLS ARE PERMITTED BY TABLE 602 AND UNPROTECTED OPENINGS ARE PERMITTED BY TABLE 705.8.</p> <p>2902.1 MINIMUM NUMBER OF FIXTURES CLASSIFICATION & OCCUPANCY: ... R-2 • WATER CLOSETS: 1 PER DWELLING • LAVATORIES: 1 PER DWELLING • BATHTUBS/ SHOWERS: 1 PER DWELLING</p> |

GENERAL NOTES

- GENERAL CONTRACTOR RESPONSIBLE FOR ALL FEES ASSOCIATED WITH PERMITS, APPLICATIONS, TAXES, AND CERTIFICATES OF INSPECTIONS.
- ANY CONSTRUCTION THAT DEVIATES FROM THE DRAWING IS UNAUTHORIZED, IF NOT AUTHORIZED BY THE ARCHITECT. IN SUCH AN EVENT, CONTRACTOR IS RESPONSIBLE FOR ANY REWORK THAT MIGHT BE REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR ALL THE RULES/REGULATIONS OF THE AUTHORITY HAVING JURISDICTION, INCLUDED, BUT NOT LIMITED TO ALL CITY, TOWNSHIP, COUNTY, STATE, AND FEDERAL CODES, STATUTES, AND ORDINANCES.
- CONTRACTORS SHALL VISIT THE SITE PRIOR TO CONSTRUCTION TO DETERMINE HOW NEW CONSTRUCTION IS COMPATIBLE WITH EXISTING CONDITIONS.
- CONTRACTOR TO NOTIFY ARCHITECT IF THERE ARE ANY OMISSIONS, CONFLICTS, OR DISCREPANCIES IN THE DRAWINGS BEFORE ANY CONSTRUCTION TAKES PLACE. A FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR RESPONSIBLE FOR ANY REWORK.
- CONTRACTOR RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND TAKEOFFS BEFORE BIDDING AND/OR ORDERING MATERIALS. CONTRACTOR WILL NOTIFY ARCHITECT IF THERE ARE DRAWING CONFLICTS AND AWAIT DIRECTION BEFORE COMMENCING.
- DO NOT SCALE THE DRAWINGS.
- ALL THROUGH AND MEMBRANE PENETRATIONS AT ALL FIRE/SMOKE RATED PARTITIONS/CEILING/FLOORS TO BE SEALED WITH A CODE COMPLIANT, U.L. APPROVED FIRE STOP.
- GENERAL CONTRACTOR TO COORDINATE THE SIZE/LOCATION OF ANY ACCESS PANELS AND/OR CLEAN OUTS WITH THE M/E/P CONTRACTOR AND ARCHITECT.
- ALL CONTRACTORS AND VENDORS TO FAMILIARIZE THEMSELVES WITH THE ENTIRE DRAWING SET, AS REQUIRED INFORMATION MAY BE ON MULTIPLE SHEETS AND ALTERNATE DISCIPLINES.
- ANY FURNITURE SHOWN IS FOR REFERENCE AND IS NOT IN THE CONTRACTOR. CONTRACTORS SHALL BE RESPONSIBLE FOR REPAIRING ANY PROPERTY DAMAGE THAT MAY HAVE RESULTED FROM THEIR WORK.
- OWNER RESPONSIBLE FOR ANY WORK NOT SPECIFICALLY CALLED OUT IN THE DRAWINGS.
- ANY CHANGE THAT RESULTS IN ADDITIONAL COST/TIME MUST BE APPROVED BY THE OWNER/ARCHITECT PRIOR TO CONSTRUCTION.
- DETAILS ARE TO BE INTERPRETED AS TYPICAL, THAT IS, UNLESS SPECIFICALLY CALLED OUT OTHERWISE, THE DETAIL IS TO BE APPLIED TO SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
- ALL EXTERIOR FLATWORK AROUND THE BUILDING TO SLOPE A MINIMUM OF 2% AWAY FROM THE BUILDING.
- ANY PENETRATIONS IN THE EXTERIOR ENVELOPE TO BE SEALED TO PREVENT ANY AIR/WATER LEAKAGE PER IBC CODE REQUIREMENTS.
- ALL FINISH AND COLOR SELECTIONS TO BE VERIFIED WITH ARCHITECT UNLESS OTHERWISE NOTED, SLOPE FLOOR 2% TOWARD ANY DRAINS INDICATED ON THE DRAWINGS.
- CONTRACTOR SHALL KEEP THE CONSTRUCTION CLEAN-REMOVING ANY ACCUMULATION OF DEBRIS AND/OR UNUSED EQUIPMENT.
- CONTRACTOR TO BE RESPONSIBLE FOR THE COLLECTION, TRANSPORT AND DISPOSAL OF ALL CONSTRUCTION WASTE.
- CONTRACTORS RESPONSIBLE FOR ANY TEMPORARY SHORING THAT MIGHT BE NECESSARY DURING CONSTRUCTION, ALL SHORING TO BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER RETAINED BY THE CONTRACTOR.
- GENERAL CONTRACTOR TO VERIFY WITH THE M/E/P CONTRACTORS ALL PIPE/DUCT LOCATION PRIOR TO FRAMING.
- MANUFACTURED MATERIAL/EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
- CONTRACTOR TO PROTECT ANY EXPOSED CONCRETE THAT IS MEANT TO BE A FINISHED SURFACE.
- GENERAL CONTRACTOR TO PROVIDE ARCHITECT AT LEAST (2) WEEKS WHEN REVIEWING ANY SHOP DRAWINGS AND/OR SUBSTITUTION REQUESTS.
- REVIEW OF SHOP DRAWINGS DOES NOT CONSTITUTE THE APPROVAL OF SAFETY REQUIREMENTS AND/OR CONSTRUCTION MEAN AND METHODS.
- THE PRESENCE OF THE ARCHITECT ON SITE DOES NOT CONSTITUTE APPROVAL OF THE WORK. THE CONTRACTOR SHALL CALL THE ARCHITECT'S ATTENTION TO ANYTHING SPECIFICALLY NEEDS THE ARCHITECT'S APPROVAL.
- ONLY ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN COORDINATED WITH THE ARCHITECT. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY WORK OUTSIDE THESE SCOPES (M/E/P, FOR EXAMPLE) THAT INTERFERES WITH THIS ARCHITECT DRAWING SET.
- GENERAL CONTRACTOR TO EDUCATE THE OWNER ON THE OPERATION AND MAINTENANCE OF ALL INSTALLED PRODUCT AND/OR EQUIPMENT.
- PRIOR TO SUBSTANTIAL COMPLETION, THE CONTRACTOR SHALL CLEAN SITE AND DELIVER ALL REQUIRED GUARANTEES, LIEN WAIVERS AND MAINTENANCE MANUALS.
- ARCHITECT NOT RESPONSIBLE FOR THE EXPLORATION, PRESENCE, HANDLING, AND/OR ADVERSE EXPOSURE OF ANY HAZARDOUS MATERIALS, IN ANY FORM, INCLUDING, BUT NOT LIMITED TO ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB) OR OTHER TOXIC SUBSTANCES.
- ALL EXTERIOR STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED, ALL NOTICING, DRILLING, WELDING AND BENDING DONE PRIOR TO DIPPING.
- ANY PRODUCT OR MATERIALS THAT ARE NOT CALLED OUT IN THE DRAWINGS, BUT REQUIRED FOR PROPER INSTALLATION AND PERFORMANCE OF THE WORK, SHALL BE PROVIDED BY THE CONTRACTOR.
- THE CONTRACTOR TO PROVIDE ALL THE NECESSARY BLOCKING AND/OR STRUCTURAL SUPPORT REQUIRE TO PROPERLY INSTALL MOUNTED ASSEMBLIES, INCLUDED BY NOT LIMITED TO GRAB BARS, PLUMBING FIXTURES, MILLWORK AND CASEWORK.
- MAINTAIN INGRESS AND EGRESS TO THE PROJECT SITE.

| SHEET INDEX | | |
|--------------|--|------------------------------|
| Sheet Number | Sheet Name | Sheet Last Issue Date |
| G000 | COVER | 06/10/22 - Issued for Permit |
| G001 | CODE & LIFE SAFETY | 06/10/22 - Issued for Permit |
| S0.0 | TYPICAL GENERAL NOTES | 06/10/22 - Issued for Permit |
| S0.01 | STATEMENT OF SPECIAL INSPECTIONS | 06/10/22 - Issued for Permit |
| S0.1 | FOUNDATION PLAN | 06/10/22 - Issued for Permit |
| S0.1A | FOUNDATION NOTES AND 3D | 06/10/22 - Issued for Permit |
| S0.2 | FRAMING PLAN - 2ND FLOOR | 06/10/22 - Issued for Permit |
| S0.3 | FRAMING PLAN - 3RD FLOOR | 06/10/22 - Issued for Permit |
| S0.4 | FRAMING PLAN - ROOF | 06/10/22 - Issued for Permit |
| S3.0 | FOUNDATION DETAILS | 06/10/22 - Issued for Permit |
| S3.1 | FOUNDATION DETAILS | 06/10/22 - Issued for Permit |
| S4.0 | TYPICAL WOOD FRAMING DETAILS | 06/10/22 - Issued for Permit |
| S4.1 | TYPICAL WOOD FRAMING WALL DETAILS | 06/10/22 - Issued for Permit |
| S4.2 | TYPICAL WOOD FLOOR TRUSS DETAILS | 06/10/22 - Issued for Permit |
| S4.3 | TYPICAL WOOD FRAMING LATERAL DETAILS | 06/10/22 - Issued for Permit |
| S4.4 | TYPICAL WOOD ROOF TRUSS DETAILS | 06/10/22 - Issued for Permit |
| S4.5 | TYPICAL STEEL DETAILS | 06/10/22 - Issued for Permit |
| A101 | FLOOR PLAN - 1ST | 06/10/22 - Issued for Permit |
| A102 | FLOOR PLAN - 2ND | 06/10/22 - Issued for Permit |
| A103 | FLOOR PLAN - 3RD | 06/10/22 - Issued for Permit |
| A104 | FLOOR PLAN - ROOF | 06/10/22 - Issued for Permit |
| A150 | REFLECTED CEILING PLANS | 06/10/22 - Issued for Permit |
| A200 | BUILDING ELEVATION - NORTH/WEST | 06/10/22 - Issued for Permit |
| A201 | BUILDING ELEVATION - SOUTH/EAST | 06/10/22 - Issued for Permit |
| A300 | BUILDING SECTIONS | 06/10/22 - Issued for Permit |
| A301 | BUILDING SECTIONS | 06/10/22 - Issued for Permit |
| A302 | BUILDING SECTIONS | 06/10/22 - Issued for Permit |
| A303 | BUILDING SECTIONS | 06/10/22 - Issued for Permit |
| A400 | WALL SECTIONS | 06/10/22 - Issued for Permit |
| A401 | WALL SECTIONS | 06/10/22 - Issued for Permit |
| A402 | WALL SECTIONS | 06/10/22 - Issued for Permit |
| A403 | WALL SECTIONS | 06/10/22 - Issued for Permit |
| A411 | STAIR SECTIONS | 06/10/22 - Issued for Permit |
| A412 | STAIR SECTIONS | 06/10/22 - Issued for Permit |
| A470 | UNIT PLANS - STUDIOS - LONG AND SHORT - (TYPE B & ADA UNIT - 1ST FLOOR ONLY) | 06/10/22 - Issued for Permit |
| A471 | UNIT PLANS - (TYPE A ADA UNIT - 1ST FLOOR ONLY) | 06/10/22 - Issued for Permit |
| A472 | UNIT PLANS - 1BD - END UNITS | 06/10/22 - Issued for Permit |
| A500 | LARGE SCALE DETAILS | 06/10/22 - Issued for Permit |
| A501 | LARGE SCALE DETAILS | 06/10/22 - Issued for Permit |
| A502 | LARGE SCALE DETAILS | 06/10/22 - Issued for Permit |
| A503 | LARGE SCALE DETAILS | 06/10/22 - Issued for Permit |
| A504 | LARGE SCALE DETAILS | 06/10/22 - Issued for Permit |
| A505 | LARGE SCALE DETAILS | 06/10/22 - Issued for Permit |
| A506 | LARGE SCALE DETAILS | 06/10/22 - Issued for Permit |
| A600 | SCHEDULES | 06/10/22 - Issued for Permit |
| A610 | WALL - FIRE RATED ASSEMBLY DETAIL - U341 | 06/10/22 - Issued for Permit |
| A611 | WALL - FIRE RATED ASSEMBLY DETAIL - U305 | 06/10/22 - Issued for Permit |
| A612 | FLOOR - FIRE RATED ASSEMBLY DETAIL - L521 | 06/10/22 - Issued for Permit |
| A613 | FLOOR - FIRE RATED ASSEMBLY DETAIL - L521 CONT. | 06/10/22 - Issued for Permit |
| A614 | FIRE STOP DETAILS - FLOOR | 06/10/22 - Issued for Permit |
| A615 | FIRE STOP DETAILS - FLOOR | 06/10/22 - Issued for Permit |
| A616 | FIRE STOP DETAILS - FLOOR | 06/10/22 - Issued for Permit |
| A617 | FIRE STOP DETAILS - WALLS | 06/10/22 - Issued for Permit |
| A751 | ADA - TYPE A AND B | 06/10/22 - Issued for Permit |
| A800 | PARTITION DETAILS - WOOD STUDS | 06/10/22 - Issued for Permit |
| P100 | PLUMBING PLAN TYPICAL UNIT | 06/10/22 - Issued for Permit |
| P101 | PLUMBING PLAN 1ST FLOOR | 06/10/22 - Issued for Permit |
| P102 | PLUMBING PLAN 2ND FLOOR | 06/10/22 - Issued for Permit |
| P103 | PLUMBING PLAN 3RD FLOOR | 06/10/22 - Issued for Permit |
| P104 | PLUMBING PLAN ROOF | 06/10/22 - Issued for Permit |
| P200 | PLUMBING RISERS | 06/10/22 - Issued for Permit |
| P201 | PLUMBING DETAILS | 06/10/22 - Issued for Permit |
| P300 | PLUMBING NOTES & SCHEDULES | 06/10/22 - Issued for Permit |
| MEP100 | MEP SITE PLAN | 06/10/22 - Issued for Permit |
| MEP101 | SITE LIGHTING LEVELS | 06/10/22 - Issued for Permit |
| M100 | MECHANICAL PLAN TYPICAL UNIT | 06/10/22 - Issued for Permit |
| M101 | MECHANICAL PLAN 1ST FLOOR | 06/10/22 - Issued for Permit |
| M102 | MECHANICAL PLAN 2ND FLOOR | 06/10/22 - Issued for Permit |
| M103 | MECHANICAL PLAN 3RD FLOOR | 06/10/22 - Issued for Permit |
| M104 | MECHANICAL PLAN ROOF | 06/10/22 - Issued for Permit |
| M200 | MECHANICAL DETAILS | 06/10/22 - Issued for Permit |
| M300 | MECHANICAL NOTES & SCHEDULES | 06/10/22 - Issued for Permit |
| E100 | ELECTRICAL POWER PLAN TYPICAL UNIT | 06/10/22 - Issued for Permit |
| E101 | ELECTRICAL POWER PLAN 1ST FLOOR | 06/10/22 - Issued for Permit |
| E102 | ELECTRICAL POWER PLAN 2ND FLOOR | 06/10/22 - Issued for Permit |
| E103 | ELECTRICAL POWER PLAN 3RD FLOOR | 06/10/22 - Issued for Permit |
| E104 | ELECTRICAL POWER PLAN ROOF | 06/10/22 - Issued for Permit |
| E120 | ELECTRICAL LIGHTING PLAN TYPICAL UNIT | 06/10/22 - Issued for Permit |
| E121 | ELECTRICAL LIGHTING PLAN 1ST FLOOR | 06/10/22 - Issued for Permit |
| E122 | ELECTRICAL LIGHTING PLAN 2ND & 3RD FLOOR | 06/10/22 - Issued for Permit |
| E200 | ELECTRICAL RISER & DETAILS | 06/10/22 - Issued for Permit |
| E201 | ELECTRICAL PANEL SCHEDULES | 06/10/22 - Issued for Permit |
| E300 | ELECTRICAL NOTES AND SCHEDULES | 06/10/22 - Issued for Permit |



2A G000 VICINITY MAP
1" = 200'-0"

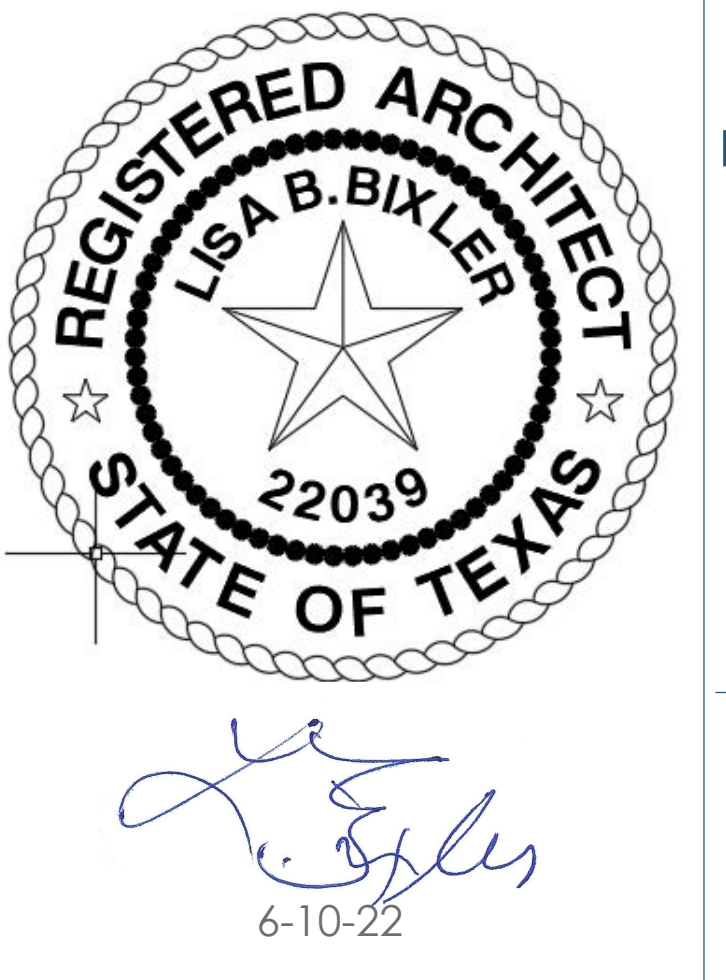
COVER

RENOVATION
Owner: Renovation Wranglers
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Bryan, TX 77803
kate@renovation.com | 979.450.9969

ARCHITECTURE
Architect of Record: LKB Architecture
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Houston, TX 77019
lisa@lkbarchitecture.com | 713.425.3076

STRUCTURAL
Structural: Dudley
6102 Imperial Loop Drive
College Station, TX 77845
(979) 777-0720

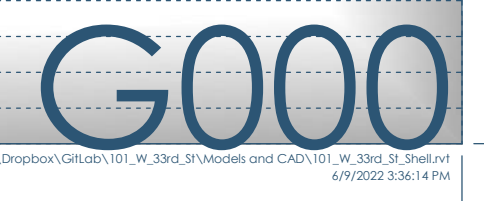
MEP: AMC Engineers
508 E Jackson St # 552
Barnett, TX 78611
info@amcengineers.com



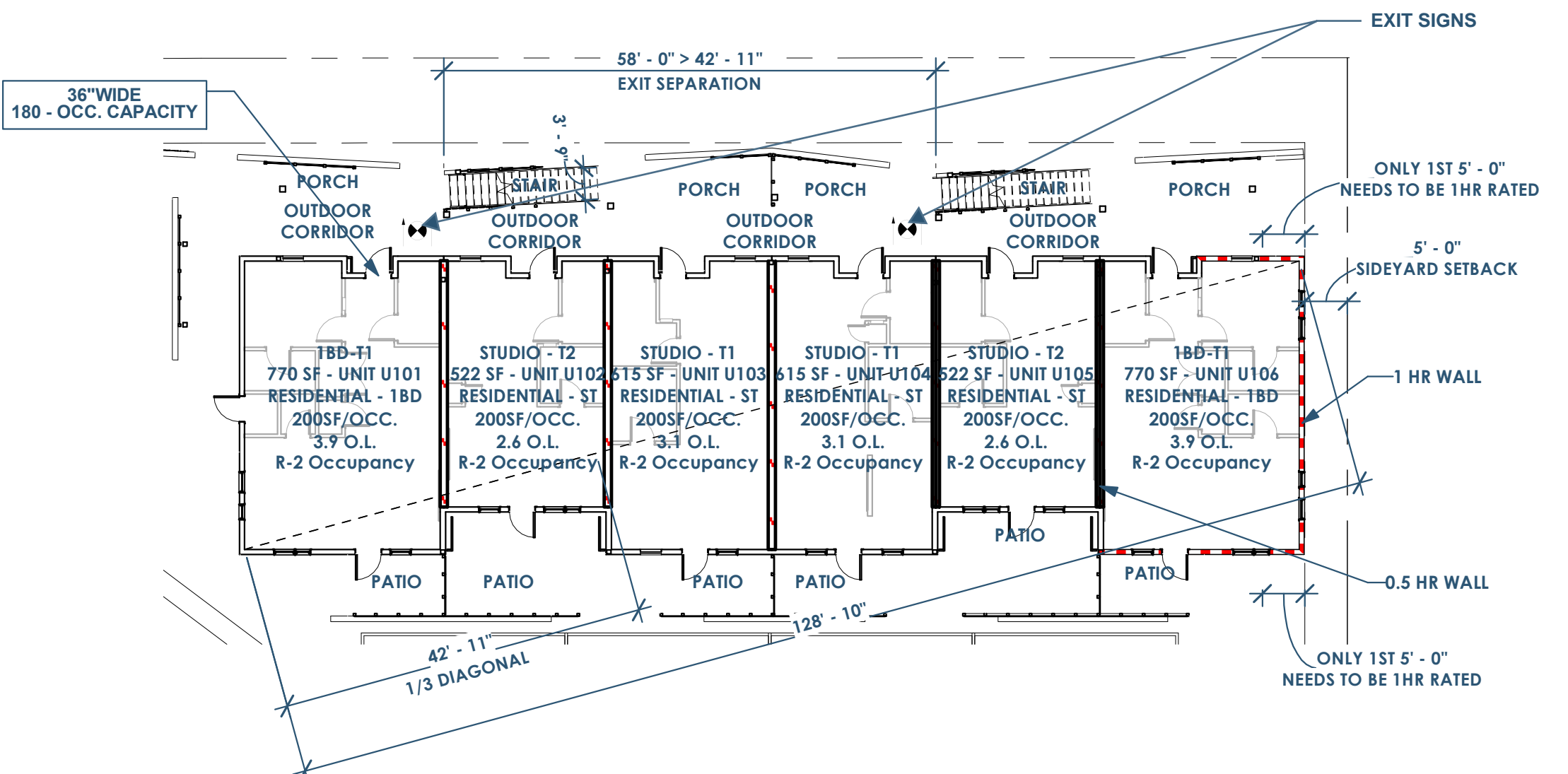
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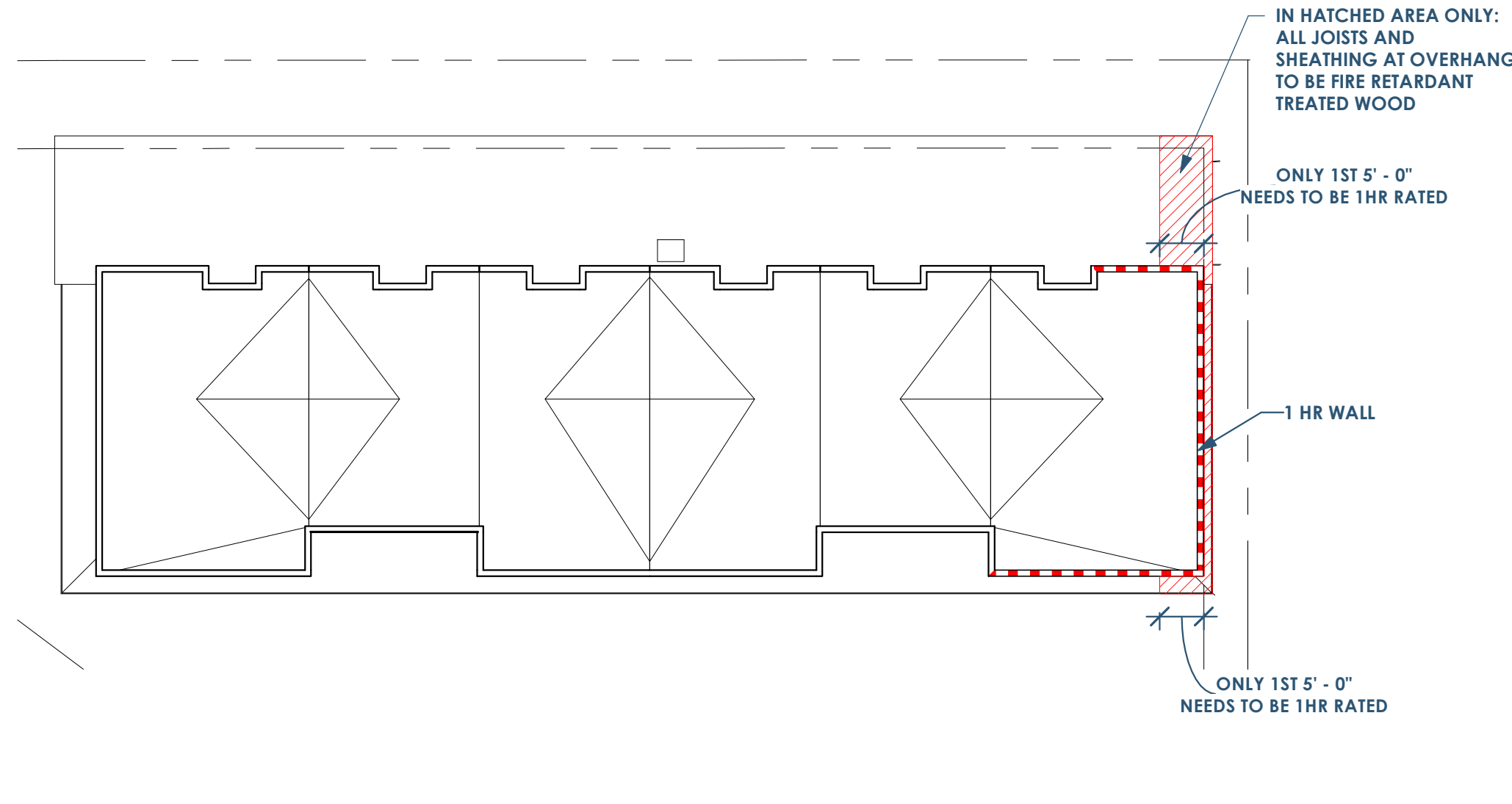
| Date | Description |
|------------|-------------------|
| 06/10/2022 | Issued for Permit |



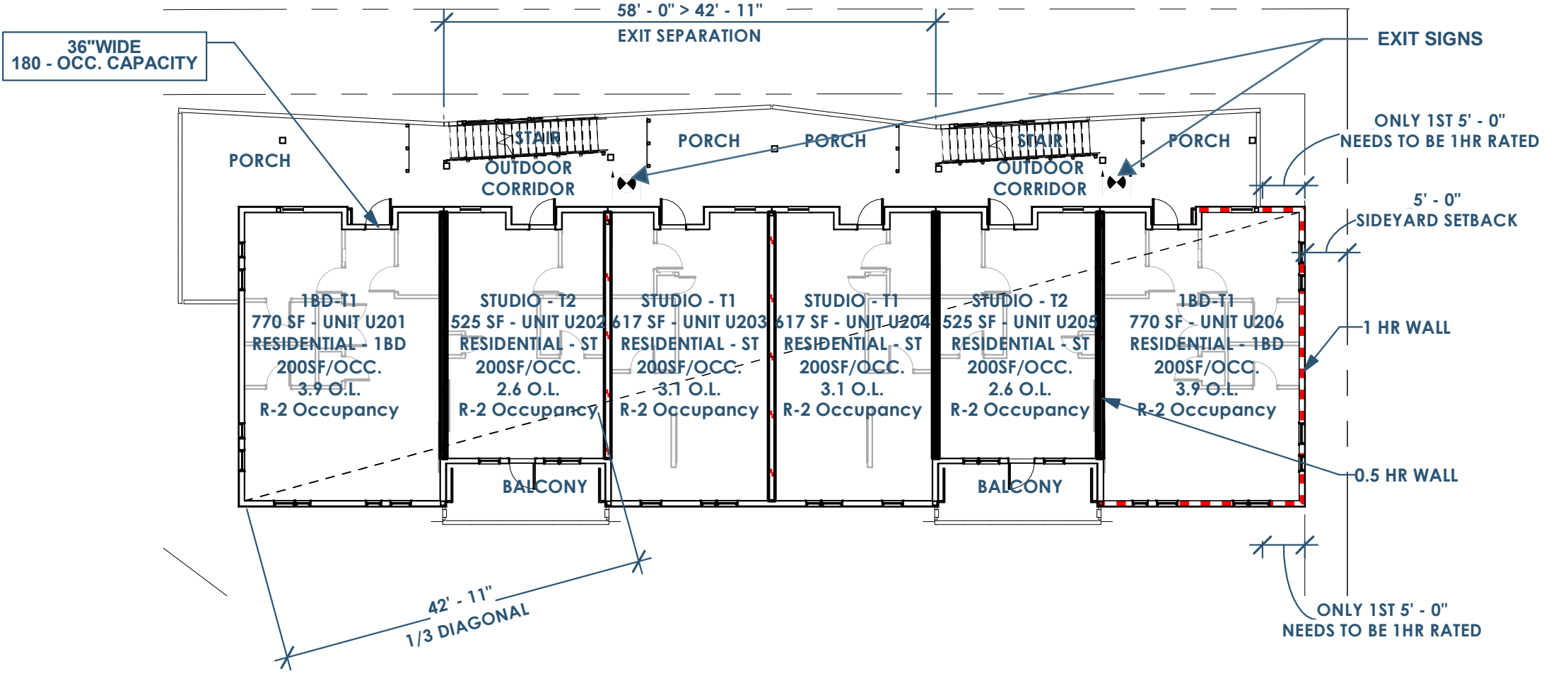
| OCCUPANT LOAD (BASED ON TABLE 1004.1.2) | | | | | | |
|---|------------------|-----------|----------|-------------------|-----------------------------|---------------|
| Level | Name | Occupancy | Area | Function of Space | Area Allowance Per Occupant | Occupant Load |
| 1ST FLOOR | OUTDOOR CORRIDOR | R-2 | 759 SF | CIRCULATION | 200 | 3.8 |
| 1ST FLOOR | STAIR | R-2 | 84 SF | CIRCULATION | 200 | 0.4 |
| 1ST FLOOR | STAIR | R-2 | 84 SF | CIRCULATION | 200 | 0.4 |
| 1ST FLOOR | PATIO | R-2 | 84 SF | RESIDENTIAL | 200 | 0.4 |
| 1ST FLOOR | PATIO | R-2 | 149 SF | RESIDENTIAL | 200 | 0.7 |
| 1ST FLOOR | PATIO | R-2 | 98 SF | RESIDENTIAL | 200 | 0.5 |
| 1ST FLOOR | PATIO | R-2 | 96 SF | RESIDENTIAL | 200 | 0.5 |
| 1ST FLOOR | PATIO | R-2 | 141 SF | RESIDENTIAL | 200 | 0.8 |
| 1ST FLOOR | PATIO | R-2 | 90 SF | RESIDENTIAL | 200 | 0.4 |
| 1ST FLOOR | PORCH | R-2 | 145 SF | RESIDENTIAL | 200 | 0.7 |
| 1ST FLOOR | PORCH | R-2 | 97 SF | RESIDENTIAL | 200 | 0.5 |
| 1ST FLOOR | PORCH | R-2 | 94 SF | RESIDENTIAL | 200 | 0.5 |
| 1ST FLOOR | PORCH | R-2 | 86 SF | RESIDENTIAL | 200 | 0.4 |
| 1ST FLOOR | 1BD-T1 | R-2 | 770 SF | RESIDENTIAL - 1BD | 200 | 3.9 |
| 1ST FLOOR | 1BD-T1 | R-2 | 770 SF | RESIDENTIAL - 1BD | 200 | 3.9 |
| 1ST FLOOR | STUDIO - T1 | R-2 | 615 SF | RESIDENTIAL - ST | 200 | 3.1 |
| 1ST FLOOR | STUDIO - T1 | R-2 | 615 SF | RESIDENTIAL - ST | 200 | 3.1 |
| 1ST FLOOR | STUDIO - T2 | R-2 | 522 SF | RESIDENTIAL - ST | 200 | 2.6 |
| 1ST FLOOR | STUDIO - T2 | R-2 | 522 SF | RESIDENTIAL - ST | 200 | 2.6 |
| 1ST FLOOR: 19 | | | 5842 SF | | | 29.2 |
| 2ND FLOOR | OUTDOOR CORRIDOR | R-2 | 613 SF | CIRCULATION | 200 | 3.1 |
| 2ND FLOOR | STAIR | R-2 | 84 SF | CIRCULATION | 200 | 0.4 |
| 2ND FLOOR | STAIR | R-2 | 84 SF | CIRCULATION | 200 | 0.4 |
| 2ND FLOOR | BALCONY | R-2 | 123 SF | RESIDENTIAL | 200 | 0.6 |
| 2ND FLOOR | BALCONY | R-2 | 123 SF | RESIDENTIAL | 200 | 0.6 |
| 2ND FLOOR | PORCH | R-2 | 334 SF | RESIDENTIAL | 200 | 1.7 |
| 2ND FLOOR | PORCH | R-2 | 107 SF | RESIDENTIAL | 200 | 0.5 |
| 2ND FLOOR | PORCH | R-2 | 101 SF | RESIDENTIAL | 200 | 0.5 |
| 2ND FLOOR | PORCH | R-2 | 131 SF | RESIDENTIAL | 200 | 0.7 |
| 2ND FLOOR | 1BD-T1 | R-2 | 770 SF | RESIDENTIAL - 1BD | 200 | 3.9 |
| 2ND FLOOR | 1BD-T1 | R-2 | 770 SF | RESIDENTIAL - 1BD | 200 | 3.9 |
| 2ND FLOOR | STUDIO - T1 | R-2 | 617 SF | RESIDENTIAL - ST | 200 | 3.1 |
| 2ND FLOOR | STUDIO - T1 | R-2 | 617 SF | RESIDENTIAL - ST | 200 | 3.1 |
| 2ND FLOOR | STUDIO - T2 | R-2 | 525 SF | RESIDENTIAL - ST | 200 | 2.6 |
| 2ND FLOOR | STUDIO - T2 | R-2 | 525 SF | RESIDENTIAL - ST | 200 | 2.6 |
| 2ND FLOOR: 15 | | | 5524 SF | | | 27.4 |
| 3RD FLOOR | OUTDOOR CORRIDOR | R-2 | 635 SF | CIRCULATION | 200 | 3.2 |
| 3RD FLOOR | STAIR | R-2 | 84 SF | CIRCULATION | 200 | 0.4 |
| 3RD FLOOR | STAIR | R-2 | 81 SF | CIRCULATION | 200 | 0.4 |
| 3RD FLOOR | BALCONY | R-2 | 123 SF | RESIDENTIAL | 200 | 0.6 |
| 3RD FLOOR | BALCONY | R-2 | 123 SF | RESIDENTIAL | 200 | 0.6 |
| 3RD FLOOR | PORCH | R-2 | 224 SF | RESIDENTIAL | 200 | 1.1 |
| 3RD FLOOR | PORCH | R-2 | 107 SF | RESIDENTIAL | 200 | 0.5 |
| 3RD FLOOR | PORCH | R-2 | 101 SF | RESIDENTIAL | 200 | 0.5 |
| 3RD FLOOR | PORCH | R-2 | 131 SF | RESIDENTIAL | 200 | 0.7 |
| 3RD FLOOR | 1BD-T1 | R-2 | 770 SF | RESIDENTIAL - 1BD | 200 | 3.9 |
| 3RD FLOOR | 1BD-T1 | R-2 | 770 SF | RESIDENTIAL - 1BD | 200 | 3.9 |
| 3RD FLOOR | STUDIO - T1 | R-2 | 618 SF | RESIDENTIAL - ST | 200 | 3.1 |
| 3RD FLOOR | STUDIO - T1 | R-2 | 618 SF | RESIDENTIAL - ST | 200 | 3.1 |
| 3RD FLOOR | STUDIO - T2 | R-2 | 525 SF | RESIDENTIAL - ST | 200 | 2.6 |
| 3RD FLOOR | STUDIO - T2 | R-2 | 525 SF | RESIDENTIAL - ST | 200 | 2.6 |
| 3RD FLOOR: 15 | | | 5435 SF | | | 27.2 |
| Grand total: 49 | | | 16804 SF | | | 84.0 |



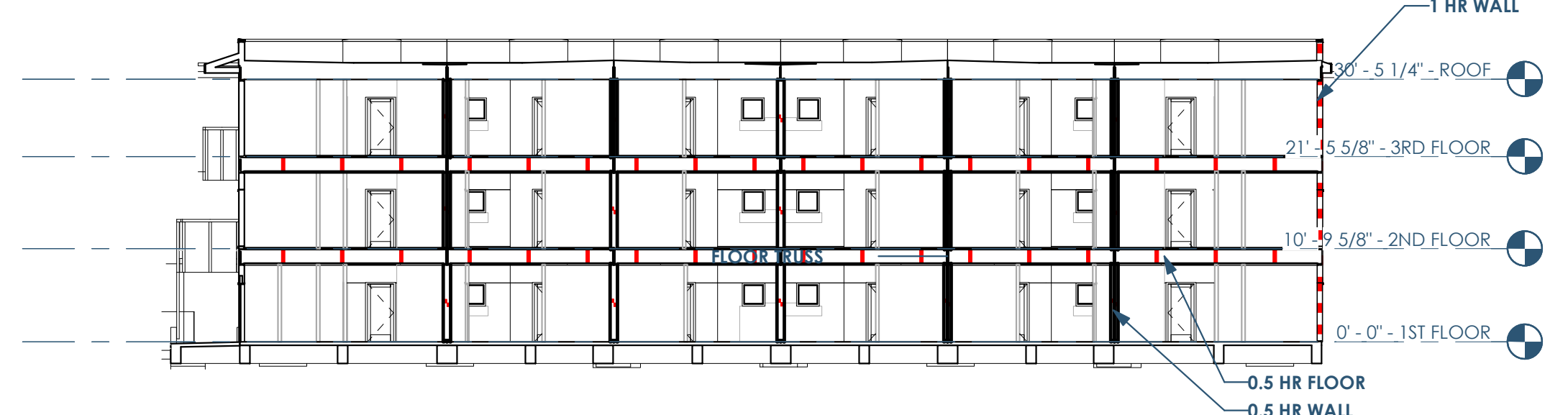
43 G001 LIFE SAFETY - 1ST FLOOR
1/16" = 1'-0"



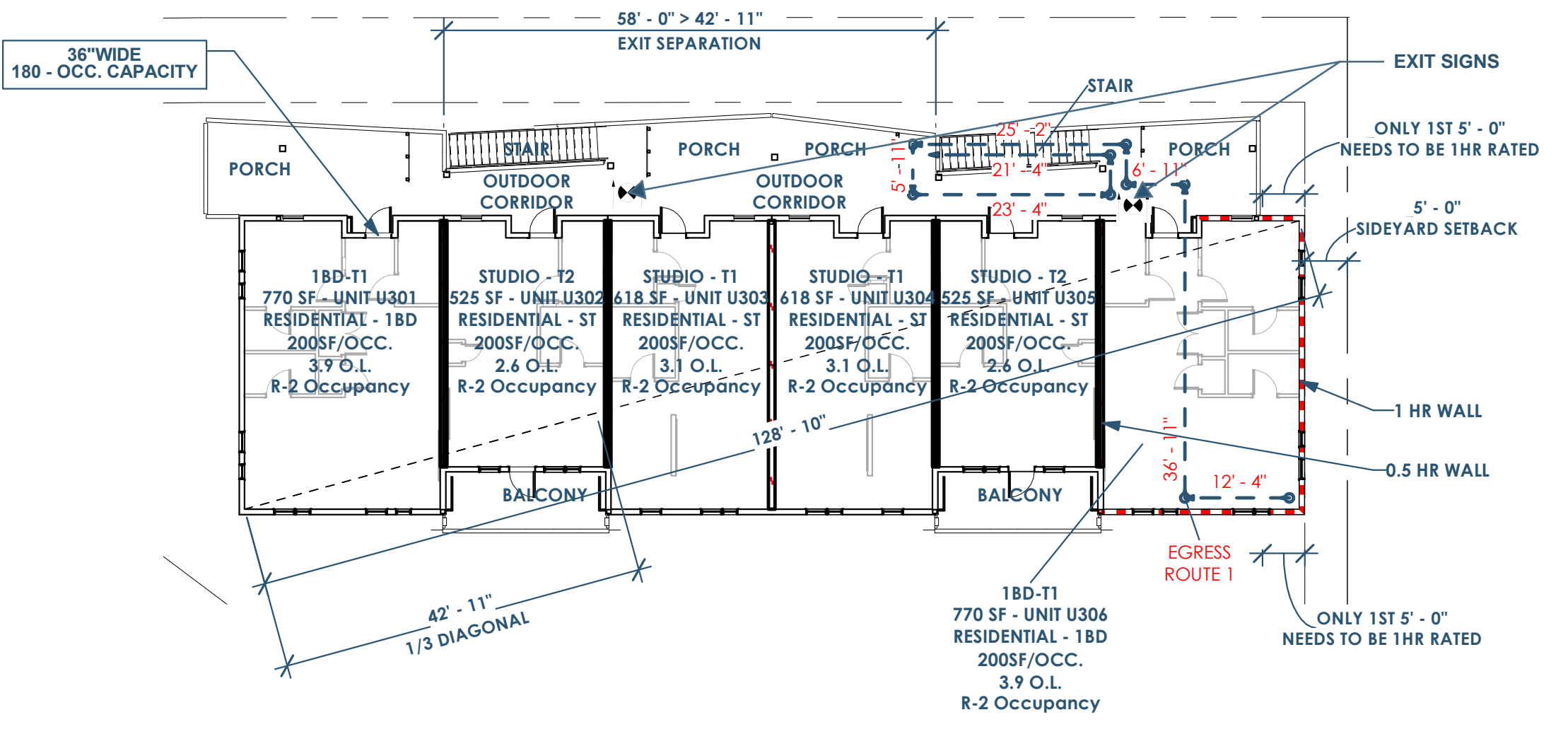
4D G001 LIFE SAFETY - ROOF
1/16" = 1'-0"



48 G001 LIFE SAFETY - 2ND FLOOR
1/16" = 1'-0"



48 G001 LIFE SAFETY SECTION - EAST/WEST
1/16" = 1'-0"



4A G001 LIFE SAFETY - 3RD FLOOR
1/16" = 1'-0"

RATED WALLS/FLOORS LEGEND

- RATED - 4 HR
- RATED - 3 HR
- RATED - 2 HR
- RATED - 1.5 HR
- RATED - 1 HR
- RATED - 0.5 HR

| EGRESS DATA | |
|----------------|-----------|
| EXIT ROUTE | DISTANCE |
| EGRESS ROUTE 1 | 141' - 4" |

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102 E 26th St
Bryan, TX 77803
Katherine@rwtime.com | 979.450.9969

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Lisa B. Bixler
6-10-22

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ryan@openingdesign.com | 773.425.6456

| Date | Description |
|------------|-------------------|
| 06/10/2022 | Issued for Permit |

STRUCTURAL STATEMENT OF SPECIAL INSPECTIONS & TESTING

- 1. SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER FOR THE ITEMS IDENTIFIED IN THIS SECTION AND IN OTHER AREAS OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS...
2. THE NAMES AND CREDENTIALS OF THE SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL...
3. DATES OF THE SPECIAL INSPECTION...
4. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR...
5. PLEASE SEE THE SPECIAL INSPECTION SCHEDULE FOR THE TESTS, DUTIES AND FREQUENCY OF SPECIFIC TESTS REQUIRING SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS PROJECT.

WIND-RESISTING COMPONENTS (7703.1.3)

- PERIODIC SPECIAL INSPECTION IS REQUIRED FOR FASTENING OF THE FOLLOWING SYSTEMS AND COMPONENTS:
1. ROOF COVERING, ROOF DECK AND ROOF FRAMING CONNECTIONS
2. EXTERIOR WALL COVERING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGMS AND FRAMING

REQUIRED VERIFICATION AND INSPECTION OF STRUCTURAL STEEL CONSTRUCTION (§1705.2.1)

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: AFTER BUILDING CONSTRUCTION AND ANCHORING HAVE BEEN COMPLETED, AFTER BUILDING CONSTRUCTION AND ANCHORING HAVE BEEN COMPLETED, GRADES AROUND THE STRUCTURE SHALL BE PERIODICALLY INSPECTED AND ADJUSTED AS PART OF THE BUILDING'S MAINTENANCE PROGRAM, PLUMBING LEAK "HYDROSTATIC" TEST PERFORMED BY A LICENSED PLUMBER, TEST TO OCCUR AFTER ROUGH PLUMBING INSTALL, WHERE PAVING/FLATWORK ABOUT THE FOUNDATION, A MAINTENANCE PROGRAM SHALL BE ESTABLISHED TO SPECIFICALLY SEAL AND MAINTAIN JOINTS AND PREVENT SURFACE WATER INFILTRATION.

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: THE SPECIAL INSPECTOR SHALL INSPECT THE FABRICATED OR ERECTED STEEL FRAME AS APPROPRIATE TO VERIFY COMPLIANCE WITH THE DETAIL SHOWN ON THE CONSTRUCTION DOCUMENTS, THE SPECIAL INSPECTOR SHALL BE ON THE PREMISES FOR INSPECTION DURING THE PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENT SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, PLEASE SEE THE SPECIAL INSPECTION SCHEDULE FOR THE TESTS, DUTIES AND FREQUENCY OF SPECIFIC TESTS REQUIRING SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS PROJECT.

STRUCTURAL STEEL - WELDS

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: WELDING PROCEDURE SPECIFICATION (WPS) AVAILABLE, MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE, MATERIAL IDENTIFICATION (MPE / GRADE), WELDER IDENTIFICATION SYSTEM, FIT-UP GROOVE WELDS, CONFIGURATION AND FINISH OF ACCESS HOLES, FIT-UP FILLET WELDS, CHECK WELDING EQUIPMENT, INSPECTION TASKS DURING WELDING (ASCC 340 TABLE N6.4-2), USE OF QUALIFIED WELDERS, CONTROL AND HANDLING OF WELDING CONSUMABLES, NO WELDING OVER CRACKED TACK WELDS, ENVIRONMENTAL CONDITIONS (WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE), WPS FOLLOWED, WELDED TECHNIQUES, WELDS CLEANED, SIZE, LENGTH AND LOCATION OF WELDS, WELDS MEET VISUAL ACCEPTANCE CRITERIA, ADE STRIKES, I-AREA, BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED), REPAIR ACTIVITIES, DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT MEMBER.

NON-DESTRUCTIVE TESTING OF WELDED JOINTS

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: FILLET WELDS: MT TEST A MINIMUM OF 10% OF THE LENGTH OF EACH FILLET WELD EXCEEDING 5/16", PERIODIC MT TESTING OF REPRESENTATIVE FILLET WELDS 5/16" AND LESS BUT NEED NOT EXCEED 10% OF ALL SUCH WELDS, INCREASE MT TESTING RATE FOR WELDERS HAVING A HIGH REJECTION RATE AS REQUIRED TO ENSURE ACCEPTABLE WELDS, PARTIAL JOINT PENETRATION (PJP) WELDS INCLUDING FLARE BEVEL WELDS: MT TEST A MINIMUM OF 25% OF THE LENGTH OF EACH PJP WELD EXCEEDING 5/16" EFFECTIVE THROAT, PERIODIC MT TESTING OF REPRESENTATIVE PJP WELDS 5/16" AND LESS BUT NEED NOT EXCEED 10% OF ALL SUCH WELDS, INCREASE MT TESTING RATE FOR WELDERS HAVING A HIGH REJECTION RATE AS REQUIRED TO ENSURE ACCEPTABLE WELDS, COMPLETE JOINT PENETRATION (CJP) WELDS: ALL CJP WELDS EXCEEDING 5/16" THICKNESS SHALL BE 100% UT TESTED PER AWS D1.1 CLAUSE 6 PART 1, PERIODIC MT TESTING OF REPRESENTATIVE CJP WELDS 5/16" AND LESS BUT NEED NOT EXCEED 10% OF ALL SUCH WELDS, INCREASE MT TESTING RATE FOR WELDERS HAVING A HIGH REJECTION RATE AS REQUIRED TO ENSURE ACCEPTABLE WELDS.

STRUCTURAL STEEL HIGH-STRENGTH BOLTS (TURN-OF-NUT)

TURN-OF-NUT PREBOLTING: THE INSPECTOR SHALL OBSERVE THE PRE-INSTALLATION VERIFICATION TESTING REQUIRED IN SECTION 8.2. SUBSEQUENTLY, IT SHALL BE ENSURED BY ROUTINE OBSERVATION THAT THE BOLTING CREW PROPERLY ROTATES THE TURNED ELEMENT RELATIVE TO THE UNTURNED ELEMENT BY THE AMOUNT SPECIFIED IN TABLE 8.2.1. VISUAL INSPECTION AFTER PREBOLTING IS PERMITTED IN LIEU OF ROUTINE OBSERVATION. NO FURTHER EVIDENCE OF CONFORMANCE IS REQUIRED. A PREBOLTING THAT IS GREATER THAN THE VALUE SPECIFIED IN TABLE 8.1 SHALL NOT BE CAUSE FOR REJECTION. A ROTATION THAT EXCEEDS THE REQUIRED VALUES, INCLUDING TOLERANCE, SPECIFIED IN TABLE 8.2 SHALL NOT BE CAUSE FOR REJECTION.

Table with 4 columns: BOLT LENGTH, DISPOSITION OF OUTER FACES OF BOLTED PARTS, BOTH FACE NORMAL TO BOLT AXIS, ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20, BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS. Rows include: LENGTH ≤ 4d, 4d < LENGTH ≤ 8d, 8d < LENGTH ≤ 12d.

- a. NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR ALL REQUIRED ROTATIONS, THE TOLERANCE IS PLUS OR MINUS.
b. APPLICABLE TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

STRUCTURAL STEEL HIGH-STRENGTH BOLTS (ENUG-TIGHT) - INSPECTION TASKS PRIOR TO BOLTING

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: DOCUMENTATION AND ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.

STRUCTURAL STEEL HIGH-STRENGTH BOLTS (ENUG-TIGHT) - INSPECTION TASKS DURING BOLTING

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: DOCUMENTATION OF ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.

REQUIRED VERIFICATION AND INSPECTION OF GRADING AND DRAINAGE FOR FOUNDATIONS ON EXPANSIVE SOILS

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: AFTER BUILDING CONSTRUCTION AND ANCHORING HAVE BEEN COMPLETED, AFTER BUILDING CONSTRUCTION AND ANCHORING HAVE BEEN COMPLETED, GRADES AROUND THE STRUCTURE SHALL BE PERIODICALLY INSPECTED AND ADJUSTED AS PART OF THE BUILDING'S MAINTENANCE PROGRAM, PLUMBING LEAK "HYDROSTATIC" TEST PERFORMED BY A LICENSED PLUMBER, TEST TO OCCUR AFTER ROUGH PLUMBING INSTALL, WHERE PAVING/FLATWORK ABOUT THE FOUNDATION, A MAINTENANCE PROGRAM SHALL BE ESTABLISHED TO SPECIFICALLY SEAL AND MAINTAIN JOINTS AND PREVENT SURFACE WATER INFILTRATION.

REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1705.4)

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY, VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIALS, PERFORM CLASSIFICATION AND TESTING OF COMPACTED MATERIALS, VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL, PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THE SITE HAS BEEN PREPARED PROPERLY.

REQUIRED VERIFICATION AND INSPECTION OF WOOD CONSTRUCTION (§1705.5)

Table with 4 columns: VERIFICATION AND INSPECTION, CONTINUOUS, PERIODIC, REQUIRED. Rows include: PREFABRICATED WOOD STRUCTURAL ELEMENTS (METAL PLATE CONNECTED WOOD TRUSSES FABRICATION AND INSTALLATION PROCEDURES) NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION, HIGH-LOAD DIAPHRAGMS, METAL PLATE-CONNECTED WOOD TRUSSES SPANNING 60 FT OR GREATER, INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING COMPONENTS WITHIN THE SEISMIC / MAIN WIND FORCE RESISTING SYSTEM, MOISTURE CONTENT OF LOAD BEARING WOOD FRAMING.

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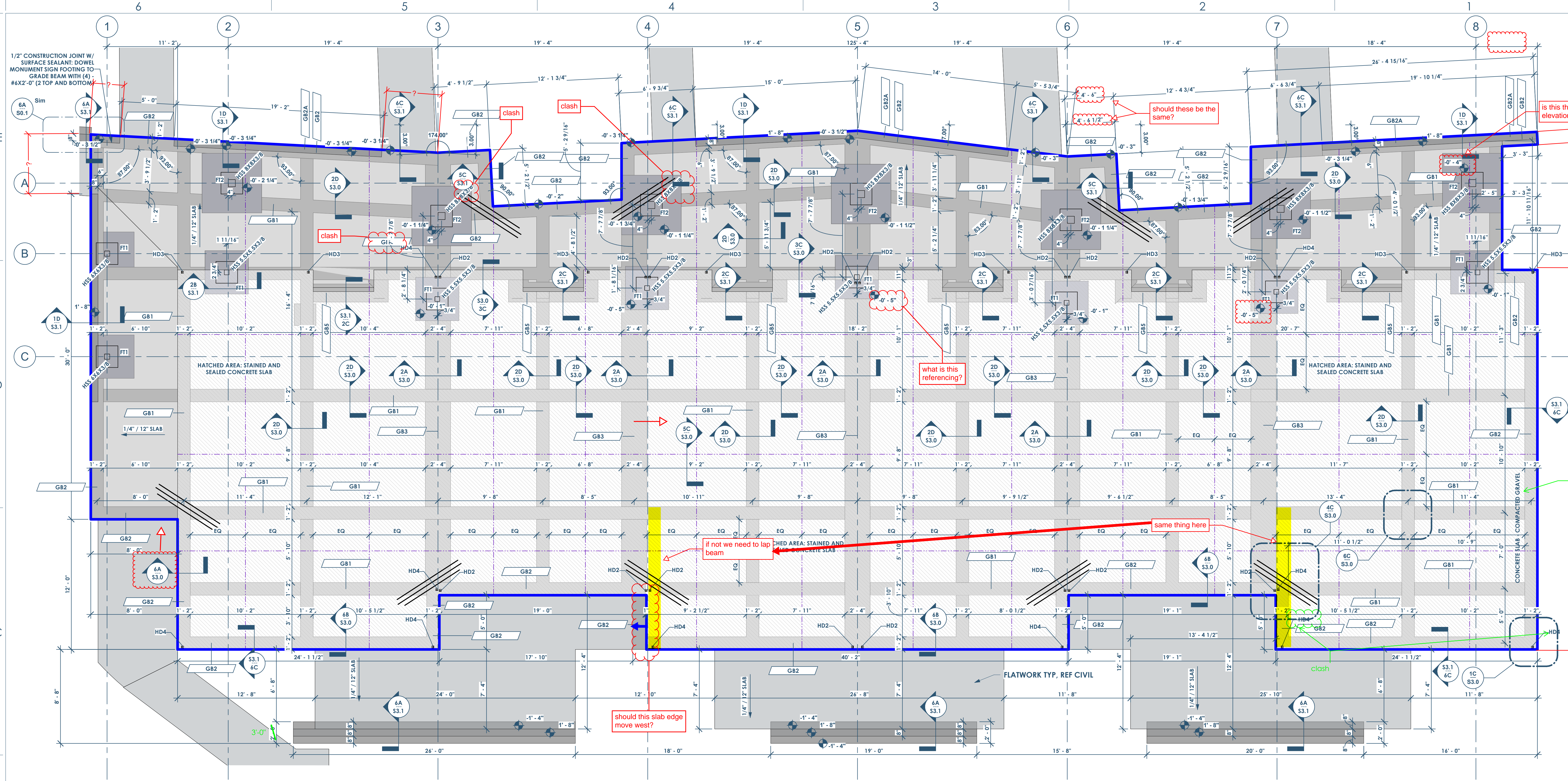
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Table with 2 columns: Date, Description. Row: 06/10/2022, Issued for Permit



48
S0.1 STRUCTURAL - FOUNDATION
1/4" = 1'-0"

| SHEARWALL HOLDDOWN AT FOUNDATION | | | | | | |
|----------------------------------|-------------------------|----------------------|----------|-------------------------------|---|-------------------------------------|
| TYPE MARK | TYPE | HARDWARE | END POST | ATTACHMENT TO END POST | ANCHORAGE TO FOUNDATION | CAPACITY |
| HD2 | POST-INSTALLED HOLDDOWN | SIMPSON HTS | (2)-2X | (26) 0.148 X 3 NAILS | 5/8" DIA. GR.36 ALL-THREAD WITH 8" EMBEDMENT WITH NUT AND WASHER | SEE SHEET S4.3 FOR DETAILS 4670 |
| HD3 | POST-INSTALLED HOLDDOWN | SIMPSON HDUB-SDS2.5 | (3)-2X | (20) 1/4" X 2 1/2" SDS SCREWS | 7/8" DIA. GR.36 ALL-THREAD WITH 17 1/2" EMBEDMENT WITH NUT AND WASHER | SEE SHEET S4.3 FOR DETAILS 6200 |
| HD4 | CAST IN PLACE | SIMPSON HDU14-SDS2.5 | 6X6 | (36) 1/4" X 2 1/2" SDS SCREWS | 1" DIA. GR.36 ANCHOR ROD WITH 18" EMBEDMENT | SEE SHEET S4.3 FOR DETAILS 10000 |

- STRUCTURAL CONNECTION NOTES:**
- MINIMUM EDGE DISTANCE TO CENTERLINE OF BOLT IS 3". AT CORNERS, THE OPPOSING EDGE DISTANCE MUST BE ≥ 6".
 - MINIMUM #4X3" LONG REINFORCING BAR LOCATED 3"-5" BELOW THE TOP OF THE SLAB IS REQUIRED TO BE CENTERED ON THE HOLDDOWN. AT CORNER, BEND THE BAR 90° AT THE CENTER.
 - REFERENCE MECHANICALLY LAMINATED BUILT-UP COLUMN FOR NAILING REQUIREMENTS FOR END POST.
 - SIMPSON ATR(REQUIRED Ø) WITH SIMPSON SET-3G IS AN ACCEPTABLE OPTION.

| FOOTING SCHEDULE | | | | | | | | |
|------------------|--|-------|------------|--------|-------|--------------------|--------------------|---------------|
| TYPE MARK | NAME | COUNT | DIMENSIONS | | | BOTTOM REINFORCING | | TYPE COMMENTS |
| | | | WIDTH | LENGTH | DEPTH | LONG | SHORT | |
| FT1 | CONCRETE STEEL COLUMN FOOTING - 4' X 4' X 2'-6" | 9 | 4'-0" | 4'-0" | 2'-6" | SEE DETAIL 2B/S3.1 | SEE DETAIL 2B/S3.1 | |
| FT2 | CONCRETE STEEL COLUMN FOOTING 5.5' X 5.5' X 2.5' | 7 | 5'-6" | 5'-6" | 2'-6" | SEE DETAIL 2B/S3.1 | SEE DETAIL 2B/S3.1 | |

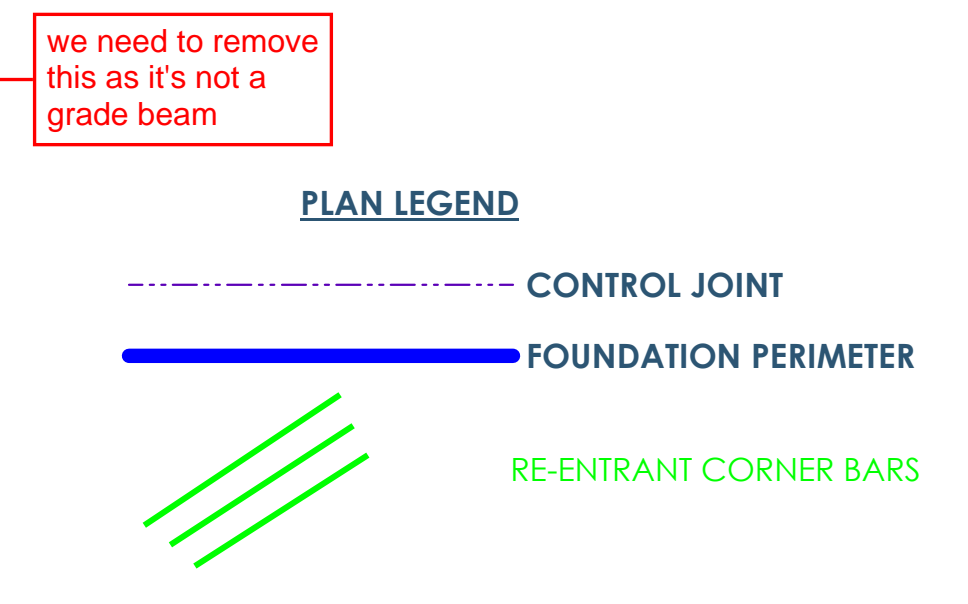
| PTI PARAMETERS | |
|--|-----------|
| E _m - CENTER | 4.8' |
| E _m - EDGE | 2.0' |
| Y _m - CENTER | 1.0" |
| Y _m - EDGE | 1.25" |
| EFFECTIVE PLASTICITY INDEX | 35 |
| ALLOW. BEARING (PSF) | 1,800 PSF |
| MIN. BEAM EMBEDMENT BLOW FINAL GRADE | 18" |
| MIN PERIMETER BEAM EMBEDMENT BELOW FINAL GRADE | 52" |

| SLAB GEOMETRY | |
|---|---------|
| AREA (SF) | 5711 SF |
| PERIMETER (FT) | 394 FT |
| SHAPE FACTOR (PERIMETER ² /AREA) | 27.5 |

| FOUNDATION SCHEDULE | | | | | | | |
|---------------------|--|-------|-------|------------|-------------|------------|-----------------------------|
| BEAM ID | DESCRIPTION | WIDTH | DEPTH | TOP BARS | BOTTOM BARS | STIRRUPS | Type Comments |
| GB1 | GRADE BEAM - INTERIOR - 14" | 14" | 30" | (3) - #6 | (3) - #6 | #3 @24" OC | |
| GB2 | VERTICAL MOISTURE BARRIER | 14" | 30" | (3) - #6 | (3) - #6 | #3 @24" OC | |
| GB2A | GRADE BEAM - PERIMETER - 14" - W/ 8" CONCRETE WALL | 14" | 30" | (3) - #6 | (3) - #6 | #3 @24" OC | SEE 1D/S3.1 FOR MORE DETAIL |
| GB3 | GRADE BEAM - INTERIOR - 28" | 28" | 30" | DOUBLE GB1 | DOUBLE GB1 | DOUBLE GB1 | SEE 1D/S3.1 FOR MORE DETAIL |
| GB4 | 8" CONCRETE FOUNDATION | 8" | 36" | | | | SEE 6A/S3.1 |
| GB5 | TURNDOWN THICKENED SLAB | 12" | 12" | N/R | (2) - #4 | N/R | SEE DETAIL 2C/S3.1 |

| FOUNDATION NOTES | |
|---------------------|---|
| FOUNDATION TYPE: | BRAB TYPE III - STIFFENED NON-STRUCTURAL SLAB-ON-GROUND |
| SLAB THICKNESS: | 5" |
| SLAB REINFORCEMENT: | #4 @ 16" OC EACH WAY - REF DETAIL |
| DESIGN METHOD: | ACI 318 |
| VAPOR RETARDER: | MINIMUM 15 MIL (UNLESS THICKER REQ'D BY ARCHITECT) |

- NOTES:**
- BEAMS ARE TYPE B1 UNO.
 - LOCATE THE FIRST STIRRUP A MAXIMUM OF 3" FROM FACE OF SUPPORT.
 - BEAM DEPTH INDICATED IN THE SCHEDULE IS A STRUCTURAL MINIMUM THAT THE BEAM REINFORCEMENT CAGE MAY BE BASED UPON. REFERENCE GEOTECHNICAL REPORT FOR MINIMUM GRADE BEAM EMBEDMENT BELOW ADJACENT FINAL GRADE OR FLATWORK/PAVEMENT.
 - N/R = NOT REQUIRED



- PLAN NOTES:**
- VERIFY ALL EDGE OF FOUNDATION DIMENSIONS WITH FINAL ARCHITECTURE FLOOR PLANS.
 - FORM DIMENSIONS: SLAB DROPS, SLOPES, ETC. SHOWN AS AN AID TO CONTRACTOR ONLY. VERIFY EXACT DIMENSIONS AND LOCATIONS WITH ARCHITECT.
 - DIMENSIONS ARE TO OF GRADE BEAMS OR EDGE OF SLAB UNLESS NOTED OTHERWISE.
 - CONTROL JOINTS (SAW-CUTS) ARE RECOMMENDED TO REDUCE CRACKS IN THE SLAB, BUT ARE NOT REQUIRED FOR STRUCTURAL REQUIREMENTS. FOR THE RECOMMENDED MAXIMUM JOINT SPACING, REFERENCE DETAIL.
 - FOR FLATWORK OR PAVEMENT ABUTTING THE BUILDING FOUNDATION REFERENCE DETAIL.
 - CONCRETE IS ASSUMED TO RECEIVE A STEEL TROWEL FINISH UNLESS NOTED OTHERWISE. NOTIFY ENGINEER IF ARCHITECTUALLY EXPOSED CONCRETE (STAINED, POLISHED, ETC.) IS PLANNED FOR ADDITIONAL SHRINKAGE CRACKING MITIGATION METHODS.

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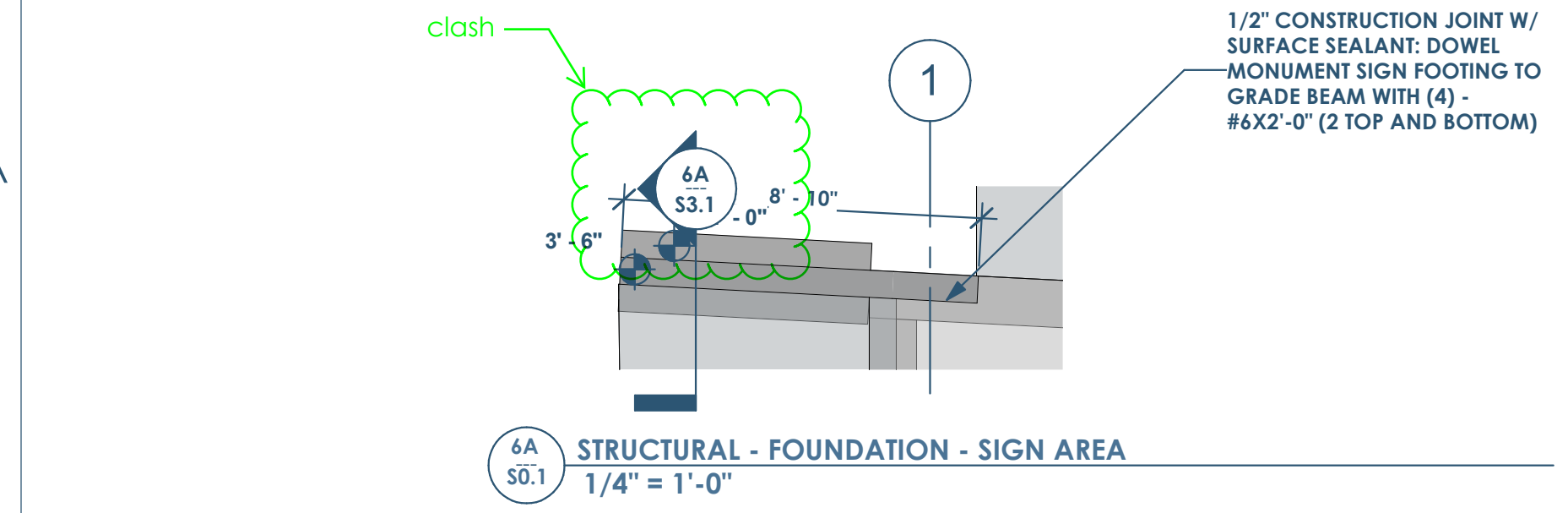
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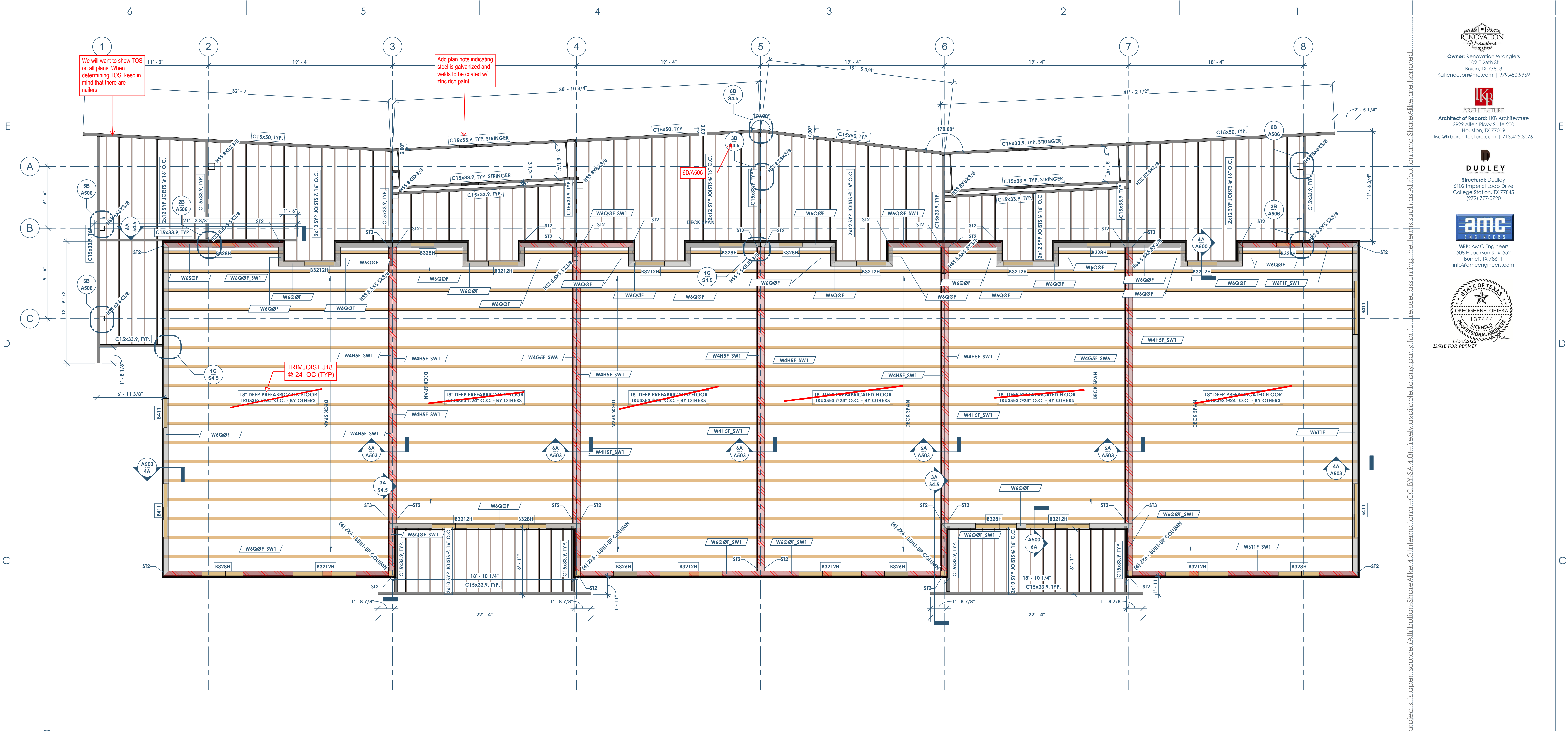
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6/10/2022
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6A
S0.1 STRUCTURAL - FOUNDATION - SIGN AREA
1/4" = 1'-0"



We will want to show TOS on all plans. When determining TOS, keep in mind that there are nailers.

Add plan note indicating steel is galvanized and welds to be coated w/ zinc rich paint.

TRIMJOIST J18 @ 24\"/>

18\"/>

68 50.2 FRAMING PLAN - 2ND FLOOR
1/4\"/>

| SHEAR WALL SCHEDULE | | | | | |
|---------------------|----------------|--------------------|---------------|-----------|-------------------------------|
| SHEAR WALL TYPE | SHEATHING TYPE | PANEL EDGE NAILING | FIELD NAILING | ANCHORAGE | ALLOWABLE WIND SHEAR CAPACITY |
| SW1 | 7/16\"/> | | | | |
| SW2 | 7/16\"/> | | | | |
| SW3 | 7/16\"/> | | | | |
| SW4 | 15/32\"/> | | | | |
| SW5 | 15/32\"/> | | | | |
| SW6 | 5/8\"/> | | | | |
| SW7 | 5/8\"/> | | | | |

- SHEAR WALL NOTES:**
- ALL FASTENERS FOR WOOD STRUCTURAL PANEL SHALL BE FLAT HEAD NAILS CONSISTING OF THE FOLLOWING UNO:
 - A. 0.131\"/>
 - B. 0.148\"/>
 - FASTENERS FOR GYPSUM WALLBOARD SHALL BE ONE OF THE FOLLOWING:
 - A. 6d COOLER NAILS (0.092\"/>
 - B. WALLBOARD NAIL (0.0915\"/>
 - C. 0.120\"/>
 - D. NO. 6 TYPE S OR W DRYWALL SCREWS 1-1/4\"/>
 - ANCHORS INTO CONCRETE SHALL EITHER BE CAST-IN-PLACE J-BOLTS OR ADHESIVE ANCHORS WITH A MINIMUM EMBEDMENT OF 8\"/>
 - WSP = WOOD STRUCTURAL PANEL. REF GENERAL NOTES FOR SPECIFICATIONS.
 - IF WALL IS SHEATHED ON BOTH SIDES, THEN SILL PLATE ANCHORAGE AND CONNECTION OF BOTTOM PLATE TO TOP PLATE SHALL BE DOUBLED.
 - PANELS MUST BE INSTALLED DIRECTLY TO FRAMING.
 - VALUES CALCULATED ARE FOR SOUTHERN PINE OR DOUGLAS-FIR LARCH FRAMING. CONTACT FOR IF OTHER SPECIES ARE USED.
 - PROVIDE 1/8\"/>
 - SHEAR WALLS REFERENCED ARE FOR SHEAR WALLS BELOW FLOOR

| WALL STUD SCHEDULE | | | | |
|--------------------|--------------|---------------|---------------------------|------------|
| TOP OF WALL | MAX PLATE HT | EXTERIOR WALL | INTERIOR NON-LOAD BEARING | PARTY WALL |
| ROOF | 8\"/> | | | |
| 3RD | 10\"/> | | | |
| 2ND | 10\"/> | | | |

| SHEARWALL HOLD-DOWNS AT ELEVATED FLOOR | | | | | |
|--|--------------------|-----------------|-----------|----------|------------------------------|
| TYPE MARK | HOLD-DOWN HARDWARE | END LENGTH (IN) | FASTENERS | END POST | ALLOWABLE TENSION LOAD (LBF) |
| ST1 | (1) SIMPSON CS18 | 12\"/> | | | |
| ST2 | (2) SIMPSON CS18 | 12\"/> | | | |
| ST3 | (2) SIMPSON CS14 | 19\"/> | | | |

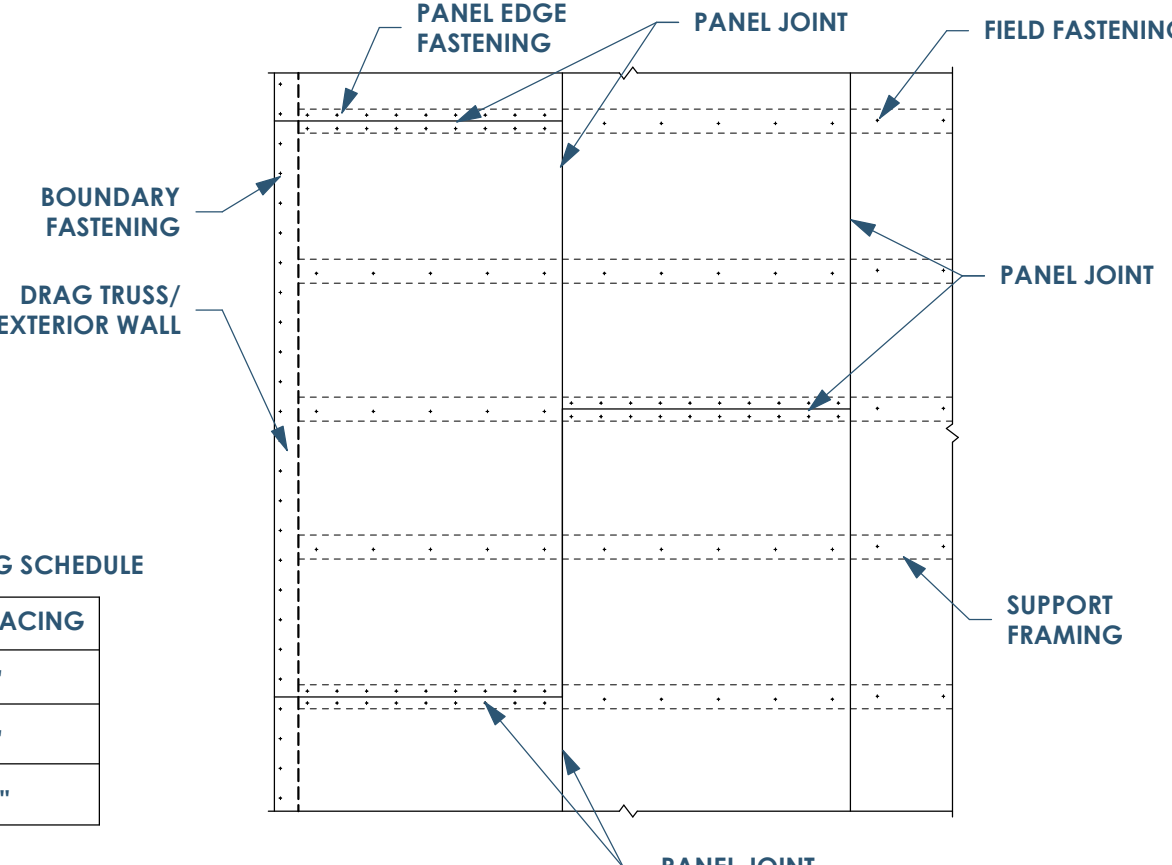
- SHEARWALL & HOLD-DOWN NOTES:**
- MULTIPLE PILES OF END POSTS SHALL BE FASTENED TOGETHER PER THE MECHANICALLY BUILT-UP COLUMN NAILED DETAIL.
 - REFERENCE DETAIL 6A/S4.2 FOR TYPICAL HOLD-DOWN CONFIGURATIONS.
 - HOLD-DOWNS REFERENCED ARE FOR SHEAR WALLS ABOVE FLOOR

| BEAM SCHEDULE | | | | |
|---------------|----------------|-----------------------------|-------------------|-------------------|
| BEAM TAG | BEAM SIZE | STUD PACK - NUMBER OF STUDS | FACE-MOUNT HANGER | TOP-FLANGE HANGER |
| B326H | (3)2X4 | 2 | LUS26-2 | HU26-2TF |
| B328H | (3)-2X3 | 2 | LUS28-3 | HU548TF |
| B3212H | (3)-2X12 | 3 | HU210-3 | HU212-3TF |
| B411 | GL - 3-1/2\"/> | | | |

- BEAM LEGEND NOTES:**
- 1\"/>
 - FOR KING AND JACK STUD REQUIREMENTS FOR EXTERIOR HEADERS REFER TO DETAIL 4C/S4.1
 - FOR KING AND JACK STUD REQUIREMENTS IN INTERIOR HEADERS REFER TO DETAIL 5B/S4.1
 - GL - GULIAM BEAMS SHALL BE ANTHONY POWER BEAM GLUE LAMINATED BEAMS OR APPROVED EQUAL.
 - STUD PACKS ARE REQUIRED WHEN BEAM IS BEARING ON A WALL ASSEMBLY. STUD PACKS MUST CONTINUE ALL THE WAY TO THE FOUNDATION UNLESS TRANSFERRED BY A BEAM.
 - ALL STUDS IN STUD PACK SHALL BE NO. 2 SOUTHERN PINE OR BETTER.
 - SHEATHING AND/OR DRYWALL MUST BE ATTACHED TO EACH INDIVIDUAL STUD IN THE STUD PACK.
 - ALL STUDS IN STUD PACK MUST BE FASTENED PER MECHANICALLY LAMINATED BUILT-UP COLUMN-NAILED - REFER TO 6A/S4.1

- SUBFLOOR NOTES:**
- THE SUBFLOOR SHALL BE MIN 3/4\"/>
 - FASTEN TO FRAMING SHALL CONSIST OF 8x2\"/>
 - THE SUBFLOOR SHALL BE GLUED TO THE SUPPORTING FRAMING WITH POLYURETHANE OR SOLVENT-BASED SUBFLOOR ADHESIVES CONFORMING TO APA-AFG-01 OR ASTM D 3498.
 - A. APPLY A 1/4\"/>
 - B. APPLY ONLY ENOUGH ADHESIVE TO LAY ONE OR TWO PANELS AT A TIME TO KEEP THE ADHESIVE FROM CURING OR SKINNING.
 - C. FLOOR PANELS SHALL BE FULLY FASTENED WITHIN 10 MINUTES OF APPLYING ADHESIVE.
 - D. EXCESS ADHESIVE SHALL BE REMOVED IMMEDIATELY.
 - PANELS SHALL SPAN ACROSS 3 OR MORE SUPPORTING MEMBERS WITH THE LONG DIMENSION PERPENDICULAR TO THE FLOOR FRAMING. STAGGER END JOINT OF PANEL A MINIMUM OF 2\"/>

- FLOOR PLAN NOTES:**
- METAL PLATE CONNECTED FLOOR TRUSS FRAMING:**
- METAL PLATE CONNECTED FLOOR TRUSS SHALL BE 18\"/>
 - TRUSSES SHALL BE TRIMJOIST J18 TRIMMABLE JOIST OR APPROVED EQUIVALENT
- TRUSS DEFLECTION LIMITS:** TRUSSES SHALL BE LIMITED TO THE FOLLOWING DEFLECTION LIMITS:
- RATIO: LIVE LOAD (L/360) TOTAL LOAD (L/240)
 - MAXIMUM: 1/2\"/>
- 3. CAMBER SHALL BE BUILT INTO FLOOR TRUSSES TO COMPENSATE FOR VERTICAL DEAD LOAD DEFLECTION**
- FLOOR TRUSS: 0.85 X DEFLECTION FROM ACTUAL DEAD LOAD.
- 4. THE TRUSS LAYOUT SHOWN ON THIS DRAWING REPRESENTS DIRECTION OF TRUSS SPAN ONLY. THE DRAWINGS SHALL NOT BE USED FOR PLACEMENT OF TRUSSES. REFER TO APPROVED TRUSS MFRS. DRAWINGS FOR PLACEMENT, DIMENSIONS, BRACING, AND CONNECTIONS.**
- 5. THE BOTTOM OF ALL DROP BEAMS OVER OPENINGS SHALL EQUAL THE TOP OF THE ROUGH OPENING.**
- 6. REFER TO TYPICAL ROOF UPLIFT LOAD PATH DETAIL FOR REQUIRED STRAPS, ANCHORS, ETC.**
- 7. DRAG TRUSSES SHALL BE PROVIDED DIRECTLY OVER INTERIOR WALLS AND SHALL BE DESIGNED FOR A TOTAL FORCE EQUAL TO THE LENGTH OF THE SHEAR WALL MULTIPLIED BY THE ALLOWABLE SHEAR VALUE PROVIDED IN THE SHEAR WALL SCHEDULE FOR THAT SHEAR TYPE.**



TYPICAL WOOD SUBFLOOR / ROOF DECK TO CFS JOISTS

- 2X DIMENSIONAL LUMBER FRAMING:**
- FLOOR JOISTS ARE 2X12 @ 16\"/>
 - THE BOTTOM OF ALL DROP BEAMS OVER OPENINGS SHALL EQUAL THE TOP OF THE ROUGH OPENING.
 - REFER TO TYPICAL ROOF UPLIFT LOAD PATH DETAIL FOR REQUIRED STRAPS, ANCHORS, ETC.

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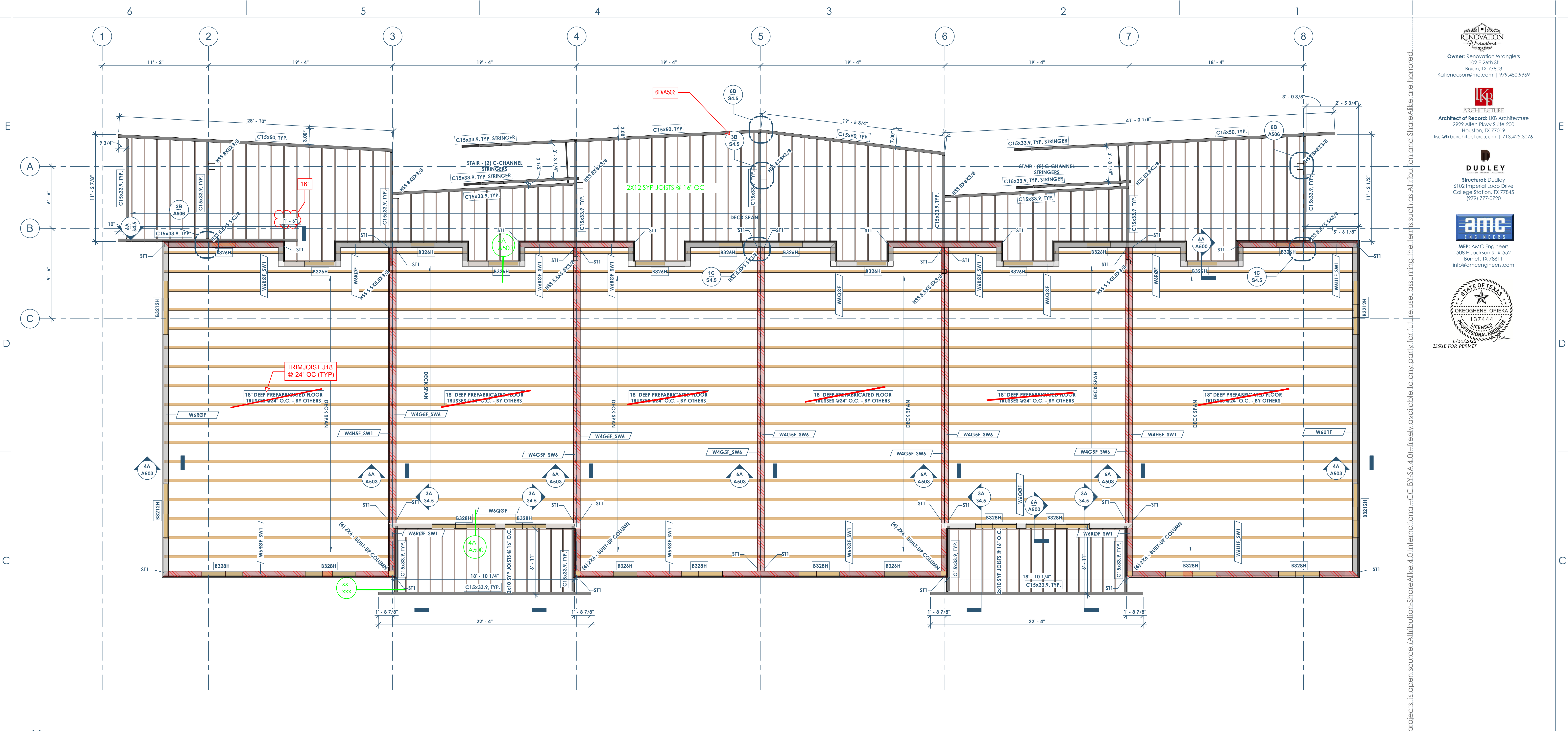
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6B
50.3 FRAMING PLAN - 3RD FLOOR
1/4" = 1'-0"

| SHEAR WALL TYPE | SHEATHING TYPE | PANEL EDGE NAILING | FIELD NAILING | ANCHORAGE | ALLOWABLE WIND SHEAR CAPACITY |
|-----------------|--------------------|--------------------|---------------|---|-------------------------------|
| SW1 | 7/16" WSP | 6" | 12" | (5/8" @ 40" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 3" OC - AT WOOD) | 335 PLF |
| SW2 | 7/16" WSP | 4" | 12" | (5/8" @ 32" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 3" OC - AT WOOD) | 490 PLF |
| SW3 | 7/16" WSP | 3" | 12" | (5/8" @ 24" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 2" OC - AT WOOD) | 630 PLF |
| SW4 | 15/32" WSP | 3" | 12" | (5/8" @ 24" O.C. - AT CONCRETE) - (0.148" X 3" LONG NAILS @ 2" OC - AT WOOD) | 840 PLF |
| SW5 | 15/32" WSP | 2" | 12" | (5/8" @ 24" O.C. - AT CONCRETE) - (0.148" X 3" LONG NAILS @ 2" OC - AT WOOD) | 991 PLF |
| SW6 | 5/8" GYP WALLBOARD | 7" | 12" | (5/8" @ 48" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 12" OC - AT WOOD) | 115 PLF |
| SW7 | 5/8" GYP WALLBOARD | 4" | 12" | (5/8" @ 48" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 12" OC - AT WOOD) | 145 PLF |

- SHEAR WALL NOTES:**
- ALL FASTENERS FOR WOOD STRUCTURAL PANEL SHALL BE FLAT HEAD NAILS CONSISTING OF THE FOLLOWING UNO:
 - A. 0.131" X 3" LONG
 - B. 0.148" X 3" LONG
 - FASTENERS FOR GYPSUM WALLBOARD SHALL BE ONE OF THE FOLLOWING:
 - A. 6d COOLER NAILS (0.092" X 1 7/8" LONG, 1/4" HEAD)
 - B. WALLBOARD NAIL (0.0915" X 1 7/8" LONG, 19/64" HEAD)
 - C. 0.120" NAIL X 1-3/4" LONG, MIN 3/8" HEAD
 - D. NO. 6 TYPE S OR W DRYWALL SCREWS 1-1/4" LONG
 - ANCHORS INTO CONCRETE SHALL EITHER BE CAST-IN-PLACE J-BOLTS OR ADHESIVE ANCHORS WITH A MINIMUM EMBEDMENT OF 8". THE CONTRACTOR SHALL SUBMIT PROPOSED ADHESIVE ANCHOR ASSEMBLY FOR APPROVAL.
 - ALL PANEL EDGES SHALL BE BLOCKED.
 - WSP = WOOD STRUCTURAL PANEL. REF GENERAL NOTES FOR SPECIFICATIONS.
 - IF WALL IS SHEATHED ON BOTH SIDES, THEN SILL PLATE ANCHORAGE AND CONNECTION OF BOTTOM PLATE TO TOP PLATE SHALL BE DOUBLED.
 - PANELS MUST BE INSTALLED DIRECTLY TO FRAMING.
 - VALUES CALCULATED ARE FOR SOUTHERN PINE OR DOUGLAS-FIR LARCH FRAMING. CONTACT EOR IF OTHER SPECIES ARE USED.
 - PROVIDE 1/8" WIDE JOINTS IN SHEATHING TO ALLOW FOR SHRINKAGE AND EXPANSION OF THE PANELS.
 - SHEAR WALLS REFERENCED ARE FOR SHEAR WALLS BELOW FLOOR.

| TYPE MARK | HOLD-DOWN HARDWARE | END LENGTH (IN) | FASTENERS | END POST | ALLOWABLE TENSION LOAD (LBF) |
|-----------|--------------------|-----------------|----------------------------|----------|------------------------------|
| ST1 | (1) SIMPSON CS18 | 12" | (11) 0.131" X 2 1/2" NAILS | (2) - 2X | 1,370 |
| ST2 | (2) SIMPSON CS18 | 12" | (11) 0.131" X 2 1/2" NAILS | (2) - 2X | 2740 |
| ST3 | (2) SIMPSON CS14 | 19" | (18) 0.131" X 2 1/2" NAILS | (3) - 2X | 4980 |

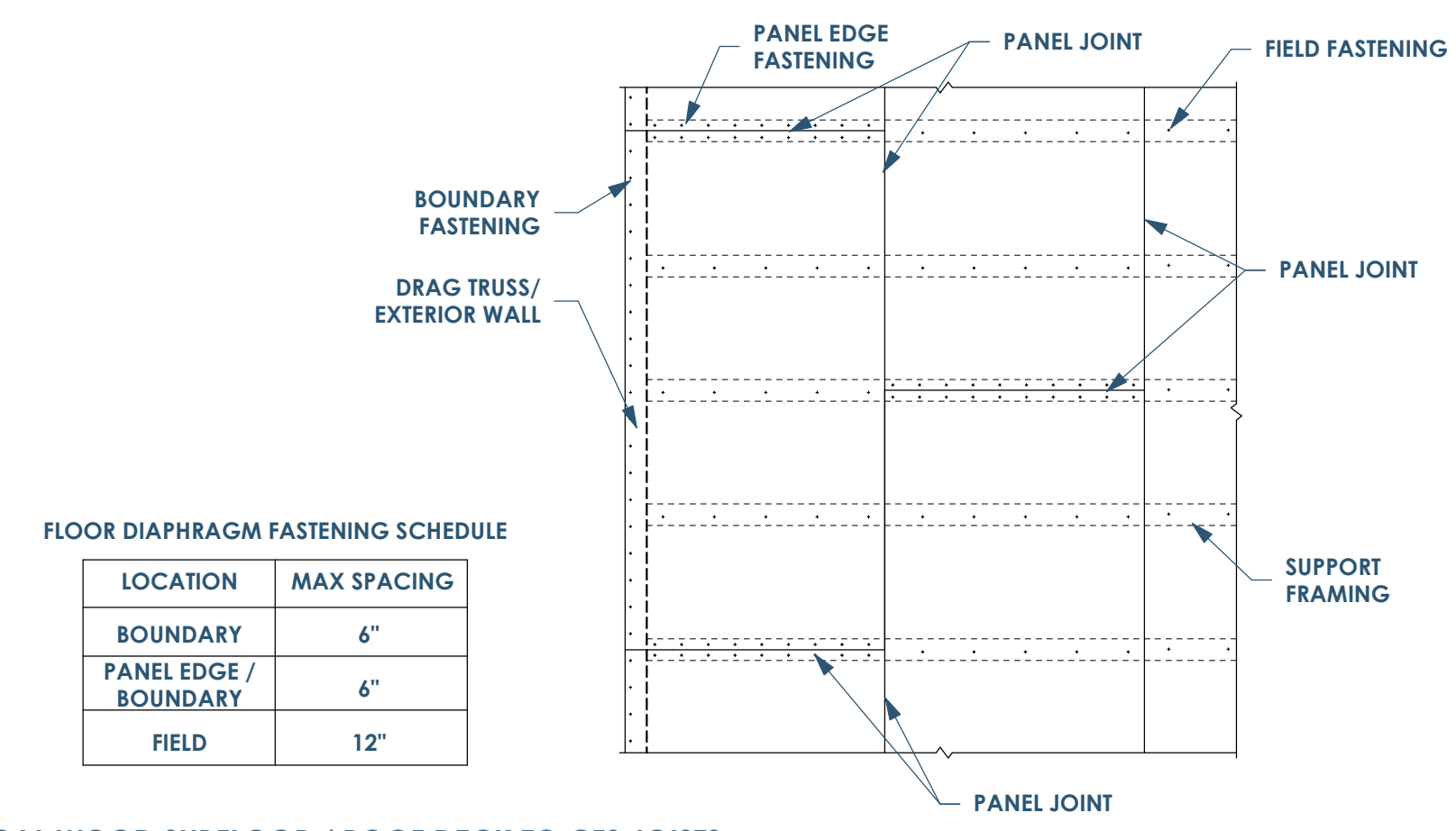
- SHEARWALL & HOLD-DOWN NOTES:**
- MULTIPLE PILES OF END POSTS SHALL BE FASTENED TOGETHER PER THE MECHANICALLY BUILT-UP COLUMN NAILED DETAIL.
 - REFERENCE DETAIL 6A/S4.2 FOR TYPICAL HOLD-DOWN CONFIGURATIONS.
 - HOLD-DOWNS REFERENCED ARE FOR SHEAR WALLS ABOVE FLOOR.

| BEAM TAG | BEAM SIZE | STUD PACK - NUMBER OF STUDS | FACE-MOUNT HANGER | TOP-FLANGE HANGER |
|----------|-----------------------|-----------------------------|-------------------|-------------------|
| B326H | (3)2X4 | 2 | LUS26-2 | HU26-2TF |
| B328H | (3)-2X8 | 2 | LUS26-3 | HU48TF |
| B3212H | (3)-2X12 | 3 | HU210-3 | HU212-3TF |
| B411 | GL - 3 1/2" X 11 1/4" | 3 | HHUS410 | HB356/11.25 |

- BEAM LEGEND NOTES:**
- "H" INDICATES MULTIPLE PLY DIMENSIONAL LUMBER BEAMS W/ 1/2" PLYWOOD SHEATHING. SEE 2A/S4.0
 - FOR KING AND JACK STUD REQUIREMENTS FOR EXTERIOR HEADERS REFER TO DETAIL 4C/S4.1
 - FOR KING AND JACK STUD REQUIREMENTS IN INTERIOR HEADERS REFER TO DETAIL 5B/S4.1
 - GL - GULLIAM BEAMS SHALL BE ANTHONY POWER BEAM GLUE LAMINATED BEAMS OR APPROVED EQUAL.
 - STUD PACKS ARE REQUIRED WHEN BEAM IS BEARING ON A WALL ASSEMBLY. STUD PACKS MUST CONTINUE ALL THE WAY TO THE FOUNDATION UNLESS TRANSFERRED BY A BEAM.
 - ALL STUDS IN STUD PACK SHALL BE NO. 2 SOUTHERN PINE OR BETTER.
 - SHEATHING AND/OR DRYWALL MUST BE ATTACHED TO EACH INDIVIDUAL STUD IN THE STUD PACK.
 - ALL STUDS IN STUD PACK MUST BE FASTENED PER MECHANICALLY BUILT-UP COLUMN-NAILED - REFER TO 6A/S4.1

| TOP OF WALL | MAX PLATE HT | EXTERIOR WALL | INTERIOR NON-LOAD BEARING | PARTY WALL |
|-------------|--------------|----------------------|---------------------------|---------------------|
| ROOF | 8" - 11 5/8" | 2X6 NO. 2 @ 16" O.C. | 2X4 STUD @ 16" O.C. | 2X4 STUD @ 16" O.C. |
| 3RD | 10" - 8" | 2X6 NO. 2 @ 16" O.C. | 2X4 STUD @ 16" O.C. | 2X4 STUD @ 12" O.C. |
| 2ND | 10" - 9 5/8" | 2X6 NO. 2 @ 16" O.C. | 2X4 STUD @ 16" O.C. | 2X4 STUD @ 8" O.C. |

- SUBFLOOR NOTES:**
- THE SUBFLOOR SHALL BE MIN 3/4" APA RATED TONGUE AND GROOVE OSB STRUCTURAL SHEATHING WITH A FLOOR SPAN RATING OF 24.
 - FASTEN TO FRAMING SHALL CONSIST OF #8X2" LONG WOOD SCREWS. ALTERNATIVELY, 0.131X2" NAILS MAY BE USED IF SCREWS ARE ADDED @ 12" O.C. MAX ADDITIONALLY.
 - THE SUBFLOOR SHALL BE GLUED TO THE SUPPORTING FRAMING WITH POLYURETHANE OR SOLVENT-BASED SUBFLOOR ADHESIVES CONFORMING TO APA-AFG-01 OR ASTM D 3498.
 - A. APPLY A 1/4" BEAD OF ADHESIVE TO THE TOP OF SUPPORTING MEMBERS. APPLY TWO BEADS WHERE PANELS JOINTS MEET.
 - B. APPLY ONLY ENOUGH ADHESIVE TO LAY ONE OR TWO PANELS AT A TIME TO KEEP THE ADHESIVE FROM CURING OR SKINNING.
 - C. FLOOR PANELS SHALL BE FULLY FASTENED WITHIN 10 MINUTES OF APPLYING ADHESIVE.
 - D. EXCESS ADHESIVE SHALL BE REMOVED IMMEDIATELY.
 - PANELS SHALL SPAN ACROSS 3 OR MORE SUPPORTING MEMBERS WITH THE LONG DIMENSION PERPENDICULAR TO THE FLOOR FRAMING. STAGGER END JOINT OF PANEL A MINIMUM OF 2"



TYPICAL WOOD SUBFLOOR / ROOF DECK TO CFS JOISTS

- FLOOR PLAN NOTES:**
- METAL PLATE CONNECTED FLOOR TRUSS FRAMING:**
 - METAL PLATE CONNECTED FLOOR TRUSS SHALL BE 18" DEEP AND SPACED AT 24" OC MAX UNLESS NOTED OTHERWISE. LOADING CRITERIA SHALL BE AS FOLLOWS:
 - TOP CHORD LIVE LOAD (TCLL): 40 PSF
 - TOP CHORD DEAD LOAD (TCDL): 10 PSF
 - BOTTOM CHORD LIVE LOAD (BCLL): 10 PSF (NON-CONCURRENT WITH TCLL)
 - BOTTOM CHORD DEAD LOAD (BCDL): 5 PSF
 - NON-LOAD BEARING WALL ABOVE: 100 PLF DL
 - LOAD-BEARING WALL ABOVE: SEE PLAN
 - TRUSS DEFLECTION LIMITS: TRUSSES SHALL BE LIMITED TO THE FOLLOWING DEFLECTION LIMITS:
 - RATIO: LIVE LOAD (L/340) TOTAL LOAD (L/240)
 - MAXIMUM: 1/2"
 - CAMBER SHALL BE BUILT INTO FLOOR TRUSSES TO COMPENSATE FOR VERTICAL DEAD LOAD DEFLECTION
 - FLOOR TRUSS: 0.85 X DEFLECTION FROM ACTUAL DEAD LOAD.
 - THE TRUSS LAYOUT SHOWN ON THIS DRAWING REPRESENTS DIRECTION OF TRUSS SPAN ONLY. THE DRAWINGS SHALL NOT BE USED FOR PLACEMENT OF TRUSSES. REFER TO APPROVED TRUSS MFRS. DRAWINGS FOR PLACEMENT, DIMENSIONS, BRACING, AND CONNECTIONS.
 - THE BOTTOM OF ALL DROP BEAMS OVER OPENINGS SHALL EQUAL THE TOP OF THE ROUGH OPENING.
 - REFER TO TYPICAL ROOF UPLIFT LOAD PATH DETAIL FOR REQUIRED STRAPS, ANCHORS, ETC.
 - DRAG TRUSSES SHALL BE PROVIDED DIRECTLY OVER INTERIOR WALLS AND SHALL BE DESIGNED FOR A TOTAL FORCE EQUAL TO THE LENGTH OF THE SHEAR WALL MULTIPLIED BY THE ALLOWABLE SHEAR VALUE PROVIDED IN THE SHEAR WALL SCHEDULE FOR THAT SHEAR TYPE.
 - REFER TO TYPICAL ROOF UPLIFT LOAD PATH DETAIL FOR REQUIRED STRAPS, ANCHORS, ETC.

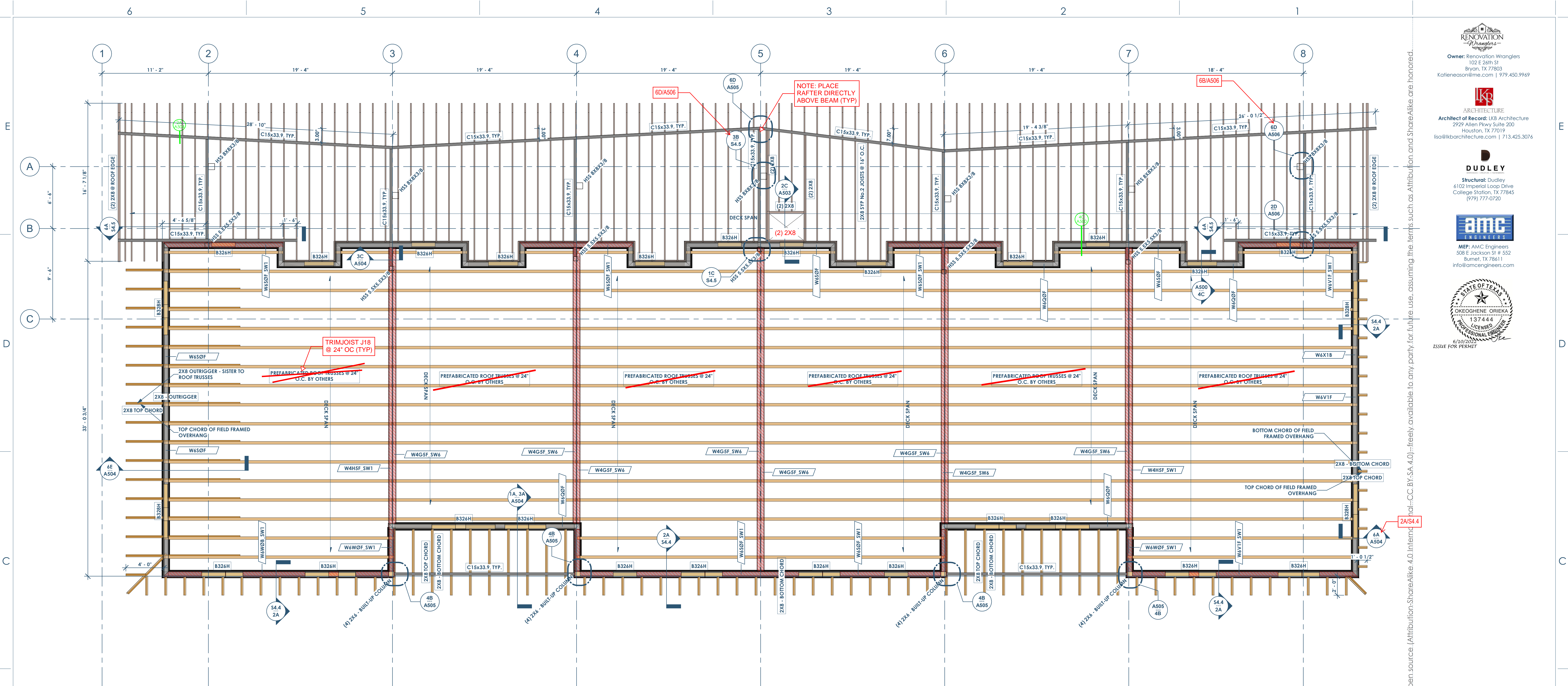
- 2X DIMENSIONAL LUMBER FLOOR FRAMING:**
- FLOOR JOISTS ARE 2X12 @ 16" O.C. UNO.
 - THE BOTTOM OF ALL DROP BEAMS OVER OPENINGS SHALL EQUAL THE TOP OF THE ROUGH OPENING.
 - REFER TO TYPICAL ROOF UPLIFT LOAD PATH DETAIL FOR REQUIRED STRAPS, ANCHORS, ETC.

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68
S0.4
FRAMING PLAN - ROOF
1/4" = 1'-0"

| SHEAR WALL SCHEDULE | | | | | |
|---------------------|--------------------|--------------------|---------------|---|-------------------------------|
| SHEAR WALL TYPE | SHEATHING TYPE | PANEL EDGE NAILING | FIELD NAILING | ANCHORAGE | ALLOWABLE WIND SHEAR CAPACITY |
| SW1 | 7/16" WSP | 6" | 12" | (5/8" Ø @ 40" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 3" OC - AT WOOD) | 335 PLF |
| SW2 | 7/16" WSP | 4" | 12" | (5/8" Ø @ 32" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 3" OC - AT WOOD) | 490 PLF |
| SW3 | 7/16" WSP | 3" | 12" | (5/8" Ø @ 24" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 2" OC - AT WOOD) | 630 PLF |
| SW4 | 1 5/32" WSP | 3" | 12" | (5/8" Ø @ 24" O.C. - AT CONCRETE) - (0.148" X 3" LONG NAILS @ 2" OC - AT WOOD) | 840 PLF |
| SW5 | 1 5/32" WSP | 2" | 12" | (5/8" Ø @ 24" O.C. - AT CONCRETE) - (0.148" X 3" LONG NAILS @ 2" OC - AT WOOD) | 991 PLF |
| SW6 | 5/8" GYP WALLBOARD | 7" | 12" | (5/8" Ø @ 48" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 12" OC - AT WOOD) | 115 PLF |
| SW7 | 5/8" GYP WALLBOARD | 4" | 12" | (5/8" Ø @ 48" O.C. - AT CONCRETE) - (0.131" X 3" LONG NAILS @ 12" OC - AT WOOD) | 145 PLF |

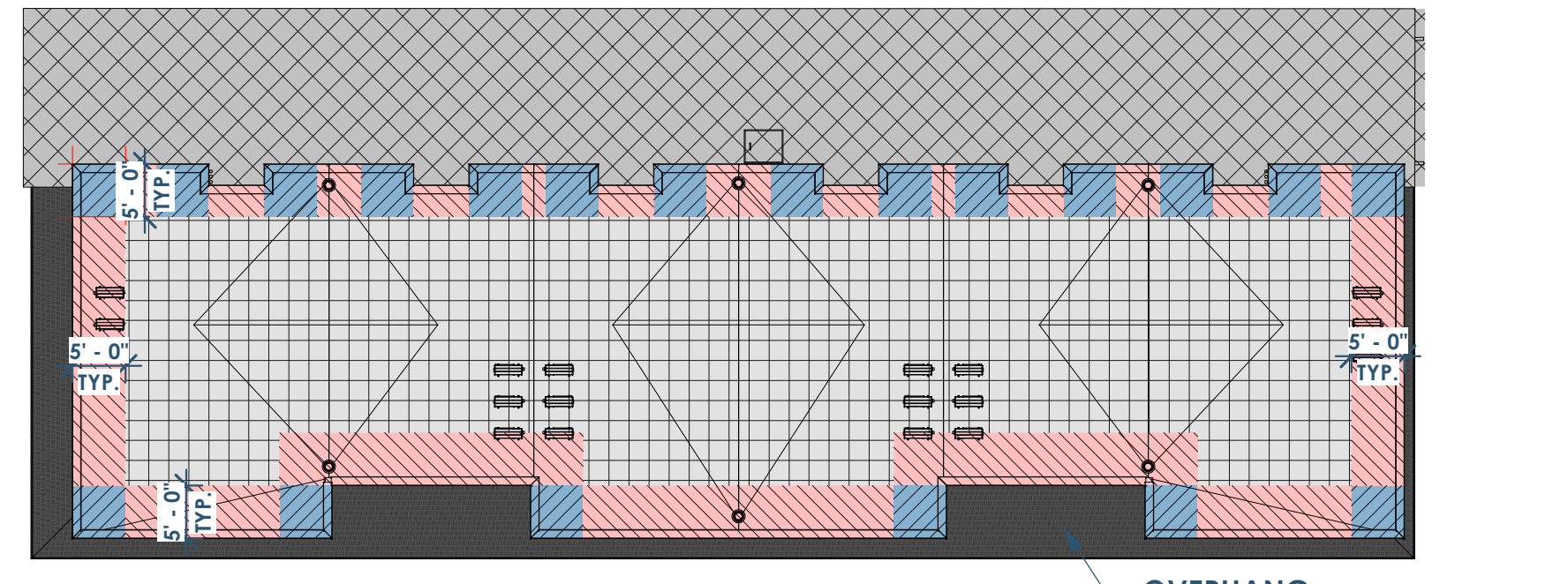
- SHEAR WALL NOTES:**
- ALL FASTENERS FOR WOOD STRUCTURAL PANEL SHALL BE FLAT HEAD NAILS CONSISTING OF THE FOLLOWING UNO:
 - 0.131" Ø X 2 1/2" LONG
 - 0.148" Ø X 3" LONG
 - FASTENERS FOR GYPSUM WALLBOARD SHALL BE ONE OF THE FOLLOWING:
 - 6d COOLER NAILS (0.092" X 1 7/8" LONG, 1/4" HEAD)
 - WALLBOARD NAIL (0.0915" X 1 7/8" LONG, 19/64" HEAD)
 - 130" NAIL X 1-3/4" LONG, MIN 3/8" HEAD
 - NO. 6 TYPE S OR W DRYWALL SCREWS 1-1/4" LONG
 - ANCHORS INTO CONCRETE SHALL EITHER BE CAST-IN-PLACE J-BOLTS OR ADHESIVE ANCHORS WITH A MINIMUM EMBEDMENT OF 8". THE CONTRACTOR SHALL SUBMIT PROPOSED ADHESIVE ANCHOR ASSEMBLY FOR APPROVAL.
 - ALL PANEL EDGES SHALL BE BLOCKED.
 - WSP = WOOD STRUCTURAL PANEL. REF GENERAL NOTES FOR SPECIFICATIONS.
 - IF WALL IS SHEATHED ON BOTH SIDES, THEN SILL PLATE ANCHORAGE AND CONNECTION OF BOTTOM PLATE TO TOP PLATE SHALL BE DOUBLED.
 - PANELS MUST BE INSTALLED DIRECTLY TO FRAMING.
 - VALUES CALCULATED ARE FOR SOUTHERN PINE OR DOUGLAS-FIR LARCH FRAMING. CONTACT EOR IF OTHER SPECIES ARE USED.
 - PROVIDE 1/8" WIDE JOINTS IN SHEATHING TO ALLOW FOR SHRINKAGE AND EXPANSION OF THE PANELS.
 - SHEAR WALLS REFERENCED ARE FOR SHEAR WALLS BELOW FLOOR.

- ROOF FRAMING NOTES:**
- METAL PLATE CONNECTED ROOF TRUSS FRAMING:**
- METAL PLATE CONNECTED WOOD TRUSSES SHALL BE SPACED @ 24" OC UNLESS NOTED OTHERWISE. LOADING CRITERIA SHALL BE AS FOLLOWS:
 - TOP CHORD LIVE LOAD (TCLL): 20 PSF
 - REF MECHANICAL DRAWINGS FOR RTUS.
 - TOP CHORD DEAD LOAD (TCDL): 5 PSF - SINGLE-PLY MEMBRANE ROOF (NOT INCLUDING SELF-WEIGHT)
 - BOTTOM CHORD LIVE LOAD (BCLL): 10 PSF (NON-CONCURRENT WITH TCLL)
 - BOTTOM CHORD DEAD LOAD (BCDL): 5 PSF
 - TOP CHORD WIND LOAD. REF COMPONENTS AND CLADDING SCHEDULE
 - TRUSS DEFLECTION LIMITS: TRUSSES SHALL BE LIMITED TO THE FOLLOWING DEFLECTION LIMITS:
 - PITCHED ROOF TRUSS: LIVE LOAD (L/240) TOTAL LOAD (L/180)
 - SHALLOW (< 4:12) PITCHED ROOF TRUSS: LIVE LOAD (L/240) TOTAL LOAD (L/240)
 - PITCHED ROOF TRUSS: 1.00 X DEFLECTION FROM ACTUAL DEAD LOAD.
 - DRAG TRUSSES SHALL BE PROVIDED DIRECTLY OVER INTERIOR SHEAR WALLS AND SHALL BE DESIGNED FOR A TOTAL FORCE EQUAL TO THE LENGTH OF THE SHEAR WALL MULTIPLIED BY THE ALLOWABLE SHEAR VALUE PROVIDED IN THE SHEAR WALL SCHEDULE FOR THAT SHEAR WALL TYPE.
 - TRUSS RESTRAINT/BRACING METHODS SHALL BE IN ACCORDANCE WITH BC31-B3 UNLESS NOTED OTHERWISE.

- ROOF DECKING NOTES:**
- ROOF DECKING SHALL BE 3/4" APA RATED SHEATHING (SPAN RATING 48/24).
 - PANELS SHALL SPAN 3 MORE RAFTERS IN THE .ONG DIMENSION.
 - PANEL CLIPS:
 - SINGLE-PLY OR MODIFIED BITUMEN ROOFING SYSTEMS:
 - LOW SLOPE ROOF (LESS THAN OR EQUAL TO 2:12)
 - DECKING SHALL HAVE PANEL EDGE CLIPS (H-CLIPS) LOCATED MIDWAY BETWEEN EACH SUPPORT.
 - SLOPE GREATER THAN 2:12
 - DECKING SHALL HAVE PANEL EDGE CLIPS (H-CLIPS) LOCATED MIDWAY BETWEEN EACH SUPPORT FOR ANY SPAN GREATER THAN 12.2" O.C.
 - ANY OTHER TYPE OF ROOFING SYSTEM
 - DECKING SHALL HAVE PANEL EDGE CLIPS (H-CLIPS) LOCATED MIDWAY BETWEEN EACH SUPPORT.

| ROOF DECKING FASTENING | | |
|------------------------|----------------------|----------------|
| ZONE | PANE EDGE / BOUNDARY | FIELD |
| ZONE 1 | @ 6" O.C. MAX | @ 12" O.C. MAX |
| ZONE 2 | @ 6" O.C. MAX | @ 6" O.C. MAX |
| ZONE 3 | @ 4" O.C. MAX | @ 6" O.C. MAX |
| ZONE 3 OVERHANG | @ 3" O.C. MAX | @ 6" O.C. MAX |

- ROOF DECKING FASTENING NOTES:**
- ALL NAILS SHALL BE 0.131" Ø X 2 1/2" RING SHANK NAILS
 - REFERENCE THE COMPONENTS AND CLADDING WIND PRESSURE MAP ON THE
 - GENERAL NOTES FOR ZONE LOCATIONS.
 - EDGE SPACING ALSO APPLIES OVER THE TOP OF SHEARWALLS.



6A
S0.4
FLOOR PLAN - ROOF WIND ZONE
1/16" = 1'-0"

| BEAM SCHEDULE | | | | |
|---------------|-----------------------|-----------------------------|-------------------|-------------------|
| BEAM TAG | BEAM SIZE | STUD PACK - NUMBER OF STUDS | FACE-MOUNT HANGER | TOP-FLANGE HANGER |
| B326H | (3)2X6 | 2 | LU526-2 | HU26-2TF |
| B328H | (3)-2X8 | 2 | LU526-3 | HU548TF |
| B3212H | (3)-2X12 | 3 | HU210-3 | HU212-3TF |
| B411 | GL - 3 1/2" X 11 1/4" | 3 | HHU5410 | HB3.56/11.25 |

- BEAM LEGEND NOTES:**
- 'H' INDICATES MULTIPLE PLY DIMENSIONAL LUMBER BEAMS W/ 1/2" PLYWOOD SHEATHING. SEE 2A/S4.0
 - FOR KING AND JACK STUD REQUIREMENTS FOR EXTERIOR HEADERS REFER TO DETAIL 4C/S4.1
 - FOR KING AND JACK STUD REQUIREMENTS IN INTERIOR HEADERS REFER TO DETAIL 5B/S4.1
 - GULIAM BEAMS SHALL BE ANTHONY POWER BEAM GLUE LAMINATED BEAMS OR APPROVED EQUAL
 - STUD PACKS ARE REQUIRED WHEN BEAM IS BEARING ON A WALL ASSEMBLY. STUD PACKS MUST CONTINUE ALL THE WAY TO THE FOUNDATION UNLESS TRANSFERRED BY A BEAM
 - ALL STUDS IN STUD PACK SHALL BE NO.2 SOUTHERN PINE OR BETTER.
 - SHEATHING AND/OR DRYWALL MUST BE ATTACHED TO EACH INDIVIDUAL STUD IN THE STUD PACK.
 - ALL STUDS IN STUD PACK MUST BE FASTENED PER MECHANICALLY LAMINATED BUILT-UP COLUMN-NAILED - REFER TO 6A/S4.1

| WALL STUD SCHEDULE | | | | |
|--------------------|--------------|---------------------|---------------------------|---------------------|
| TOP OF WALL | MAX PLATE HT | EXTERIOR WALL | INTERIOR NON-LOAD BEARING | PARTY WALL |
| ROOF | 8' - 11 5/8" | 2X6 NO.2 @ 16" O.C. | 2X4 STUD @ 16" O.C. | 2X4 STUD @ 16" O.C. |
| 3RD | 10' - 8" | 2X6 NO.2 @ 16" O.C. | 2X4 STUD @ 16" O.C. | 2X4 STUD @ 12" O.C. |
| 2ND | 10' - 9 5/8" | 2X6 NO.2 @ 16" O.C. | 2X4 STUD @ 16" O.C. | 2X4 STUD @ 8" O.C. |

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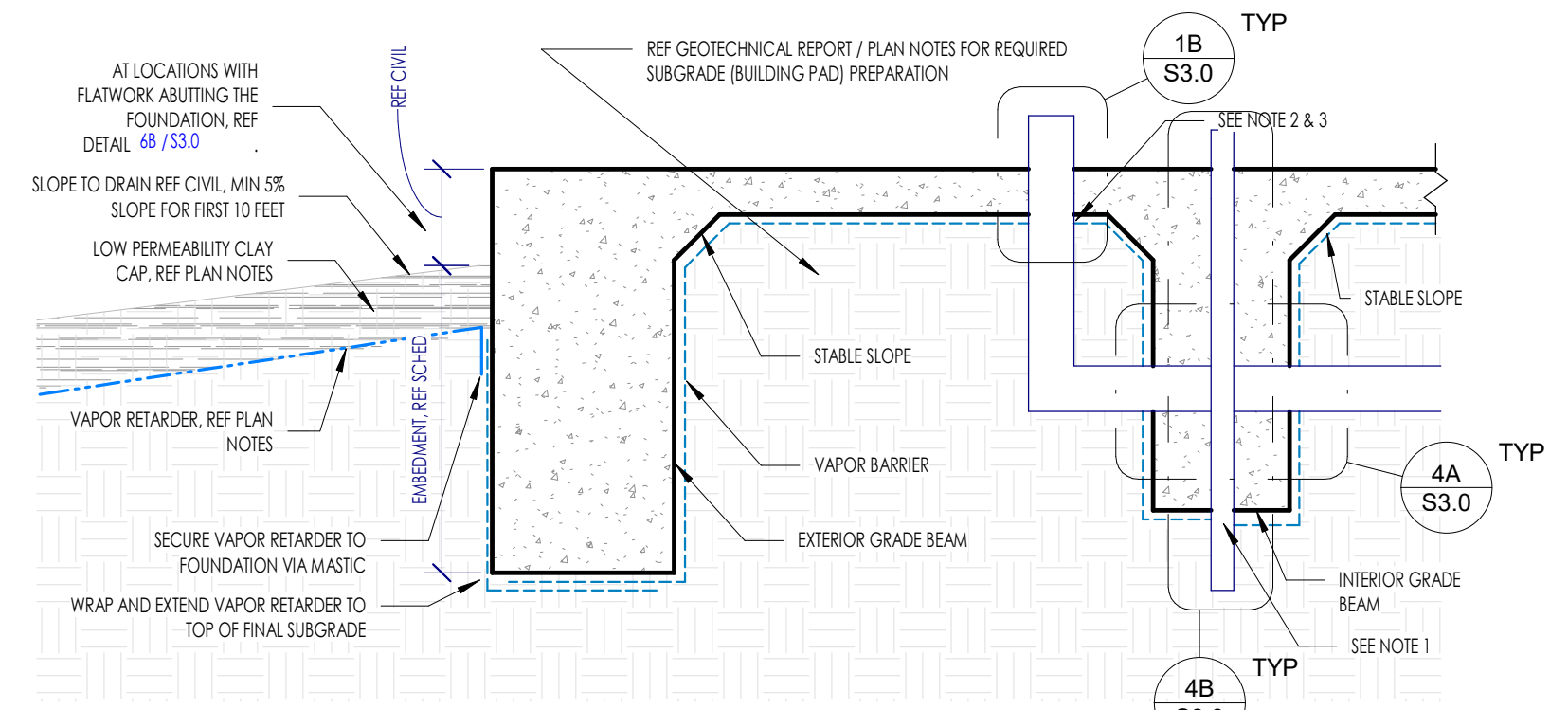


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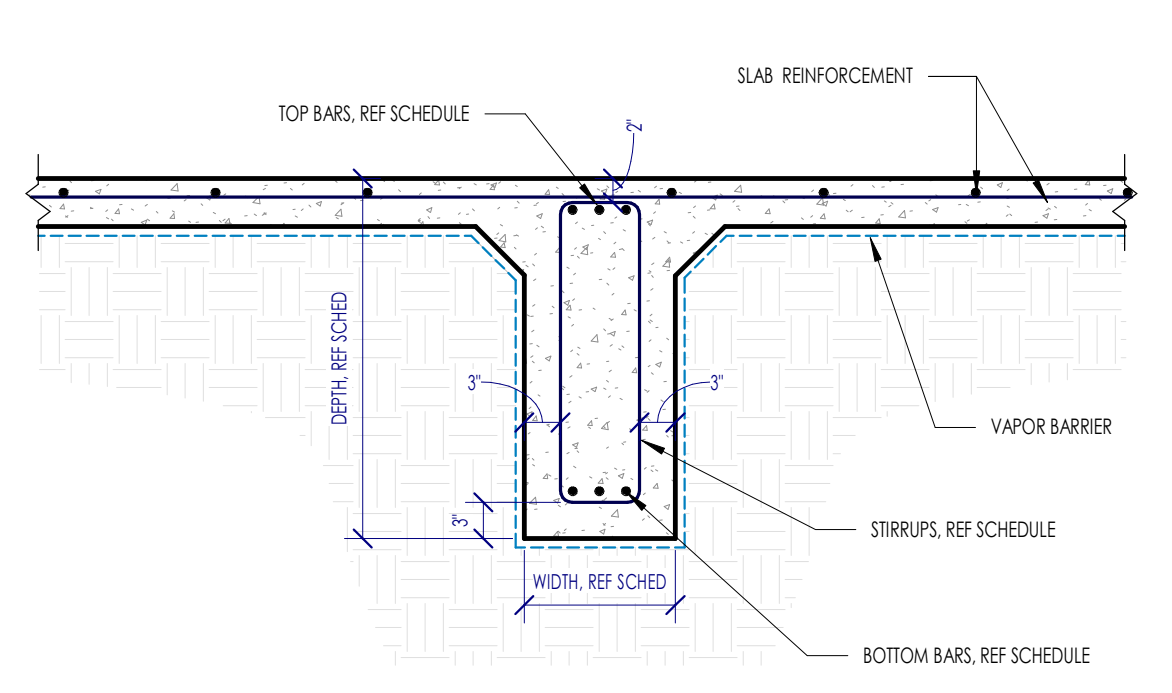
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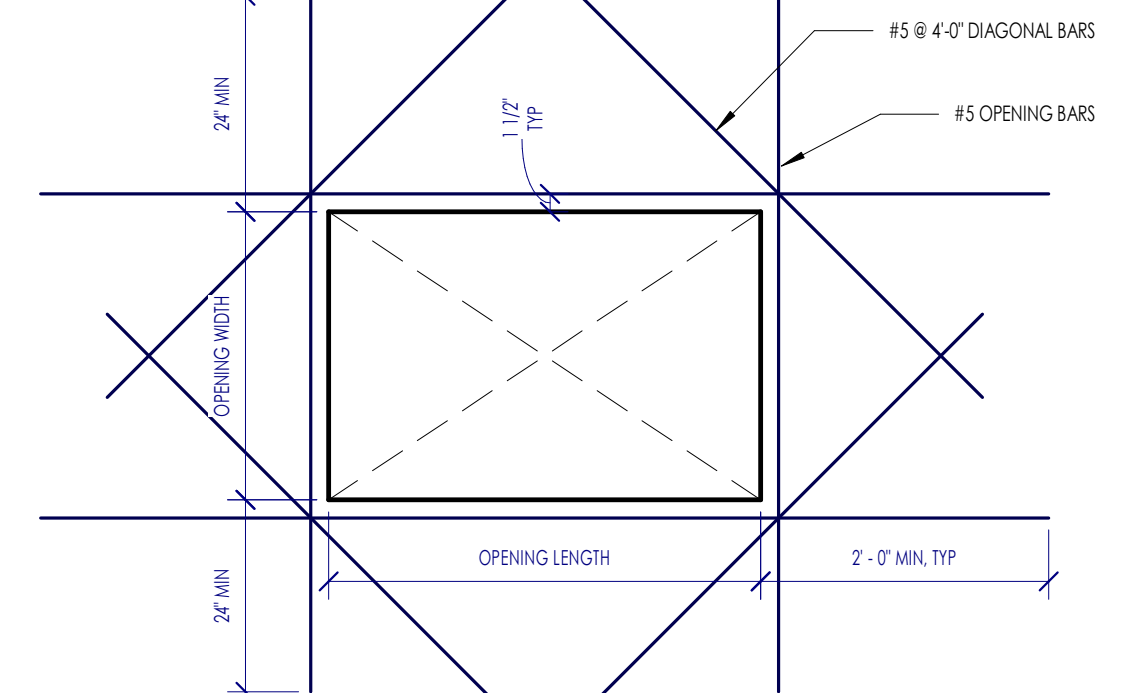


NOTES:
1. CUT AND/OR LAP THE VAPOR RETARDER AT THE BOTTOM OF INTERIOR GRADE BEAMS. THE VAPOR RETARDER SHALL BE SECURED TO THE SIDES OF THE GRADE BEAM. IF LAPS ARE REQUIRED ON TOP OF THE SLAB, THEY MUST BE SAVED PER MFR RECOMMENDATIONS.
2. ALL PIPE, DUCTING, REAR, WIRE PENETRATIONS AND BLOCK CUTS SHOULD BE SEALED USING AFR RECOMMENDED WRAP, TAPE AND/OR MASTIC.
3. IN THE EVENT THAT THE VAPOR RETARDER IS DAMAGED DURING OR AFTER INSTALLATION, REPAIRS MUST BE MADE. FOR VULNER CUT, PATCHES OF VAPOR RETARDER TO A SIZE AND SHAPE THAT COVERS ANY DAMAGE BY A MINIMUM OVERLAP OF 6" IN ALL DIRECTIONS, CLEAN ALL ADHESION AREAS OF DIRT, MOISTURE, AND FROST. TAPE DOWN ALL EDGES USING AFR RECOMMENDED TAPE.

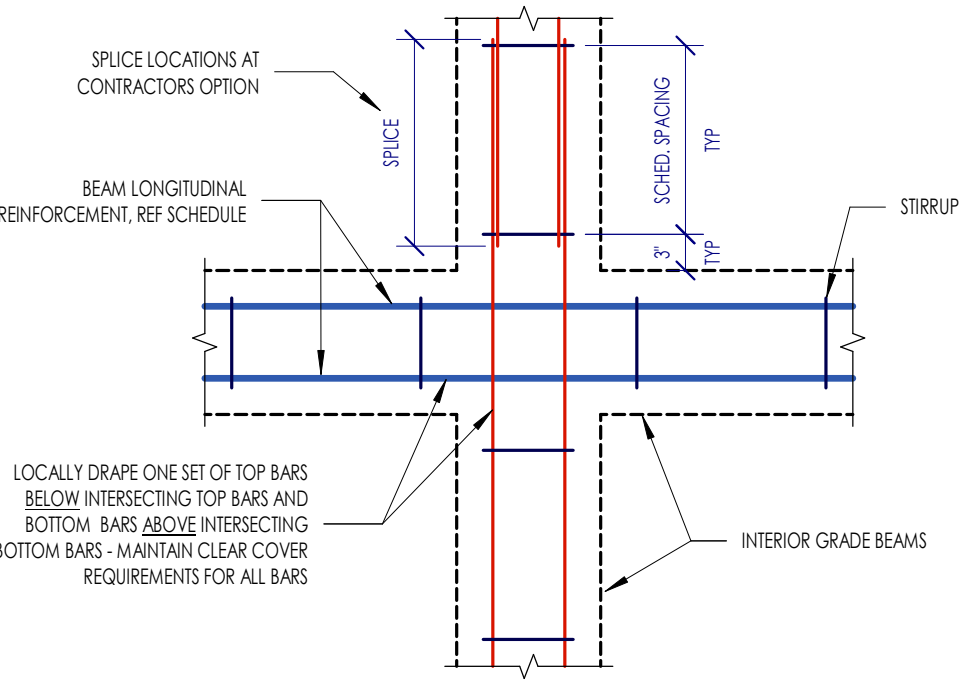
4B S3.0 TYPICAL SUBGRADE AND VAPOR RETARDER PREPARATION



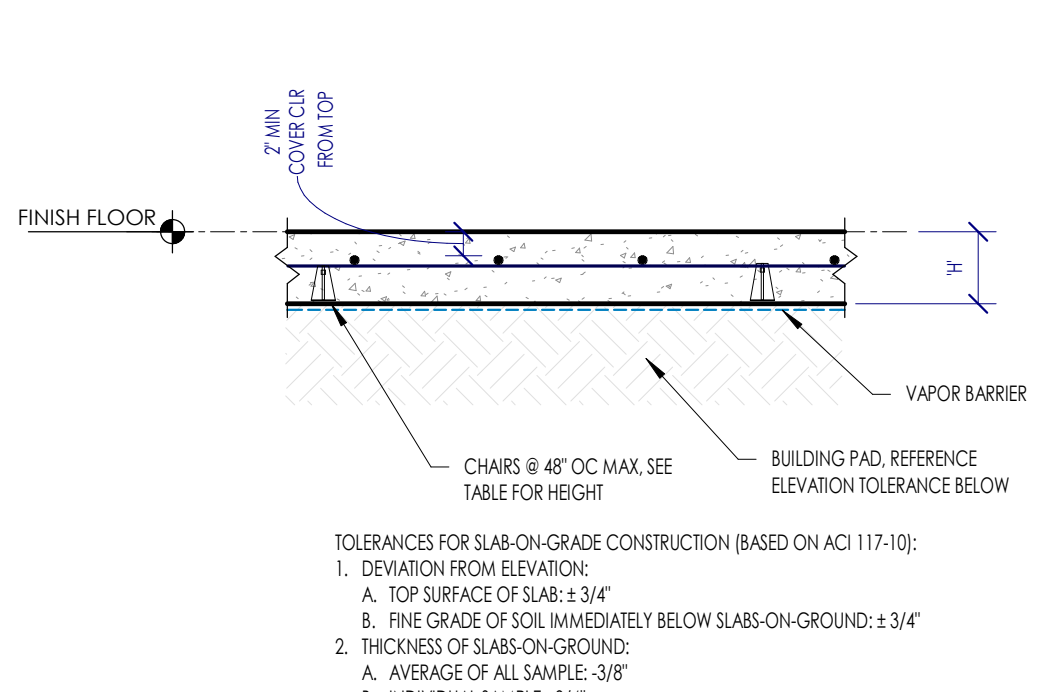
2D S3.0 TYPICAL INTERIOR GRADE BEAM



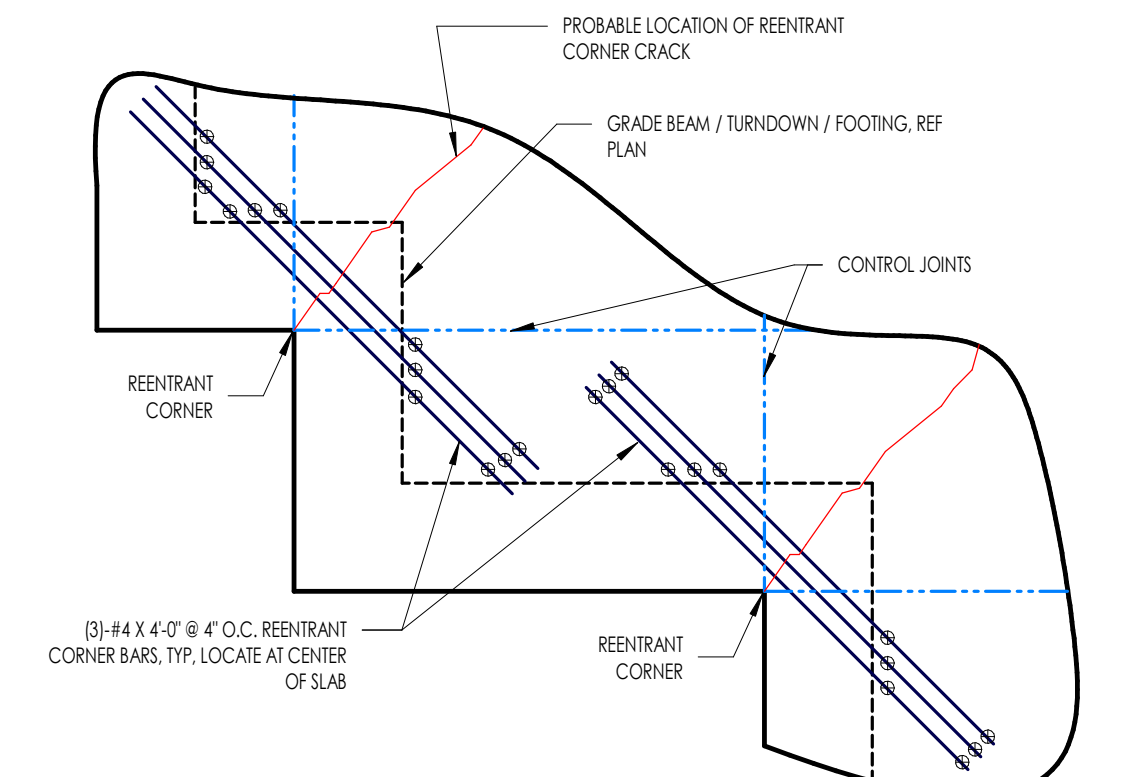
1D S3.0 TYPICAL REINFORCEMENT AT SLAB BLOCKOUT



6C S3.0 TYPICAL INTERIOR BEAM INTERSECTION

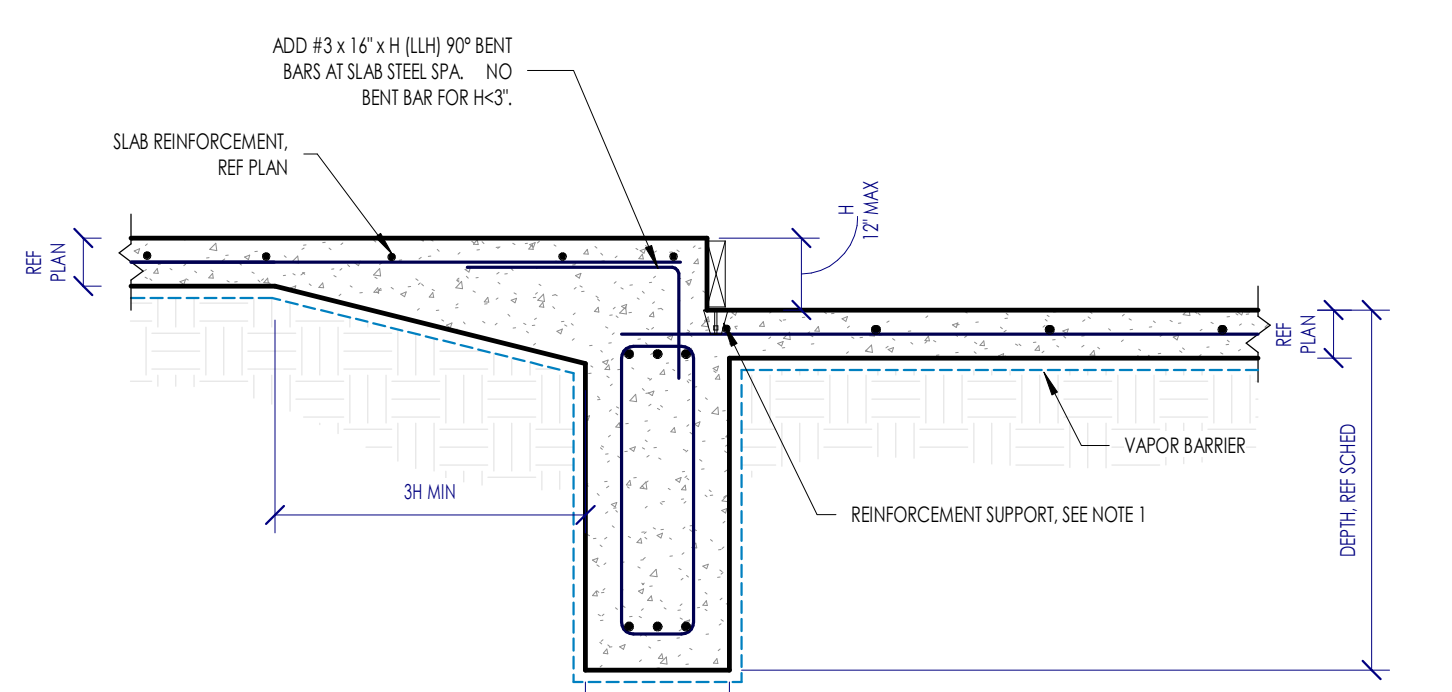


5C S3.0 TYPICAL SLAB-ON-GRADE SECTION



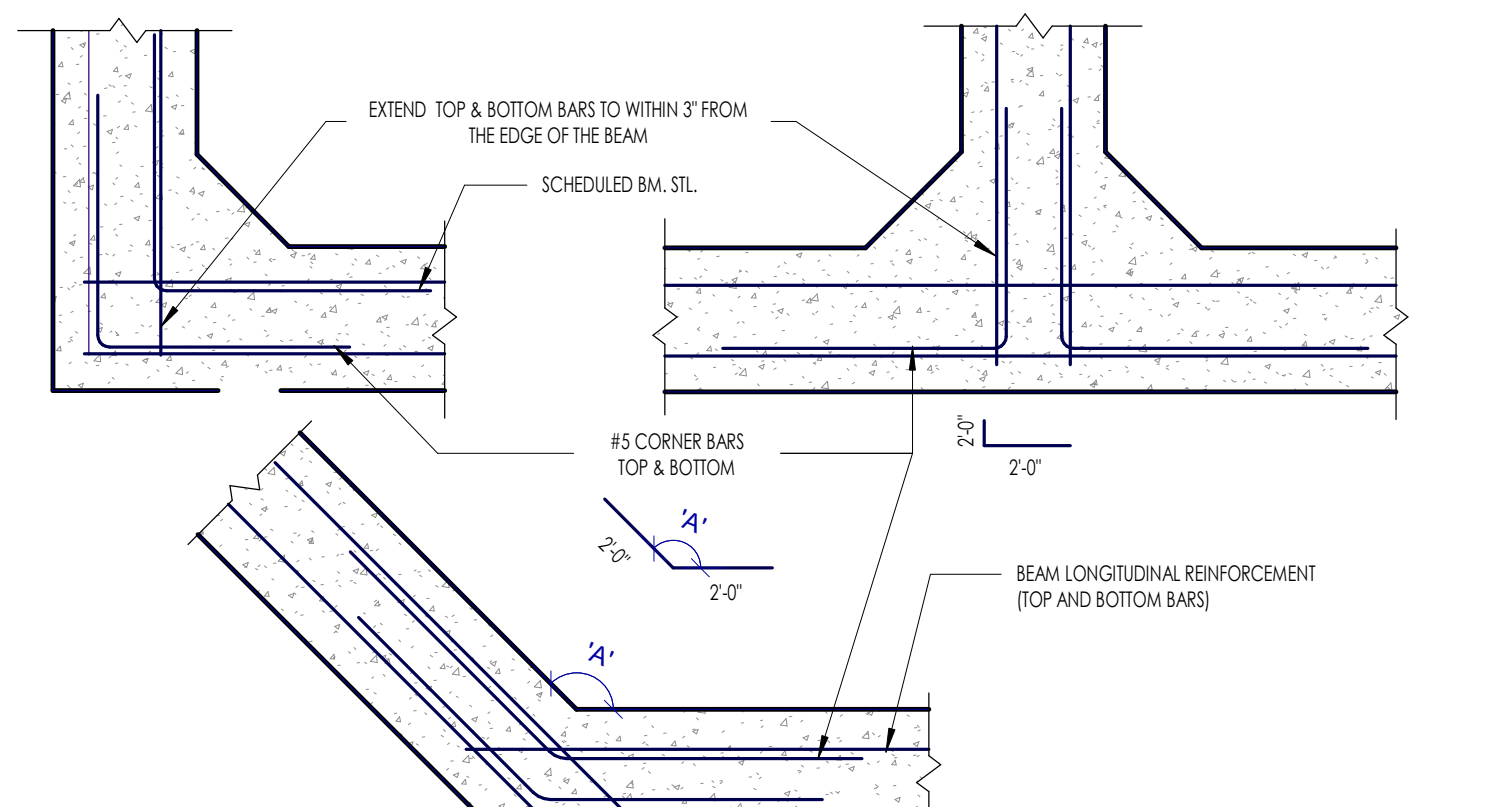
NOTES:
1. REINFRANT CORNER BARS WILL NOT ELIMINATE REINFRANT CORNER CRACKS. THEY WILL MITIGATE THE WIDTH OF THE CRACKS. FOR CRITICAL APPLICATIONS OF CRACKS, PLACE CONTROL JOINTS AS SOON AS POSSIBLE.

4C S3.0 TYPICAL REINFRANT CORNER BARS



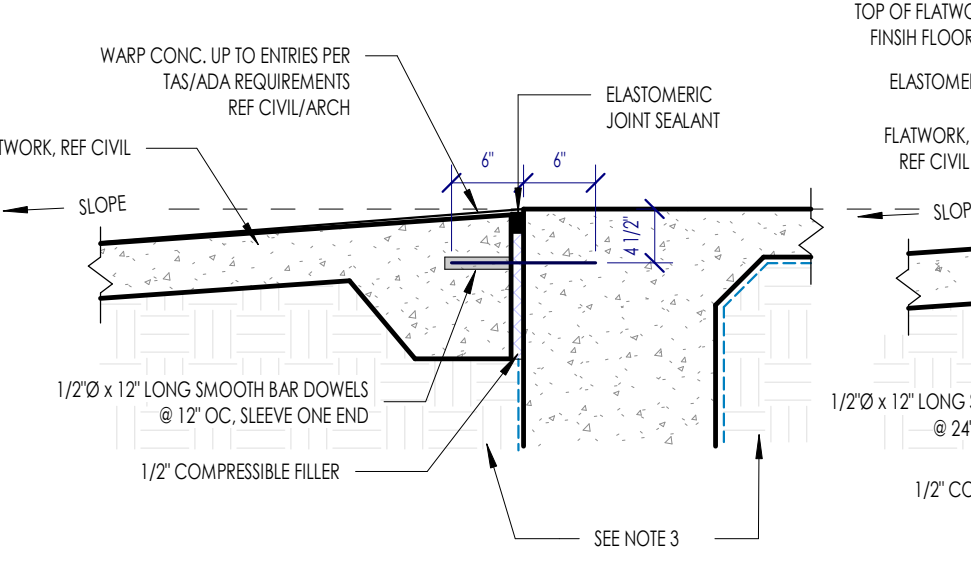
NOTES:
1. INVERT REINFORCEMENT SUPPORT AND SECURELY ATTACH TO FLOAT FORM.

3C S3.0 TYPICAL SLAB DROP AT GRADE BEAM

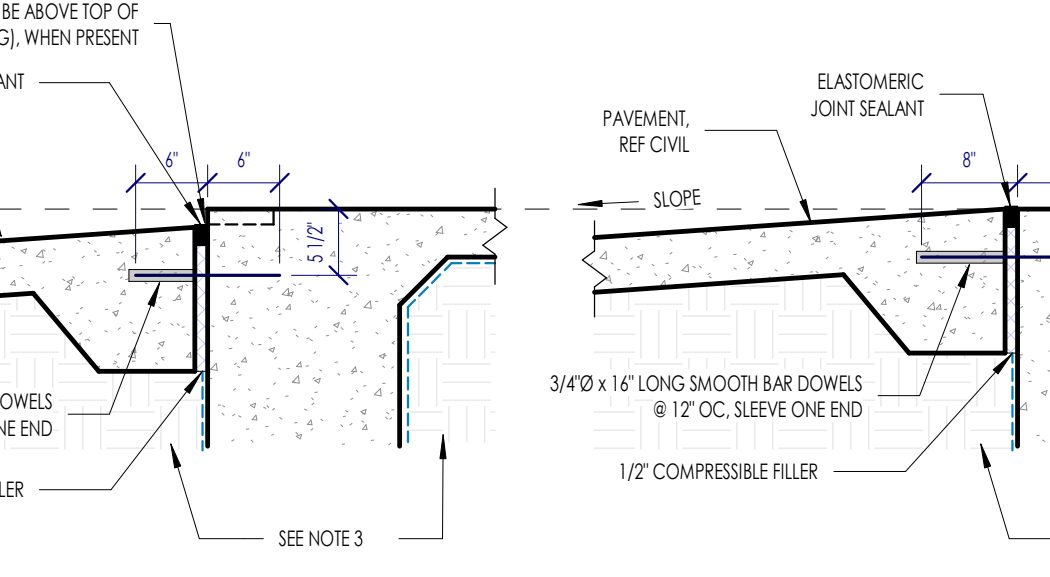


NOTES:
1. BEAMS SHALL BE POURED MONOLITHICALLY UNLESS JOINTS ARE ALLOWED BY WRITTEN PERMISSION BY THE EOR.
2. UNLESS DETAILED OTHERWISE, ALL BEAM CORNERS AND INTERSECTIONS REQUIRE BENT DOWEL CORNER BARS TOP AND BOTTOM, AS SHOWN IN THIS DETAIL.

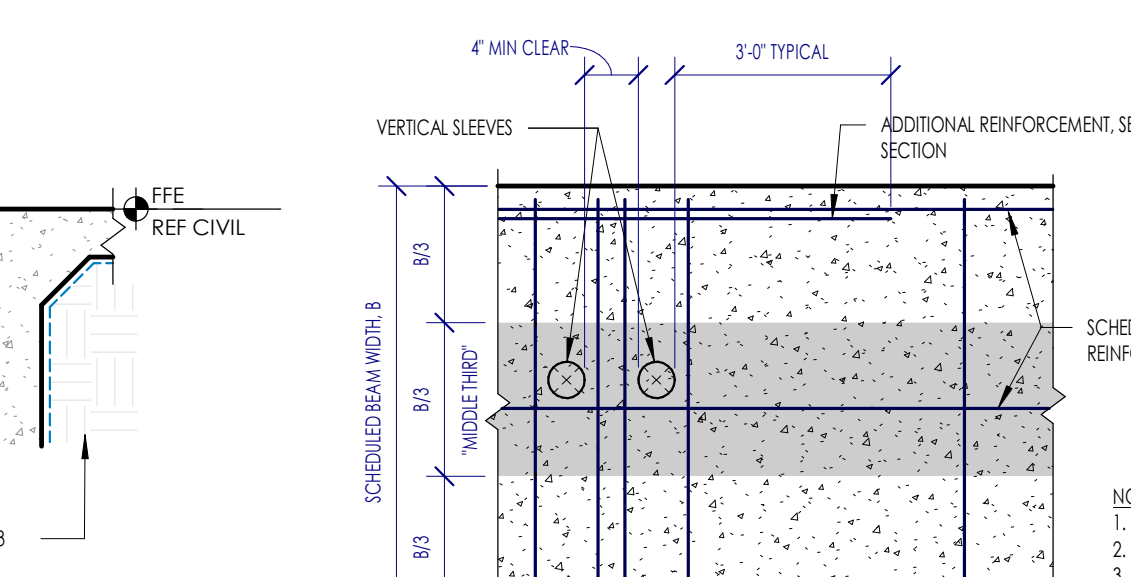
1C S3.0 TYPICAL CORNER BARS



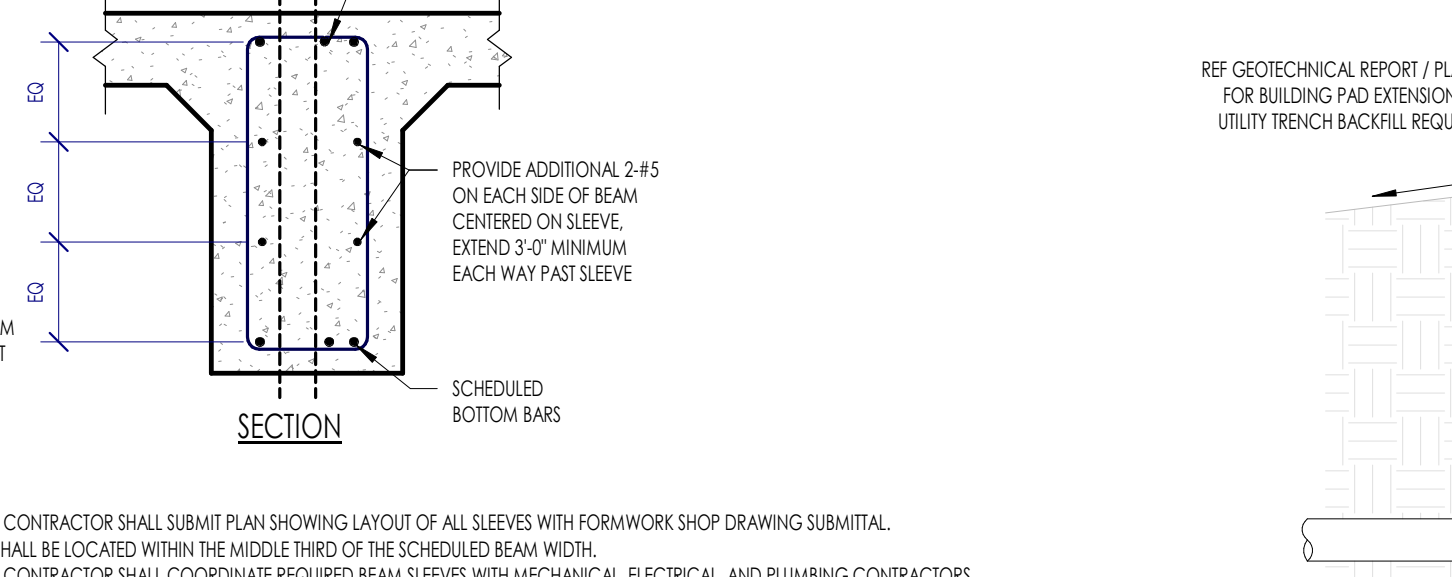
FLATWORK AT ENTRY DOOR



FLATWORK NOT AT ENTRY DOOR

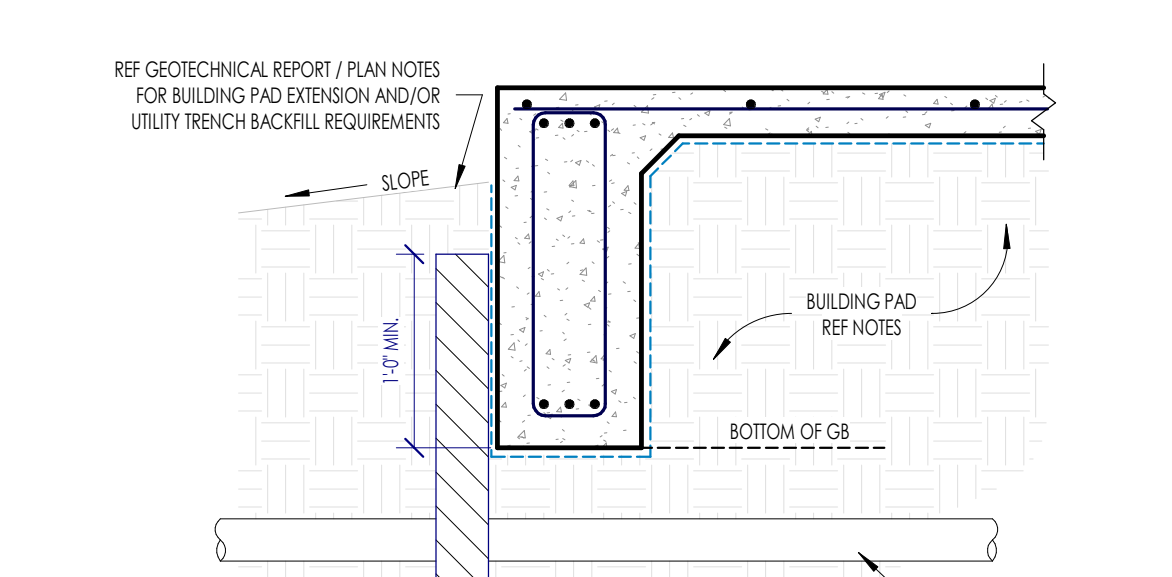


4B S3.0 TYPICAL VERTICAL PENETRATION IN GRADE BEAM



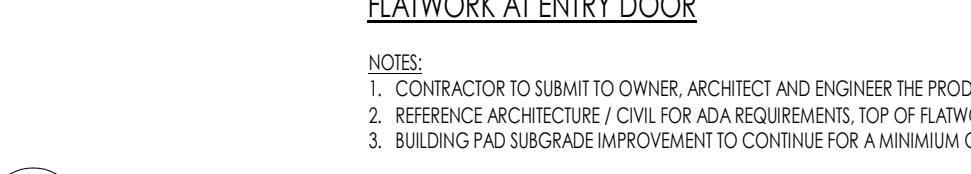
NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT PLAN SHOWING LAYOUT OF ALL SLEEVES WITH FLOWWORK SHOP DRAWING SUBMITTAL.
2. SLEEVES SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SCHEDULED BEAM WIDTH.
3. GENERAL CONTRACTOR SHALL COORDINATE REQUIRED BEAM SLEEVES WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS. REQUIRED SLEEVES MAY OR MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.
4. CONTINUOUS BEAM REINFORCEMENT MAY BE SLIGHTLY REPLACED OF MAXIMUM OR ADJACENT BARS BUNDLED (2 BAR BUNDLES MAXIMUM) TO FACILITATE SLEEVE INSTALLATION. DO NOT CUT, OFFSET, OR BEND REINFORCEMENT.
5. SLEEVES OCCURRING ON OPPOSITE SIDES OF A COLUMN MUST BE IN LINE.
6. THE OUTSIDE DIAMETER OF A SLEEVE MAY NOT EXCEED 20% OF THE SCHEDULED WIDTH OF THE BEAM THROUGH WHICH IT PASSES.
7. THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD WHEN A SLEEVE SIZE OR LOCATION DOES NOT MEET THE ABOVE CONDITIONS.
8. SCHEDULED BEAM STRIPPS NOT SHOWN FOR CLARITY.

2B S3.0 TYPICAL UTILITY TRENCH UNDER BUILDING PAD BENTONITE PLUG AT EXTERIOR BEAM



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT PLAN SHOWING LAYOUT OF ALL SLEEVES WITH FLOWWORK SHOP DRAWING SUBMITTAL.
2. SLEEVES SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SCHEDULED BEAM WIDTH.
3. GENERAL CONTRACTOR SHALL COORDINATE REQUIRED BEAM SLEEVES WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS. REQUIRED SLEEVES MAY OR MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.
4. CONTINUOUS BEAM REINFORCEMENT MAY BE SLIGHTLY REPLACED OF MAXIMUM OR ADJACENT BARS BUNDLED (2 BAR BUNDLES MAXIMUM) TO FACILITATE SLEEVE INSTALLATION. DO NOT CUT, OFFSET, OR BEND REINFORCEMENT.
5. SLEEVES OCCURRING ON OPPOSITE SIDES OF A COLUMN MUST BE IN LINE.
6. THE OUTSIDE DIAMETER OF A SLEEVE MAY NOT EXCEED 20% OF THE SCHEDULED WIDTH OF THE BEAM THROUGH WHICH IT PASSES.
7. THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD WHEN A SLEEVE SIZE OR LOCATION DOES NOT MEET THE ABOVE CONDITIONS.
8. SCHEDULED BEAM STRIPPS NOT SHOWN FOR CLARITY.

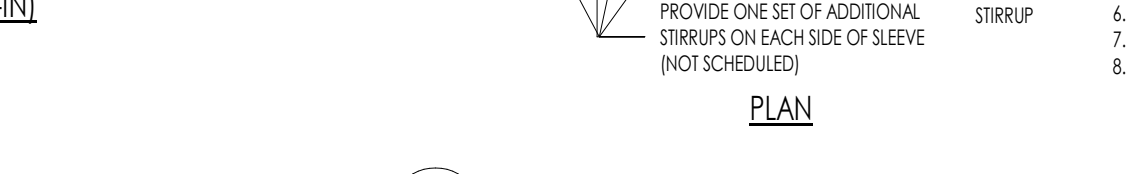
1B S3.0 VERTICAL PENETRATION THROUGH SLAB-ON-GRADE



4B S3.0 TYPICAL FLATWORK/PAVEMENT DOWELS AT BUILDING

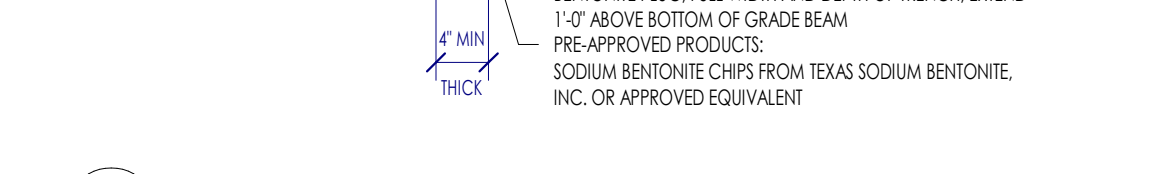


4B S3.0 TYPICAL FLATWORK/PAVEMENT DOWELS AT BUILDING

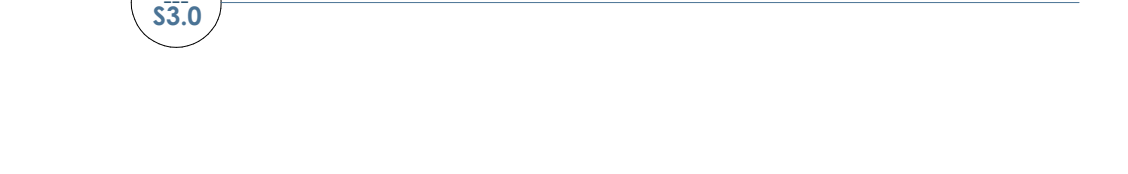


NOTES:
1. DEPTH INCREASE AND DEEP BARS NOT REQUIRED IF PENETRATION OCCURS IN MIDDLE THIRD OF GRADE BEAM DEPTH.

4A S3.0 TYPICAL HORIZONTAL PENETRATION IN BEAM

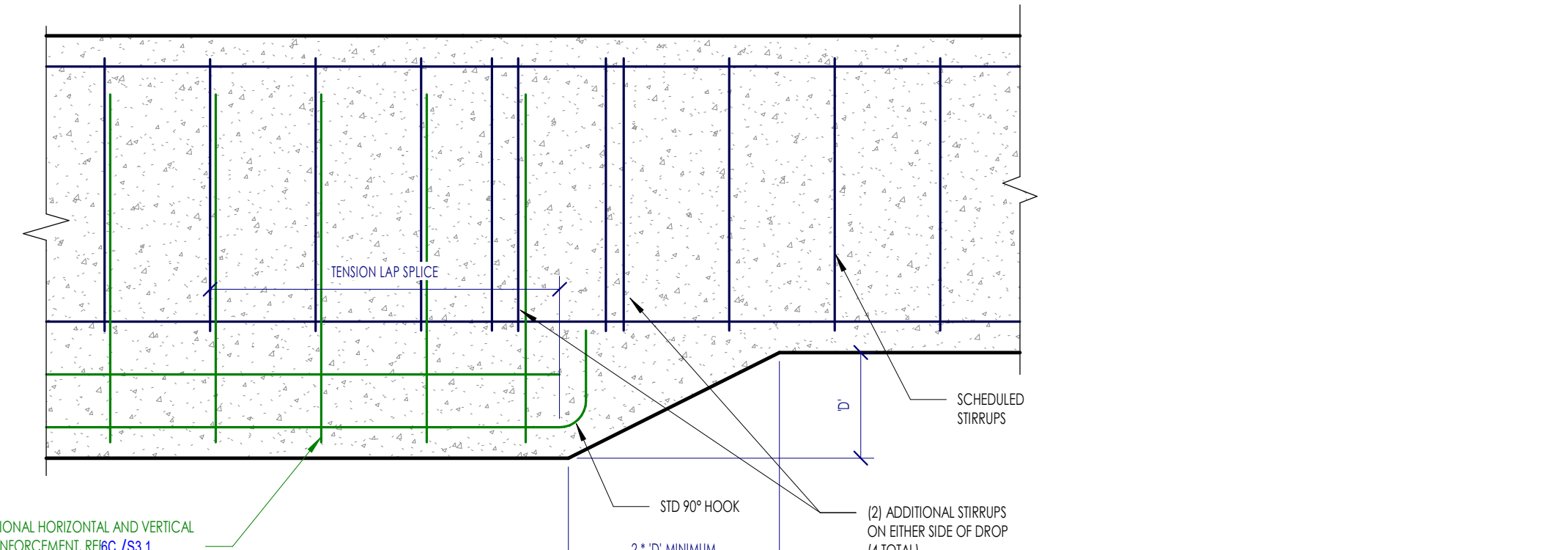


2A S3.0 TYPICAL DOUBLE WIDE INTERIOR GRADE BEAM

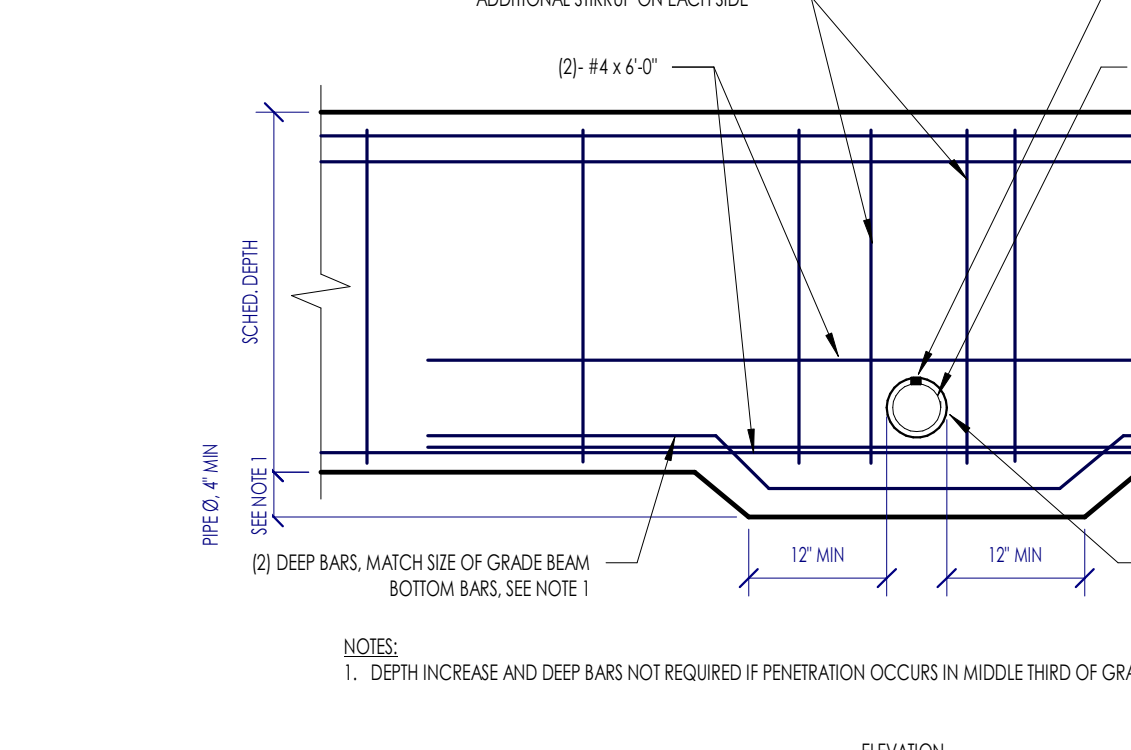


NOTES:
1. EMBEDDED CONDUIT MUST BE PVC OR OTHER PRE-APPROVED PRODUCT THAT WILL NOT CHEMICALLY REACT WITH THE CONCRETE.
2. EMBEDDED CONDUIT MUST BE CHARGED AND RESTRAINED @ 48" OC. MAX IN ORDER TO PREVENT FLOATING OF THE CONDUIT DURING POURING.
3. PLACE ALL CONDUIT WITHIN THE MIDDLE THIRD OF THE OVERALL SLAB DEPTH.
4. DO NOT PLACE CONDUIT ADJACENT TO HOLES IN CONDUIT TO PARALLEL REINFORCEMENT.

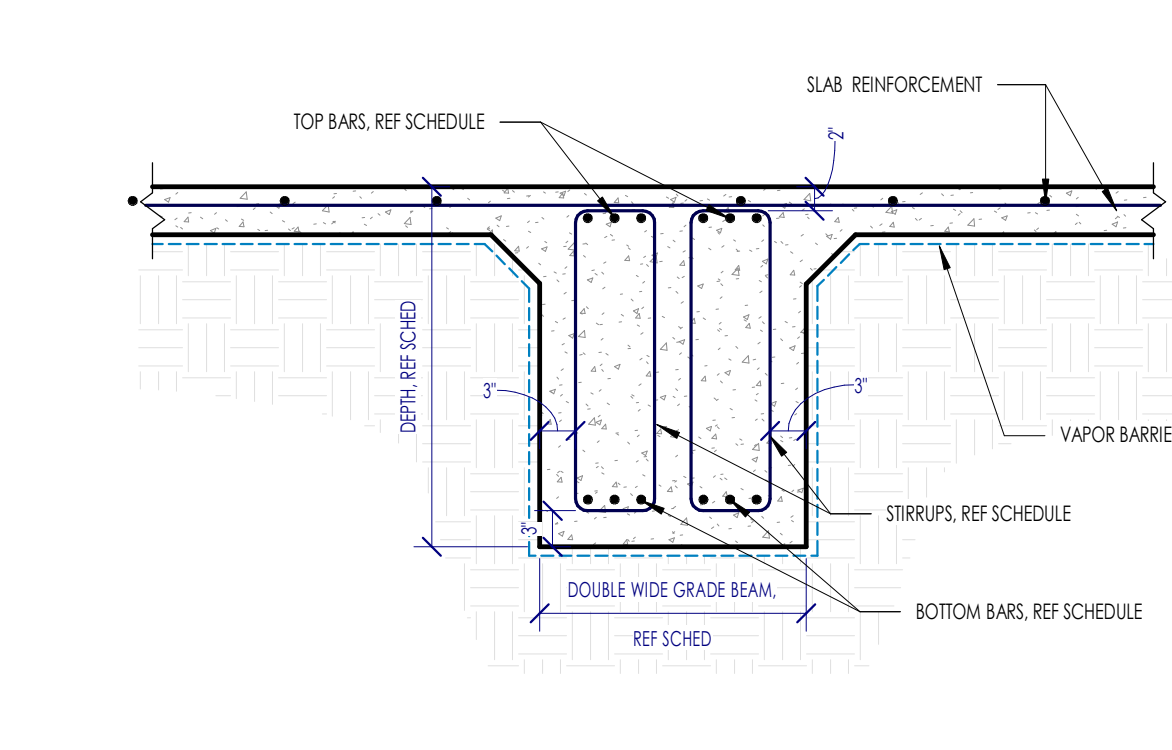
1A S3.0 TYPICAL CONDUITS EMBEDDED IN SLAB-ON-GRADE



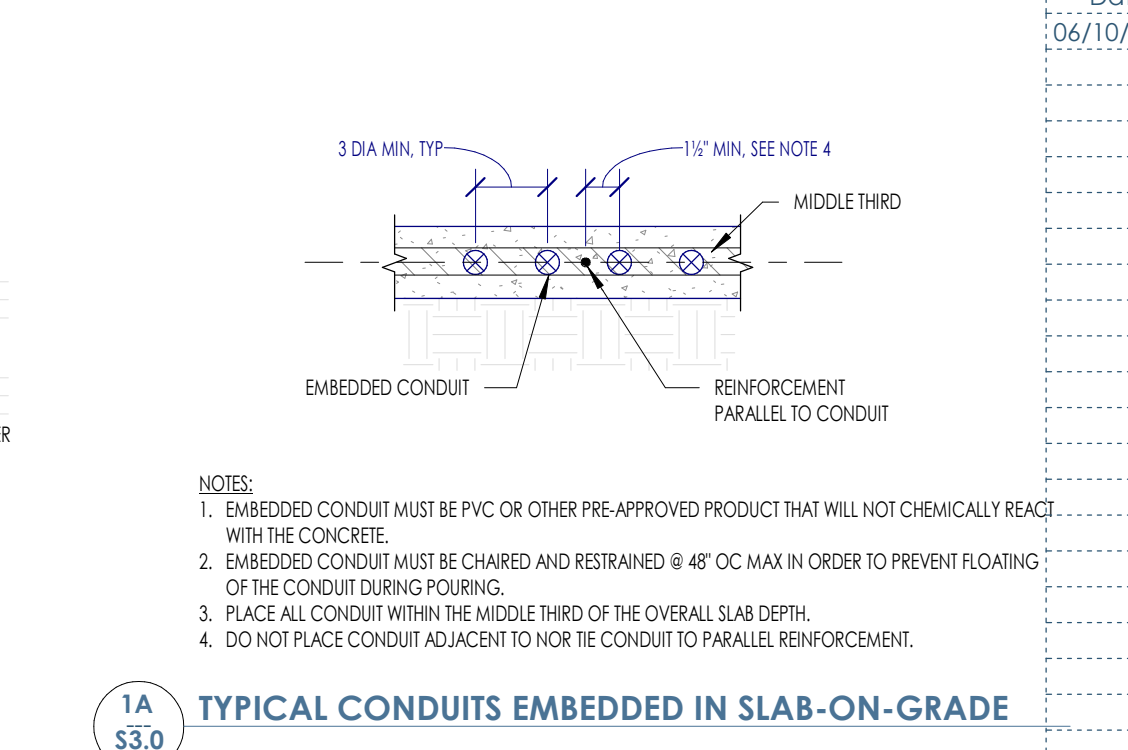
6A S3.0 TYPICAL DROP TRANSITION IN GRADE BEAM - VERTICAL MOISTURE BARRIER



4A S3.0 TYPICAL HORIZONTAL PENETRATION IN BEAM



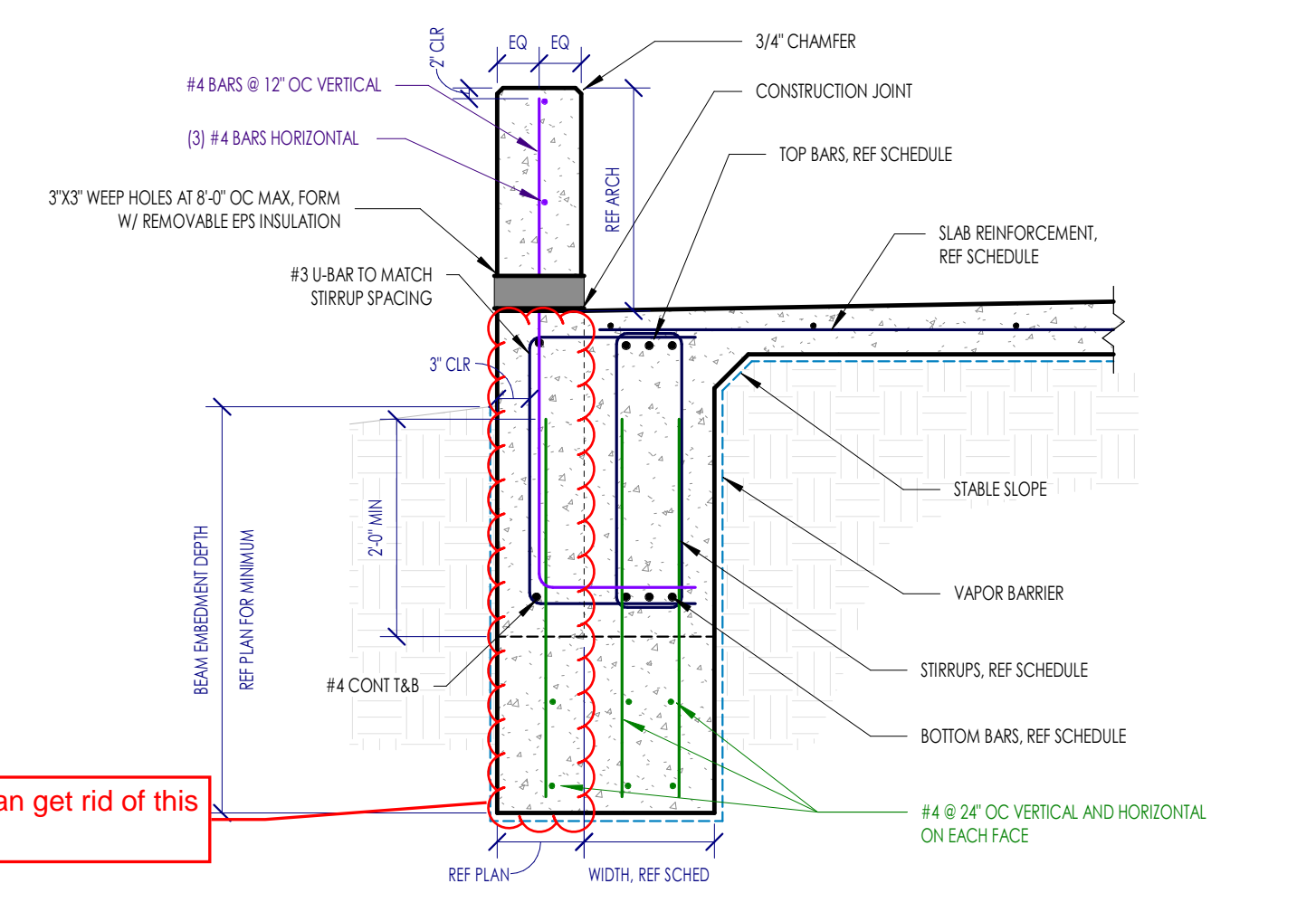
2A S3.0 TYPICAL DOUBLE WIDE INTERIOR GRADE BEAM



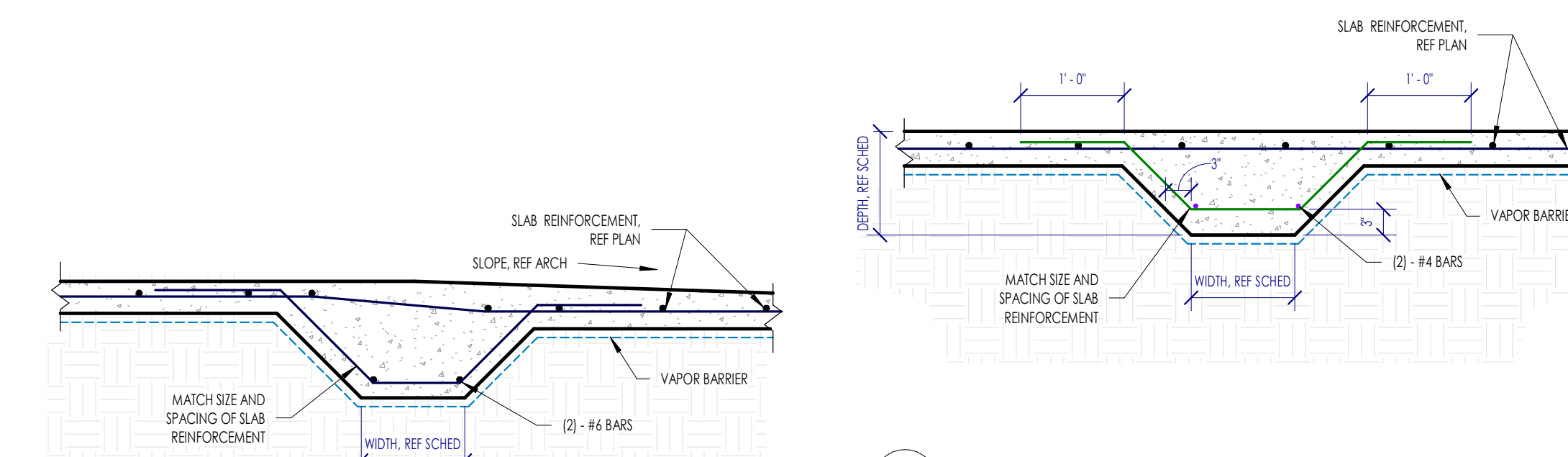
1A S3.0 TYPICAL CONDUITS EMBEDDED IN SLAB-ON-GRADE

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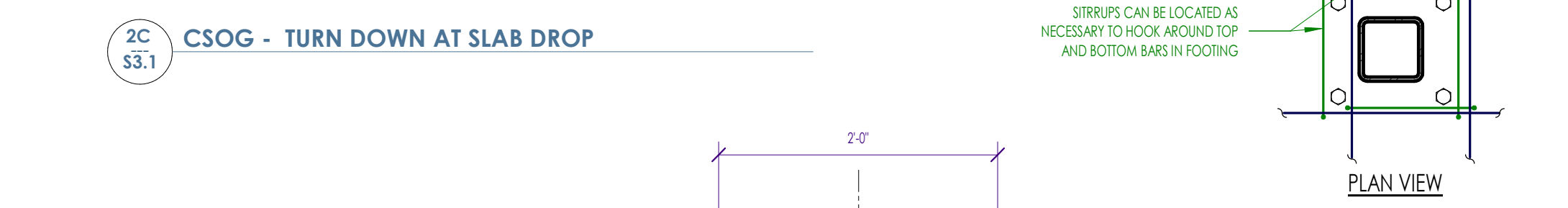
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| 06/10/2022 | Issued for Permit |



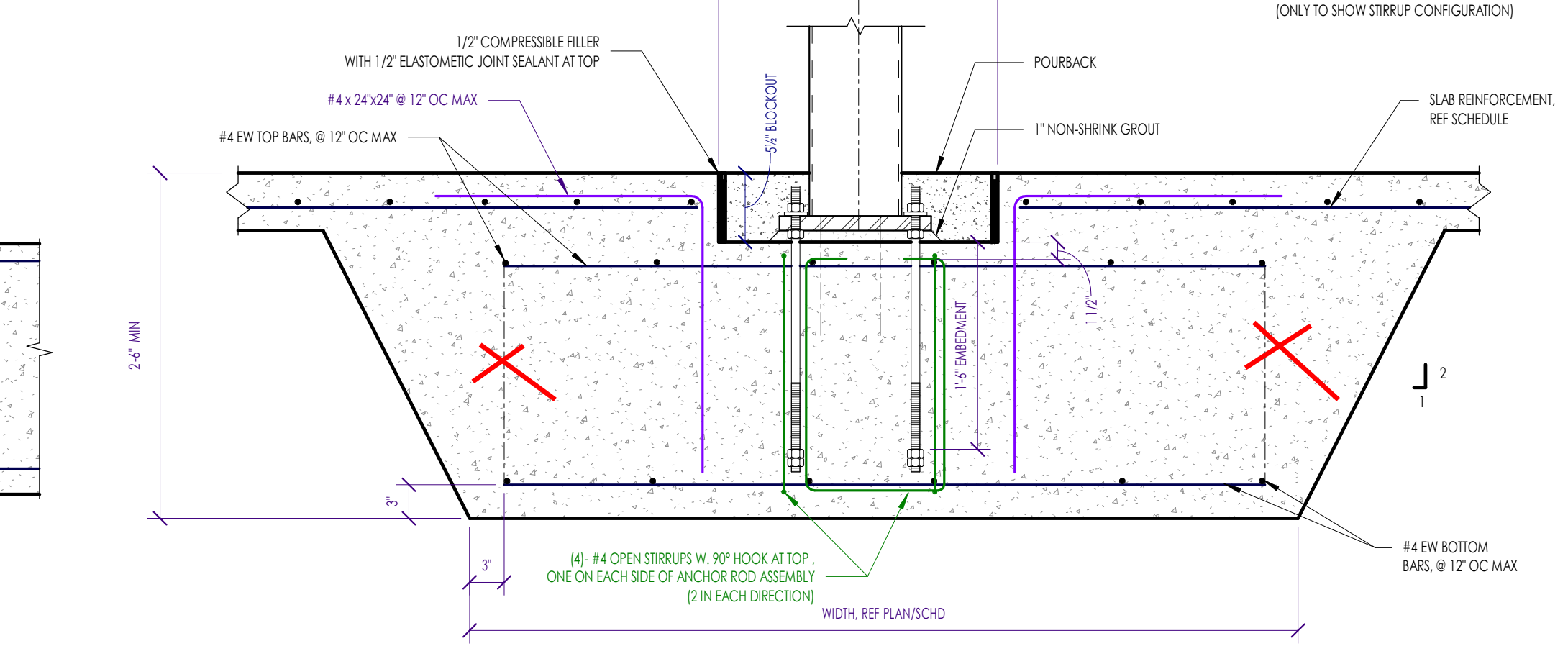
1D S3.1 TYPICAL EXTERIOR WIDENED GRADE BEAM AT CURB - VERTICAL MOISTURE BARRIER



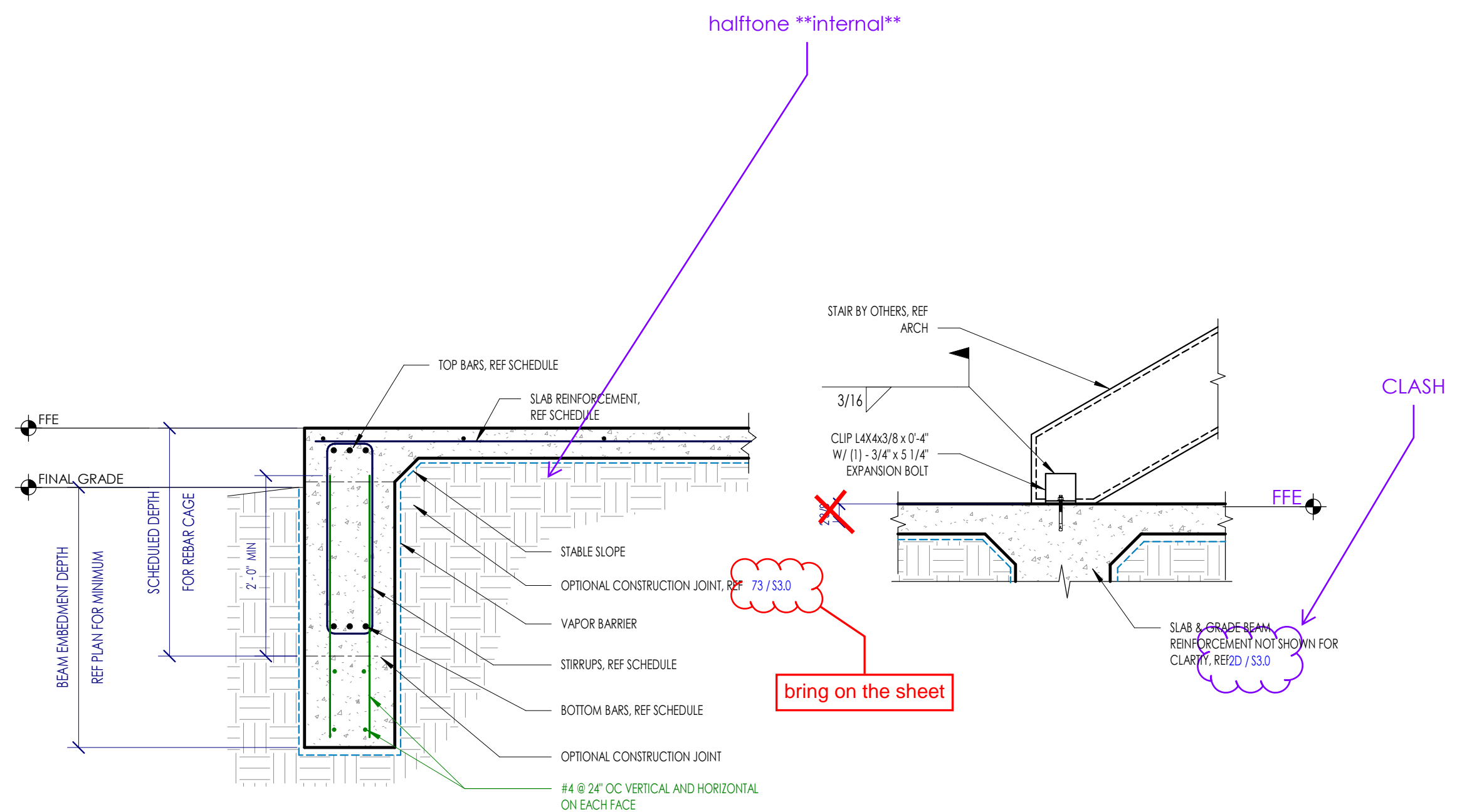
1C S3.1 TYPICAL TURN DOWN BEAM



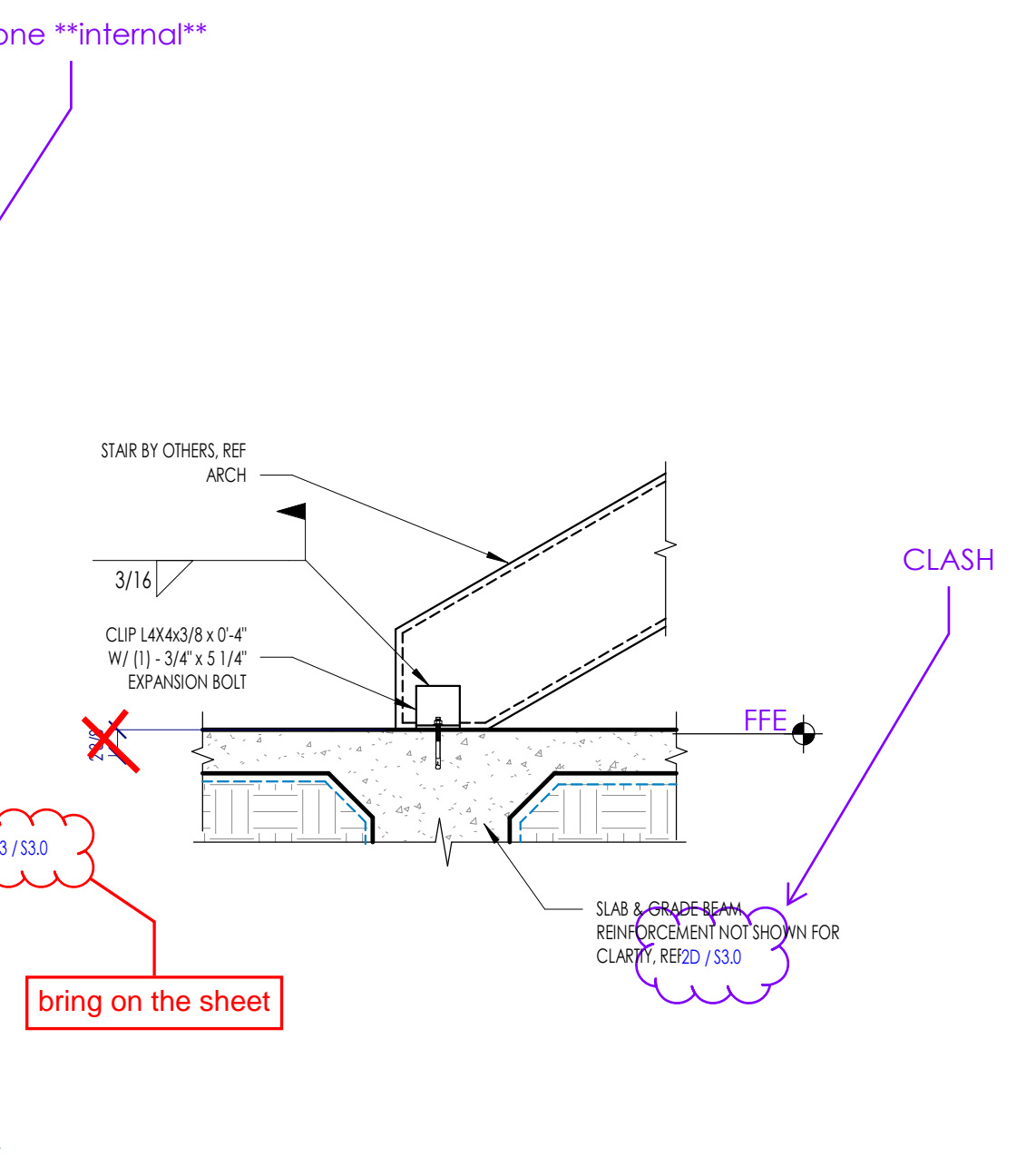
2C S3.1 CSOG - TURN DOWN AT SLAB DROP



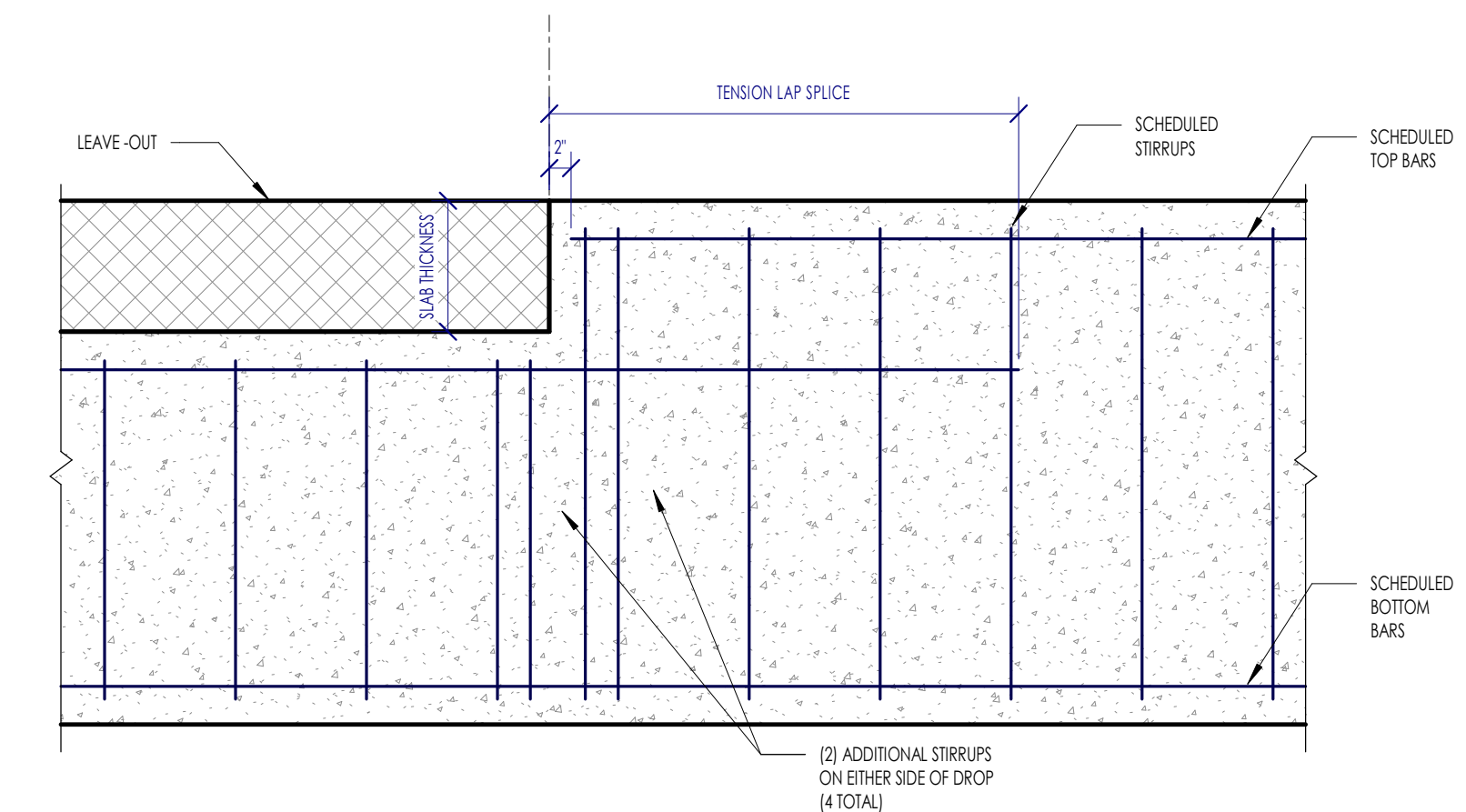
2B S3.1 TYPICAL SPREAD FOOTING AT INTERIOR COLUMN



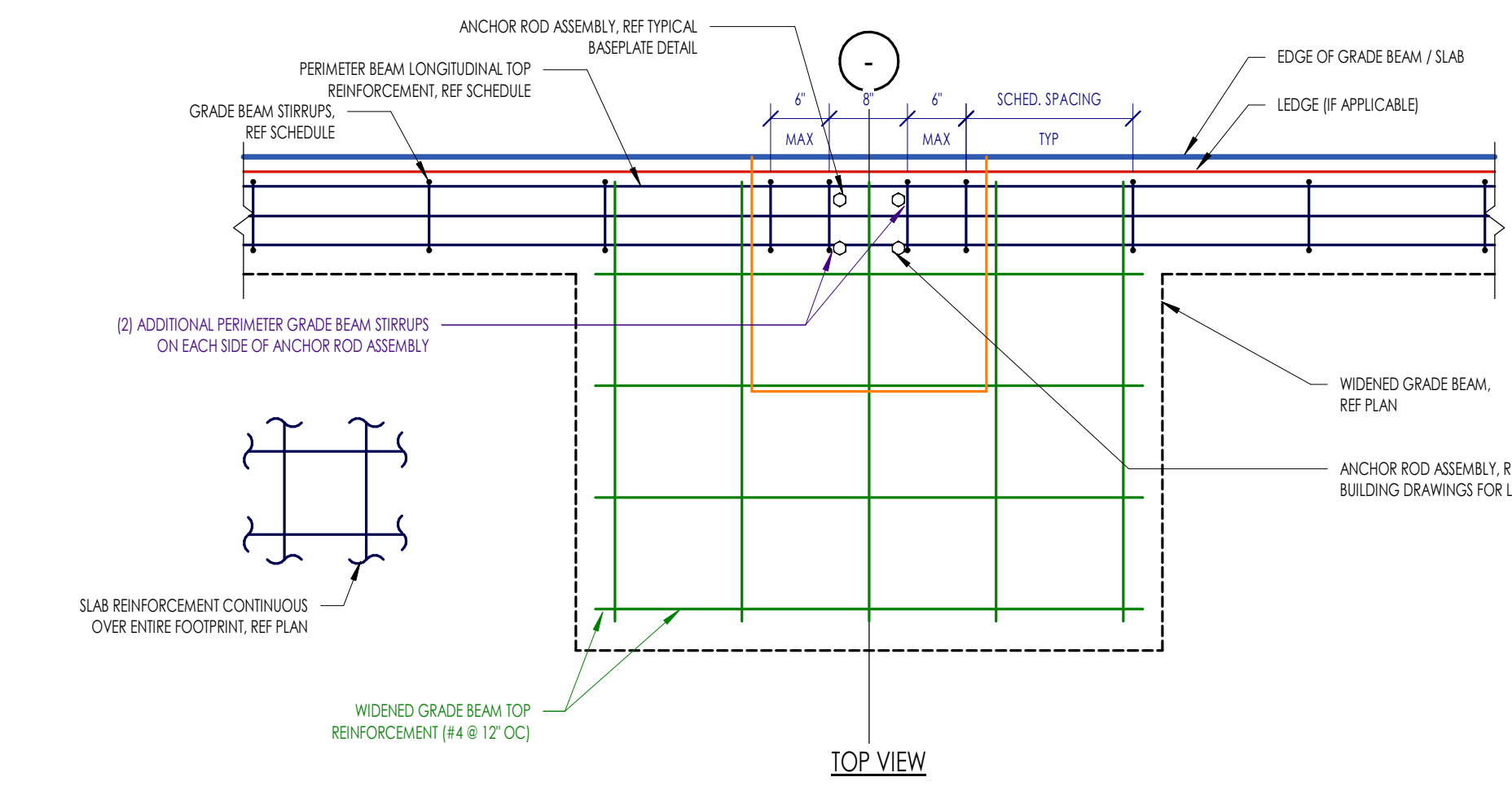
6C S3.1 TYPICAL EXTERIOR GRADE BEAM - VERTICAL MOISTURE BARRIER



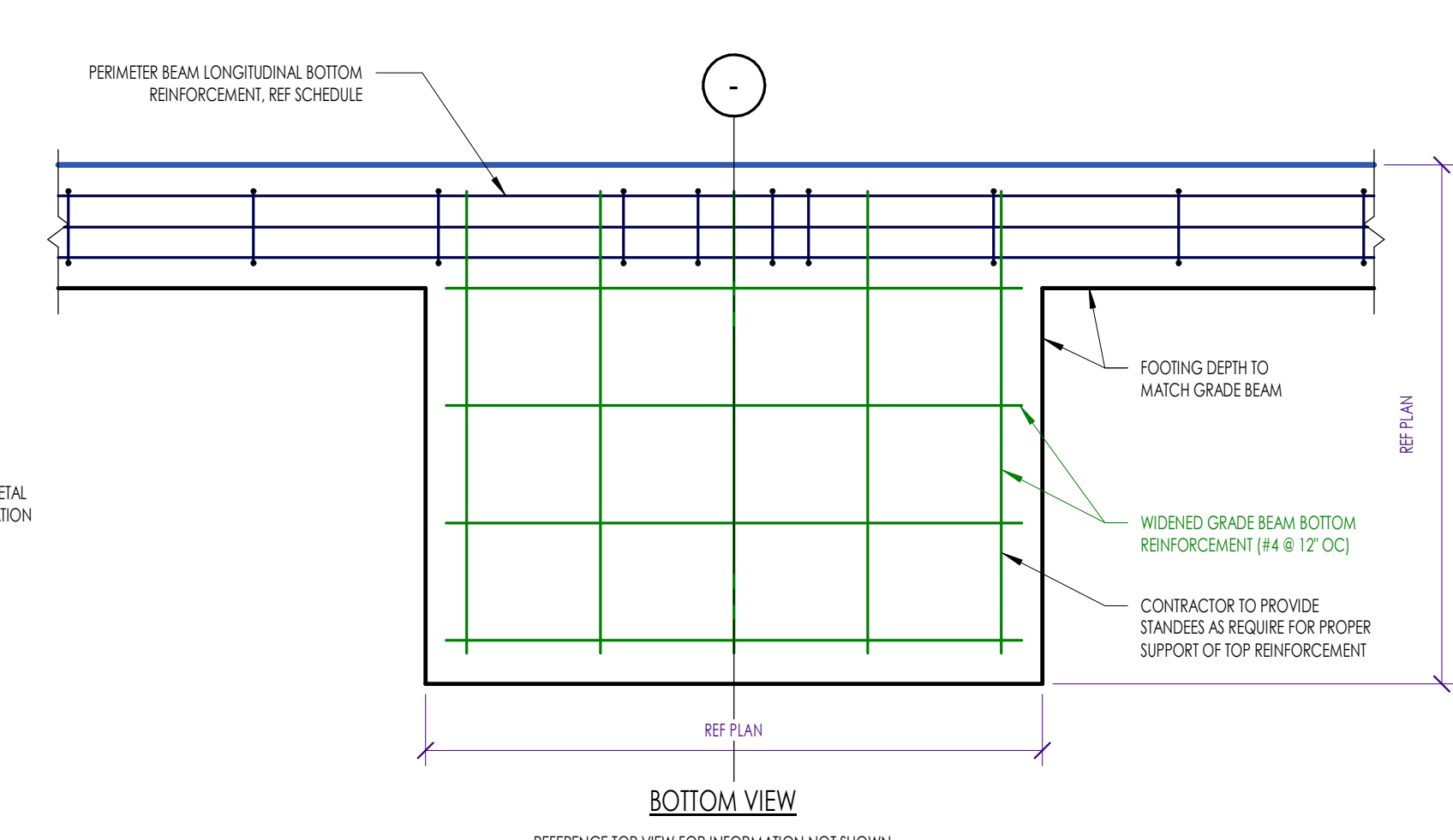
5C S3.1 TYPICAL GRADE BEAM AT STEEL STAIRS



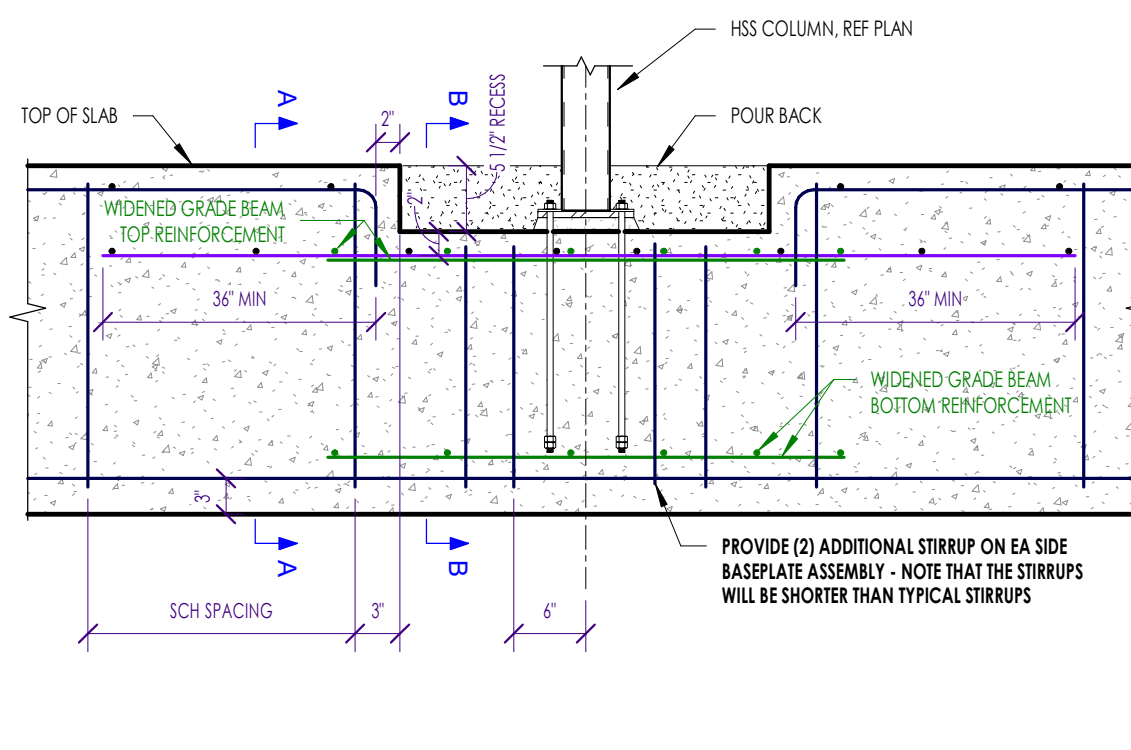
4C S3.1 TYPICAL DROP TRANSITION IN GRADE BEAM TOP REINFORCEMENT AT SLAB LEAVE-OUT



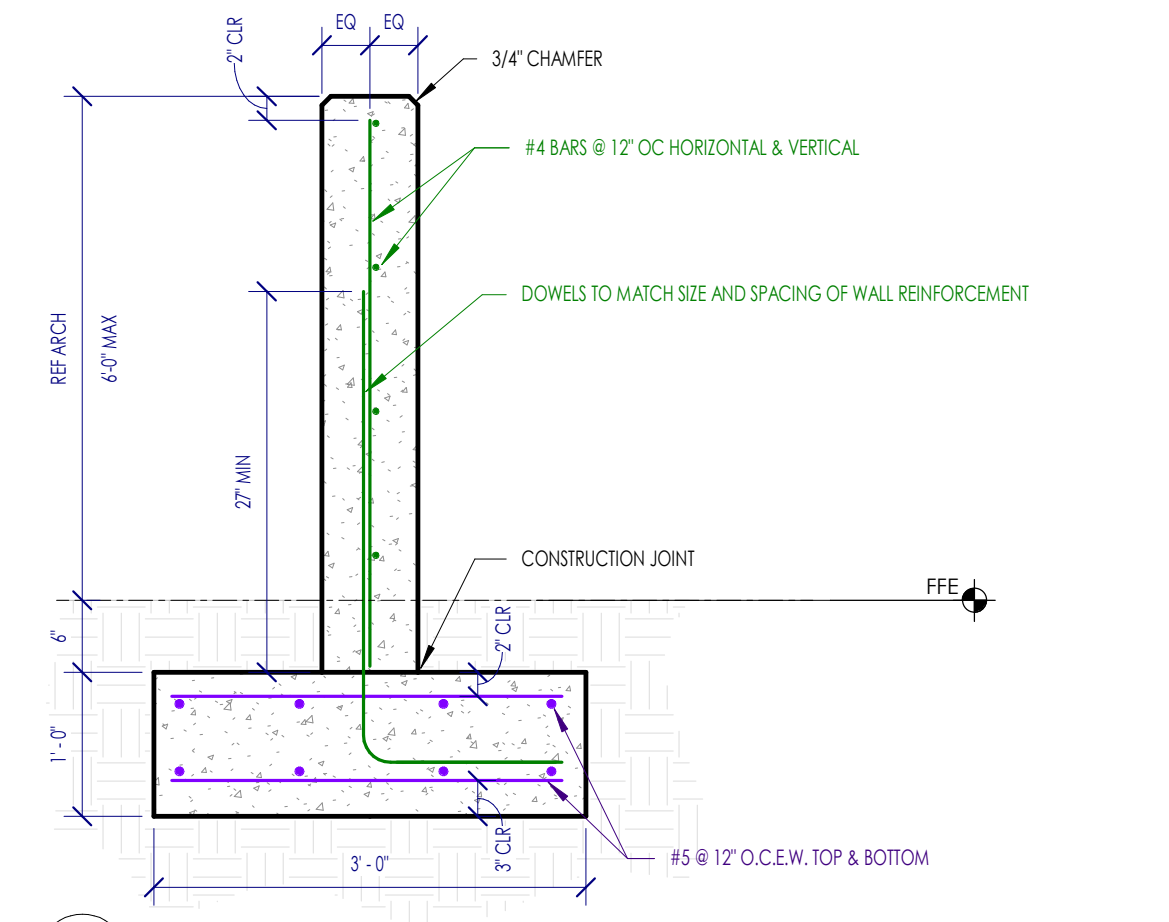
6B S3.1 TYPICAL WIDENED FOOTING AT COLUMN - EMBEDDED BASE PLATE



4C S3.1 TYPICAL DROP TRANSITION IN GRADE BEAM TOP REINFORCEMENT AT SLAB LEAVE-OUT



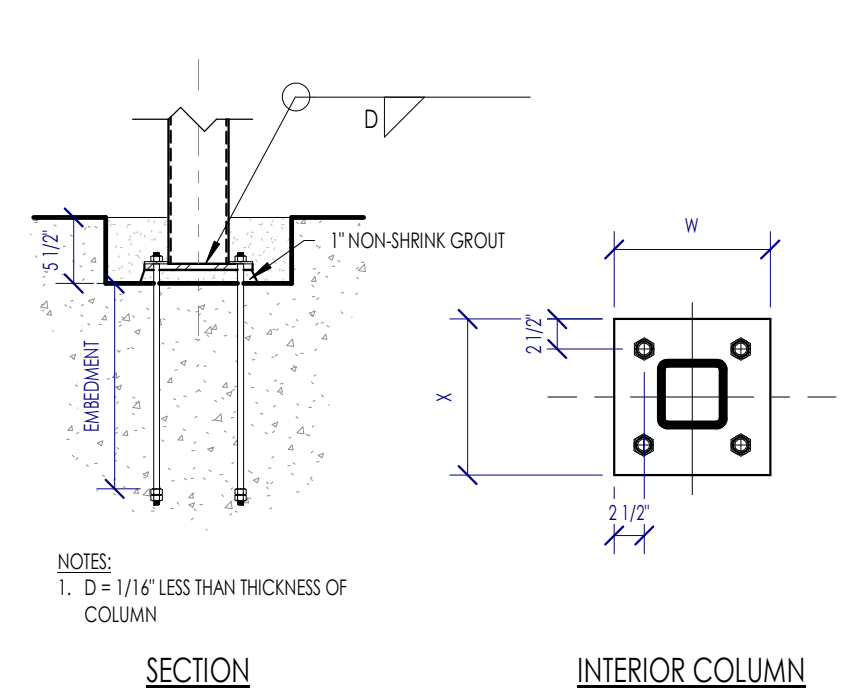
3A S3.1 TYPICAL ANCHOR ROD



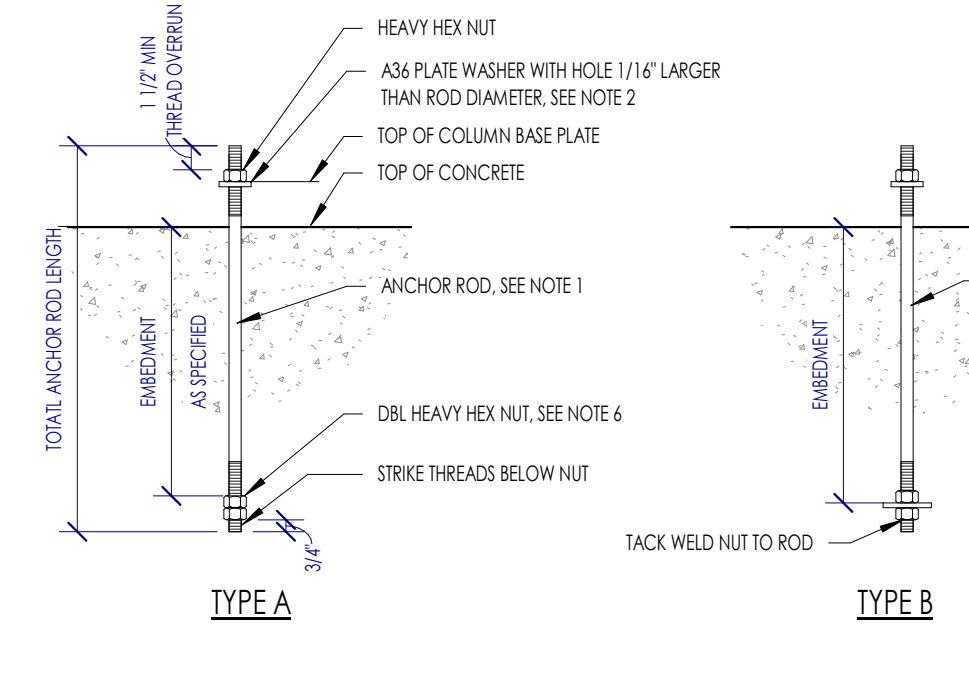
6A S3.1 TYPICAL MOMENT SIGN FOUNDATION

| COLUMN | BASE PLATE DIMENSIONS | | | CONDITION | ANCHOR BOLTS | | |
|---------|-----------------------|-----|----|-----------|--------------|------|-----------|
| | X | W | T | | NO./TYPE | DIA. | EMBEDMENT |
| HSS58x5 | 13" | 13" | 1" | INTERIOR | 4/A | 1" | 1'-0" |
| HSS68 | 14" | 14" | 1" | INTERIOR | 4/A | 1" | 1'-0" |

5A S3.1 TYPICAL BASEPLATE DETAIL



SECTION and INTERIOR COLUMN



TYPE A and TYPE B

| ANCHOR ROD DIAMETER | HOLE DIAMETER | SQUARE PLATE WASHER SIZE | PLATE WASHER THICKNESS | TYPE B ANCHOR PLATE |
|---------------------|---------------|--------------------------|------------------------|---------------------|
| 5/8" | 1.31/4" | 1 1/2" | 1/4" | PL17X10-4 |
| 3/4" | 1.51/4" | 2" | 1/4" | PL17X10-4 |
| 7/8" | 1.91/4" | 2 1/2" | 5/16" | PL17X10-4 |
| 1" | 1.13/16" | 3" | 3/8" | PL19X10-5 |
| 1 1/2" | 2.51/4" | 3 1/2" | 1/2" | PL19X10-5 |

- NOTES:
1. ALL TYPE A ANCHOR RODS SHALL BE F1554 GRADE 36.
 2. ALL TYPE B ANCHOR RODS SHALL BE F1554 GRADE 55.11.
 3. PLATE WASHERS MUST BE WELDED TO THE BASE PLATE WITH MINIMUM 3/16" FLLET WELD ALL-AROUND.
 4. EMBEDMENT DEPTH ARE PRELIMINARY. FINAL EMBEDMENT TO BE PROVIDED AFTER REVIEW OF METAL BUILDING REACTIONS.
 5. ALL ANCHOR ROD HOLES SHALL ADHERE TO AISC DESIGN GUIDE 01 - TABLE 2.3.
 6. THE DOUBLE NUT MAY BE OMITTED IF THE NUT IS TACK WELDED TO THE ROD.

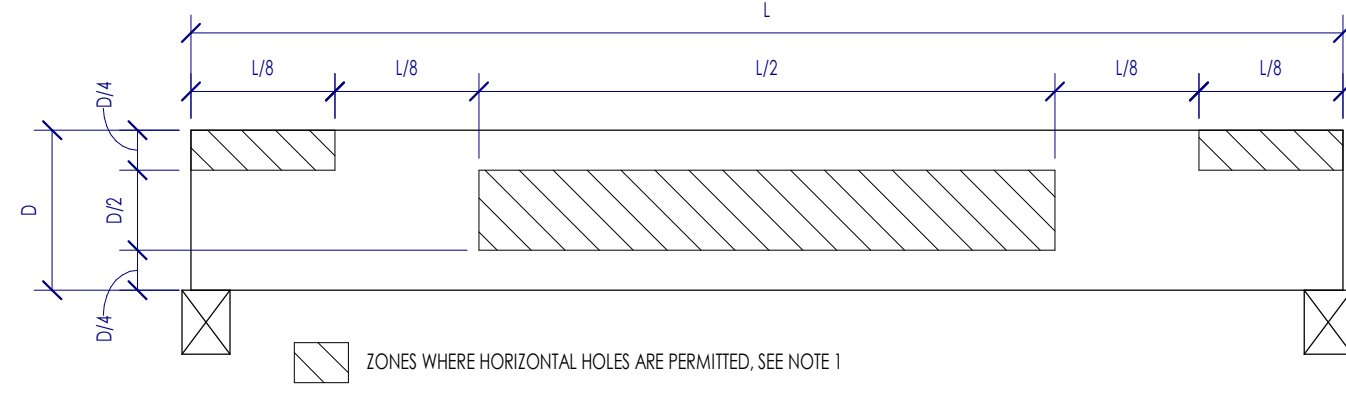
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| TYPICAL FASTENING SCHEDULE | | | |
|----------------------------|--|--|-----------------------|
| CONNECTION ID | CONNECTION TYPE | FASTENING | FASTENING ORIENTATION |
| 1 | JOIST TO RILL OR GIRDER | (1) - 0.131"Ø X 3" | TOENAIL |
| 2 | SOLE PLATE TO JOIST OR BLOCKING | 0.148"Ø X 3" NAILS @ 12" OC NAILS | FACE NAIL |
| 3 | TOP PLATE TO STUD | (1) - 0.131"Ø X 3" NAILS | END NAIL |
| 4 | STUD TO SOLE PLATE - OPTION 1 | (2) - 1/4" COMMON (2) - 0.131"Ø X 3" NAILS | END NAIL |
| 5 | STUD TO SOLE PLATE - OPTION 2 | (4) 0.131"Ø X 3" NAILS | TOENAIL |
| 6 | DOUBLE/MULTIPLE STUDS | REFERENCE DETAIL 4A/5A/1 | FACE NAIL |
| 7 | DOUBLE TOP PLATES | 0.131"Ø X 3" NAILS @ 12" OC | FACE NAIL |
| 8 | DOUBLE TOP PLATE SPICE | REFERENCE DETAIL 3A/5A/1 | FACE NAIL |
| 9 | BLOCKING BETWEEN JOISTS/RAFTERS TO TOP PLATE | (1) - 0.131"Ø X 3" NAILS | TOENAIL |
| 10 | RIM JOIST TO TOP PLATE | 0.131"Ø X 3" NAILS @ 6" OC | TOENAIL |
| 11 | CeILING JOIST TO TOP PLATE | (1) - 0.131"Ø X 3" NAILS | TOENAIL |
| 12 | CeILING JOIST LAP OVER PARTITION | (1) - 0.131"Ø X 3" NAILS | FACE NAIL |
| 13 | CeILING JOIST TO PARALLEL RAFTERS | (1) - 0.131"Ø X 3" NAILS | FACE NAIL |
| 14 | RAFTER TO TOP PLATE | (1) - 0.131"Ø X 3" NAILS | TOENAIL |
| 15 | BUILT-UP CORNER STUDS | 0.131"Ø X 3" NAILS @ 18" OC | FACE NAIL |
| 16 | BUILT-UP BEAMS | REFERENCE DETAIL 2A/5A/0 | FACE NAIL |
| 17 | COLLAR TIE TO RAFTER | (1) - 0.131"Ø X 3" NAILS | FACE NAIL |
| 18 | JACK RAFTER TO HP | (1) - 0.131"Ø X 3" NAILS | TOENAIL |
| 19 | RAFTER TO RIDGE BOARD/BEAM | (1) - 0.131"Ø X 3" NAILS | TOENAIL |
| 20 | BLOCKING AT STUDS | (1) - 0.131"Ø X 3" NAILS EACH SIDE | TOENAIL |

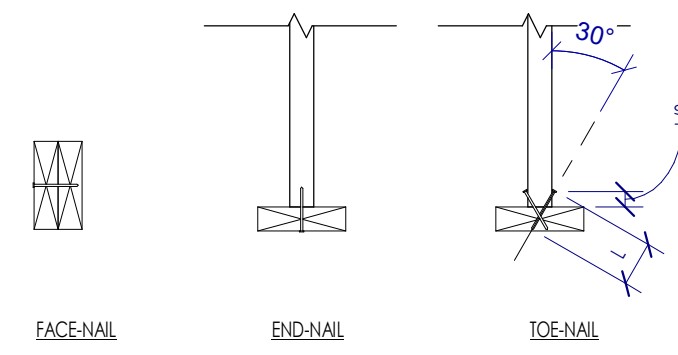
NOTES:
1. THESE CONNECTIONS ARE TO BE APPLIED UNLESS NOTED OTHERWISE IN PLAN SECTION, ELEVATION OR DETAIL VIEWS.

4D S4.0 TYPICAL WOOD FASTENING SCHEDULE

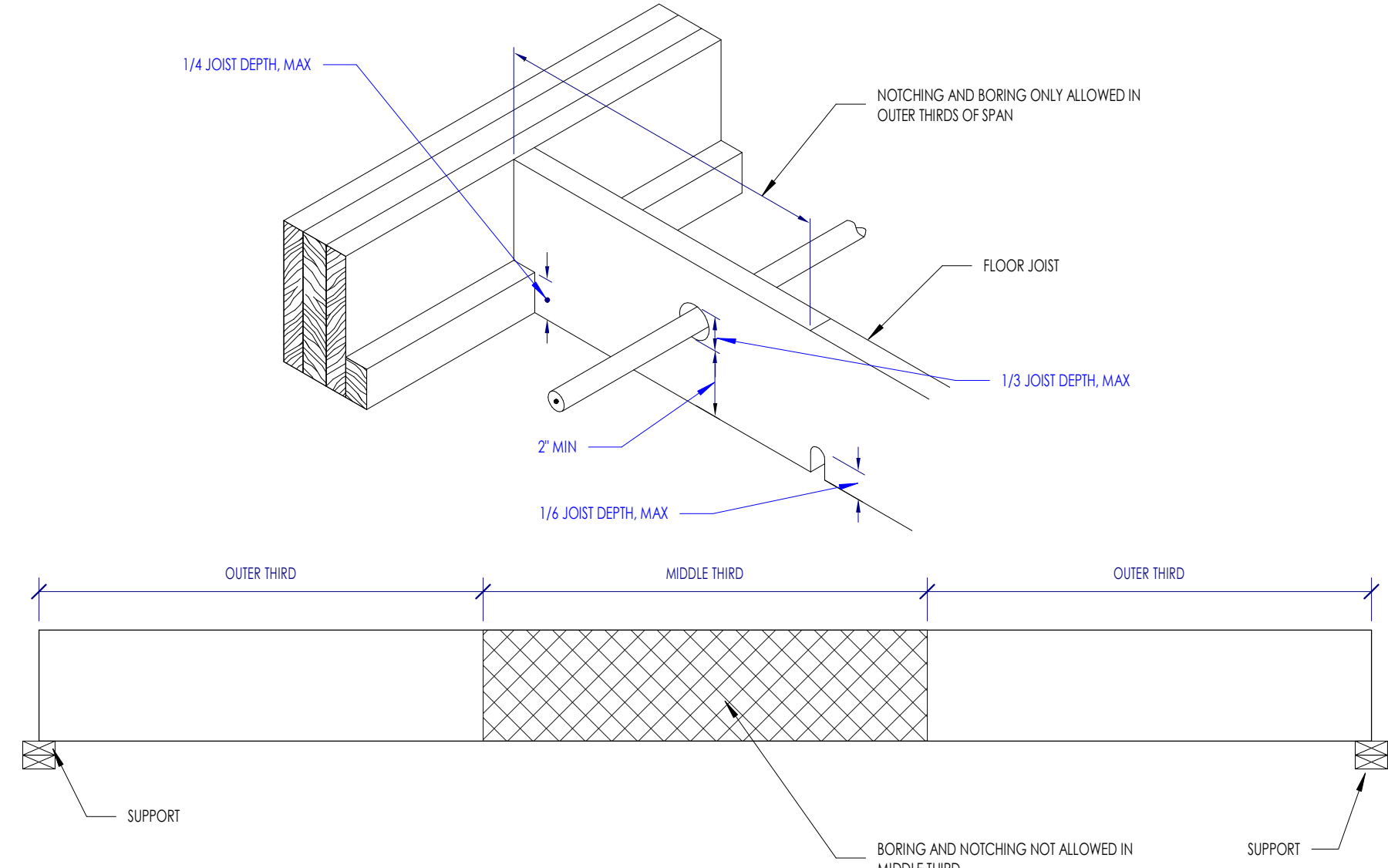


NOTES:
1. HOLE SIZE: THE HOLE DIAMETER SHALL NOT EXCEED 1/4" OR D/10, WHICHEVER IS SMALLER.
2. SPACING: FOR LARGER HOLE DIAMETERS OR FOR HOLES OUTSIDE OF THE PERMITTED ZONES, WRITTEN PERMISSION MUST BE OBTAINED FROM THE ECR.
3. LIMITATIONS: THE ABOVE CRITERIA ONLY APPLY TO SIMPLY SUPPORTED, UNIFORMLY LOADED GLUE LAMINATED BEAMS. FOR BEAMS THAT ARE EITHER CONTINUOUS ACROSS MULTIPLE SPANS OR THAT ARE SUPPORTING NON-UNIFORM LOADS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE ECR.

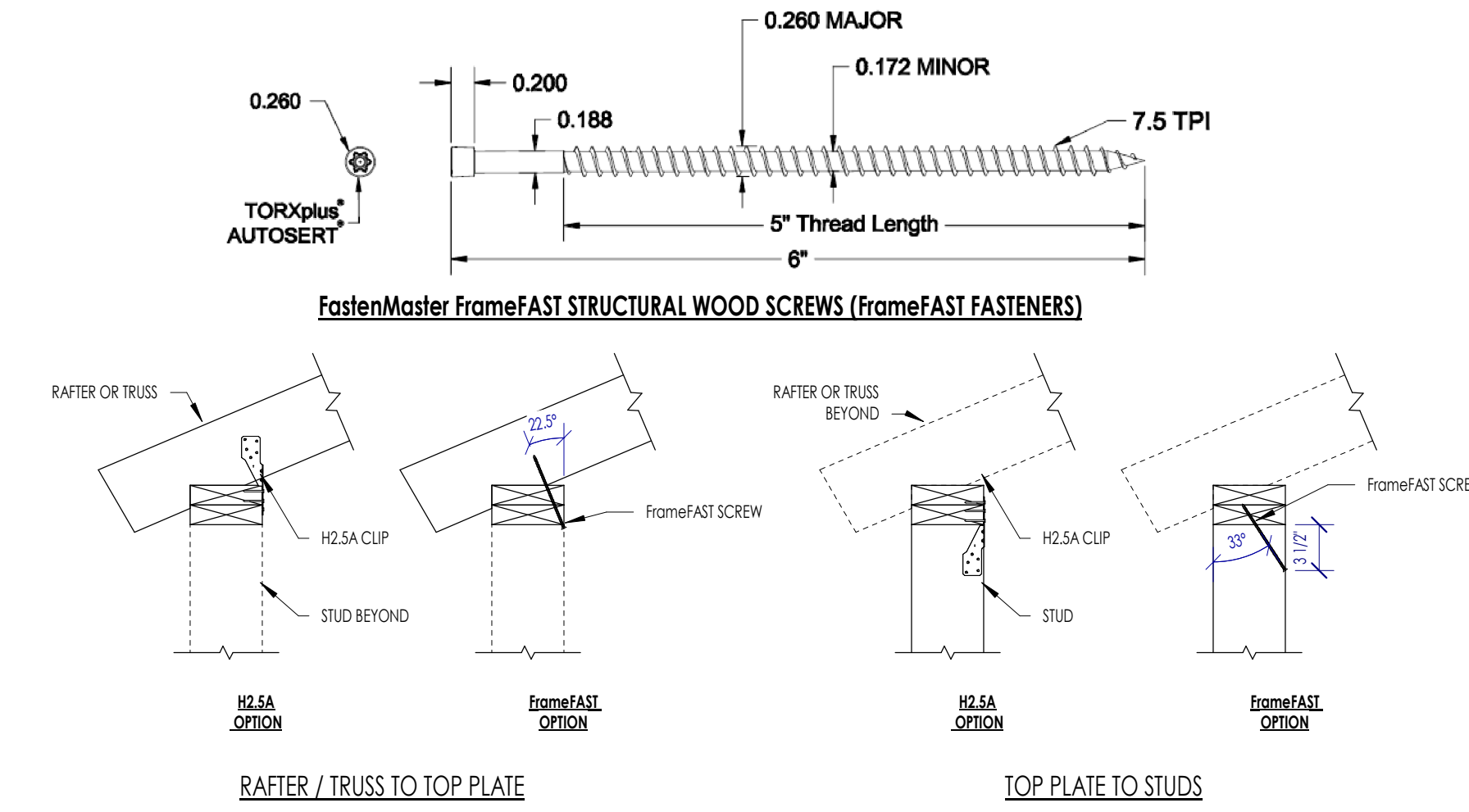
4E S4.0 ALLOWABLE HORIZONTAL HOLE LOCATIONS IN GLUE LAMINATED TIMBER BEAMS



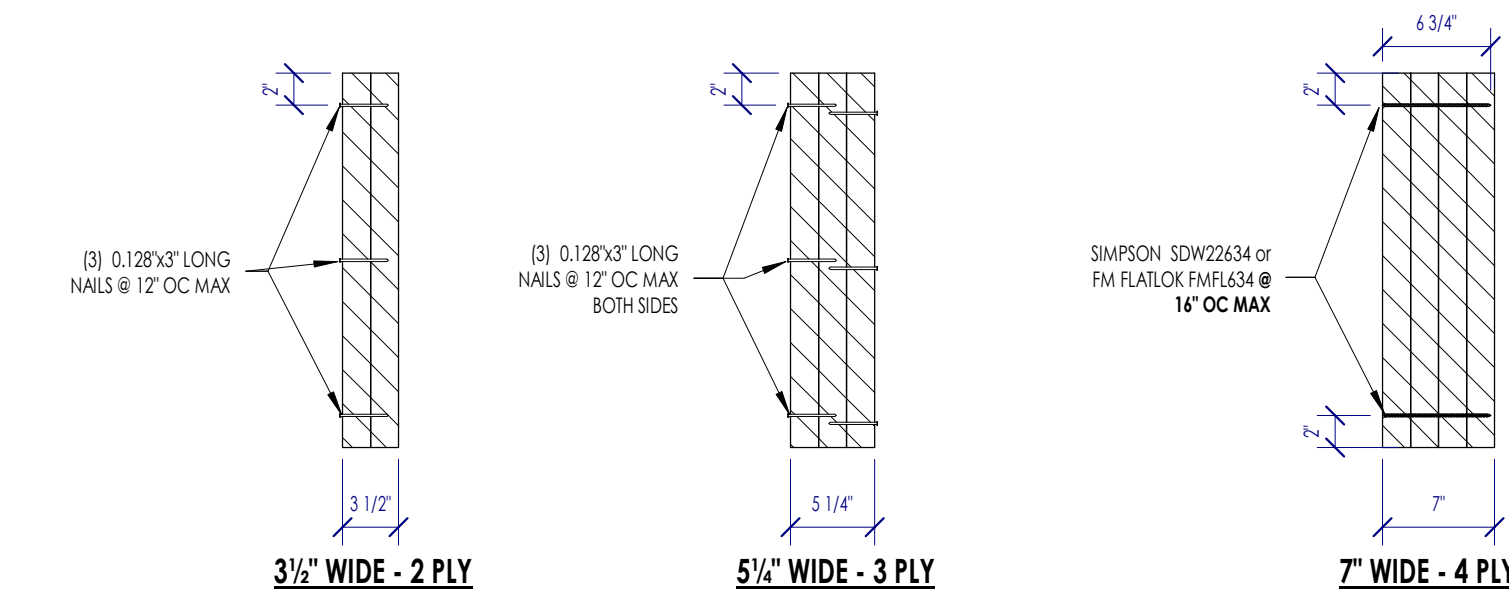
4D S4.0 TYPICAL NAILING CONFIGURATIONS



6C S4.0 ALLOWABLE NOTCHING AND BORING OF FLOOR JOISTS



4C S4.0 ALLOWABLE SUBSTITUTION OF H2.5A CLIPS WITH FrameFAST SCREWS - UPLIFT LOAD PATH



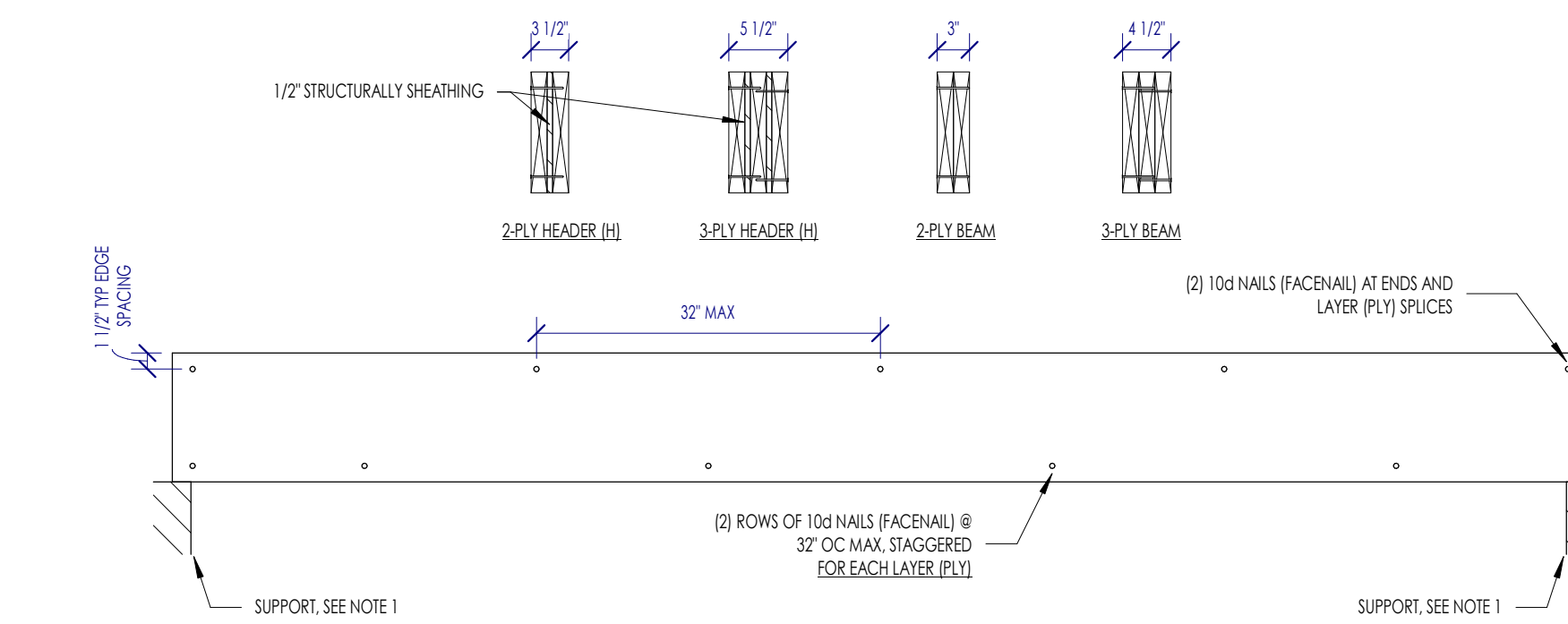
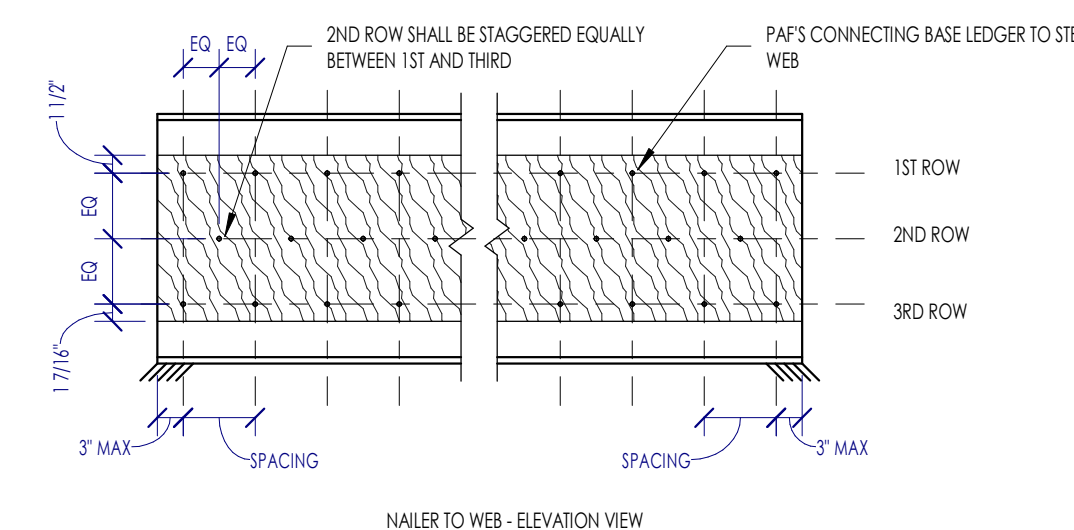
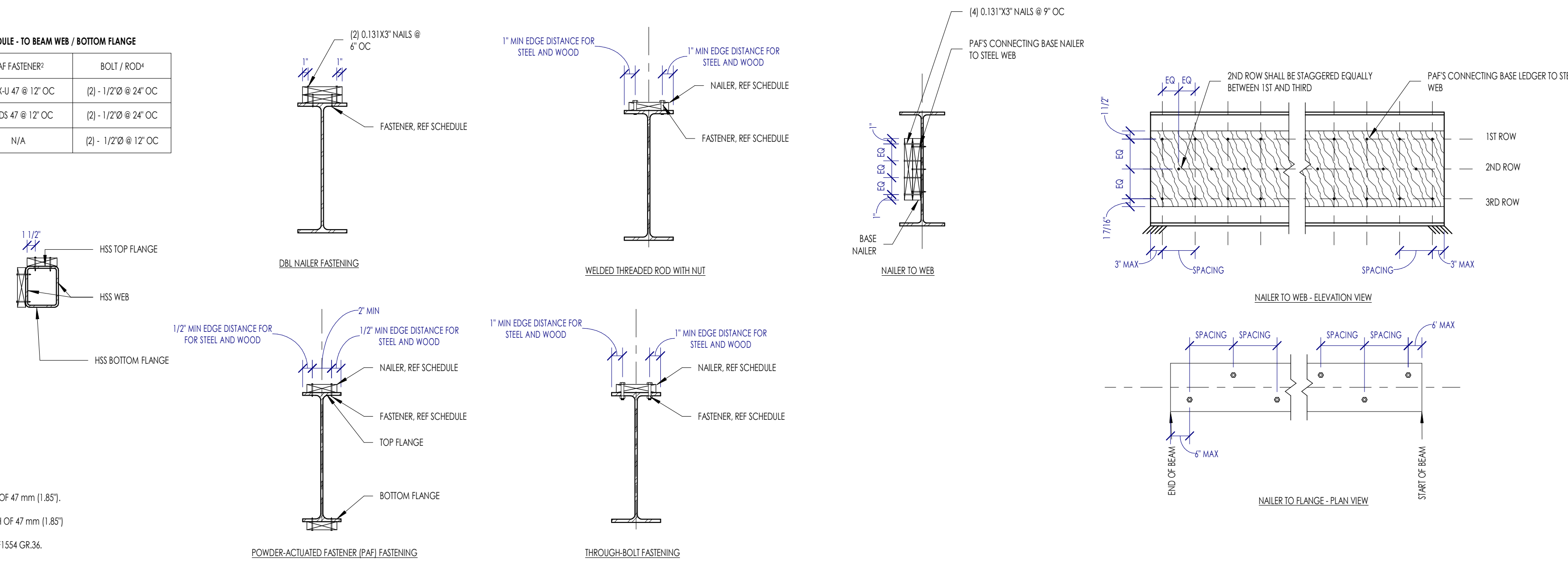
2C S4.0 TYPICAL LVL MULTIPLE PLY FASTENING REQUIREMENTS

| FASTENER SCHEDULE - TO BEAM TOP FLANGE | | | FASTENER SCHEDULE - TO BEAM WEB / BOTTOM FLANGE | | |
|--|-----------------|----------------|---|-----------------------|----------------------|
| l _c (ft) | PAF FASTENER | BOLT / ROD* | l _c (ft) | PAF FASTENER | BOLT / ROD* |
| ≤ 0.35 | X-1/4" @ 12" OC | 1/2"Ø @ 24" OC | ≤ 0.35 | (1) - X-1/4" @ 12" OC | (2) - 1/2"Ø @ 24" OC |
| 0.35 < l _c ≤ 0.44 | D5-47" @ 12" OC | 1/2"Ø @ 24" OC | 0.35 < l _c ≤ 0.44 | (1) - D5-47" @ 12" OC | (2) - 1/2"Ø @ 24" OC |
| l _c > 0.44 | N/A | 1/2"Ø @ 12" OC | l _c > 0.44 | N/A | (2) - 1/2"Ø @ 12" OC |

| NAILER SCHEDULE - TO BEAM FLANGE | | NAILER SCHEDULE - TO BEAM WEB | |
|----------------------------------|-------------|-------------------------------|-------------|
| b (ft) | NAILER SIZE | d (ft) | NAILER SIZE |
| ≤ 5.5 | 2x4 | ≤ 5 | 2x4 |
| 5.5 < b ≤ 7.25 | 2x6 | 5 < d ≤ 6.75 | 2x6 |
| l _c > 7.25 | 2x8 | 6.75 < d ≤ 8.75 | 2x8 |
| | | 8.75 < d ≤ 10.75 | 2x10 |
| | | 10.75 < d ≤ 15 | (2) - 2x8 |
| | | 15 < d ≤ 19 | (2) - 2x10 |
| | | 19 < d ≤ 23 | (2) - 2x12 |
| | | d > 23 | (3) - 2x8 |

NOTES:
1. ALL FASTENERS SHALL BE STAGGERED.
2. FASTENER DESCRIPTIONS, ALL FASTENERS ARE POWDER-ACTUATED FASTENERS MFR'D BY HELIX, INC.
A. 80147
B. 80147
C. UNIVERSAL UNDRILLED SHANK FASTENER WITH A SHANK DIAMETER OF 0.157" AND A SHANK LENGTH OF 47 mm (1.85")
D. 80147
E. HEAVY DUTY SMOOTH SHANK FASTENER WITH A SHANK DIAMETER OF 0.177" AND A SHANK LENGTH OF 47 mm (1.85")
3. FASTENER INSTALLATION SHALL FOLLOW ALL SPECIFICATIONS PER THE MFR.
4. THROUGH BOLTS SHALL BE GALVANNEED ASTM A507 BOLTS. THROUGH BOLTS SHALL BE GALVANNEED ASTM F1554 GR.36.

4A S4.0 WOOD NAILER TO TOP OF STRUCTURAL STEEL



NOTES:
1. UNLESS NOTED OTHERWISE ON PLAN, REFER TO THE FOLLOWING DETAILS FOR THE SUPPORT FRAMING:
A. SUPPORT FOR HEADERS IN EXTERIOR WALLS 4C/5A/1
B. SUPPORT FOR HEADERS IN INTERIOR WALLS 5B/5A/1
C. SUPPORT FOR BEAMS & GIRDERS SUPPORTED BY WALL - REFERENCE BEAM SCHEDULE

2A S4.0 TYPICAL NAILING BUILT UP BEAMS, GIRDERS & HEADERS

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RENOVATION
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Owner: Renovation Wranglers
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Katheneason@wranglers.com | 979.450.9969

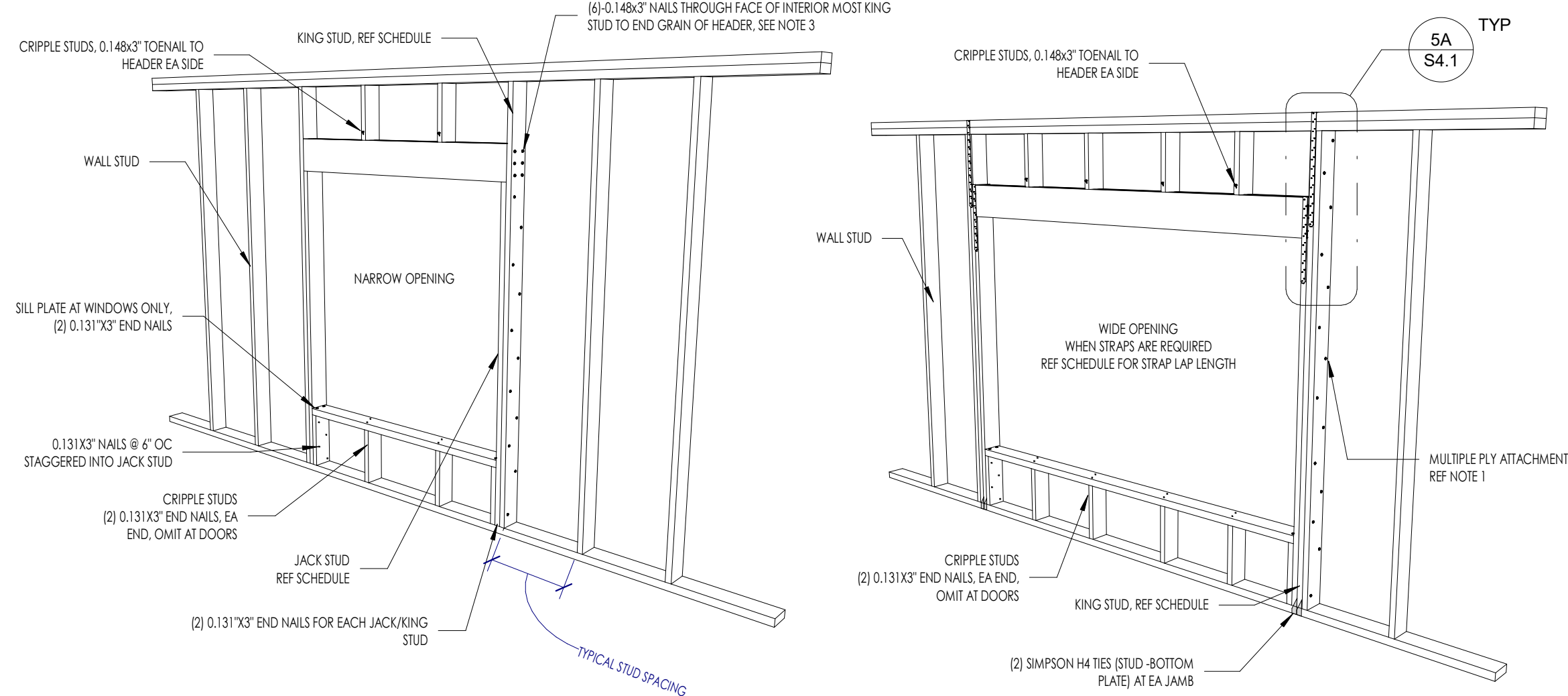
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Architect of Record: LKB Architecture
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2x4 STUD WALL

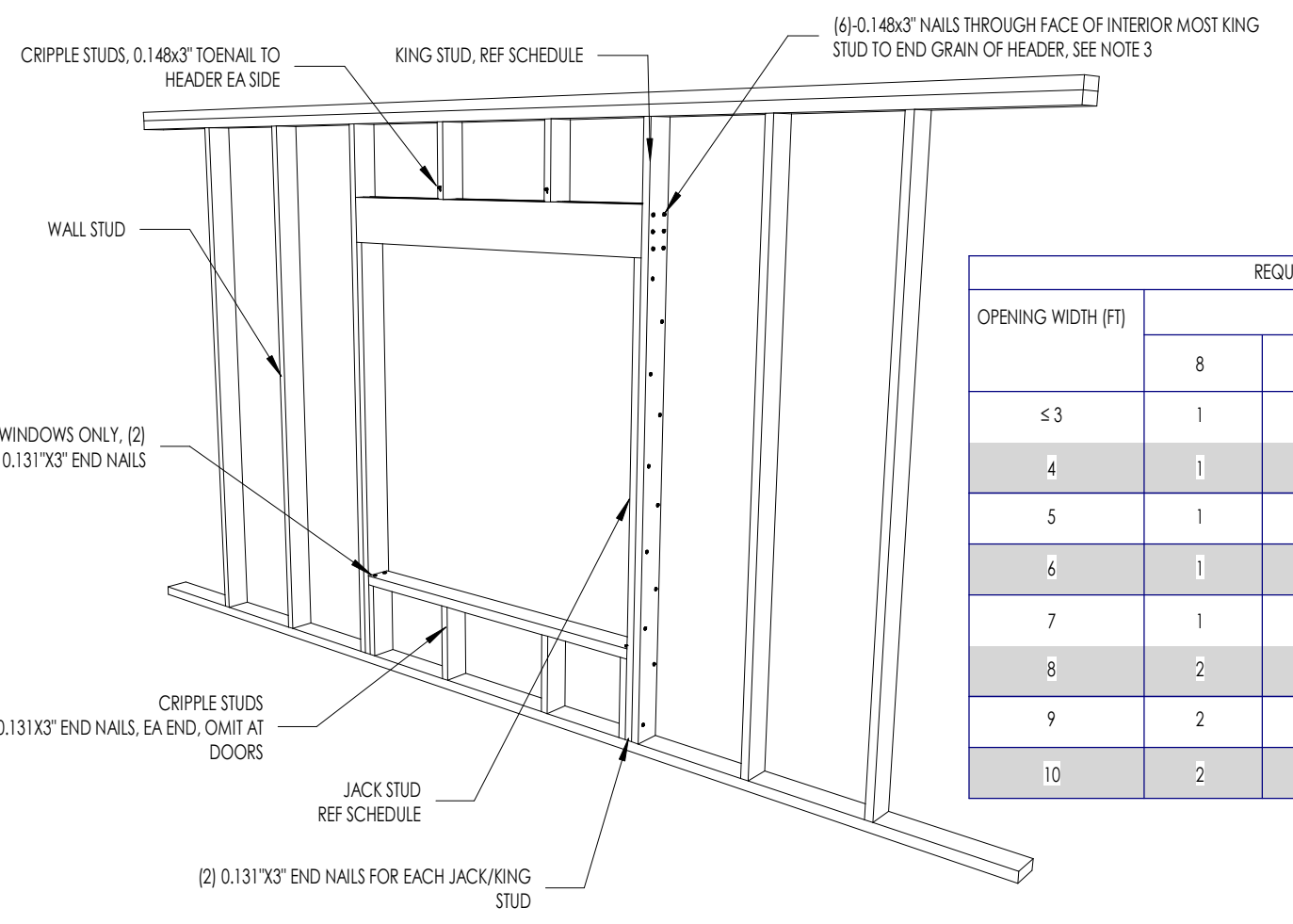
| OPENING WIDTH (FT) | REQUIRED NO. OF KING STUDS | | | | NO. JACK STUDS | STRAP LAP LENGTH (IN) |
|--------------------|----------------------------|---|-----|-----|----------------|-----------------------|
| | 8 | 9 | 10 | 12 | | |
| ≤3 | 1 | 1 | 1 | 2 | 2 | 1 |
| 4 | 1 | 1 | 2 | 2 | 2 | 1 |
| 5 | 2 | 2 | 2 | 3 | 3 | 1 |
| 6 | 2 | 2 | 3 | 3 | 3 | 1 |
| 7 | 2 | 2 | 3 | 3 | 4x6 | 1 |
| 8 | 3 | 3 | 3 | 4x6 | 4x6 | 2 |
| 9 | 3 | 3 | 4x6 | 4x6 | 4x6 | 2 |
| 10 | 3 | 3 | 4x6 | 4x6 | 4x6 | 2 |

2x6 STUD WALL

| OPENING WIDTH (FT) | REQUIRED NO. OF KING STUDS | | | | NO. JACK STUDS | STRAP LAP LENGTH (IN) |
|--------------------|----------------------------|---|----|----|----------------|-----------------------|
| | 8 | 9 | 10 | 12 | | |
| ≤3 | 1 | 1 | 1 | 1 | 1 | N/R |
| 4 | 1 | 1 | 1 | 1 | 1 | N/R |
| 5 | 1 | 1 | 1 | 1 | 2 | 1 |
| 6 | 1 | 1 | 1 | 2 | 2 | 1 |
| 7 | 1 | 1 | 2 | 2 | 2 | 1 |
| 8 | 1 | 1 | 2 | 2 | 2 | 2 |
| 9 | 1 | 2 | 2 | 2 | 2 | 2 |
| 10 | 1 | 2 | 2 | 2 | 3 | 2 |

NOTES:
1. MULTIPLE PLYS MUST BE ATTACHED PER THE MECHANICALLY LAMINATED BUILT-UP COLUMN, NAILED DETAIL.
2. TABLE IS BASED OFF A HORIZONTAL WIND PRESSURE OF 20 PSF AND GRAVITY LOADING OF 200 PLF.
3. WALL MUST BE CENTERED ON THE INDIVIDUAL PLYS OF THE HEADER.
4. N/R = NOT REQUIRED. IF N/R, THEN REFERENCE NARROW OPENING DIAGRAM FOR CONNECTION REQUIREMENTS, OTHERWISE REFERENCE THE WIDE OPENING DIAGRAM.

4C TYPICAL EXTERIOR OPENING FRAMING



LOAD BEARING WALL

| OPENING WIDTH (FT) | REQUIRED NO. OF KING STUDS | | | | NO. JACK STUDS |
|--------------------|----------------------------|---|----|----|----------------|
| | 8 | 9 | 10 | 12 | |
| ≤3 | 1 | 1 | 1 | 1 | 1 |
| 4 | 1 | 1 | 1 | 1 | 1 |
| 5 | 1 | 1 | 1 | 2 | 2 |
| 6 | 1 | 1 | 2 | 2 | 2 |
| 7 | 1 | 1 | 2 | 2 | 3 |
| 8 | 2 | 2 | 2 | 3 | 3 |
| 9 | 2 | 2 | 3 | 3 | 3 |
| 10 | 2 | 2 | 3 | 3 | 3 |

NON-LOAD BEARING WALL

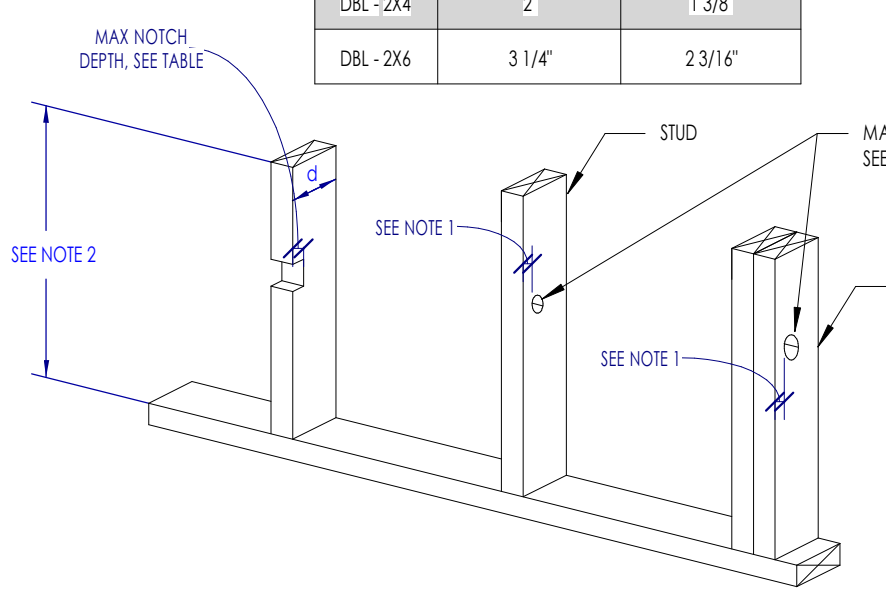
| OPENING WIDTH (FT) | REQUIRED NO. OF KING STUDS | | | | NO. JACK STUDS | HEADER SIZE |
|--------------------|----------------------------|---|----|----|----------------|-------------------------------|
| | 8 | 9 | 10 | 12 | | |
| ≤3 | 1 | 1 | 1 | 1 | 1 | 2x4 STUD WALL / 2x6 STUD WALL |
| 4 | 1 | 1 | 1 | 1 | 1 | 2x4 STUD WALL / 2x6 STUD WALL |
| 5 | 1 | 1 | 1 | 2 | 2 | 2x4 STUD WALL / 2x6 STUD WALL |
| 6 | 1 | 1 | 2 | 2 | 2 | 2x4 STUD WALL / 2x6 STUD WALL |
| 7 | 1 | 1 | 2 | 2 | 3 | 2x4 STUD WALL / 2x6 STUD WALL |
| 8 | 2 | 2 | 2 | 3 | 3 | 2x4 STUD WALL / 2x6 STUD WALL |
| 9 | 2 | 2 | 3 | 3 | 3 | 2x4 STUD WALL / 2x6 STUD WALL |
| 10 | 2 | 2 | 3 | 3 | 3 | 2x4 STUD WALL / 2x6 STUD WALL |

NOTES:
1. LOAD BEARING WALLS AND ASSOCIATED HEADERS ARE INDICATED ON PLAN.

5B TYPICAL INTERIOR OPENING FRAMING

ALLOWABLE NOTCHING AND BORING SCHEDULE

| STUD SIZE | MAX HOLE Ø | MAX NOTCH |
|-----------|------------|-----------|
| 2x4 | 2" | 1.318" |
| 2x6 | 3.14" | 2.316" |
| DBL 2x4 | 2" | 1.318" |
| DBL 2x6 | 3.14" | 2.316" |

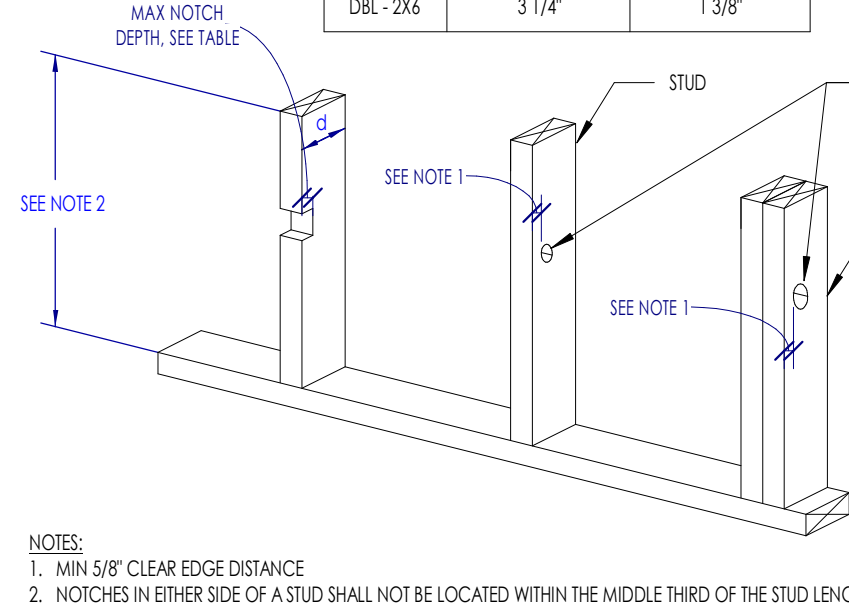


NOTES:
1. MIN 5/8" CLEAR EDGE DISTANCE.
2. NOTCHES IN EITHER SIDE OF A STUD SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE STUD LENGTH.
3. NOTCHES AND BORINGS SHALL NOT OCCUR IN THE SAME CROSS SECTION.

2B ALLOWABLE STUD NOTCHING AND BORING IN INTERIOR NON-LOAD BEARING WALLS

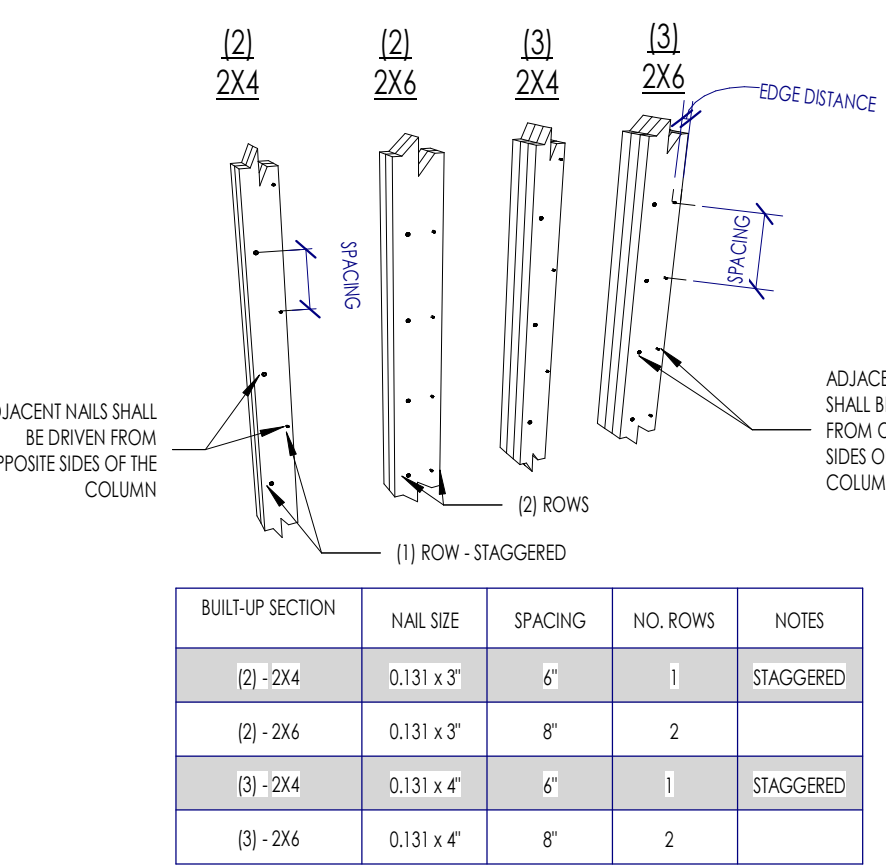
ALLOWABLE NOTCHING AND BORING SCHEDULE

| STUD SIZE | MAX HOLE Ø | MAX NOTCH |
|-----------|------------|-----------|
| 2x4 | 1.318" | 7/8" |
| 2x6 | 2.316" | 1.318" |
| DBL 2x4 | 2" | 7/8" |
| DBL 2x6 | 3.14" | 1.318" |



NOTES:
1. MIN 5/8" CLEAR EDGE DISTANCE.
2. NOTCHES IN EITHER SIDE OF A STUD SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE STUD LENGTH.
3. NOTCHES AND BORINGS SHALL NOT OCCUR IN THE SAME CROSS SECTION.

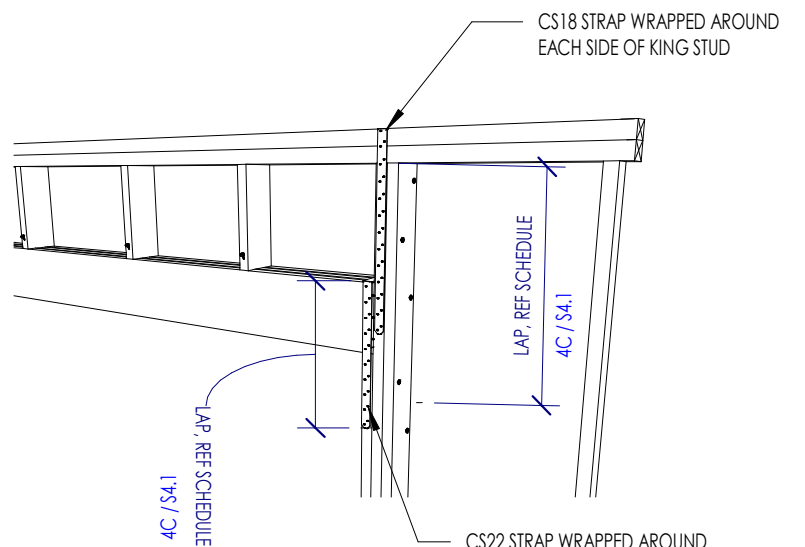
1B ALLOWABLE STUD NOTCHING AND BORING IN EXTERIOR & LOAD BEARING WALLS



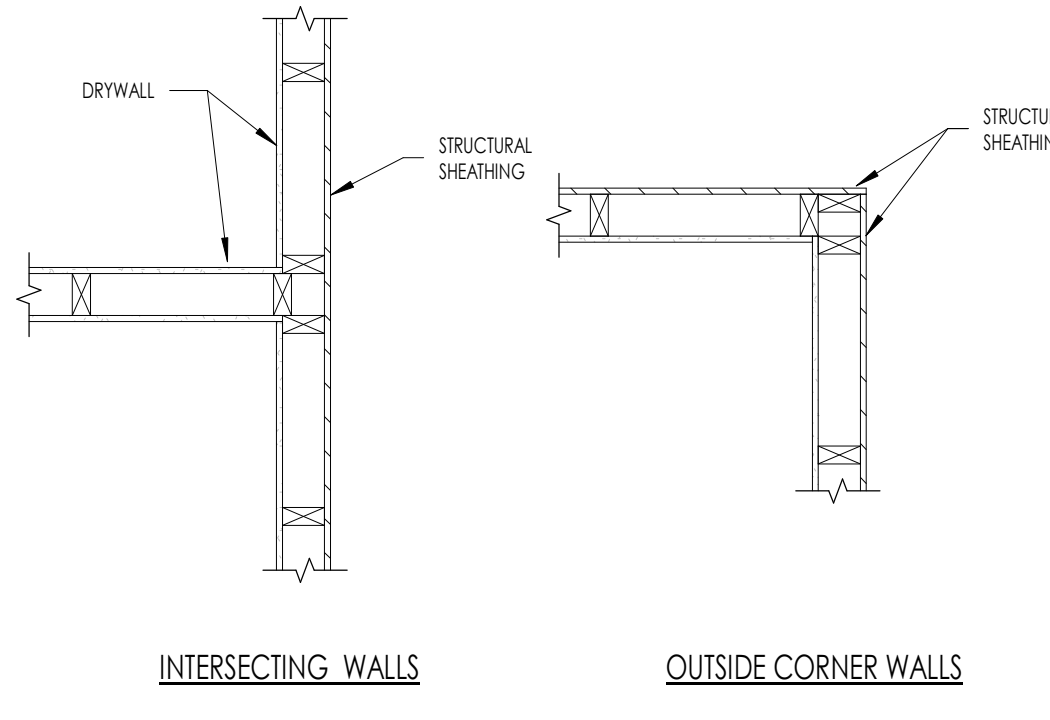
BUILT-UP SECTION

| NAIL SIZE | SPACING | NO. ROWS | NOTES | |
|-----------|------------|----------|-------|-----------|
| [2] 2x4 | 0.131 x 2" | 6" | 1 | STAGGERED |
| [2] 2x6 | 0.131 x 3" | 8" | 2 | |
| [1] 2x4 | 0.131 x 4" | 6" | 1 | STAGGERED |
| [3] 2x6 | 0.131 x 4" | 8" | 2 | |

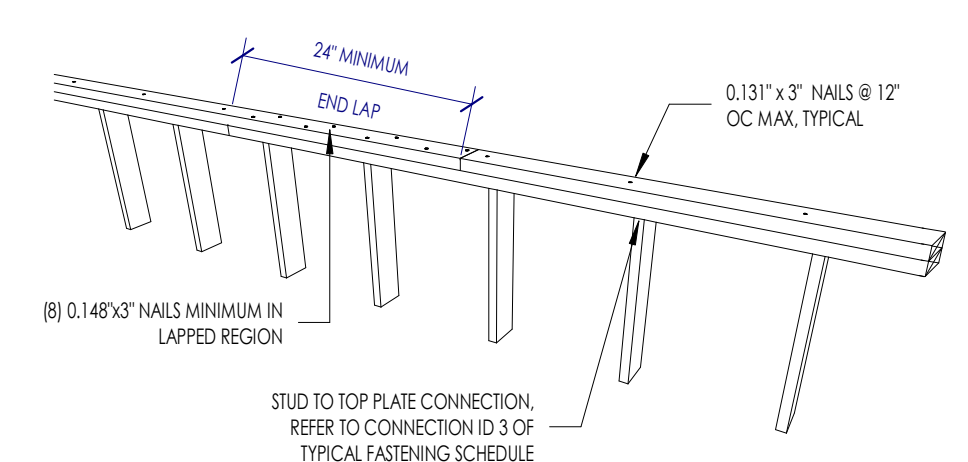
6A MECHANICALLY LAMINATED BUILT-UP COLUMN (STUD PACK) - NAILED



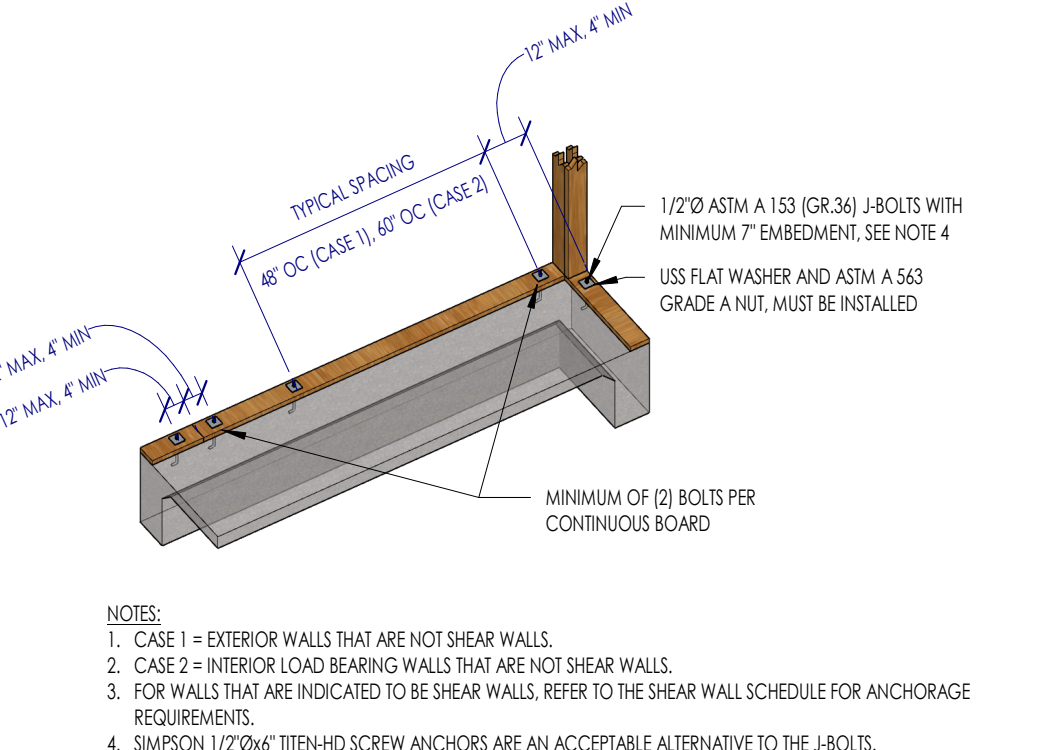
5A TYPICAL STRAP AT WIDE EXTERIOR OPENINGS



4A TYPICAL CORNER AND INTERSECTION WALL STUDS (NOT AT SHEAR WALL)



3A TYPICAL LOAD BEARING / SHEAR WALL DOUBLE TOP PLATE SPLICE

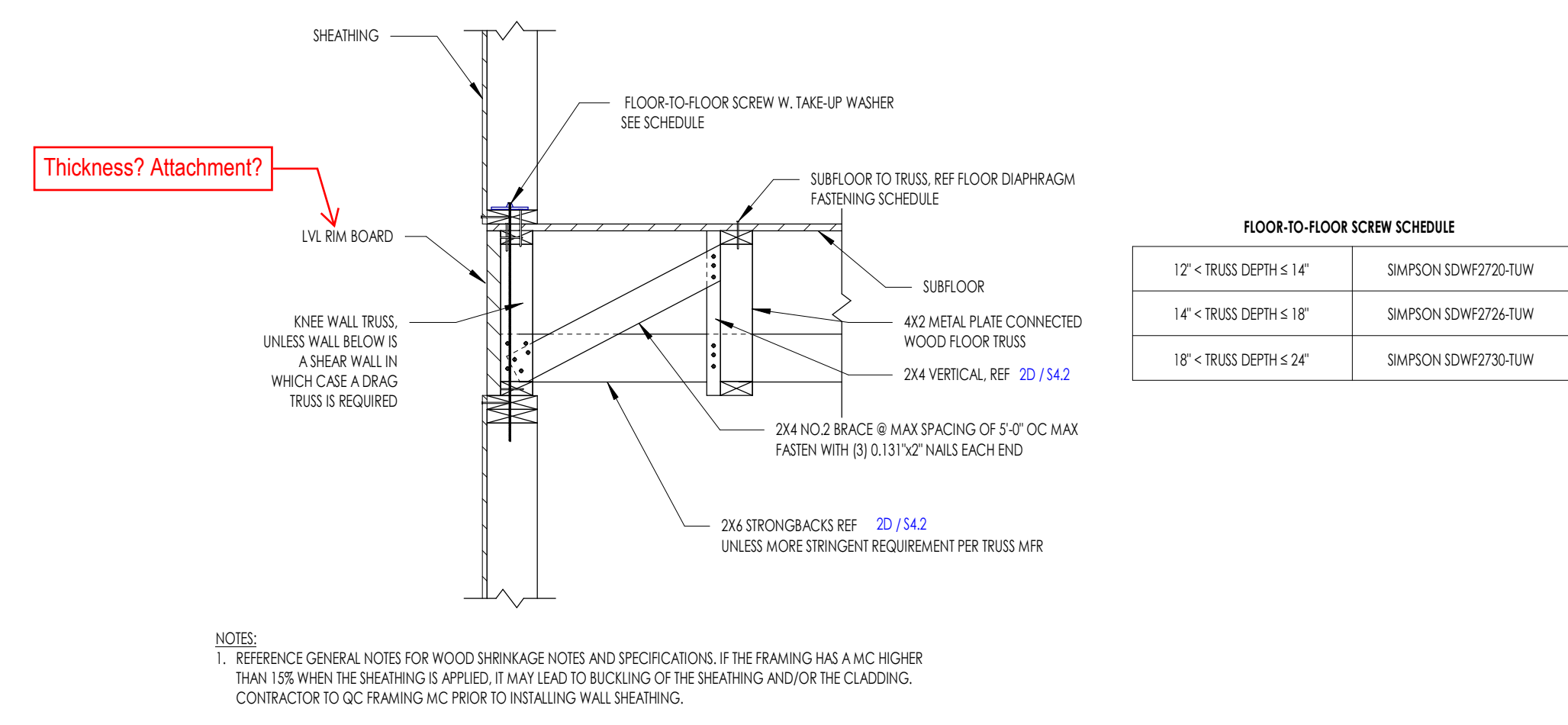


2A TYPICAL BOTTOM PLATE ANCHORAGE

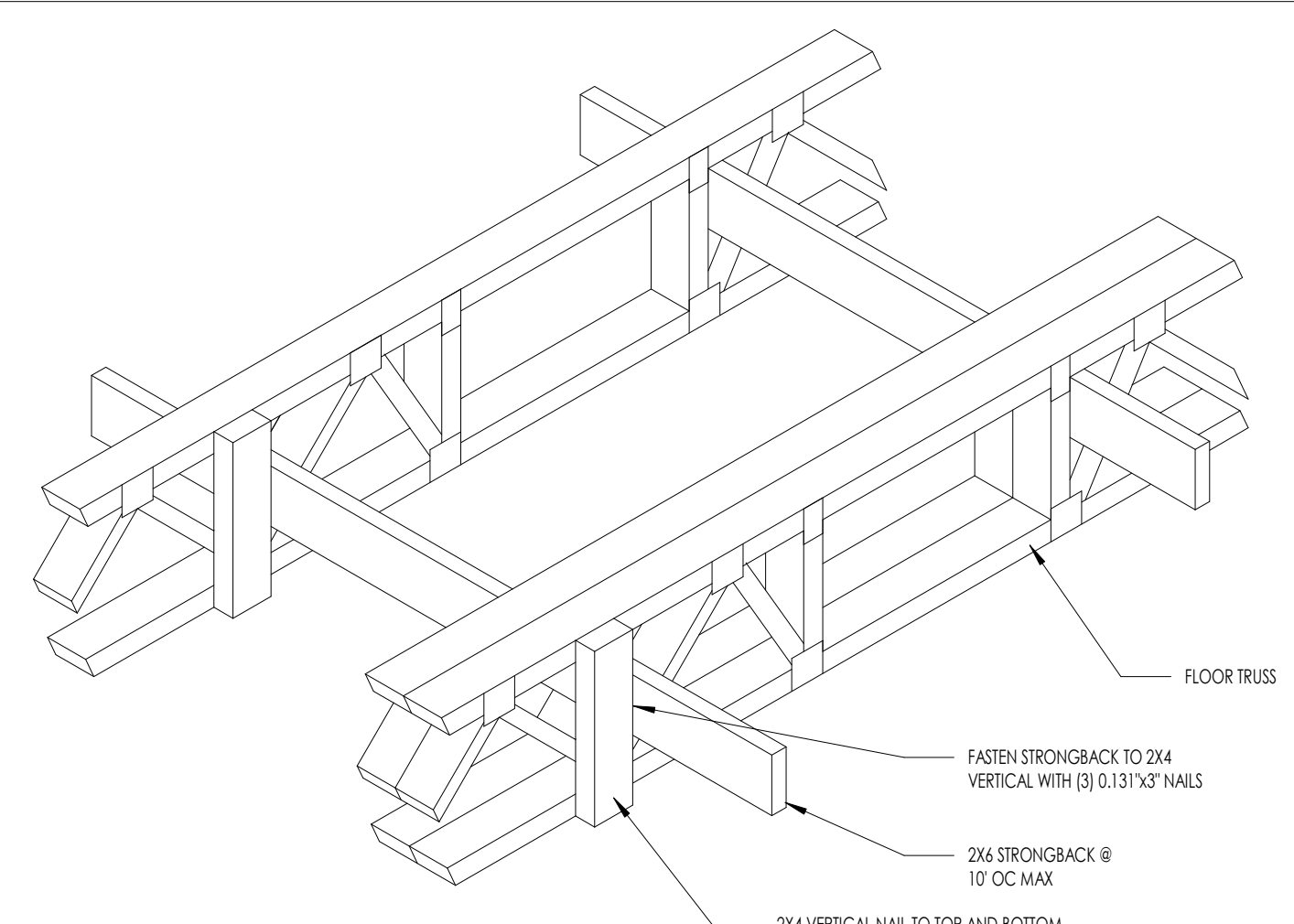
TYPICAL WOOD FRAMING WALL DETAILS

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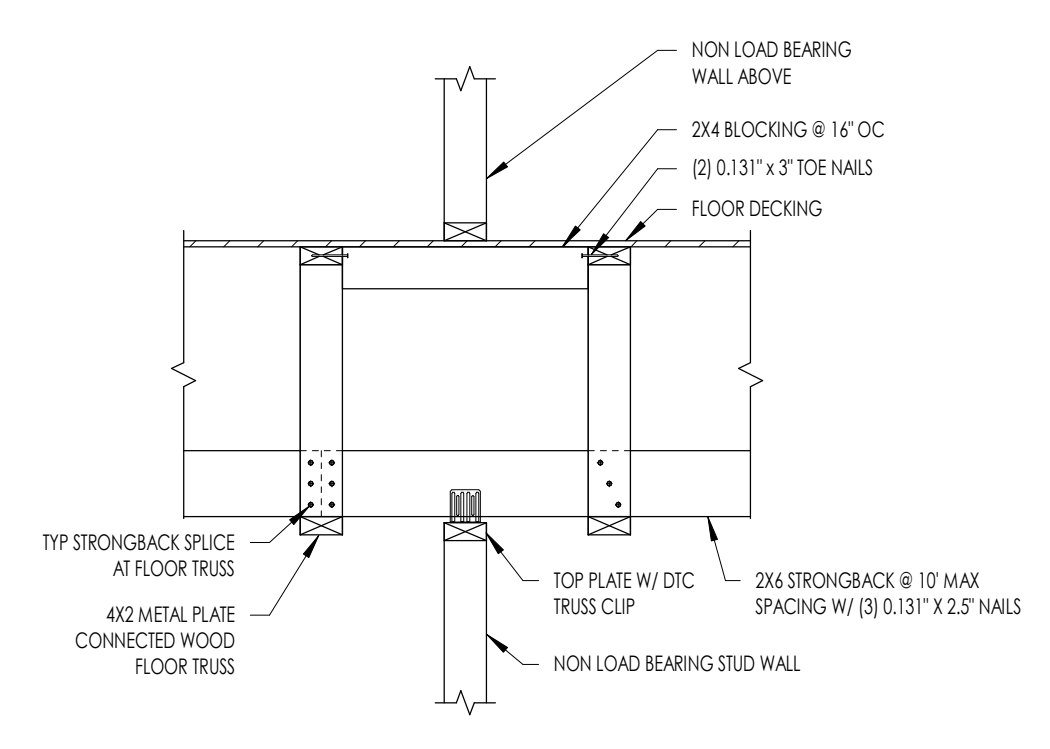
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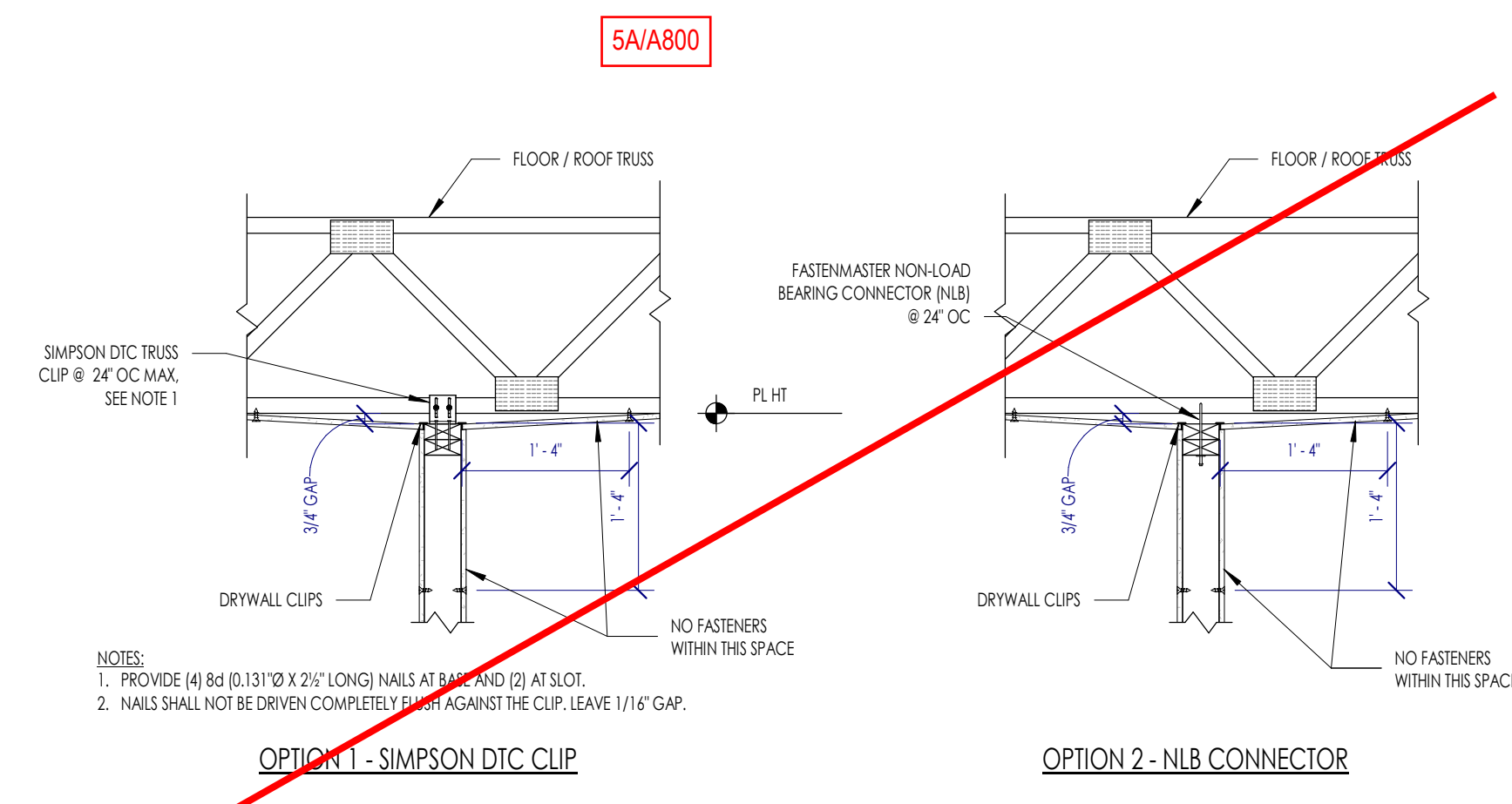
4D S4.2 TYPICAL FLOOR TRUSS PARALLEL TO EXTERIOR WALL - MULTI-STORY



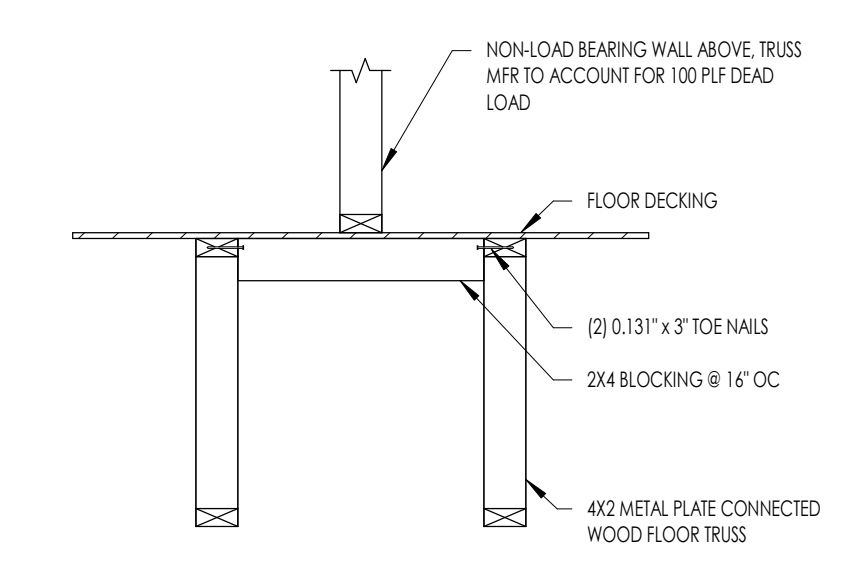
2D S4.2 TYPICAL TRUSS STRONGBACK



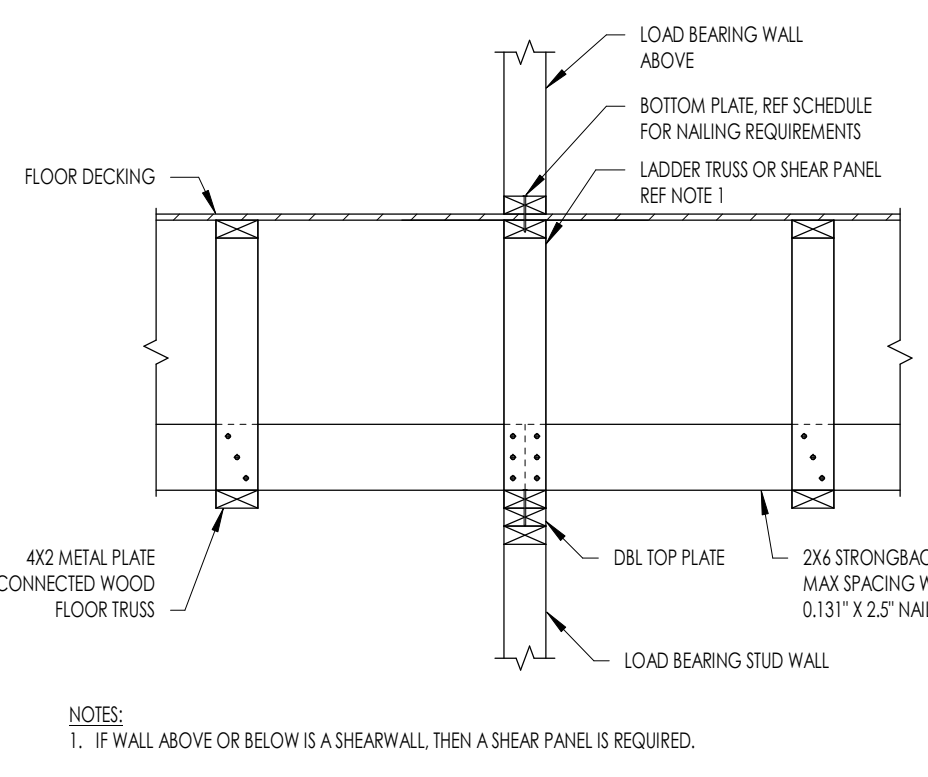
5C S4.2 TYPICAL NON-LOAD BEARING WALL PARALLEL TO FLOOR TRUSSES



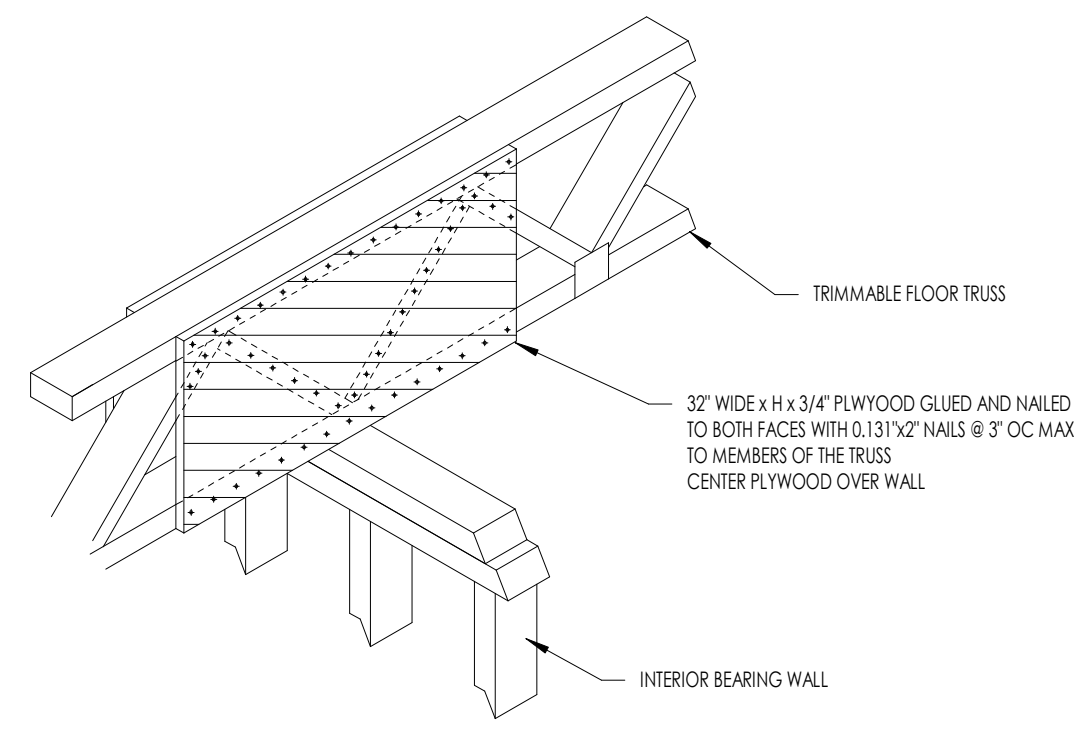
4C S4.2 TYPICAL NON-LOAD BEARING WALL ATTACHMENT TO PERPENDICULAR FLOOR TRUSS



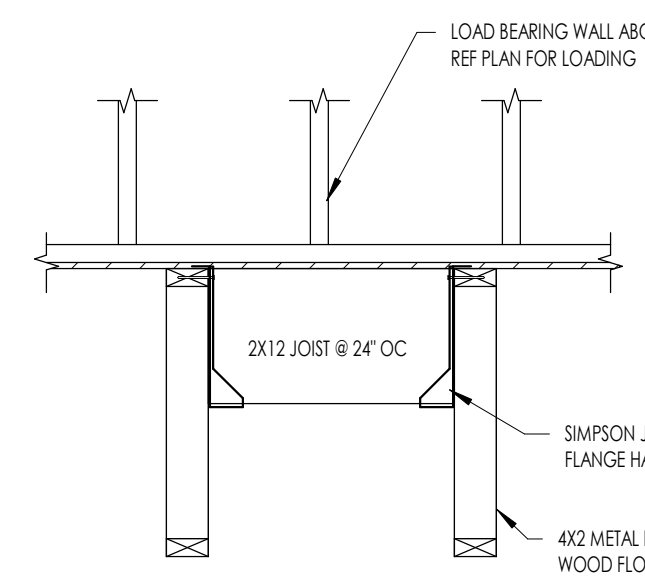
2C S4.2 TYPICAL NON-LOAD BEARING WALL PARALLEL TO FLOOR TRUSS



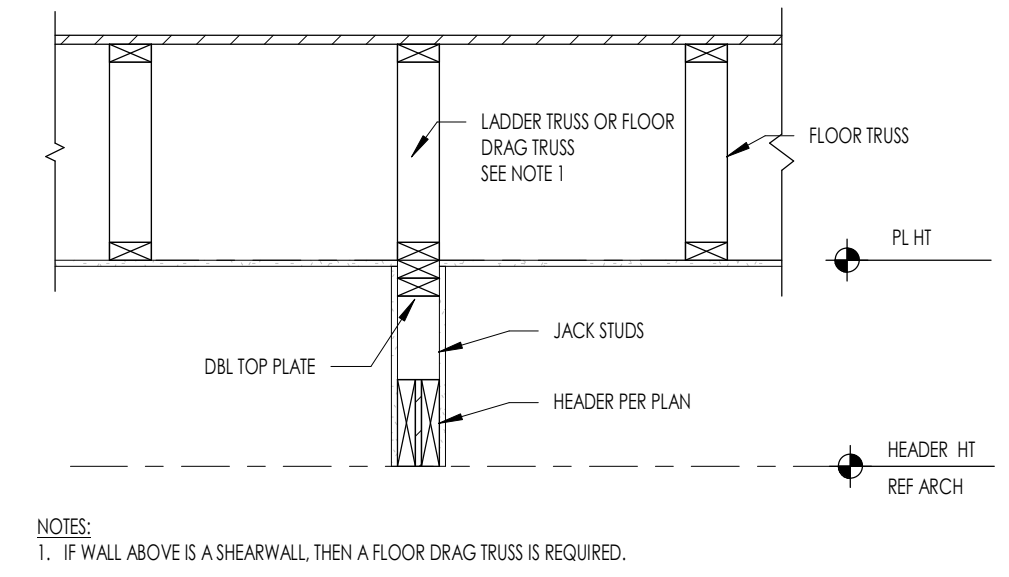
1C S4.2 TYPICAL LOAD BEARING WALL PARALLEL TO FLOOR TRUSSES



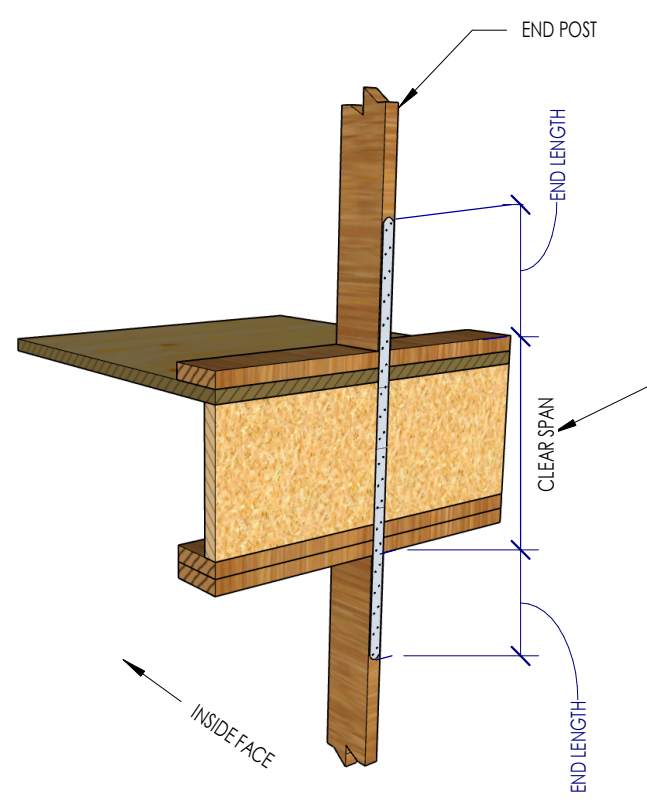
1B S4.2 TYPICAL TRIMMABLE TRUSS STIFFENING AT INTERIOR SUPPORT



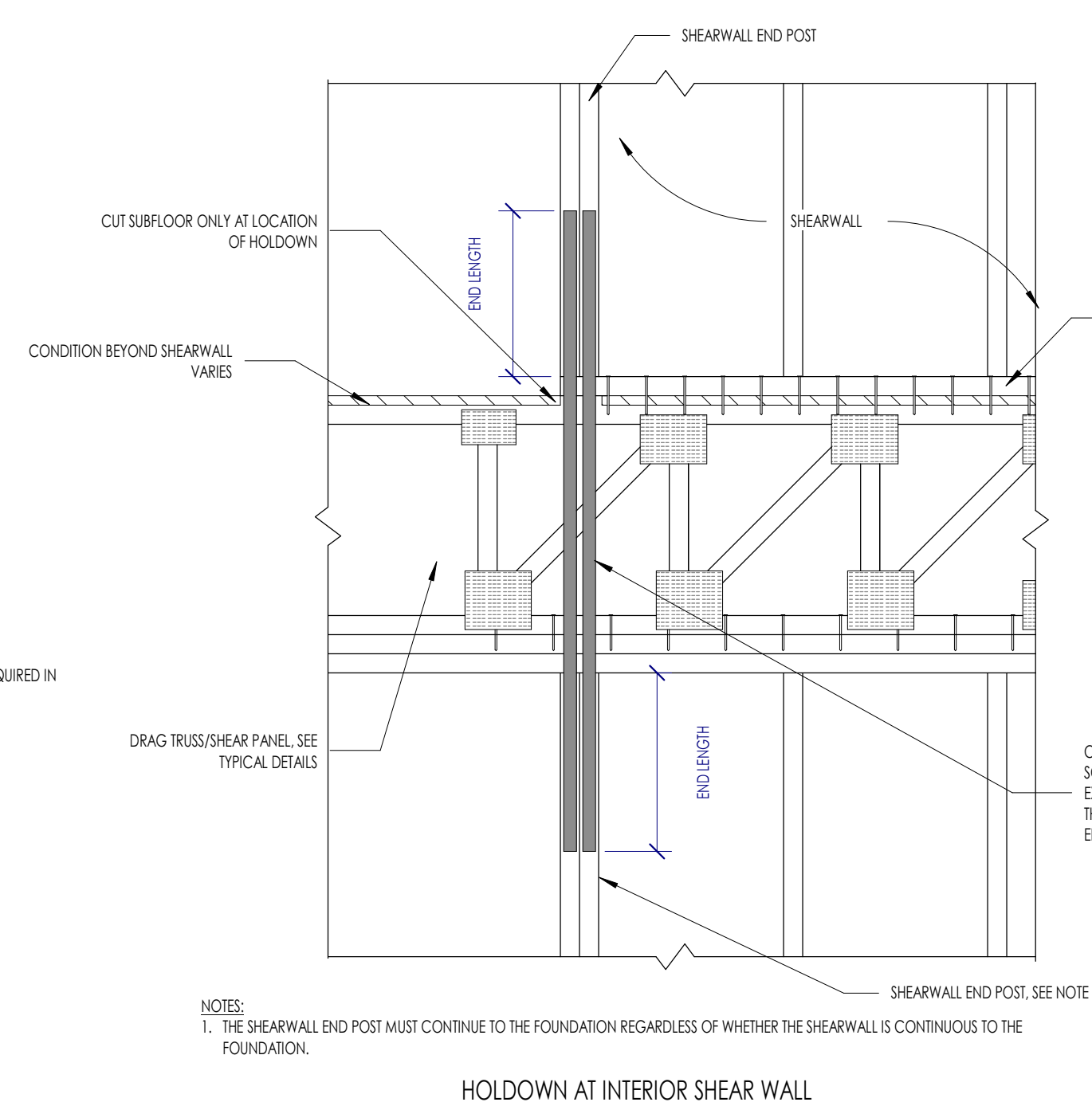
3B S4.2 TYPICAL LOAD BEARING WALL PERP. TO FLOOR TRUSS



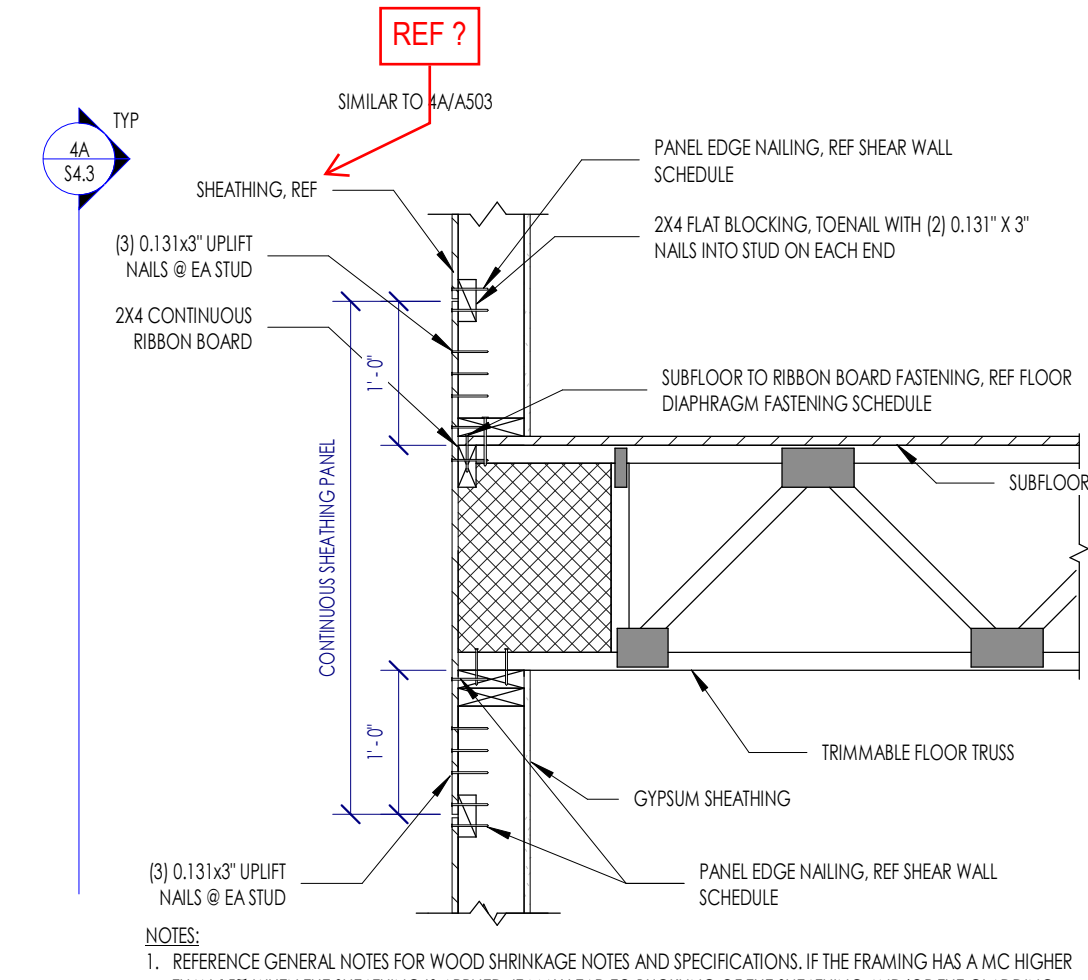
2B S4.2 TYPICAL LOAD BEARING HEADER PARALLEL TO FLOOR TRUSSES



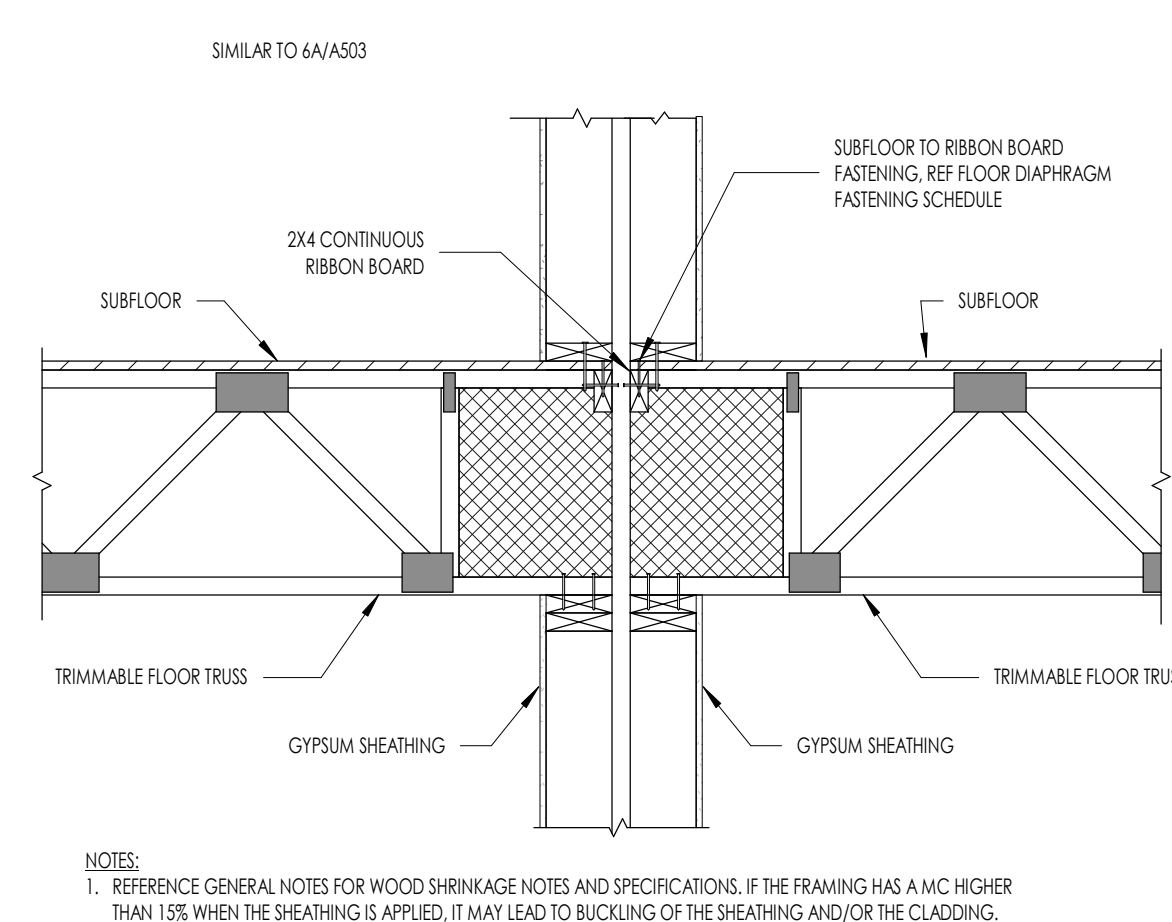
6A S4.2 TYPICAL SHEARWALL HOLDDOWN AT ELEVATED FLOOR



4A S4.2 TYPICAL SHEARWALL HOLDDOWN AT INTERIOR SHEAR WALL



3A S4.2 061760 PL 2. FOR INFORMATION NOT SHOWN, REF. 4A/AS03 BEARING ON EXTERIOR WALL



2A S4.2 TYPICAL INTERIOR BOTTOM CHORD BEARING AT PARTY WALL

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 Structural: Dudley
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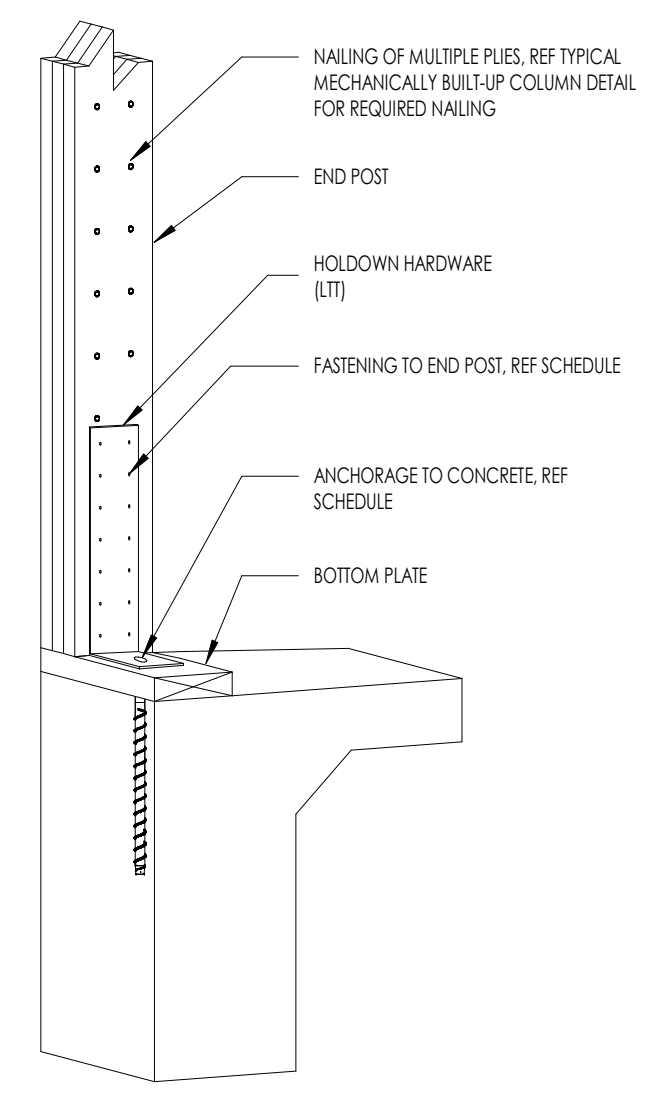
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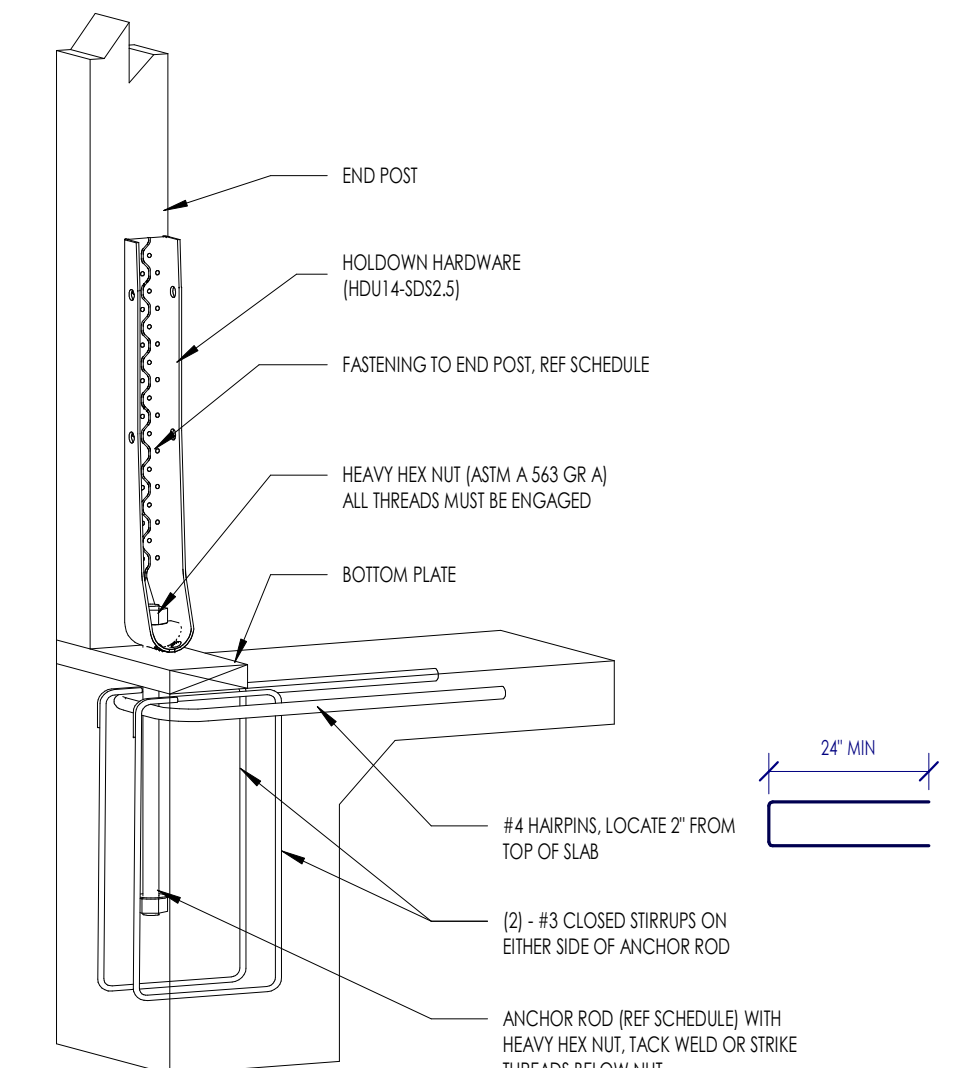
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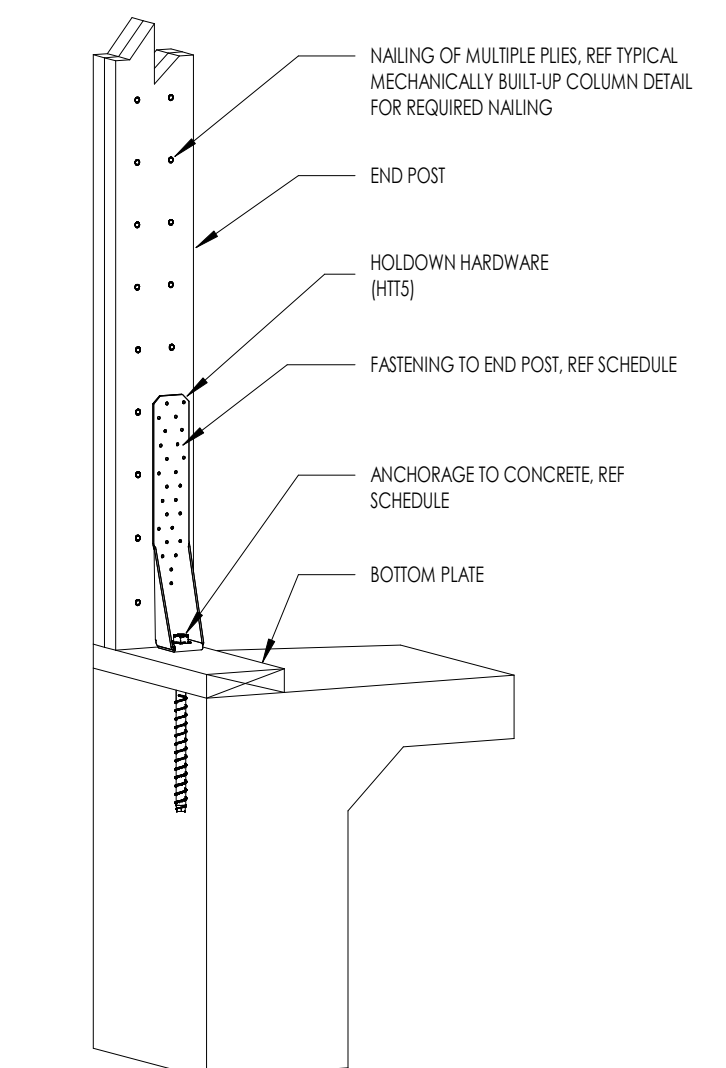
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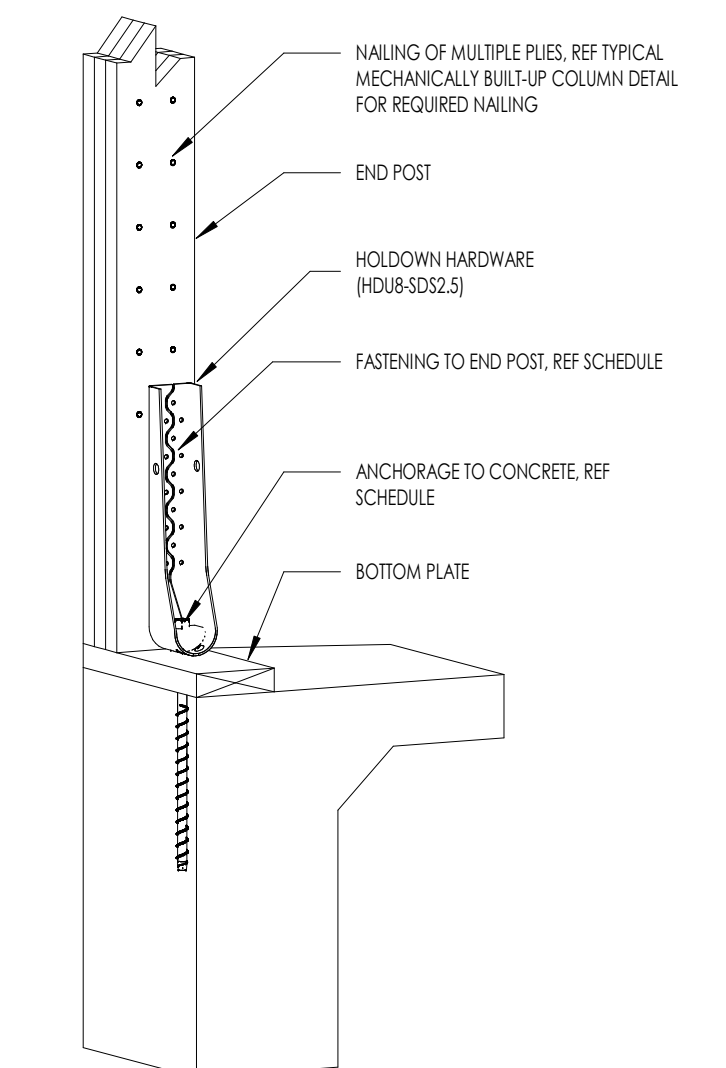
5D S4.3 LIT HOLDOWN



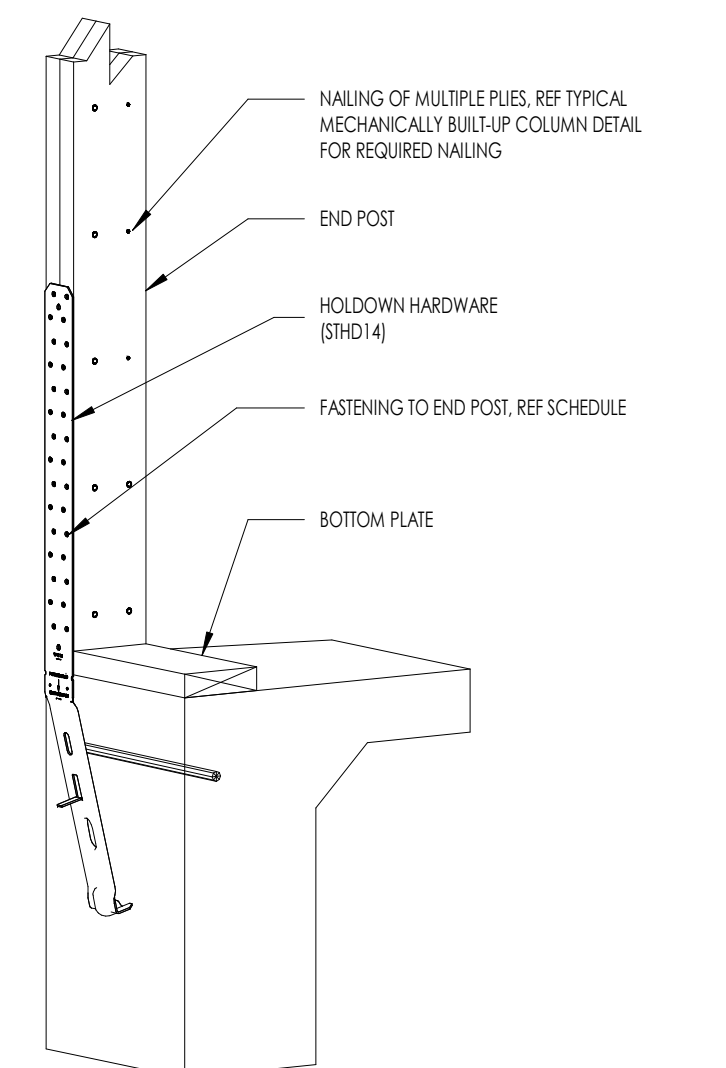
4D S4.3 HDU14-SDS2.5 HOLDOWN



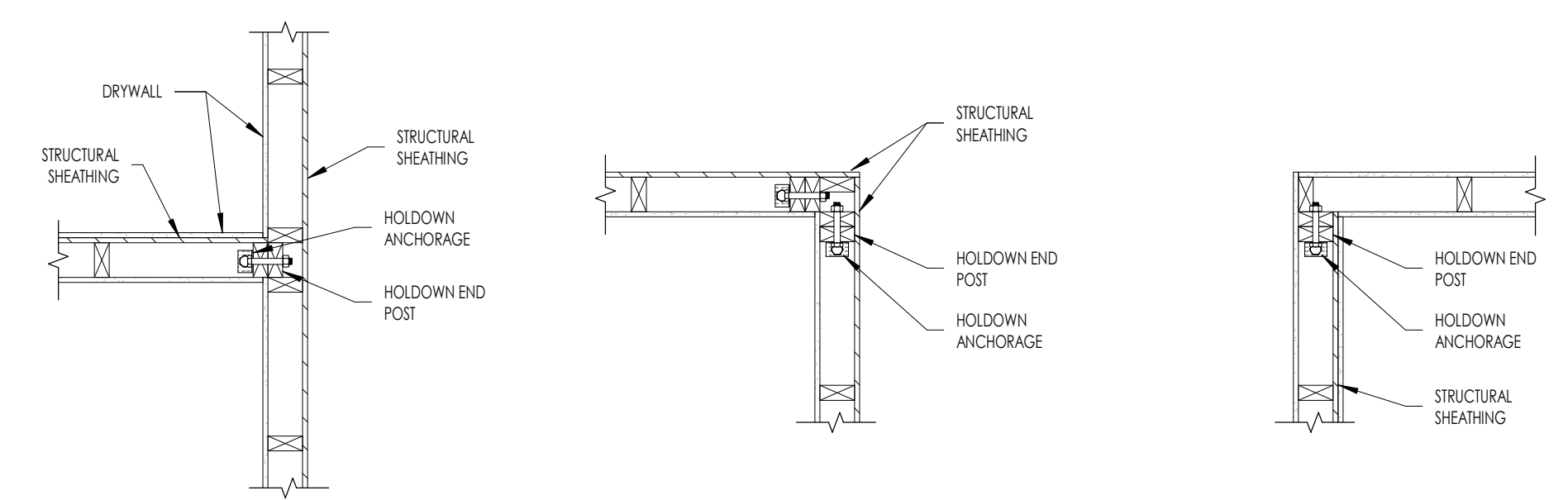
3D S4.3 HT5 HOLDOWN



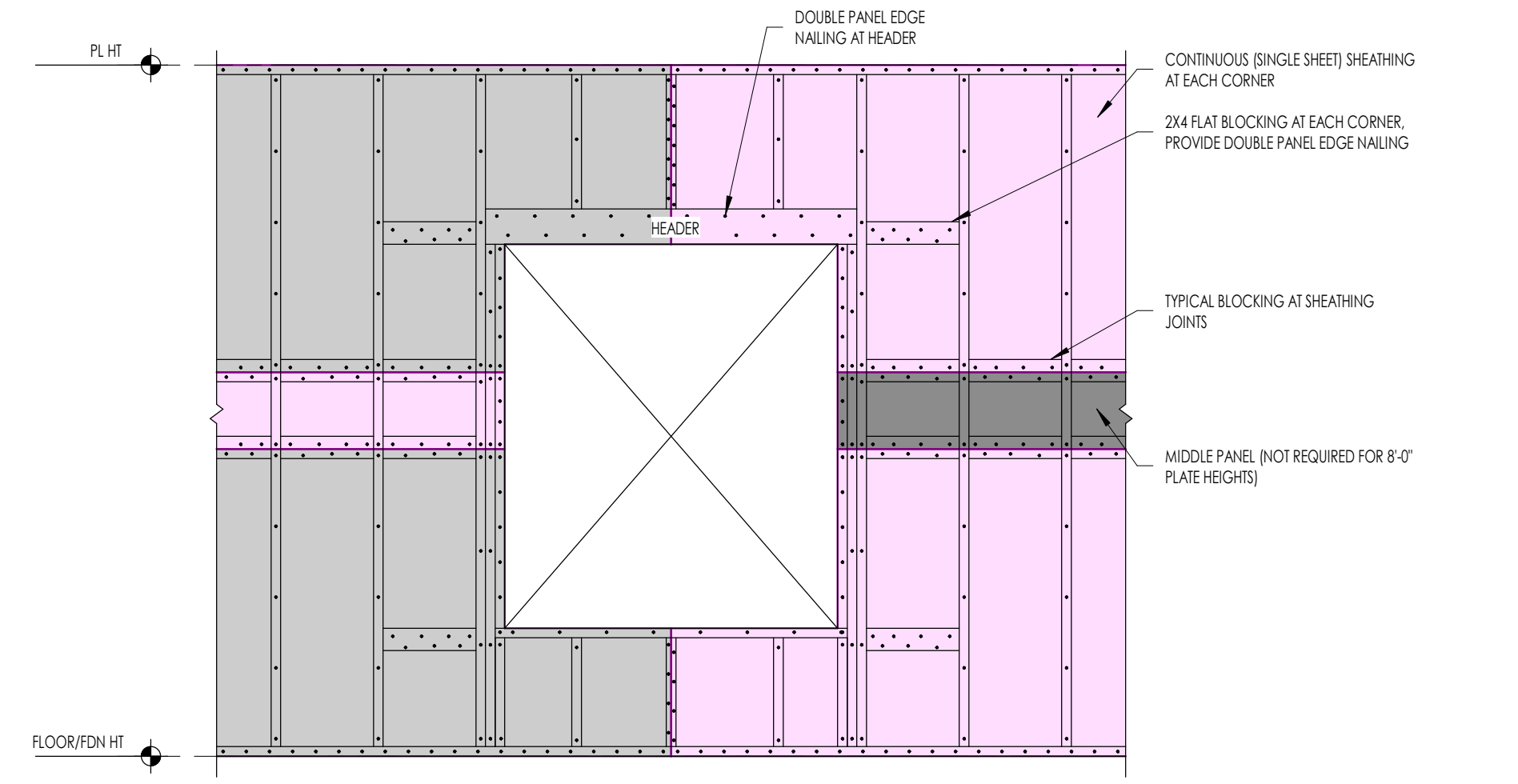
2D S4.3 HDU8-SDS2.5 HOLDOWN



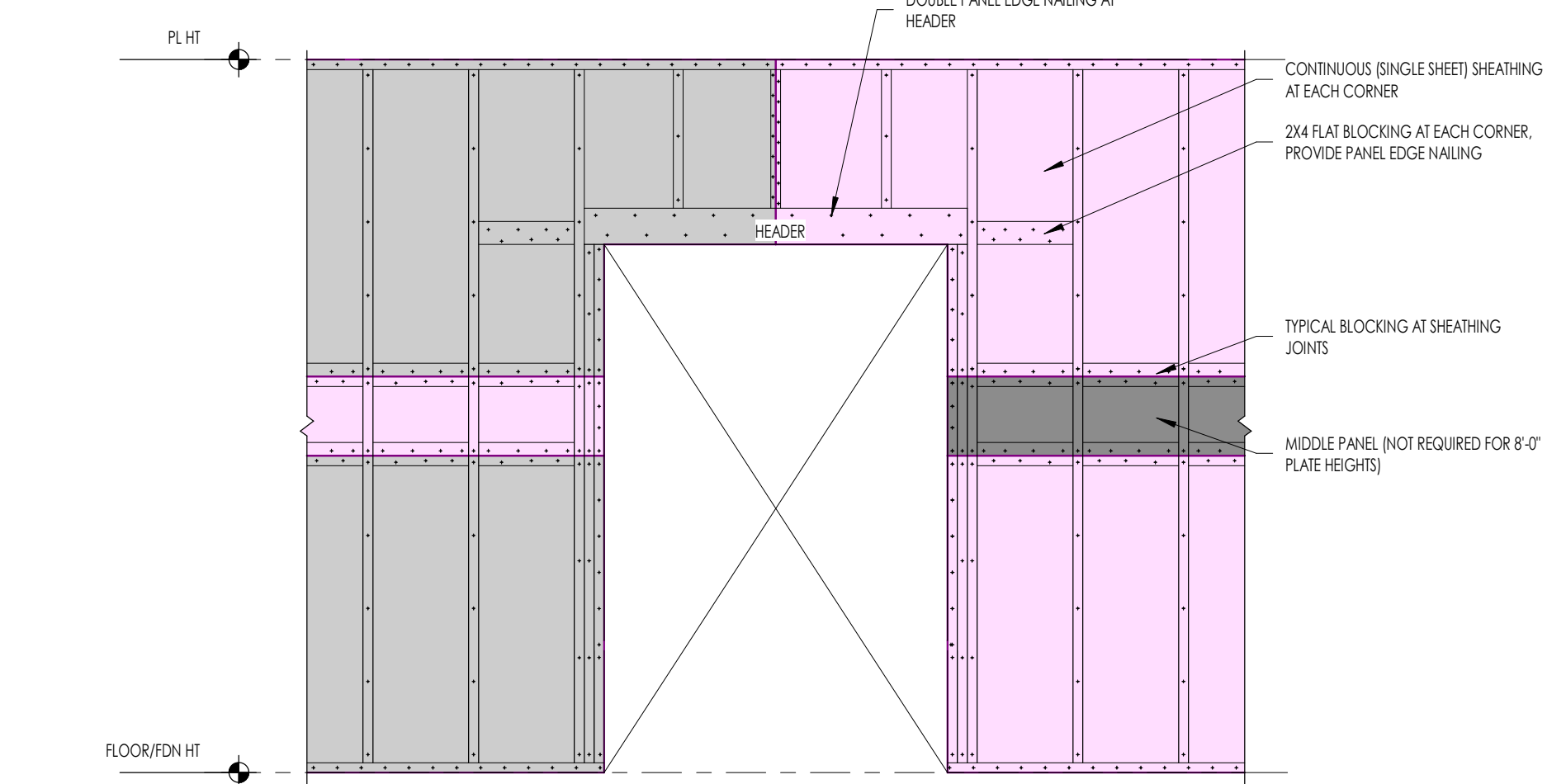
1D S4.3 STHD14 HOLDOWN



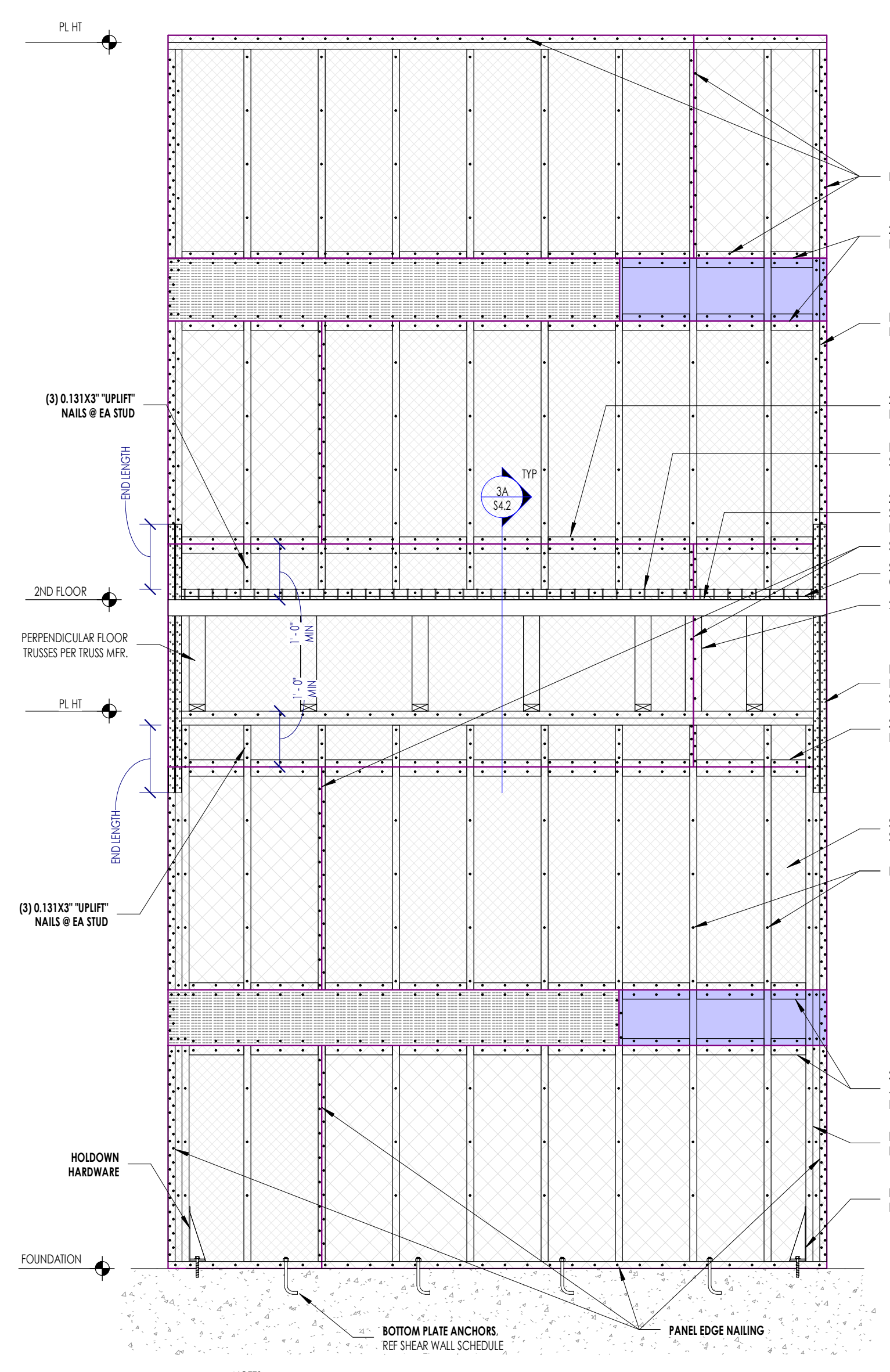
6C S4.3 SHEAR WALL - END POST CONFIGURATIONS



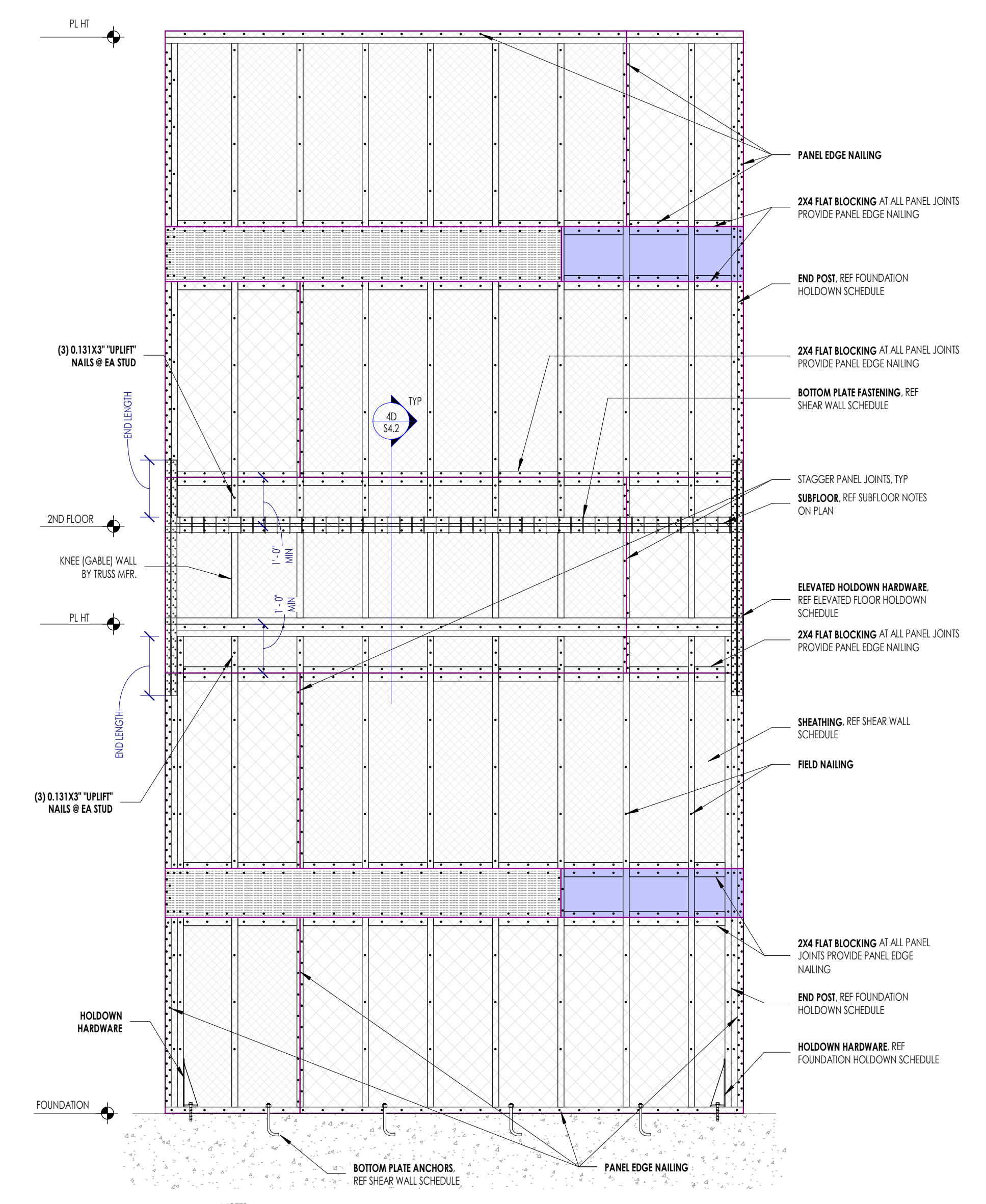
6B S4.3 SHEARWALL - FORCE TRANSFER AROUND OPENING



6A S4.3 SHEARWALL - FORCE TRANSFER AROUND OPENING (DOOR)



4A S4.3 TYPICAL MULTIPLE STORY SHEARWALL FRAMING AND FASTENING, TRUSSES PERPENDICULAR



2A S4.3 TYPICAL MULTIPLE STORY SHEARWALL FRAMING AND FASTENING, TRUSSES PARALLEL

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DUDLEY
 Structural: Dudley
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 College Station, TX 77845
 (979) 777-0720

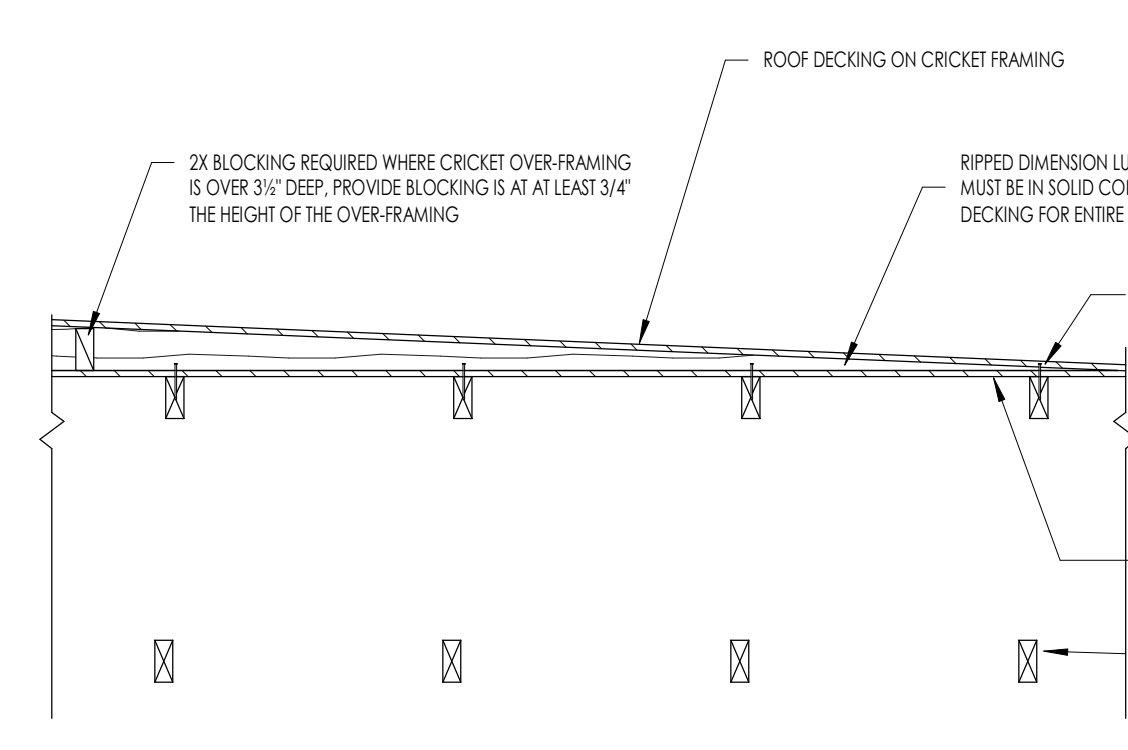
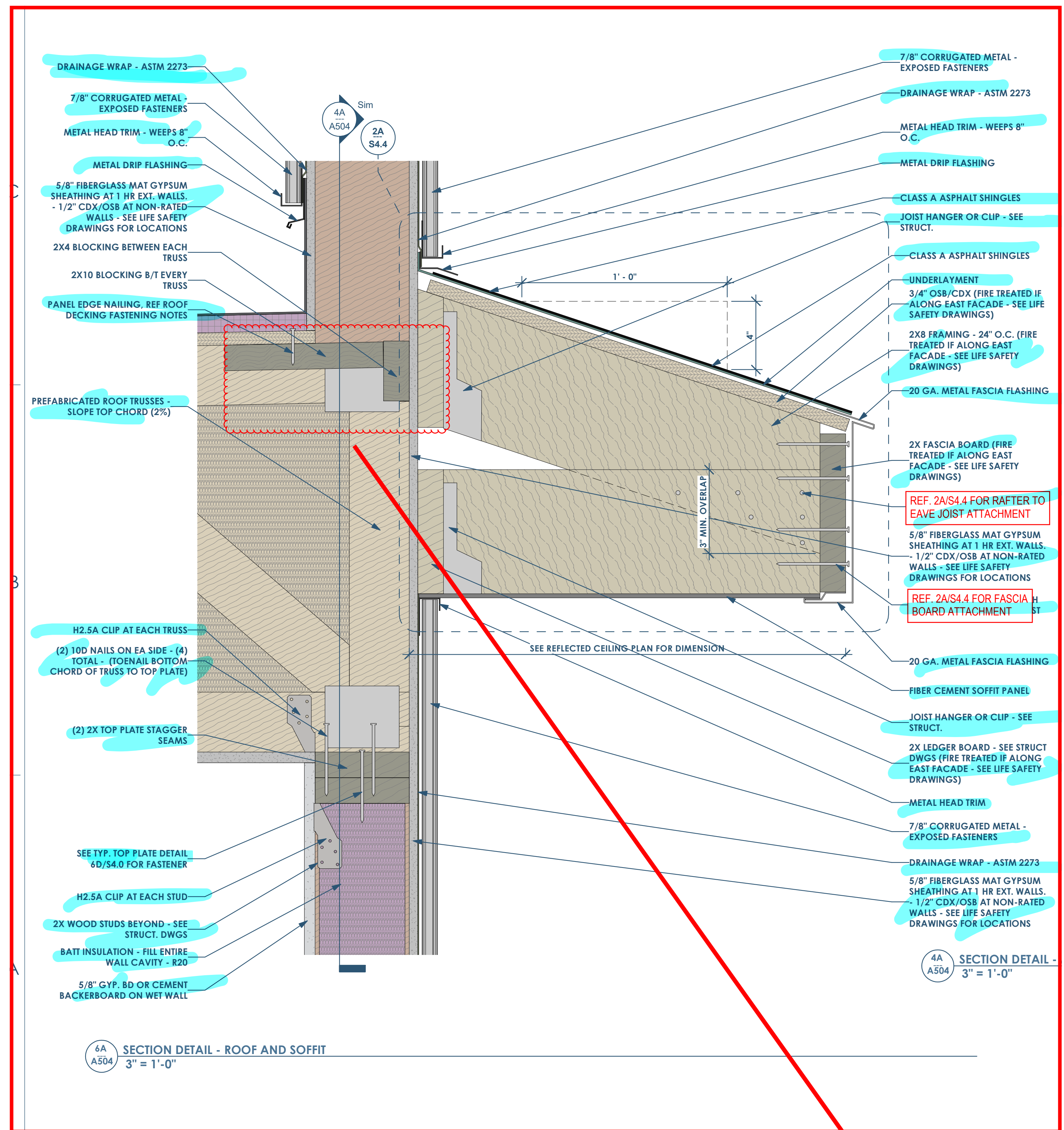
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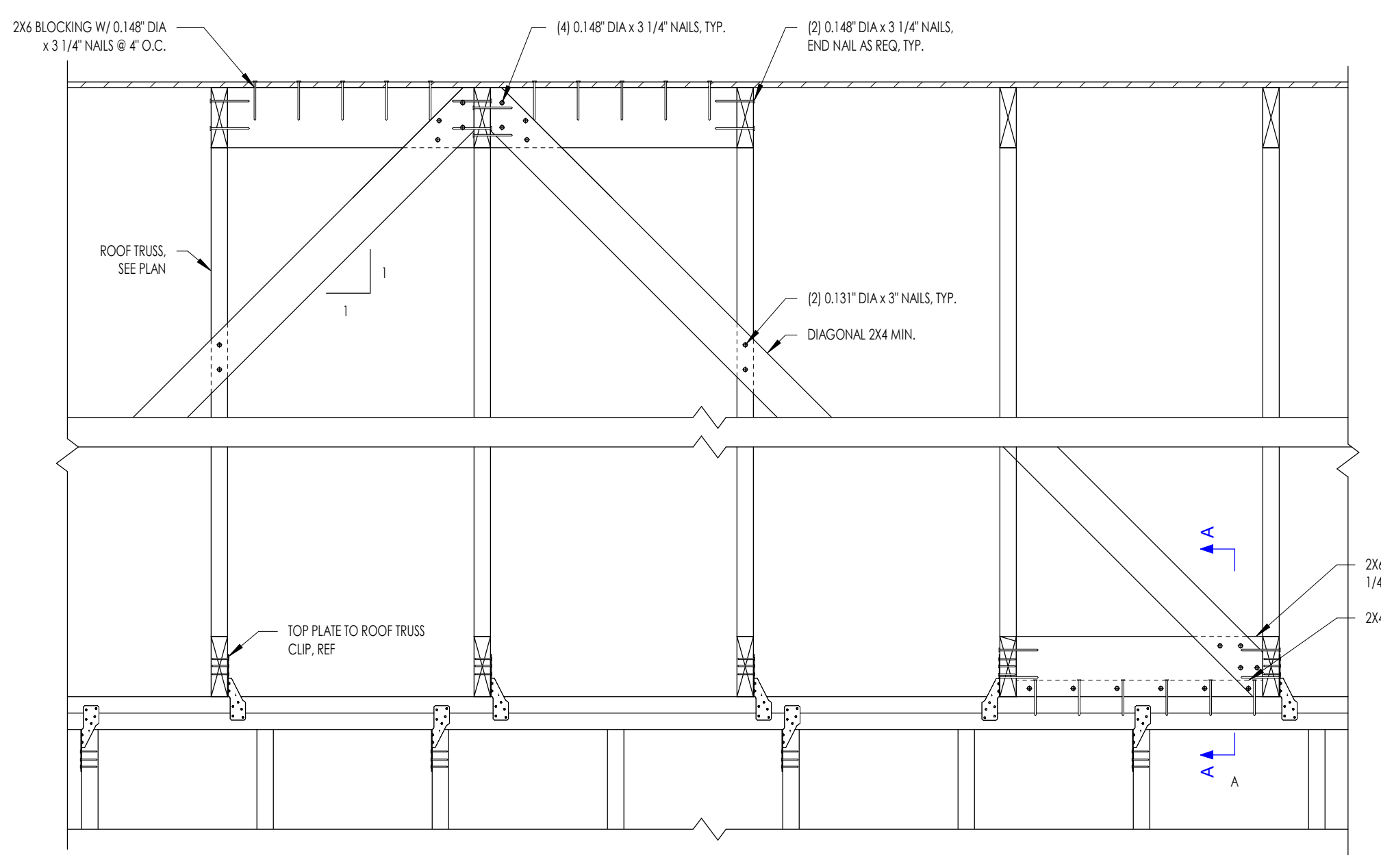
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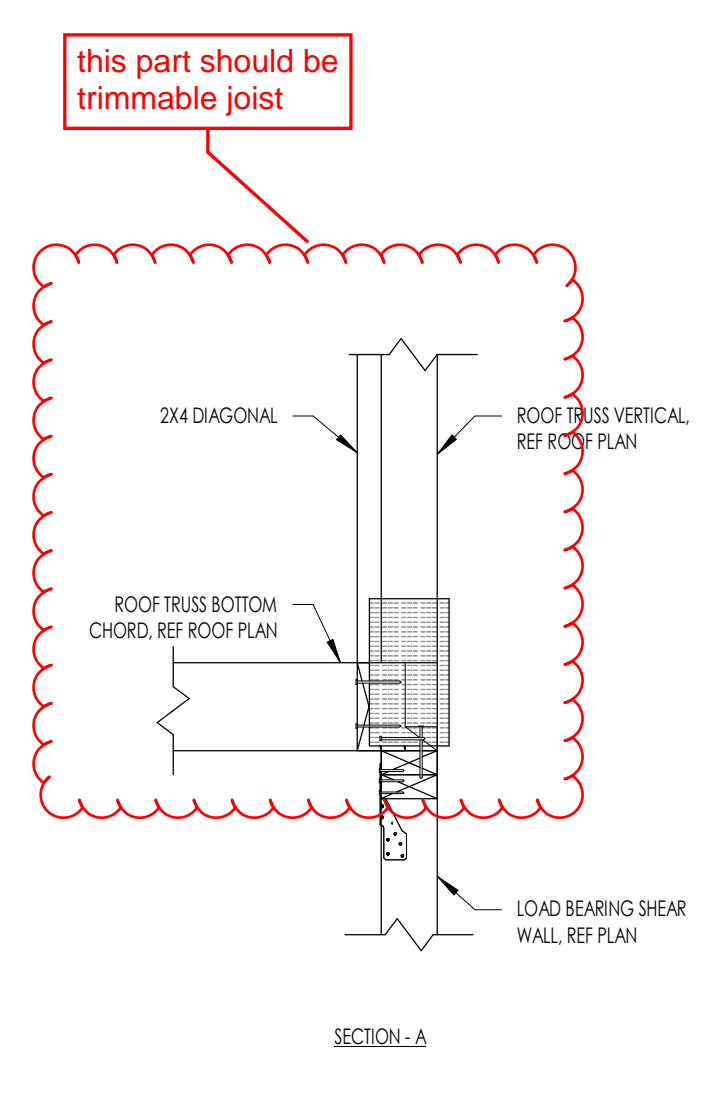
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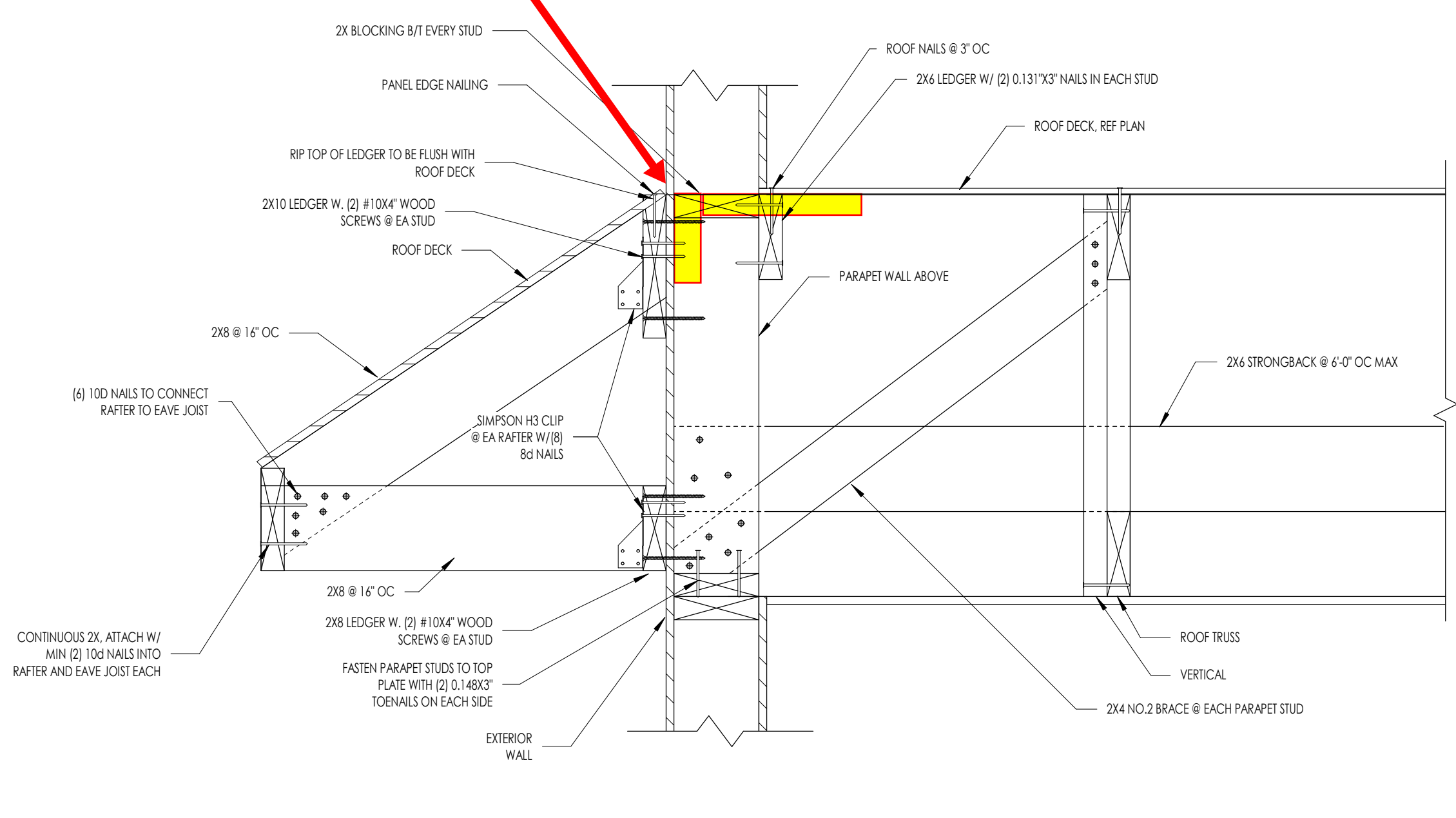
6A S4.4 TYPICAL CRICKET FRAMING AT ROOF



5A S4.4 061760 ROOF - BRACING AT INTERIOR SHEAR WALL



SECTION - A



2A S4.4 ROOF - RAFTER ATTACHMENT INTO WALL

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DUDDLEY
 Structural: Dudley
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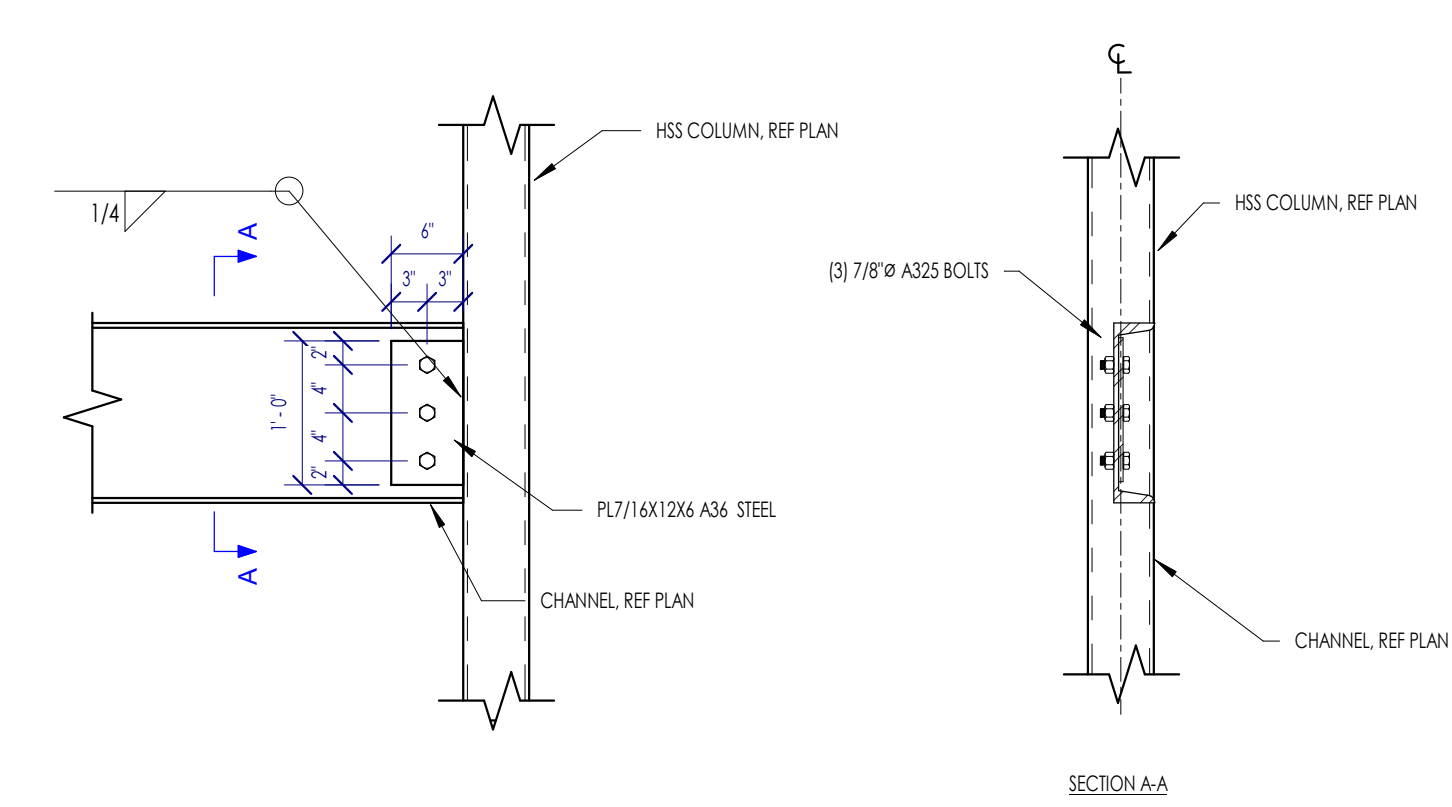
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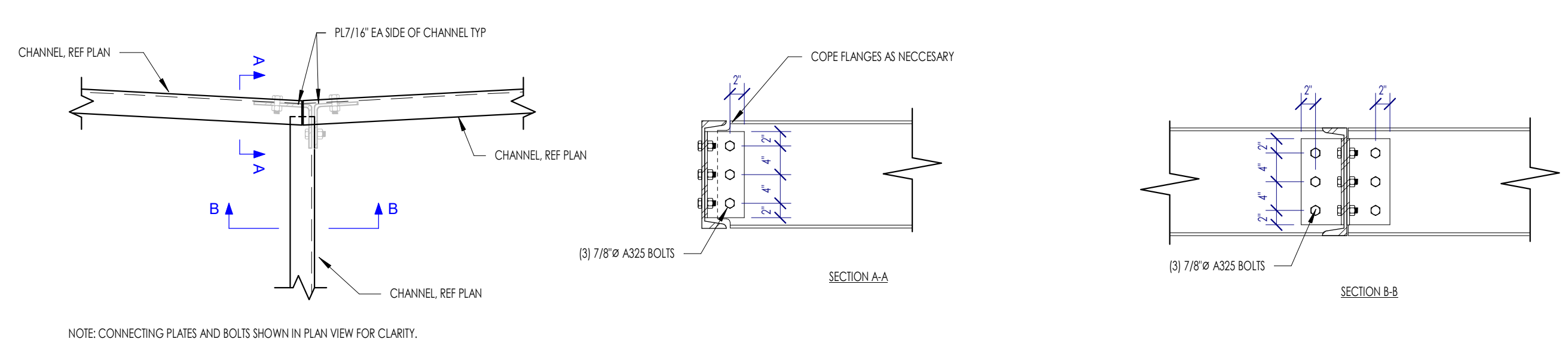
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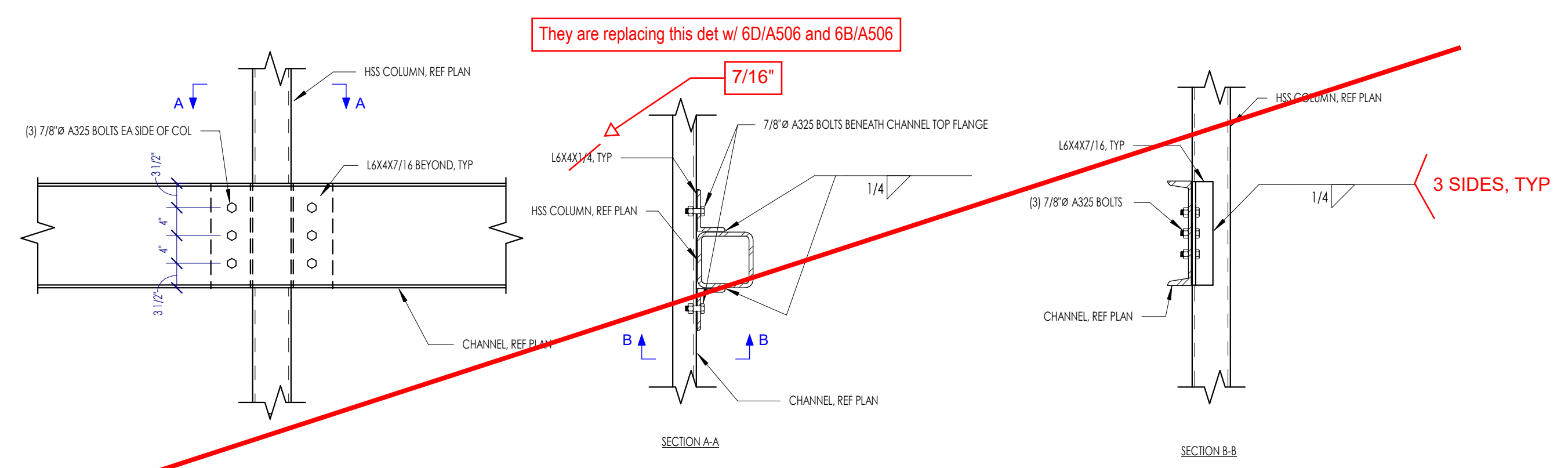
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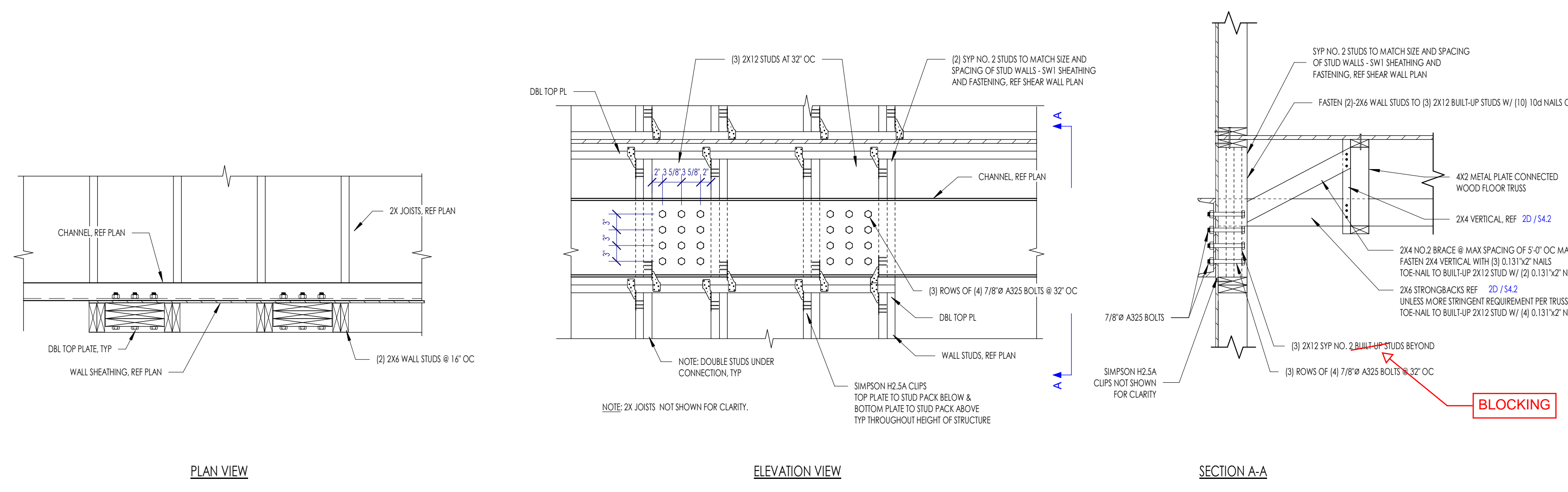
1C S4.5 CHANNEL TO HSS COLUMN CONNECTION - ALIGNED



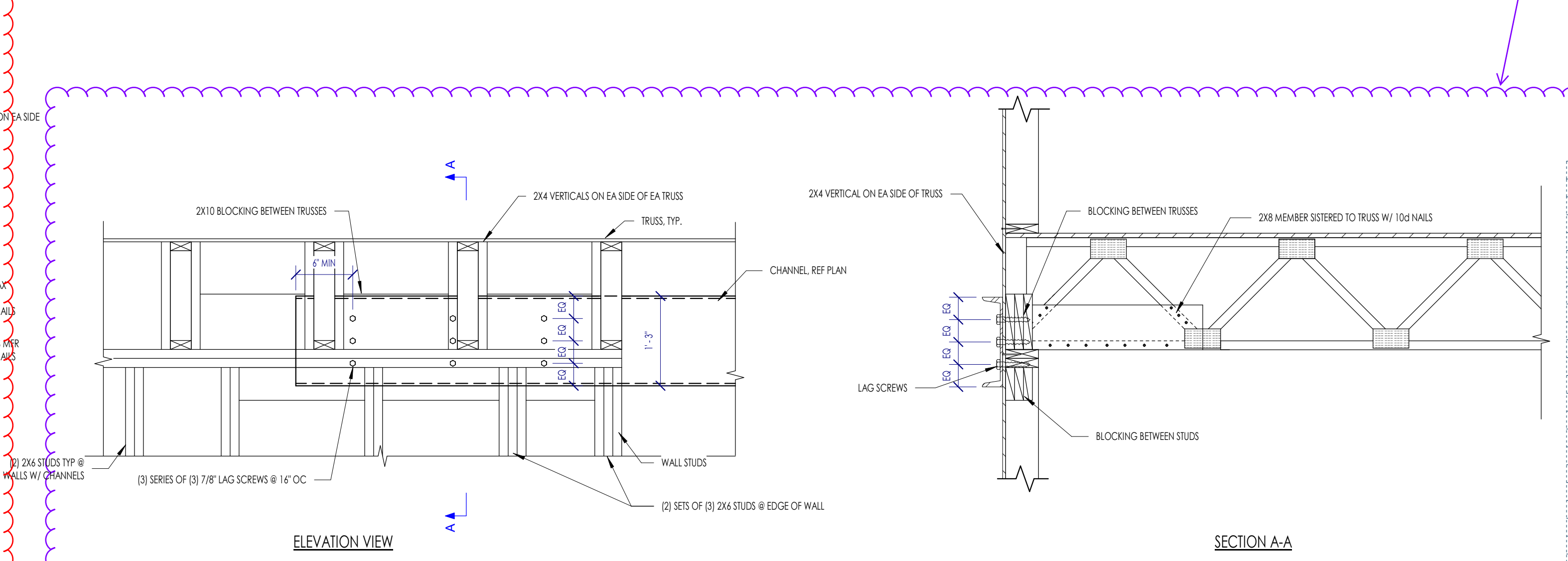
6B S4.5 TYPICAL CHANNEL CONNECTION AT BALCONY1



3B S4.5 CHANNEL TO HSS COLUMN CONNECTION - ECCENTRIC



6A S4.5 TYPICAL CHANNEL TO WALL STUD BOLTED CONNECTIONX



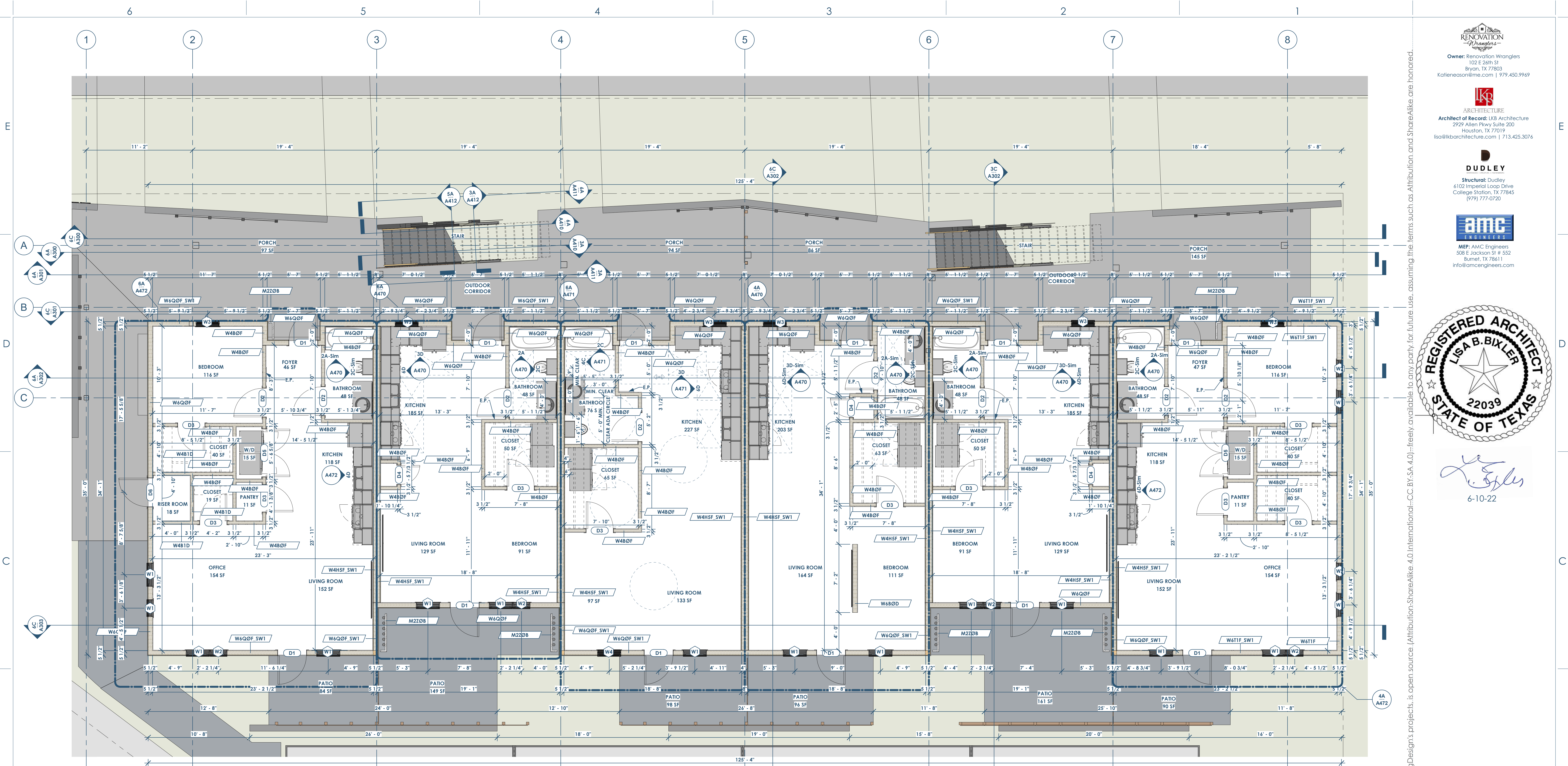
3A S4.5 TYPICAL CHANNEL TO WALL STUD CONNECTION

| Date | Description |
|------------|-------------------|
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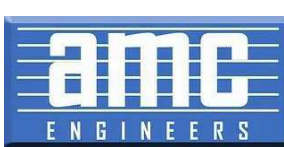
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This connection needs to be rechecked/edited.

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68
A101 FLOOR PLAN - 1ST FLOOR
1/4" = 1'-0"


 Owner: Renovation Wranglers
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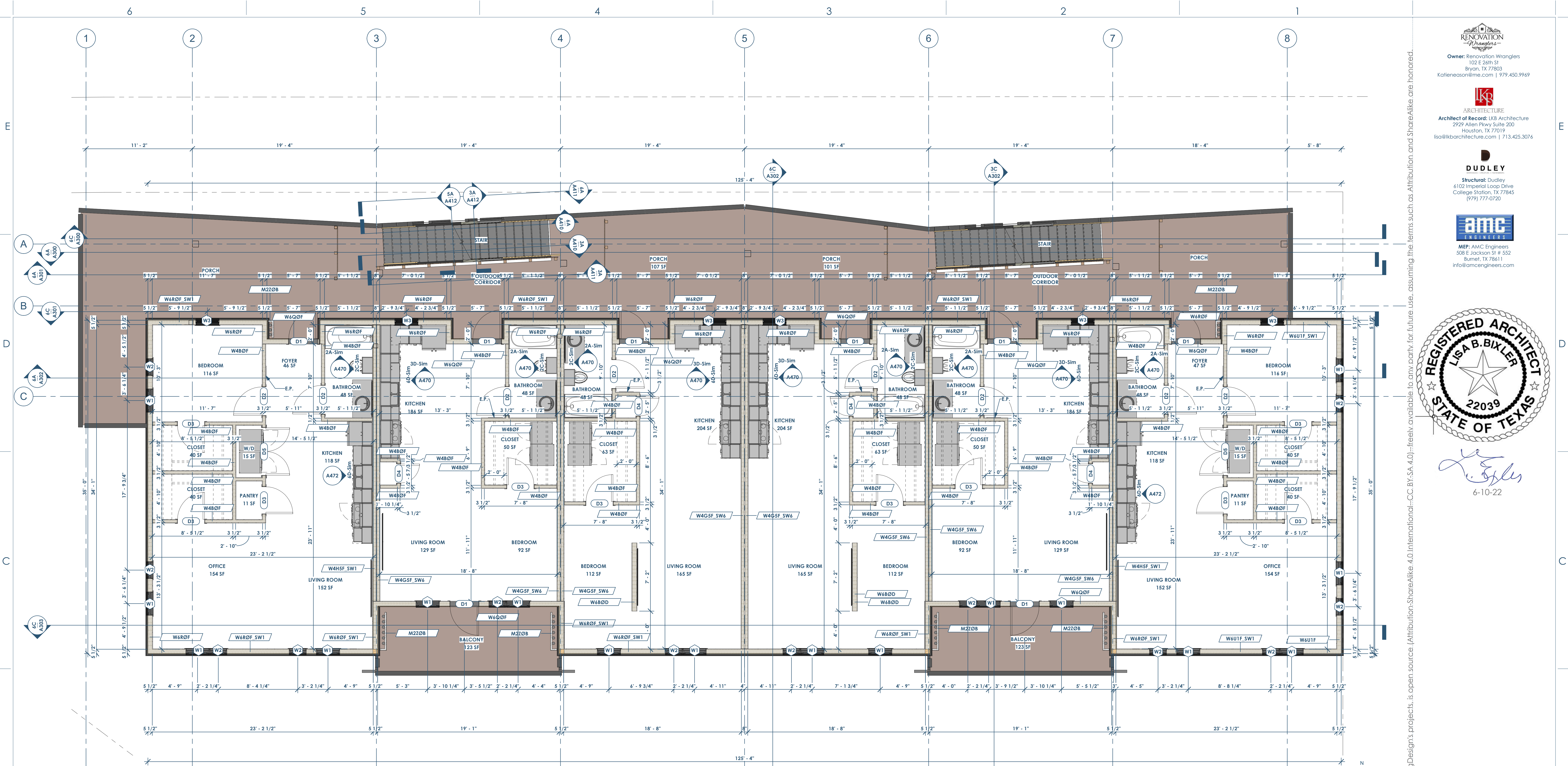

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- FLOOR PLAN NOTES**
- SEE A800 FOR PARTITION TYPES
 - SEE A600 FOR DOOR AND WINDOW TYPES
 - REFERENCE A751 FOR ACCESSIBILITY COMPLIANCE REQUIREMENTS
 - ALL FINISHES TO BE PROVIDED BY OWNER
 - MILLWORK AND APPLIANCES TO BE PROVIDED BY OWNER



68 A102 FLOOR PLAN - 2ND FLOOR
1/4" = 1'-0"

- FLOOR PLAN NOTES**
- SEE A800 FOR PARTITION TYPES
 - SEE A600 FOR DOOR AND WINDOW TYPES
 - REFERENCE A751 FOR ACCESSIBILITY COMPLIANCE REQUIREMENTS
 - ALL FINISHES TO BE PROVIDED BY OWNER
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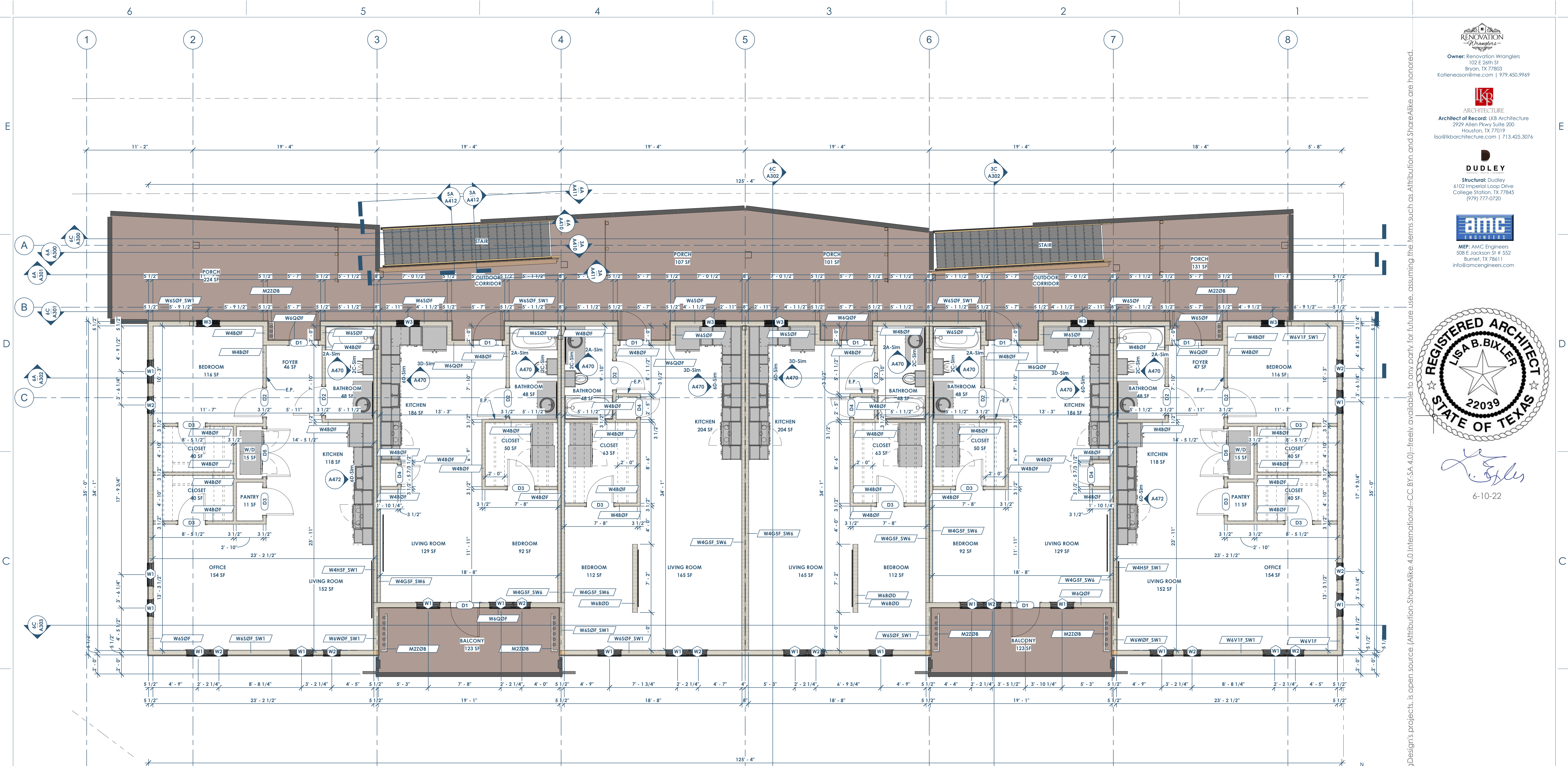
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68
A103 FLOOR PLAN - 3RD FLOOR
1/4" = 1'-0"

- FLOOR PLAN NOTES**
- SEE A600 FOR PARTITION TYPES
 - SEE A600 FOR DOOR AND WINDOW TYPES
 - REFERENCE A751 FOR ACCESSIBILITY COMPLIANCE REQUIREMENTS
 - ALL FINISHES TO BE PROVIDED BY OWNER
 - MILLWORK AND APPLIANCES TO BE PROVIDED BY OWNER

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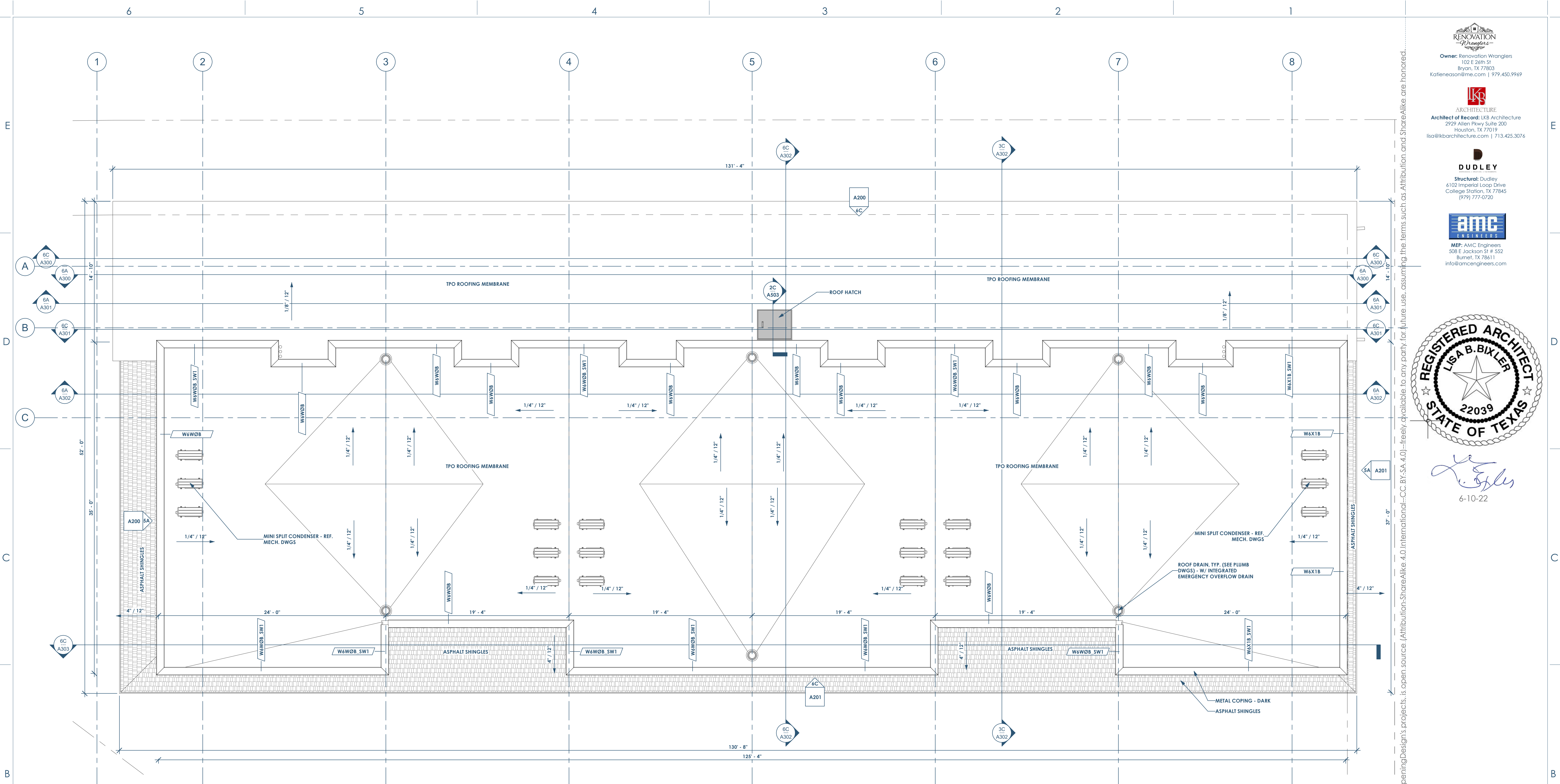
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68
A104 FLOOR PLAN - ROOF
1/4" = 1'-0"

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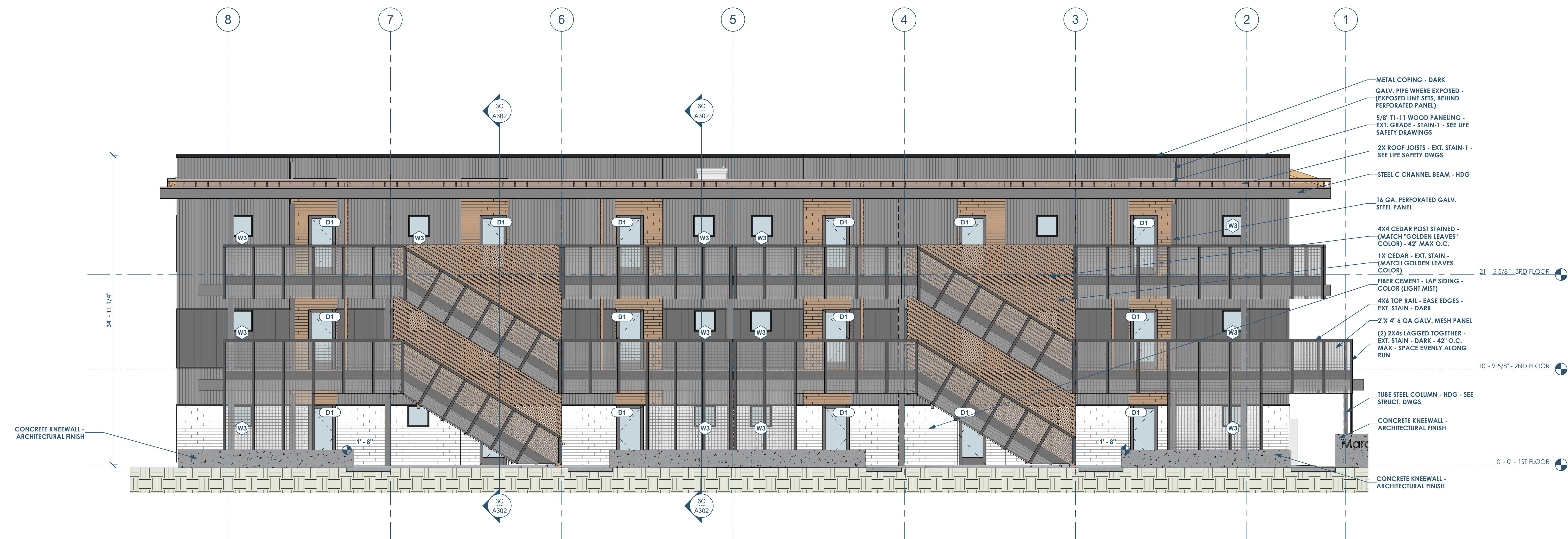


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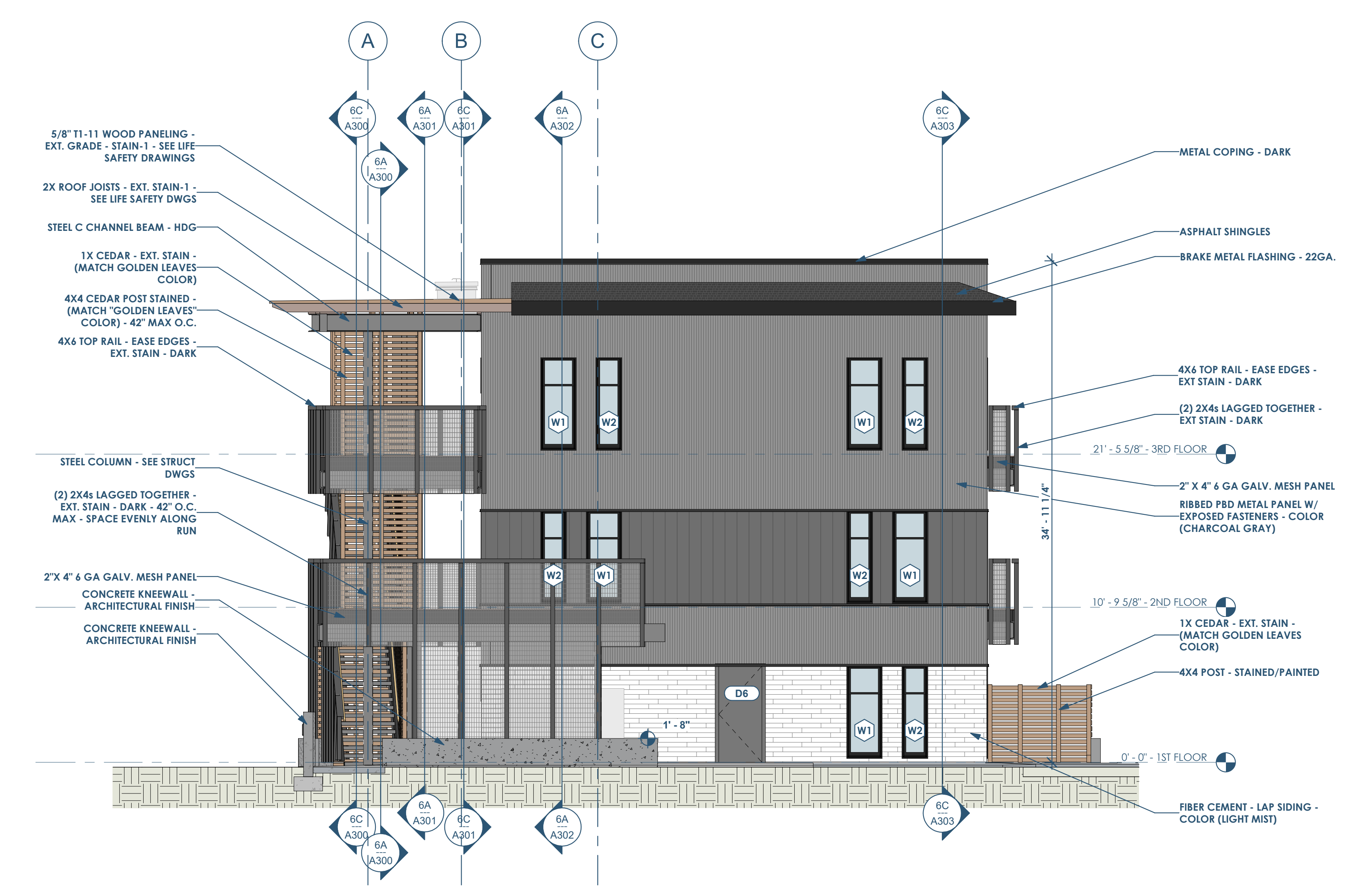
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4C
A200 BUILDING ELEVATION - NORTH
3/16" = 1'-0"



5A
A200 BUILDING ELEVATION - WEST
3/16" = 1'-0"

- METAL COPING - DARK GALV. PIPE WHERE EXPOSED - (EXPOSED LINE SETS, BEHIND PERFORATED PANEL)
- 5/8" T1-11 WOOD PANELING - EXT. GRADE - STAIN-1 - SEE LIFE SAFETY DRAWINGS
- 2X ROOF JOISTS - EXT. STAIN-1 - SEE LIFE SAFETY DWGS
- STEEL C CHANNEL BEAM - HDG
- 16 GA. PERFORATED GALV. STEEL PANEL
- 4X4 CEDAR POST STAINED - (MATCH "GOLDEN LEAVES" COLOR) - 42" MAX O.C.
- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- FIBER CEMENT - LAP SIDING - COLOR (LIGHT MIST)
- 4X4 TOP RAIL - EASE EDGES - EXT. STAIN - DARK
- 2" X 4" 6 GA GALV. MESH PANEL
- (2) 2X4s LAGGED TOGETHER - EXT. STAIN - DARK - 42" O.C. MAX - SPACE EVENLY ALONG RUN
- 21' - 5.5/8" - 3RD FLOOR
- 10' - 9.5/8" - 2ND FLOOR
- 0' - 0" - 1ST FLOOR
- TUBE STEEL COLUMN - HDG - SEE STRUCT. DWGS
- CONCRETE KNEEWALL - ARCHITECTURAL FINISH
- CONCRETE KNEEWALL - ARCHITECTURAL FINISH

- 5/8" T1-11 WOOD PANELING - EXT. GRADE - STAIN-1 - SEE LIFE SAFETY DRAWINGS
- 2X ROOF JOISTS - EXT. STAIN-1 - SEE LIFE SAFETY DWGS
- STEEL C CHANNEL BEAM - HDG
- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- 4X4 CEDAR POST STAINED - (MATCH "GOLDEN LEAVES" COLOR) - 42" MAX O.C.
- 4X6 TOP RAIL - EASE EDGES - EXT. STAIN - DARK
- STEEL COLUMN - SEE STRUCT. DWGS
- (2) 2X4s LAGGED TOGETHER - EXT. STAIN - DARK - 42" O.C. MAX - SPACE EVENLY ALONG RUN
- 2" X 4" 6 GA GALV. MESH PANEL
- CONCRETE KNEEWALL - ARCHITECTURAL FINISH
- CONCRETE KNEEWALL - ARCHITECTURAL FINISH
- METAL COPING - DARK
- ASPHALT SHINGLES
- BRAKE METAL FLASHING - 22GA.
- 4X4 TOP RAIL - EASE EDGES - EXT. STAIN - DARK
- (2) 2X4s LAGGED TOGETHER - EXT. STAIN - DARK
- 21' - 5.5/8" - 3RD FLOOR
- 34" - 11.1/4"
- 2" X 4" 6 GA GALV. MESH PANEL
- RIBBED PBD METAL PANEL W/ EXPOSED FASTENERS - COLOR (CHARCOAL GRAY)
- 10' - 9.5/8" - 2ND FLOOR
- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- 4X4 POST - STAINED/PAINTED
- 0' - 0" - 1ST FLOOR
- FIBER CEMENT - LAP SIDING - COLOR (LIGHT MIST)



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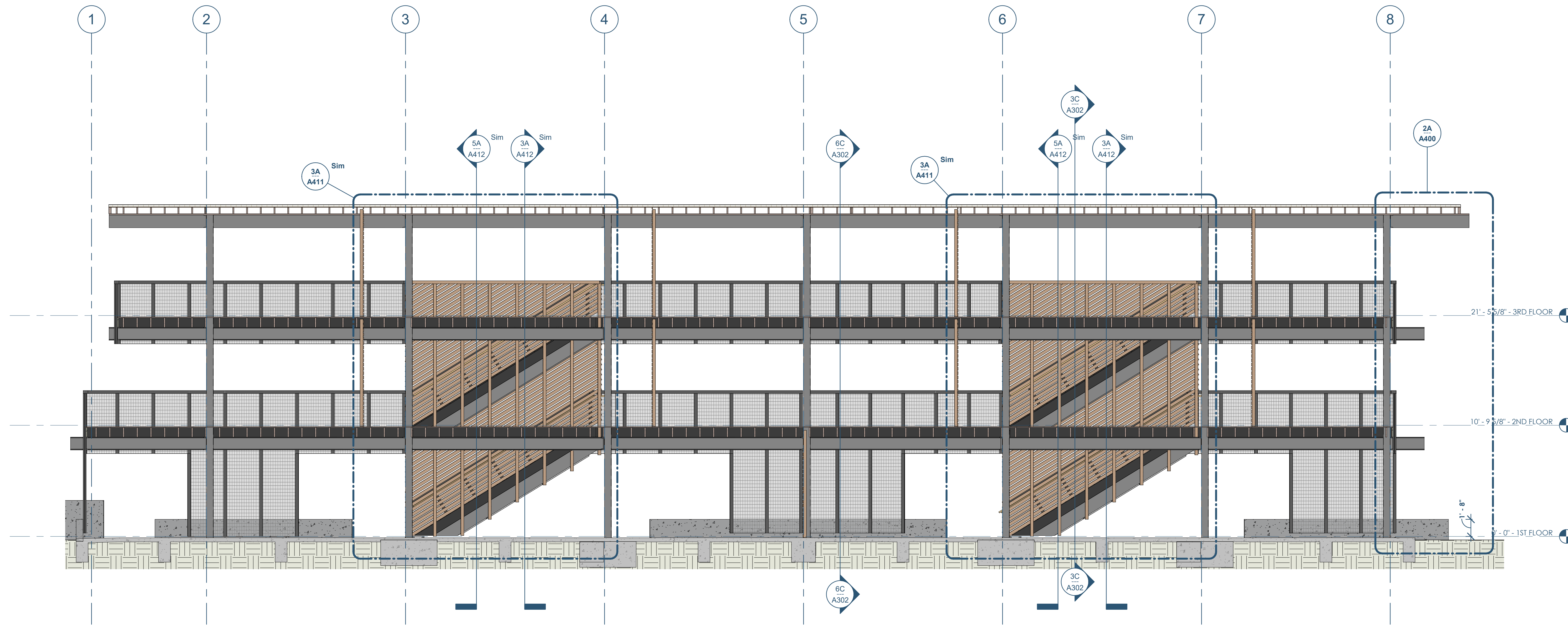
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4C
A301 BUILDING SECTION - THRU BALCONY - LOOKING SOUTH
3/16" = 1'-0"



6A
A301 BUILDING SECTION - THRU BALCONY - LOOKING NORTH
3/16" = 1'-0"

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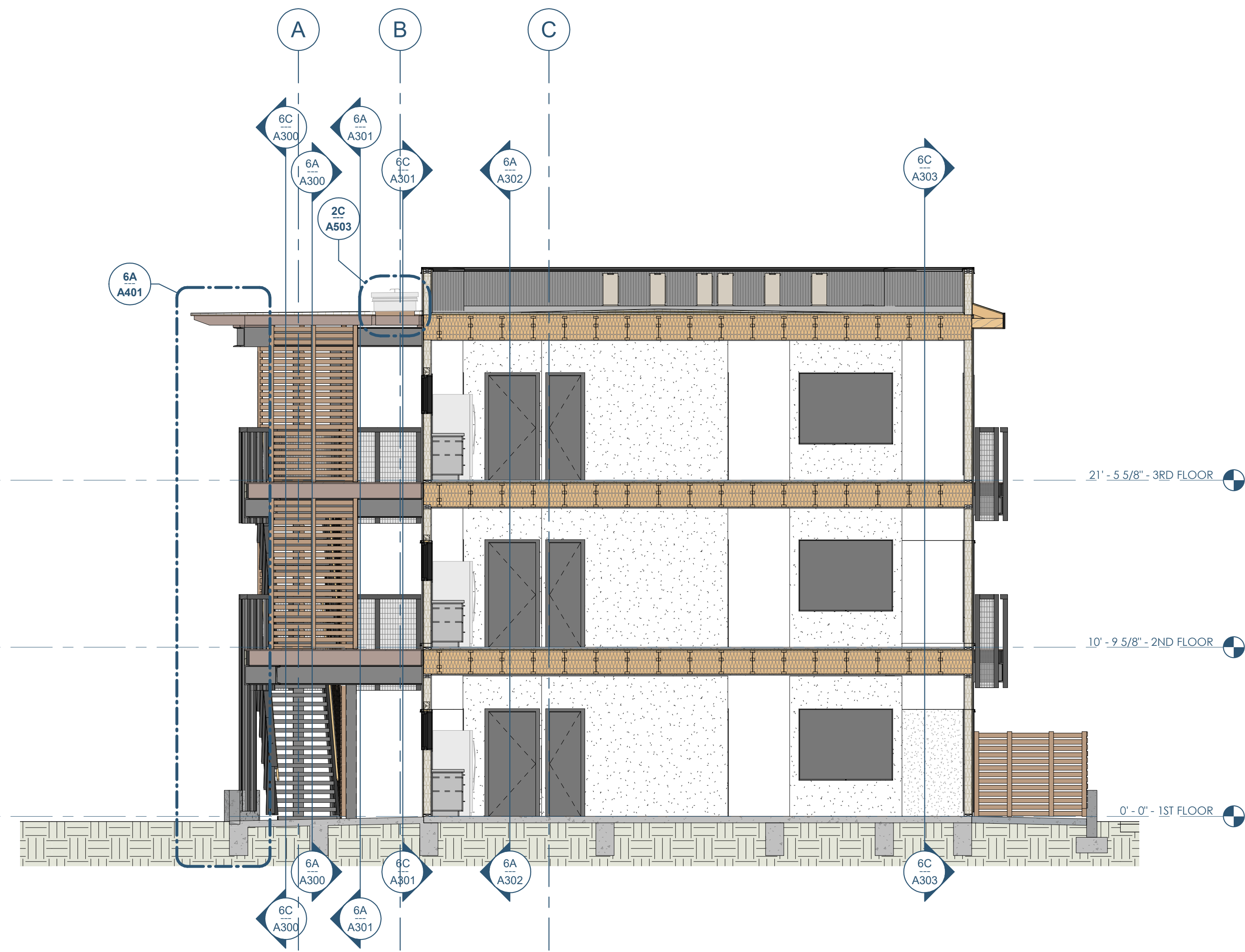


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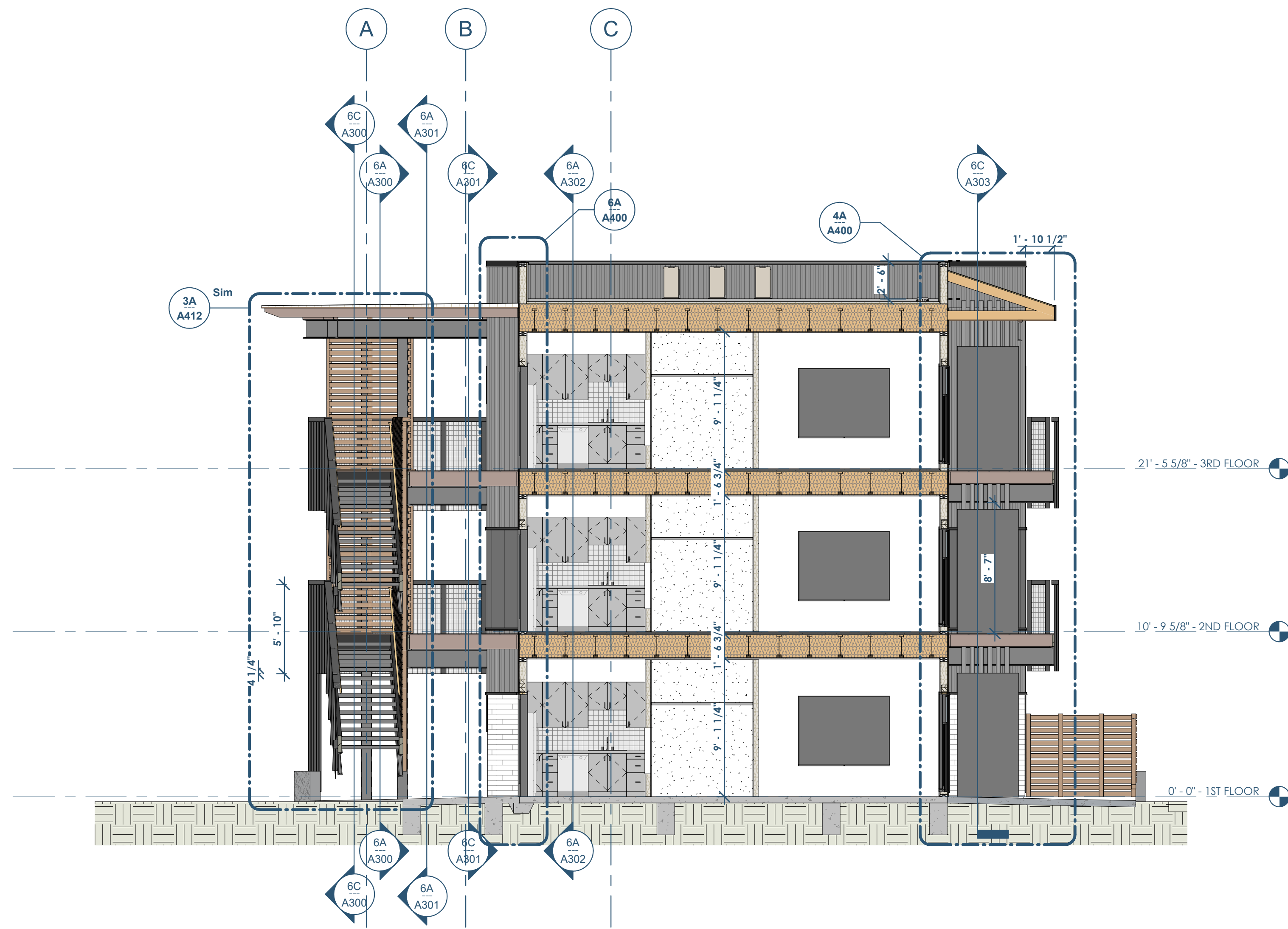
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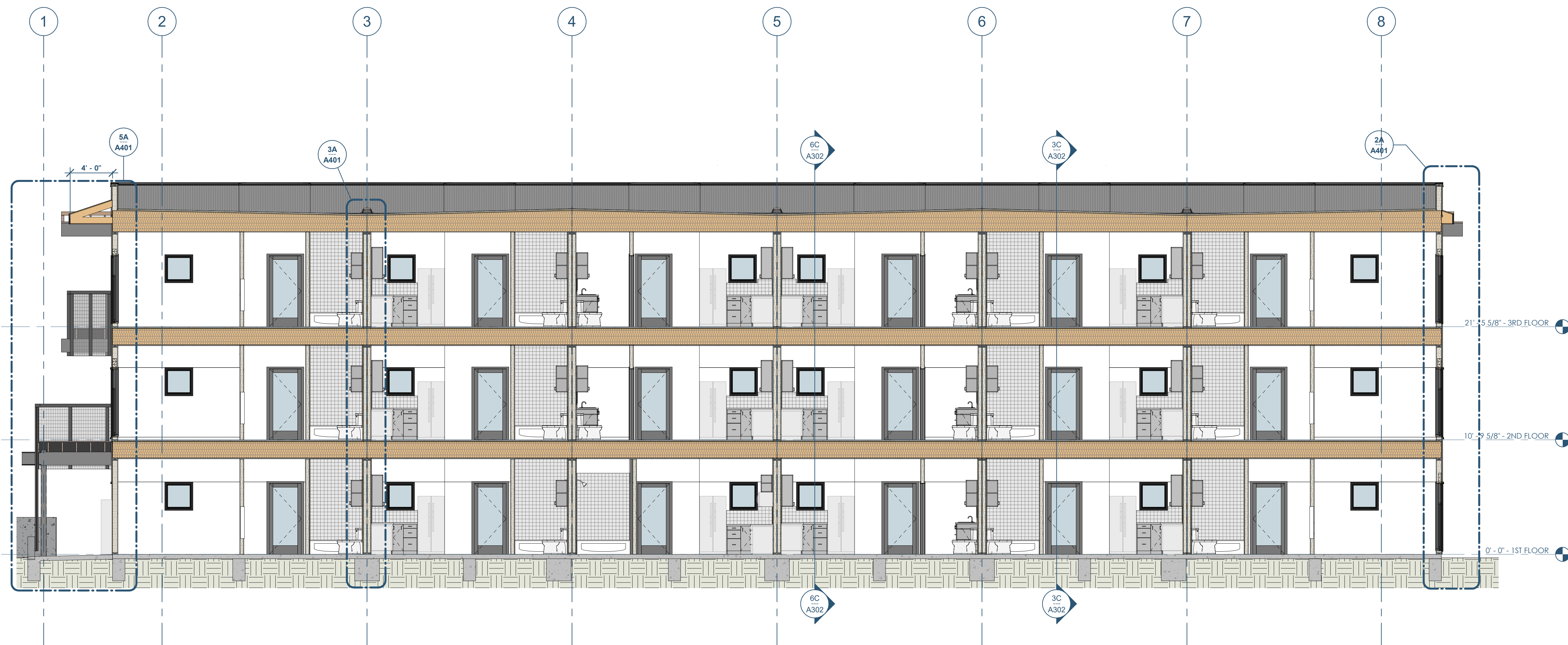
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6C A302 BUILDING SECTION - THRU LARGE STUDIO - LOOKING EAST
3/16" = 1'-0"



3C A302 BUILDING SECTION - THRU SMALL STUDIO - LOOKING EAST
3/16" = 1'-0"



6A A302 BUILDING SECTION - EAST/WEST - LOOKING NORTH
3/16" = 1'-0"

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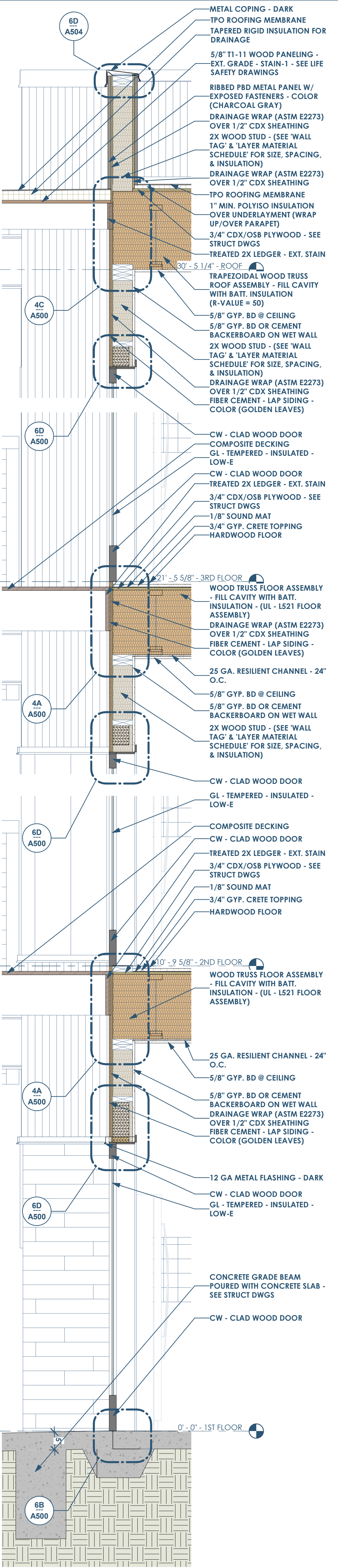


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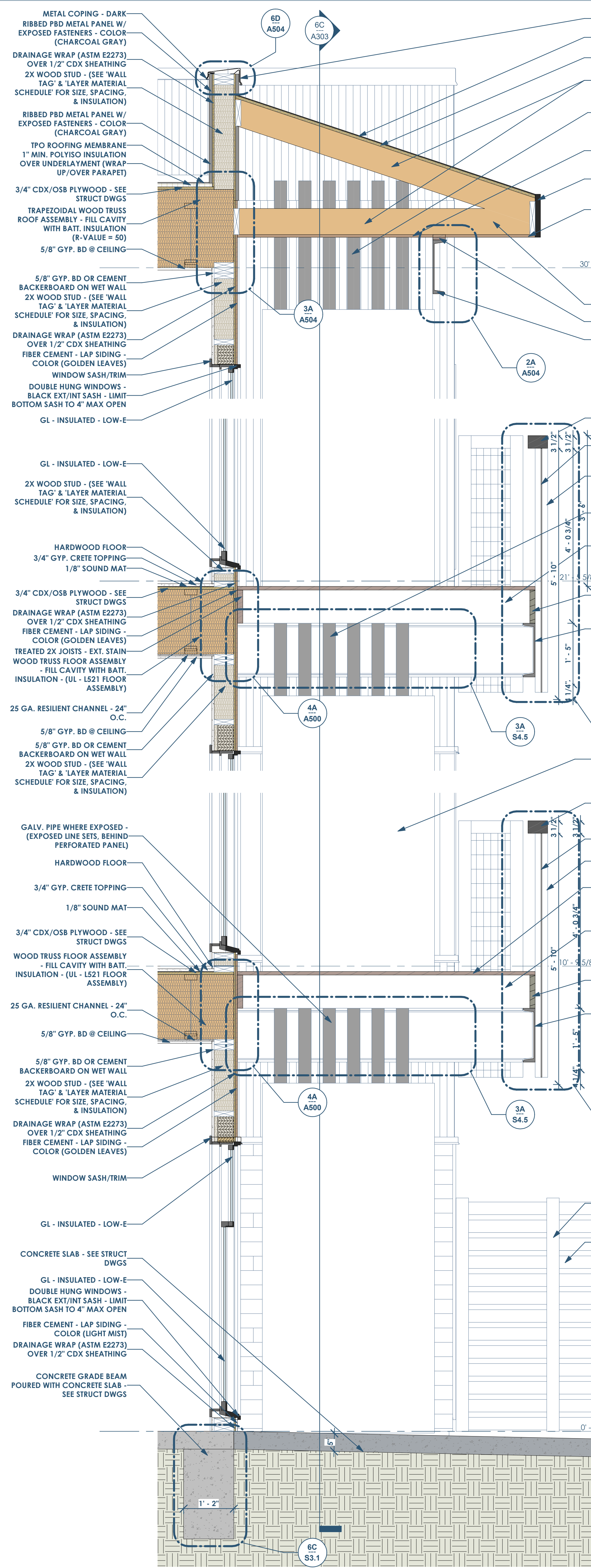
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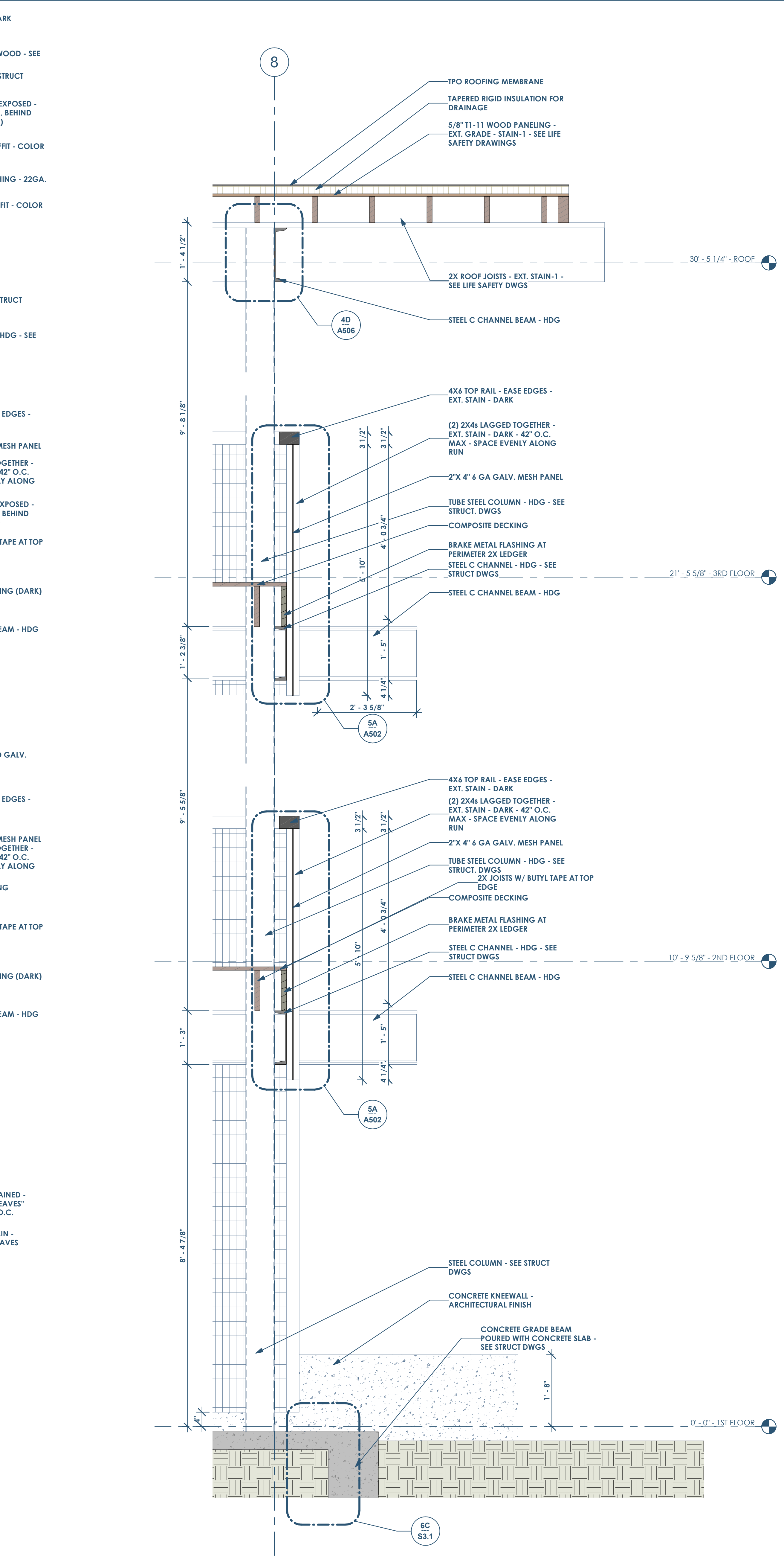
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6A A400 BUILDING SECTION - THRU SMALL STUDIO - LOOKING EAST - @ PARAPET WALL
3/4" = 1'-0"



4A A400 WALL SECTION - SOUTH BALCONY
3/4" = 1'-0"



2A A400 WALL SECTION - THRU BALCONY - RAILING
3/4" = 1'-0"

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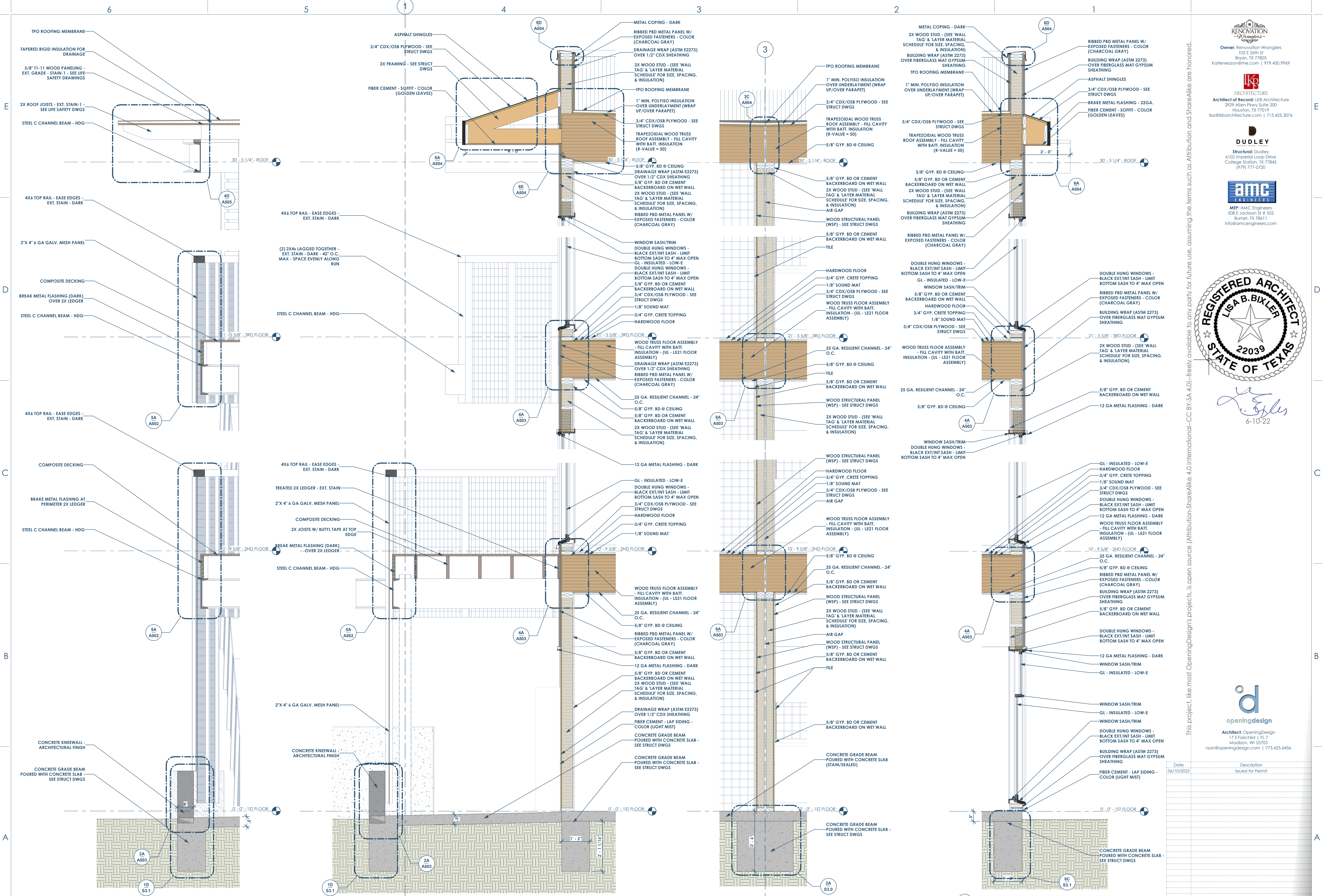


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6A BUILDING SECTION - THRU LARGE STUDIO - LOOKING EAST - DECO RAILING
3/4" = 1'-0"

5A WALL SECTION - EAST/WEST - BALCONY DECK
3/4" = 1'-0"

4A WALL SECTION - EAST/WEST2 - @ UNITS PARTITION WALL
3/4" = 1'-0"

3A BUILDING SECTION - EAST/WEST - LOOKING SOUTH - THRU WINDOWS
3/4" = 1'-0"

WALL SECTIONS

MARCO POLO - 101 W 33RD STREET - CITY OF BRYAN TOWNSITE, BLOCK 96, LOT 3-5 & PT OF 6 & PT OF ALLEY - BRYAN, TX 77803

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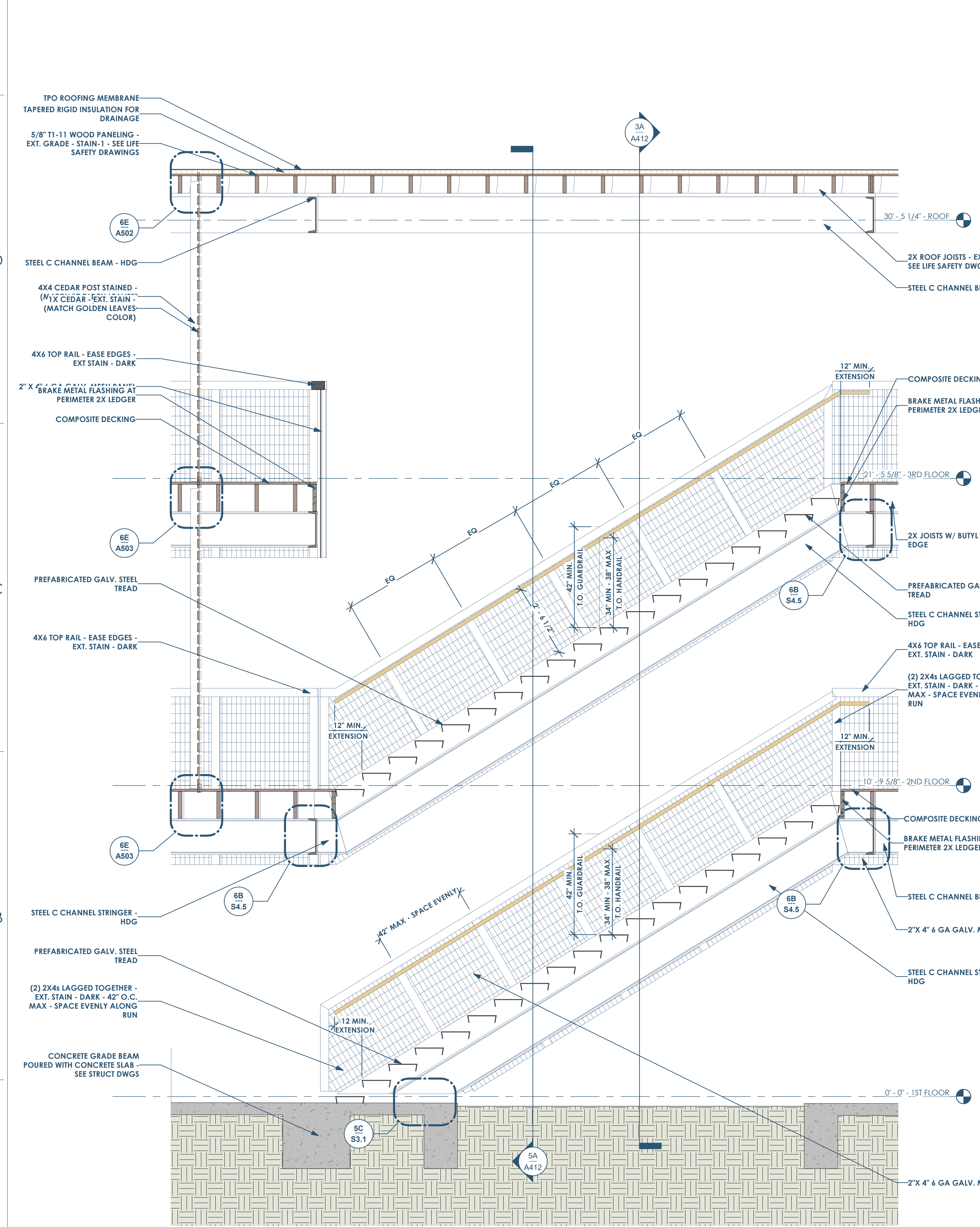
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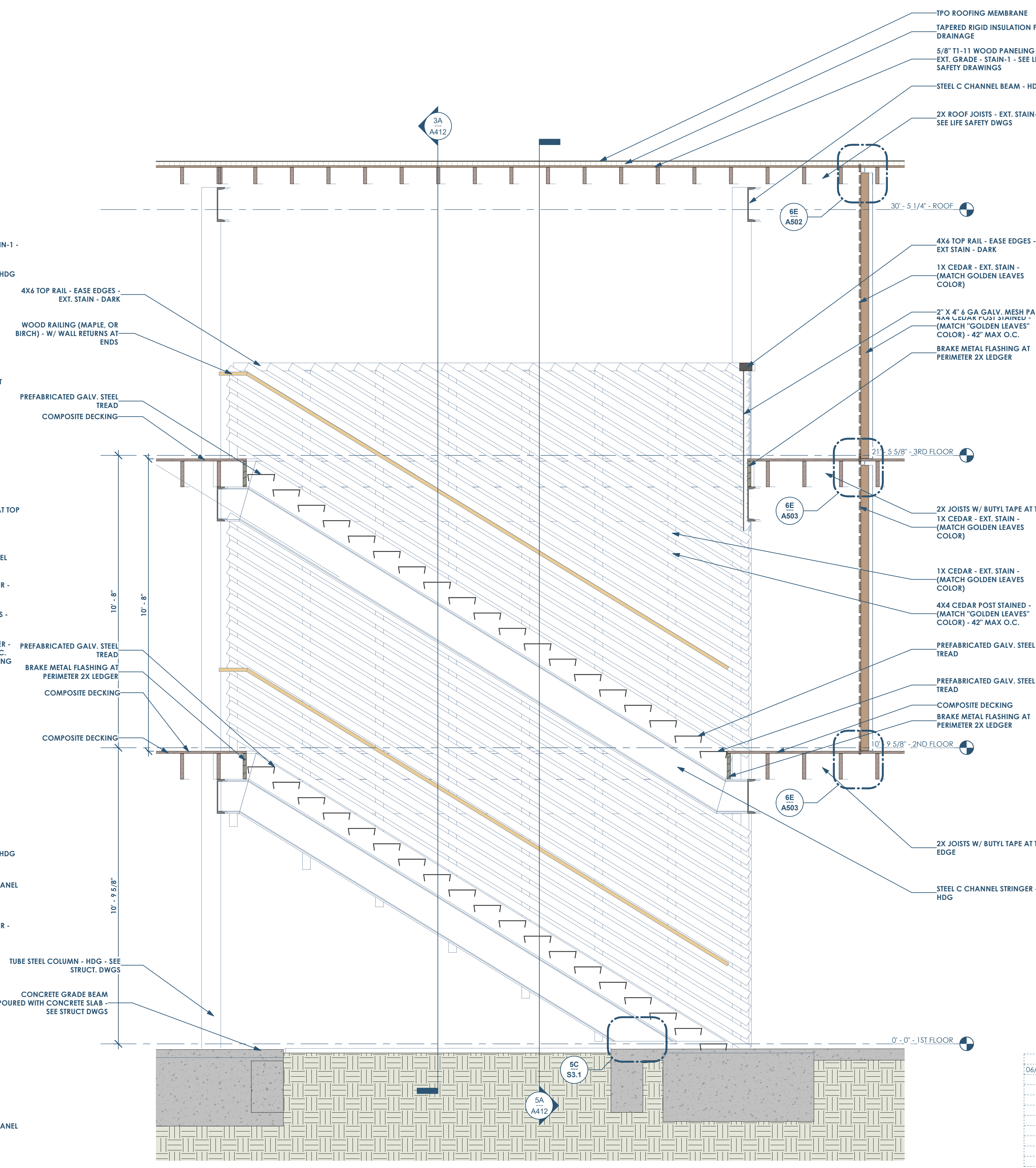
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A401



6A A410 STAIR SECTION - LOOKING NORTH
1/2" = 1'-0"



3A A410 STAIR SECTION - LOOKING SOUTH
1/2" = 1'-0"

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6

5

4

3

2

1

E

D

C

B

A

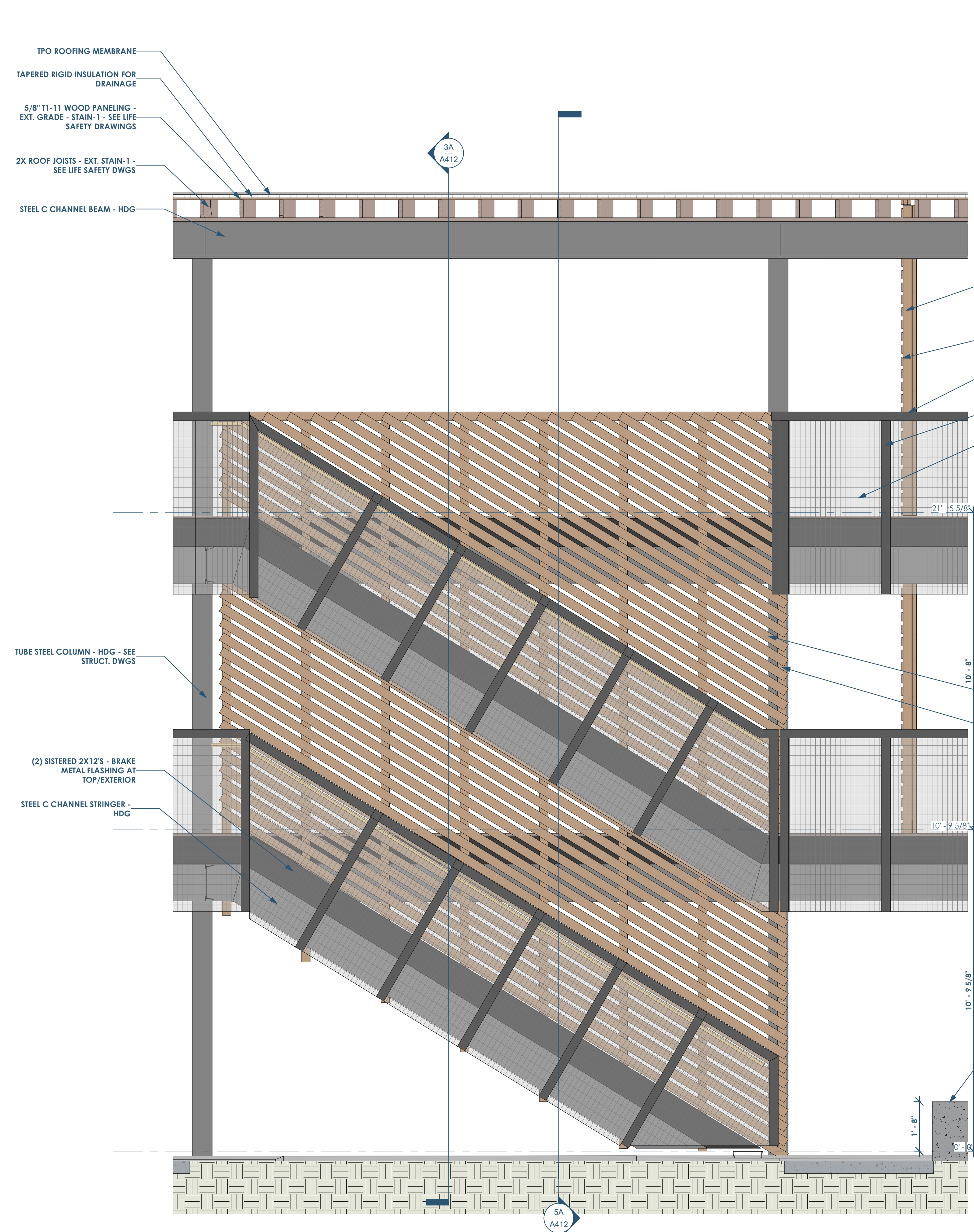
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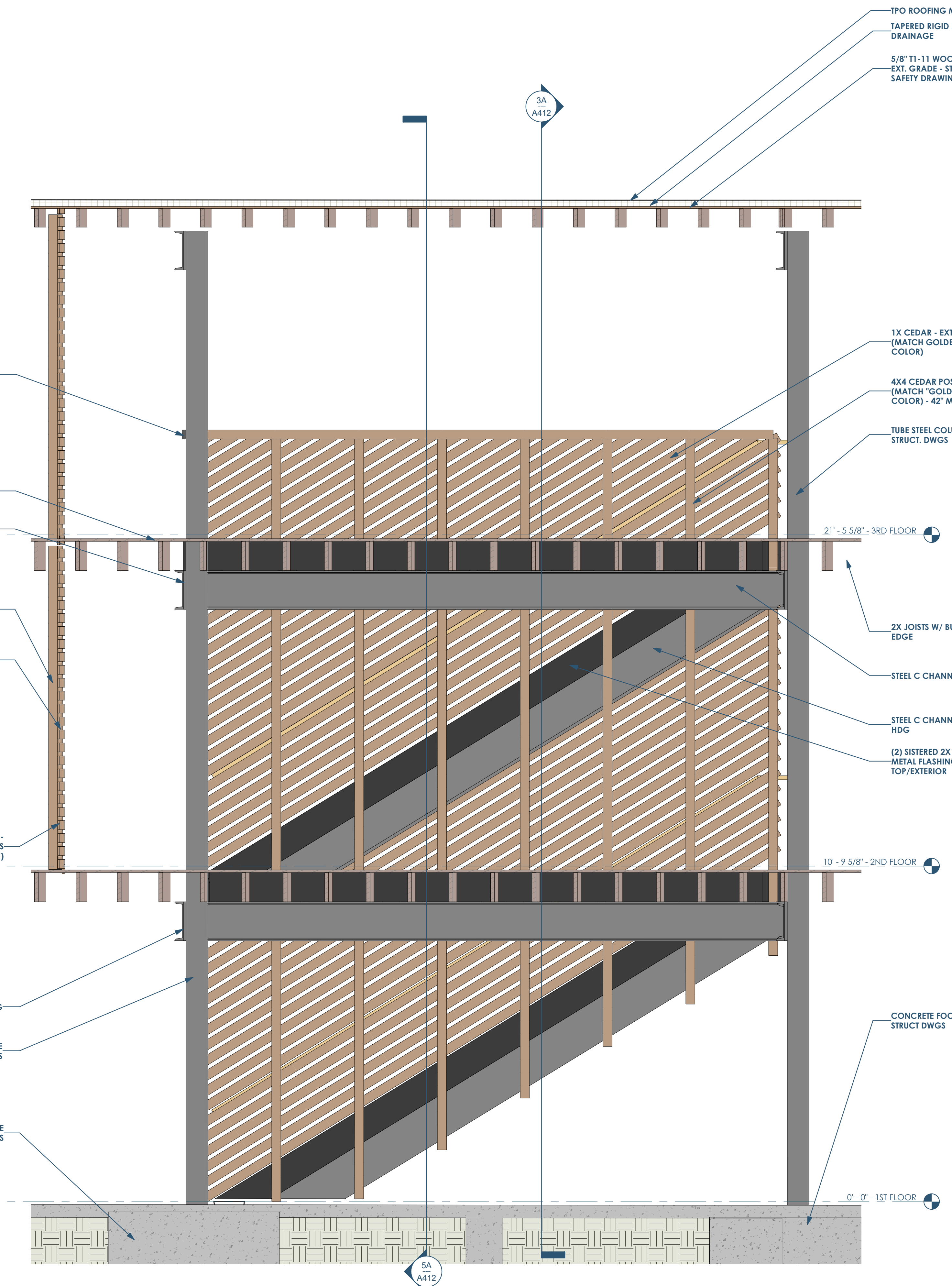
B

A



6A
A411 STAIR VIEW - FRONT OF STAIR
1/2" = 1'-0"

- 4X4 CEDAR POST STAINED - (MATCH "GOLDEN LEAVES" COLOR) - 42" MAX O.C.
- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- 4X4 TOP RAIL - EASE EDGES - EXT. STAIN - DARK
- (2) 2X4s LAGGED TOGETHER - EXT. STAIN - DARK - 42" O.C. MAX - SPACE EVENLY ALONG RUN
- 2" X 4" 6 GA GALV. MESH PANEL
- COMPOSITE DECKING
- STEEL C CHANNEL BEAM - HDG
- 4X4 CEDAR POST STAINED - (MATCH "GOLDEN LEAVES" COLOR) - 42" MAX O.C.
- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- 10'-8"
- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- 4X4 CEDAR POST STAINED - (MATCH "GOLDEN LEAVES" COLOR) - 42" MAX O.C.
- 10'-9 5/8" 2ND FLOOR
- 10'-9 5/8"
- 10'-8 5/8"
- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- STEEL C CHANNEL BEAM - HDG
- TUBE STEEL COLUMN - HDG - SEE STRUCT. DWGS
- CONCRETE KNEEWALL - ARCHITECTURAL FINISH
- CONCRETE FOOTING - SEE STRUCT. DWGS
- 1'-8"
- 0'-0" 1ST FLOOR



3A
A412 STAIR SECTION - CUT THROUGH BALCONY
1/2" = 1'-0"

- TPO ROOFING MEMBRANE
- TAPERED RIGID INSULATION FOR DRAINAGE
- 5/8" T1-11 WOOD PANELING - EXT. GRADE - STAIN-1 - SEE LIFE SAFETY DRAWINGS
- 2X ROOF JOISTS - EXT. STAIN-1 - SEE LIFE SAFETY DWGS
- STEEL C CHANNEL BEAM - HDG

- 1X CEDAR - EXT. STAIN - (MATCH GOLDEN LEAVES COLOR)
- 4X4 CEDAR POST STAINED - (MATCH "GOLDEN LEAVES" COLOR) - 42" MAX O.C.
- TUBE STEEL COLUMN - HDG - SEE STRUCT. DWGS
- 21'-5 5/8" 3RD FLOOR
- 2X JOISTS W/ BUTYL TAPE AT TOP EDGE
- STEEL C CHANNEL BEAM - HDG
- STEEL C CHANNEL STRINGER - HDG
- (2) SISTERED 2X12'S - BRAKE METAL FLASHING AT TOP/EXTERIOR
- 10'-9 5/8" 2ND FLOOR
- 0'-0" 1ST FLOOR
- CONCRETE FOOTING - SEE STRUCT. DWGS

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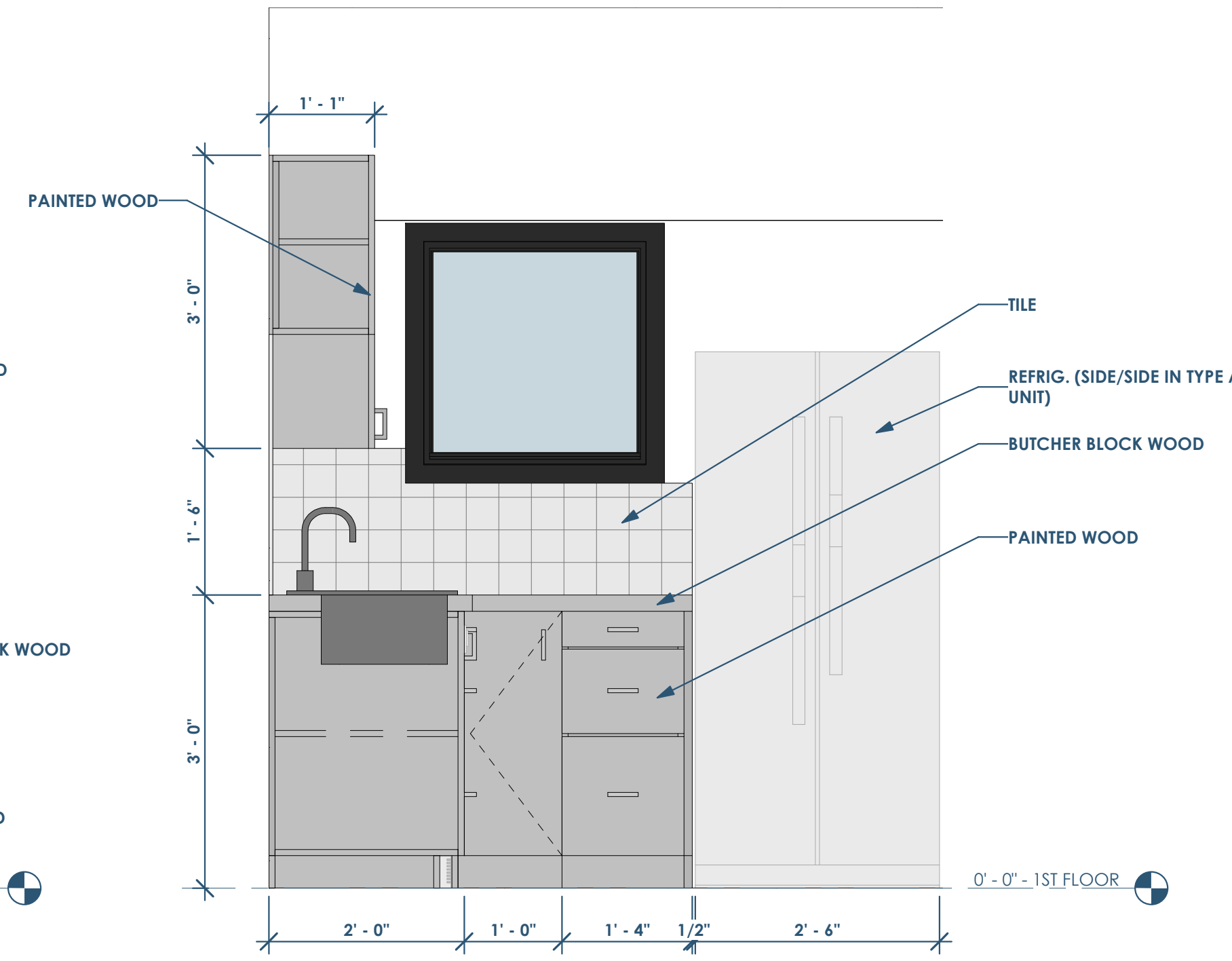
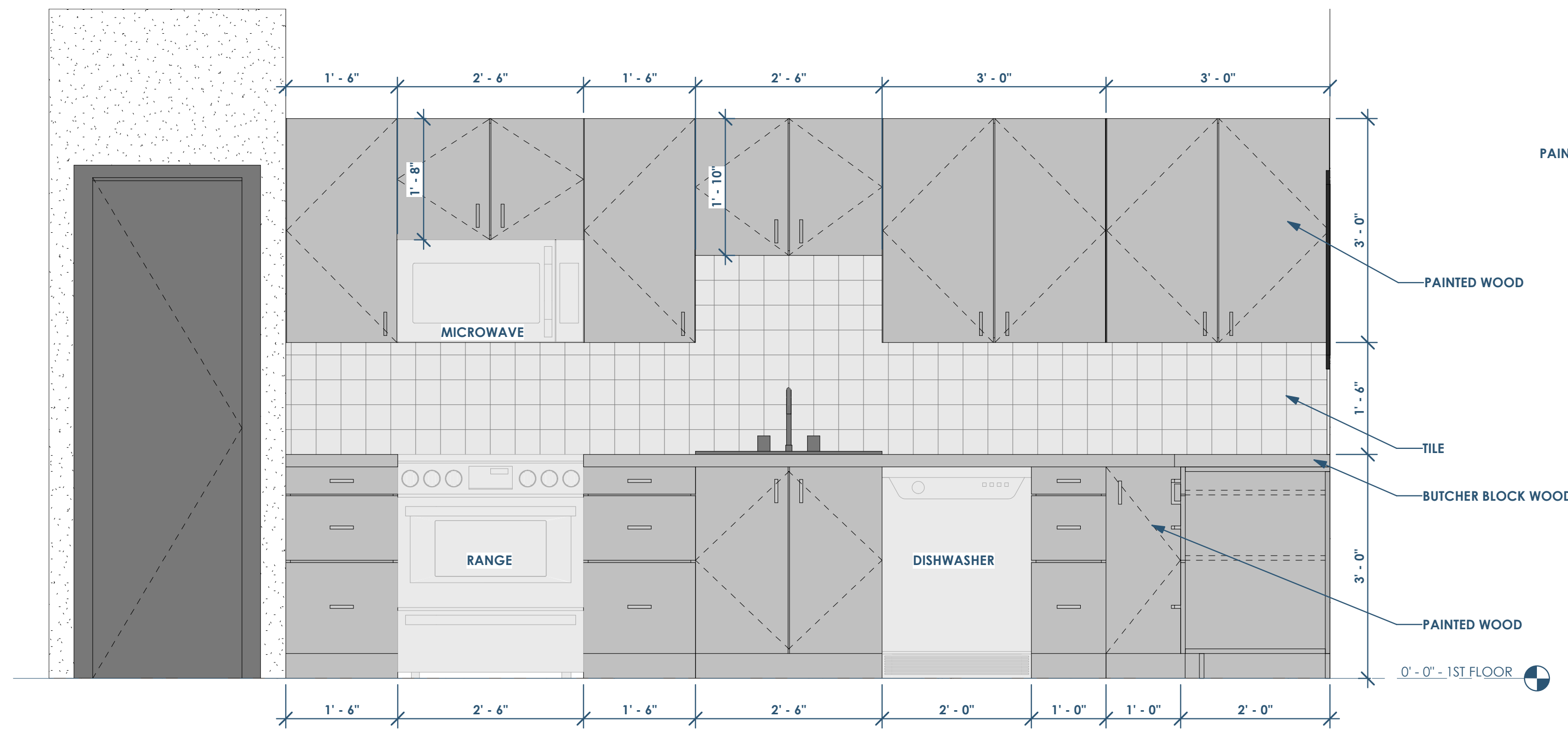
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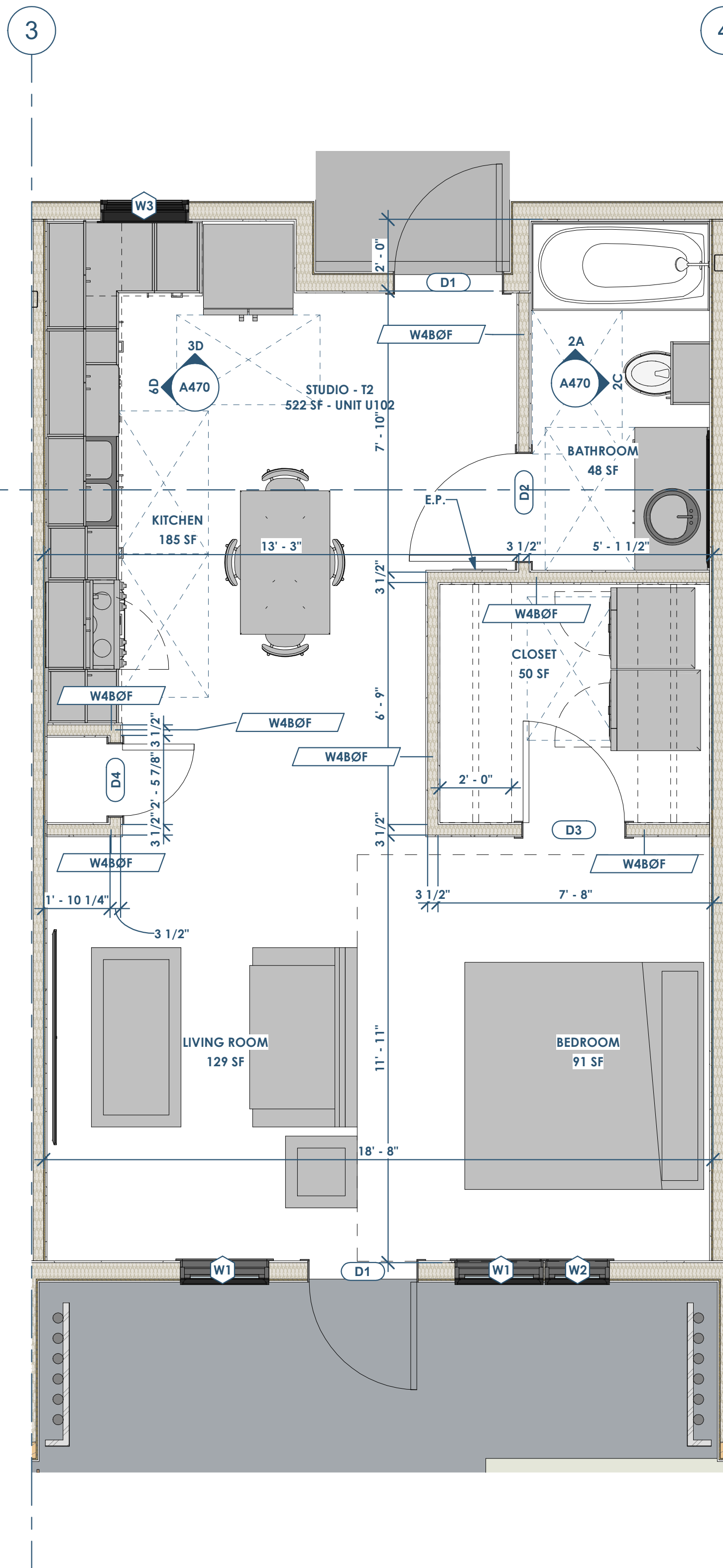
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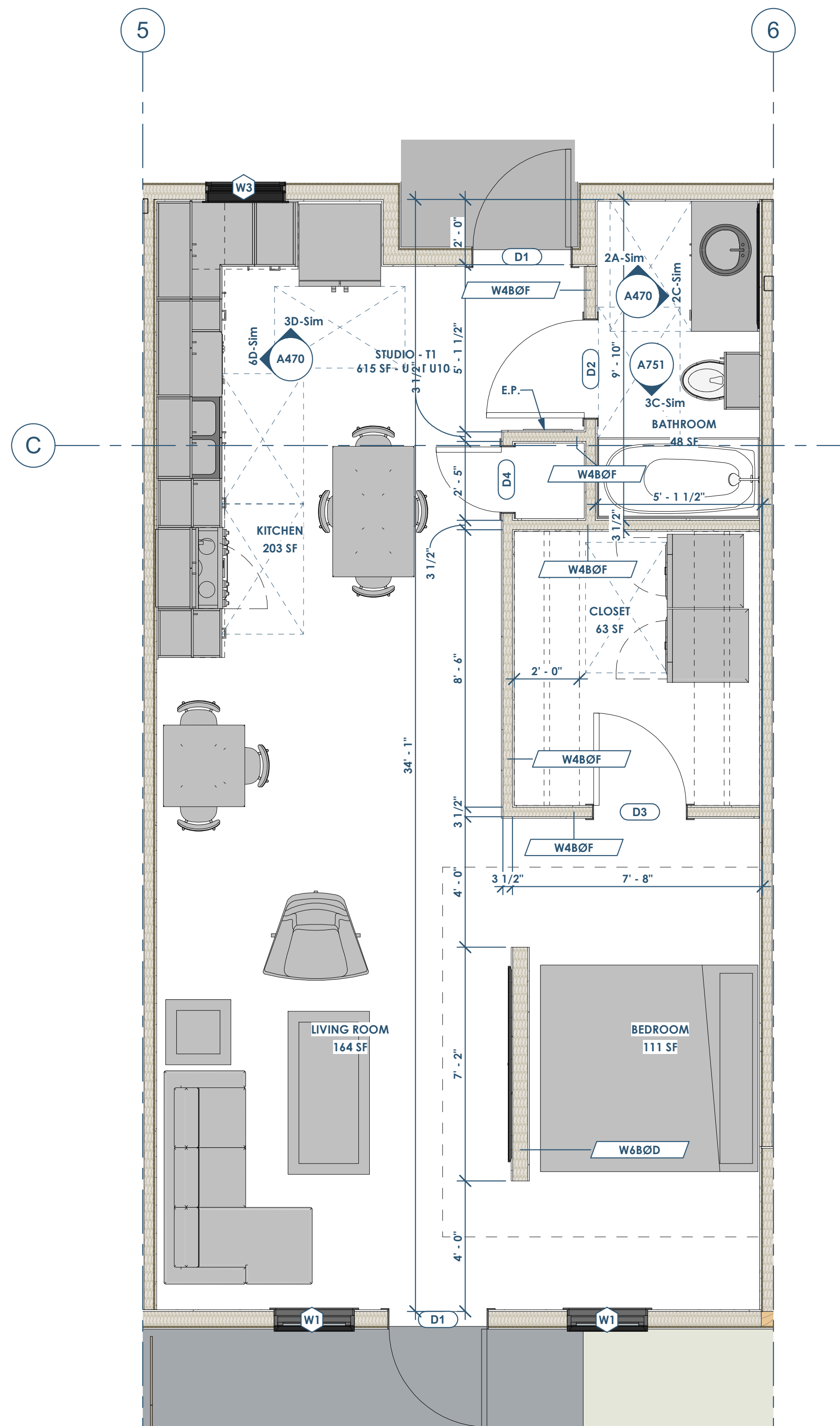


4D
A470 ELEVATION - 1 BD - KITCHEN
3/4" = 1'-0"

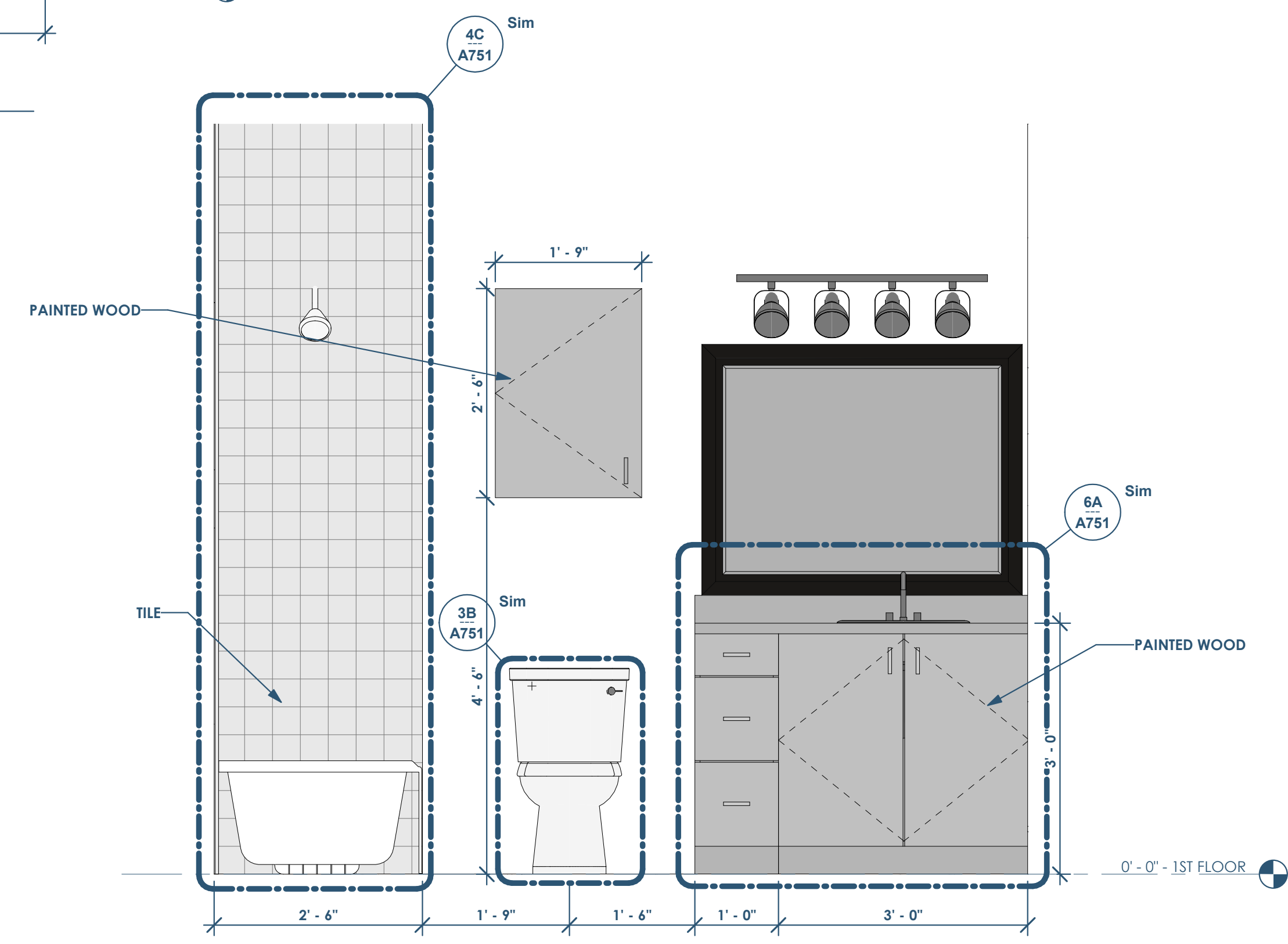
3D
A470 ELEVATION - 1 BD - KITCHEN - FRIDGE
3/4" = 1'-0"



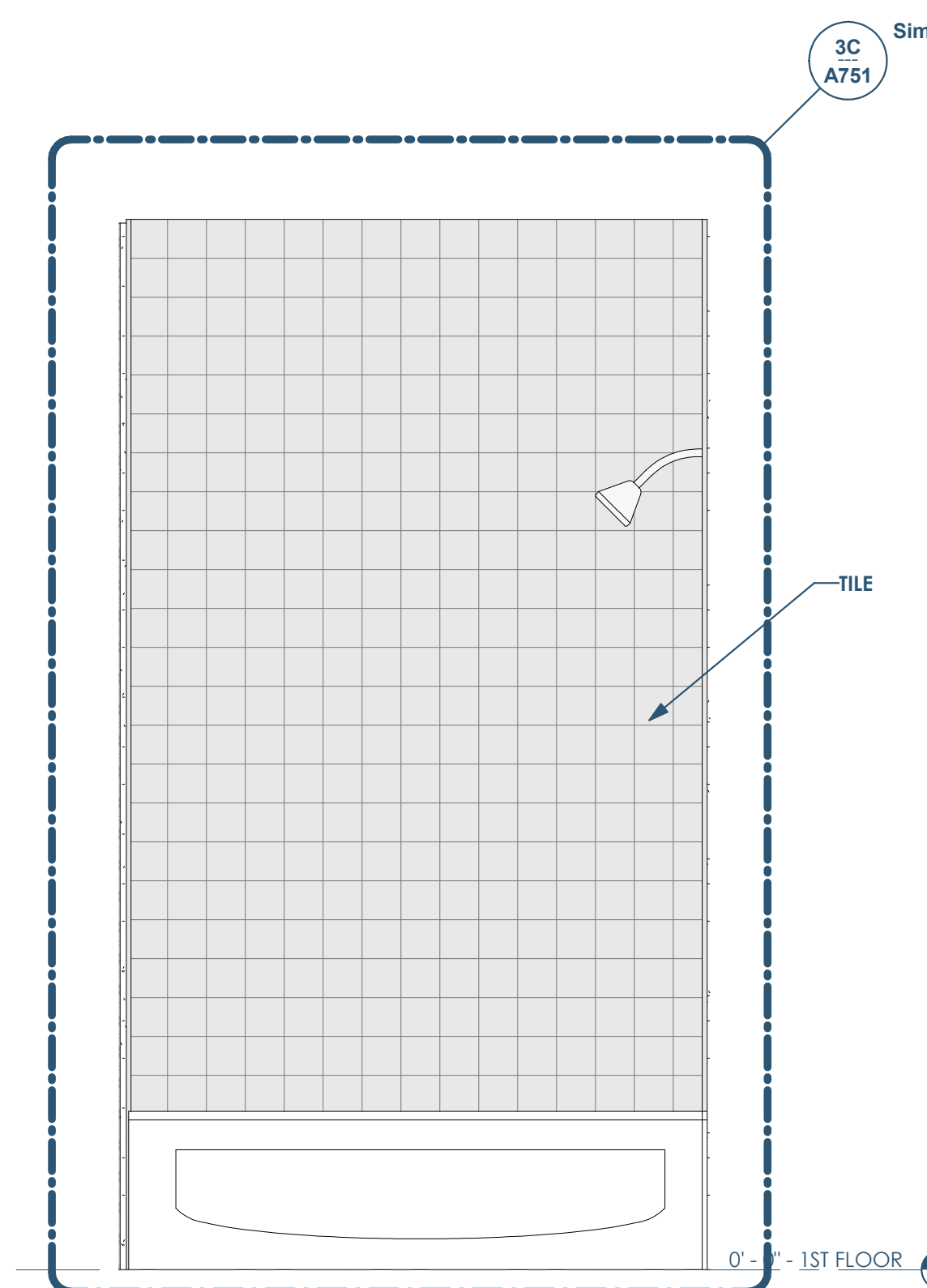
6A
A470 UNIT PLAN - 1BD SHORT (TYPE B ADA UNIT - 1ST FLOOR ONLY)
3/8" = 1'-0"



4A
A470 UNIT PLAN - 1BD LONG (TYPE B ADA UNIT - 1ST FLOOR ONLY)
3/8" = 1'-0"



2C
A470 ELEVATION - BATH - LAV
3/4" = 1'-0"



2A
A470 ELEVATION - BATH - SHOWER
3/4" = 1'-0"

- FLOOR PLAN NOTES
- SEE A800 FOR PARTITION TYPES
 - SEE A600 FOR DOOR AND WINDOW TYPES
 - REFERENCE A751 FOR ACCESSIBILITY COMPLIANCE REQUIREMENTS
 - ALL FINISHES TO BE PROVIDED BY OWNER
 - MILLWORK AND APPLIANCES TO BE PROVIDED BY OWNER

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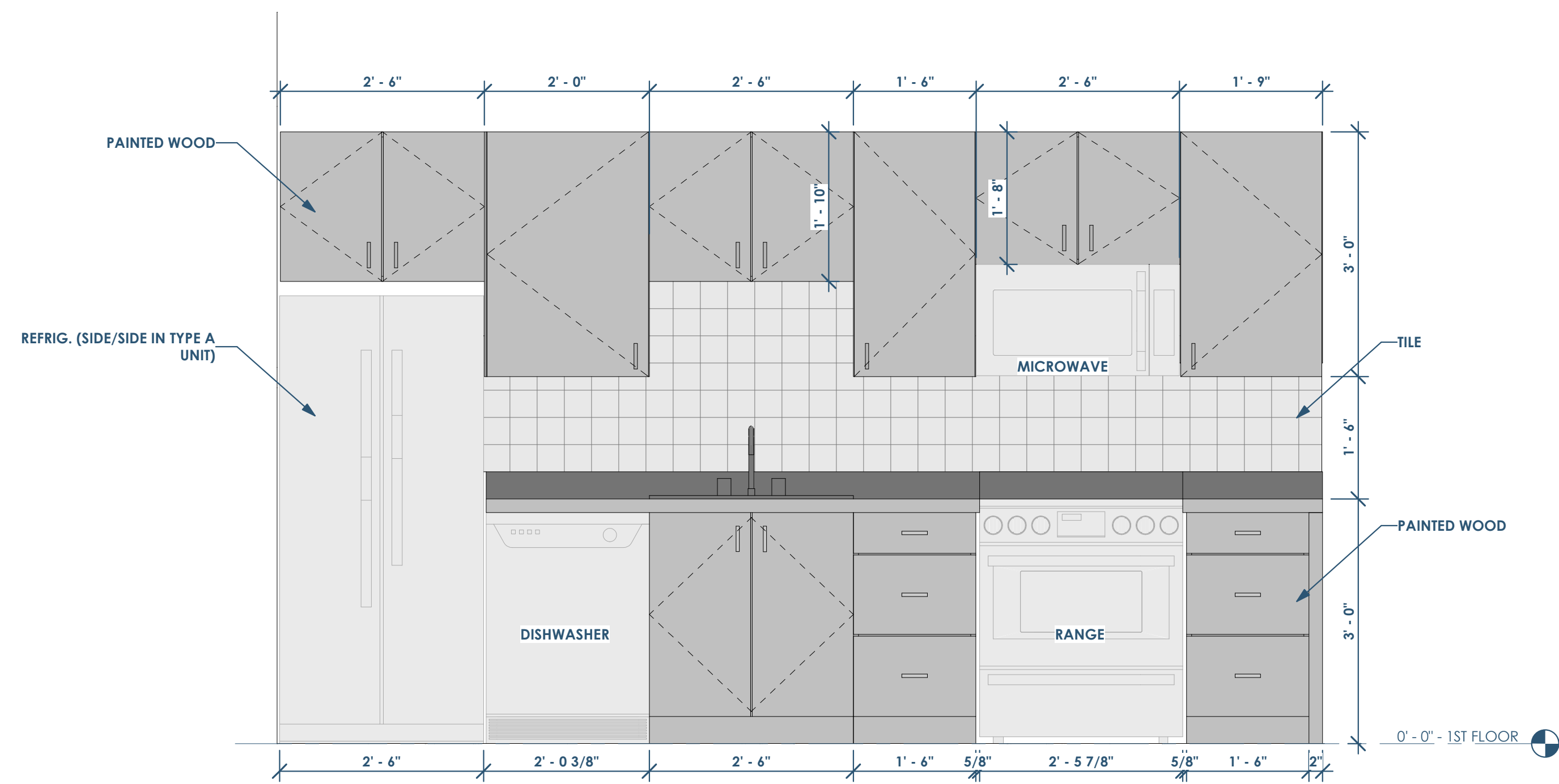
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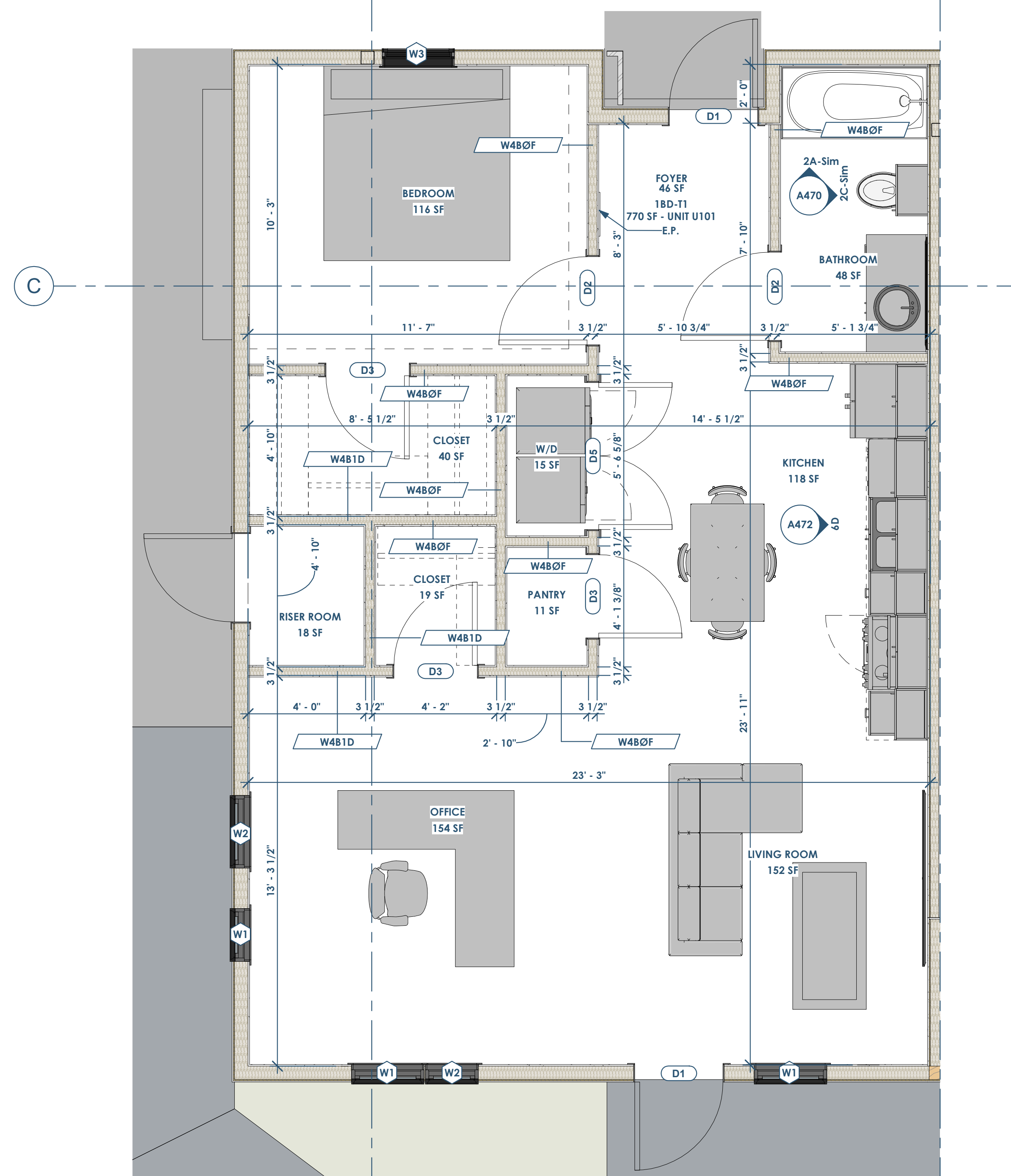
Lisa Bixler
6-10-22

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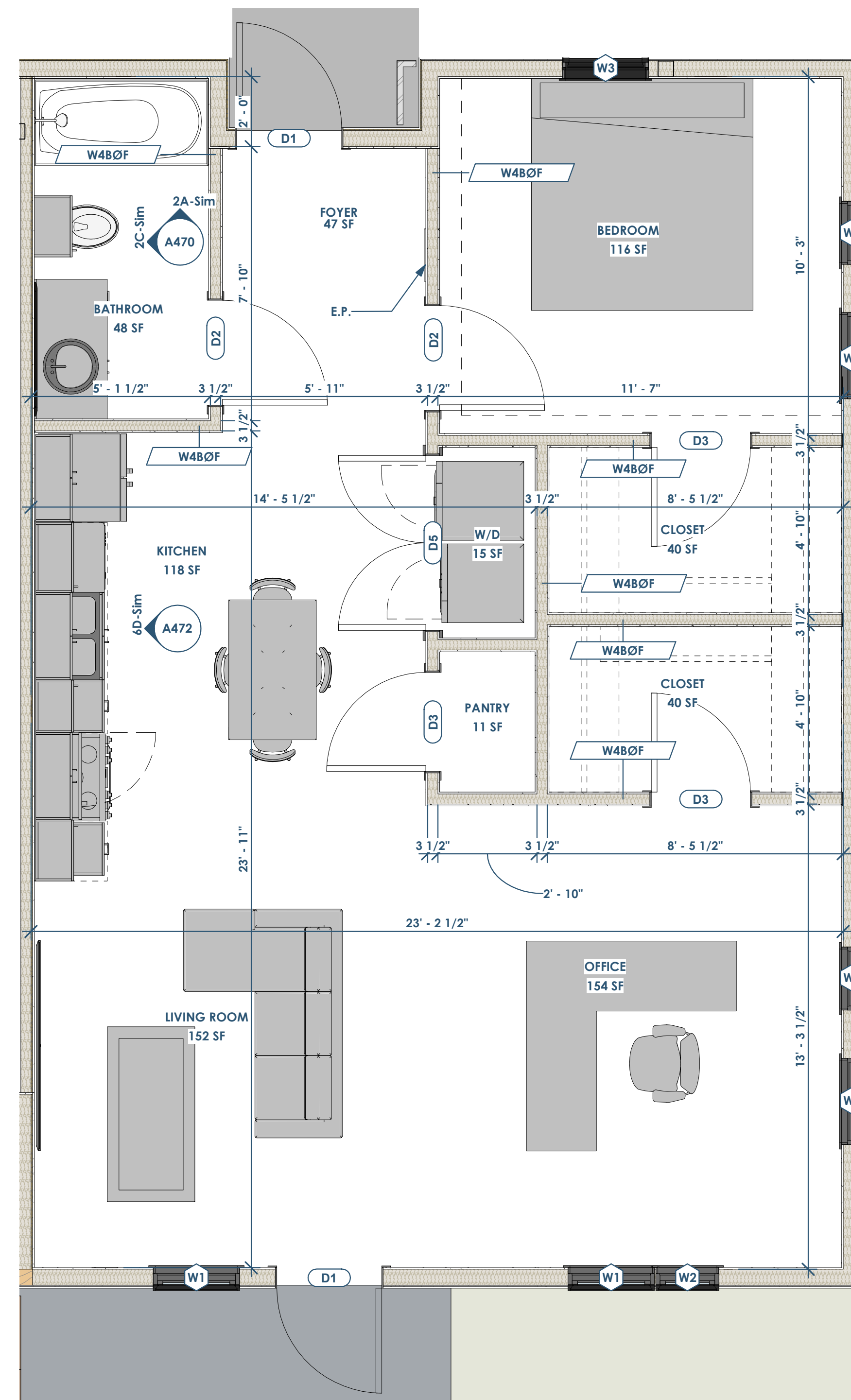
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4D
A472 ELEVATION - END UNIT - KITCHEN
3/4" = 1'-0"



6A
A472 UNIT PLAN - END UNIT W/ RISER ROOM (TYPE B ADA UNIT - 1ST FLOOR ONLY)
3/8" = 1'-0"



4A
A472 UNIT PLAN - END UNIT (TYPE B ADA UNIT - 1ST FLOOR ONLY)
3/8" = 1'-0"

- FLOOR PLAN NOTES
- SEE A800 FOR PARTITION TYPES
 - SEE A600 FOR DOOR AND WINDOW TYPES
 - REFERENCE A751 FOR ACCESSIBILITY COMPLIANCE REQUIREMENTS
 - ALL FINISHES TO BE PROVIDED BY OWNER
 - MILLWORK AND APPLIANCES TO BE PROVIDED BY OWNER

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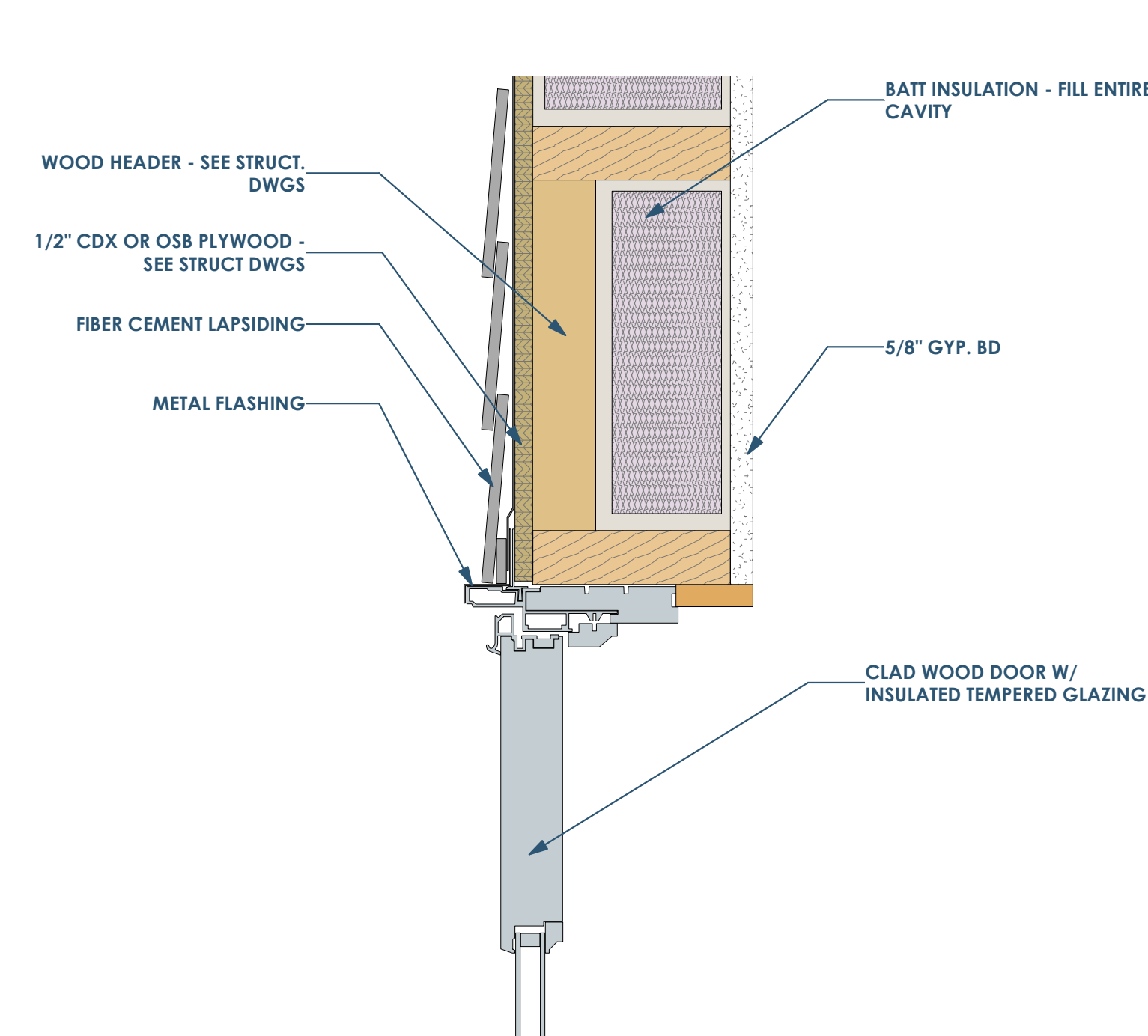
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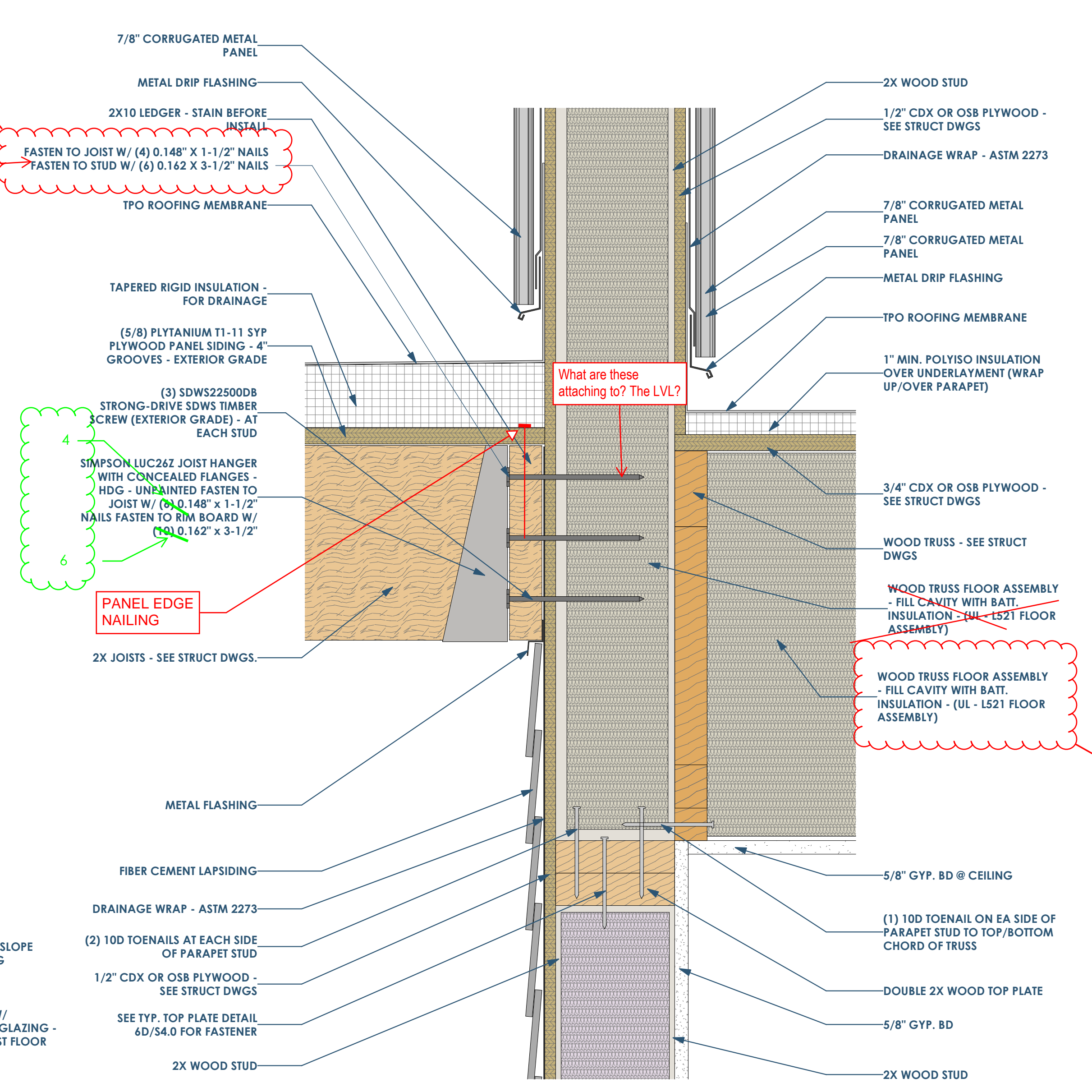
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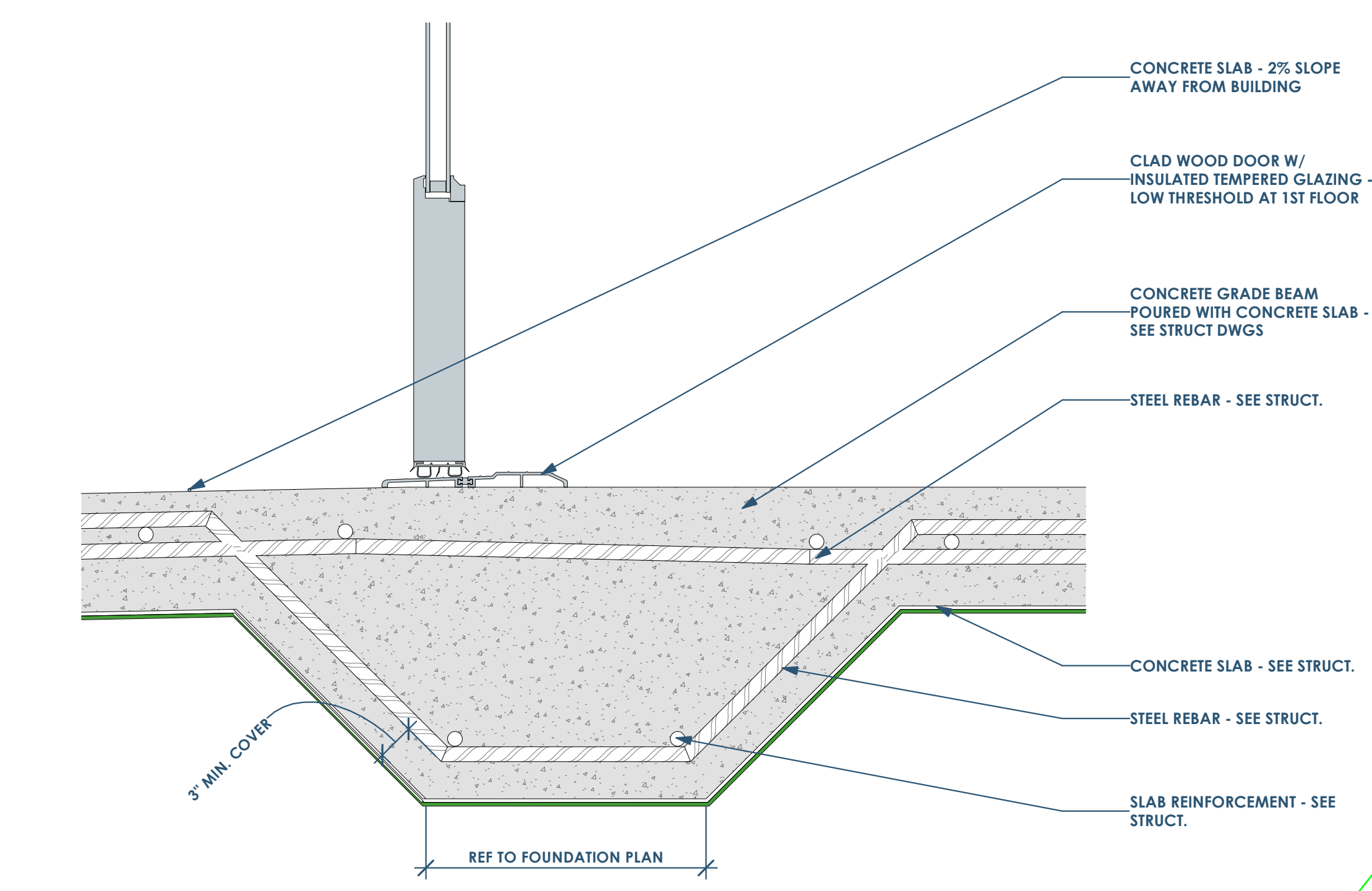


6D A500 SECTION DETAIL AT DOOR HEADER
3" = 1'-0"

we need to tell arch ledge attachment to studwall
spacing?
i think this is referencing the hanger

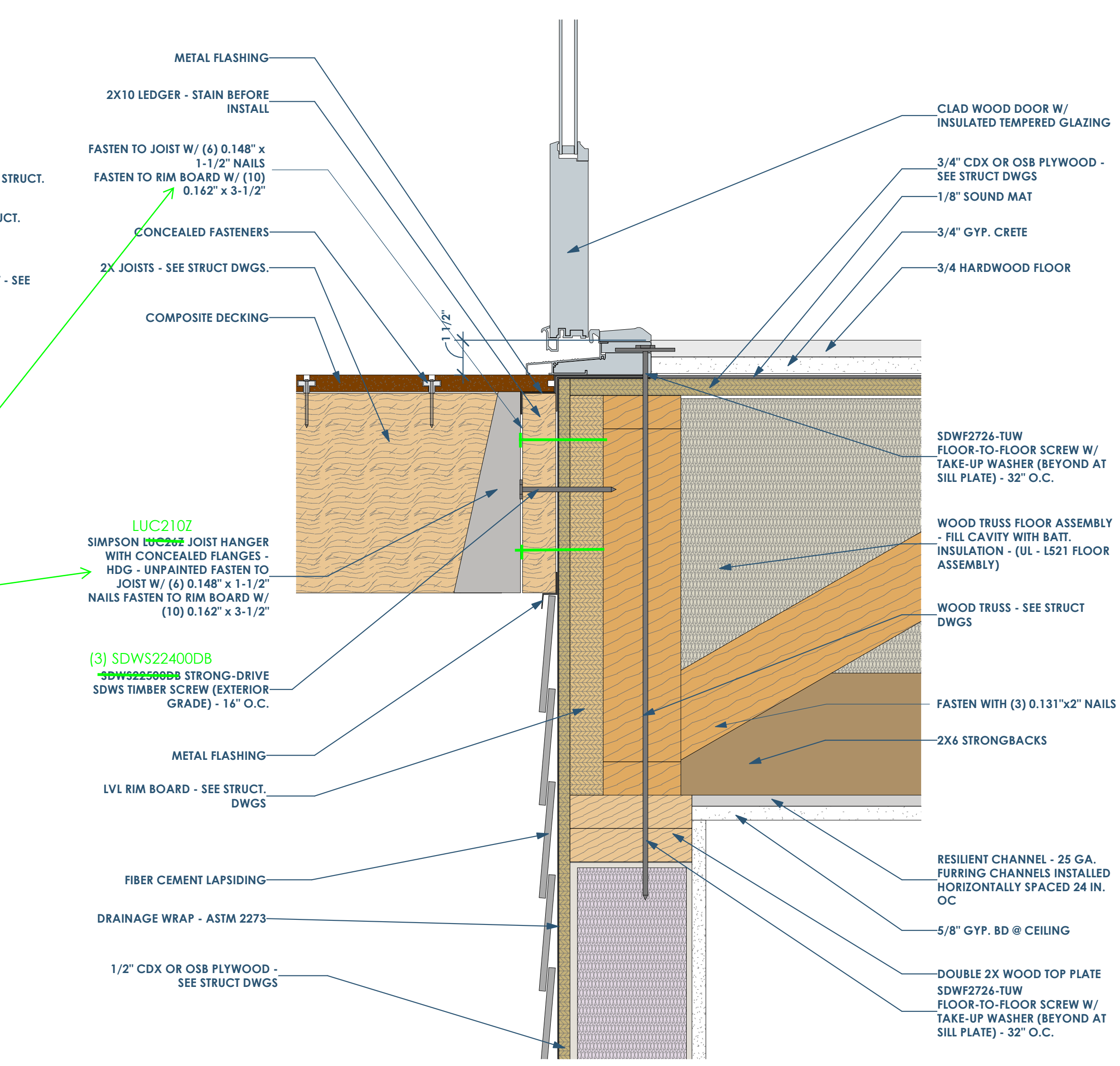


4C A500 SECTION DETAIL AT PORCH ROOF AND PARAPET
3" = 1'-0"



6B A500 SECTION DETAIL AT DOOR SILL - 1ST FLOOR
3" = 1'-0"

this is called out twice



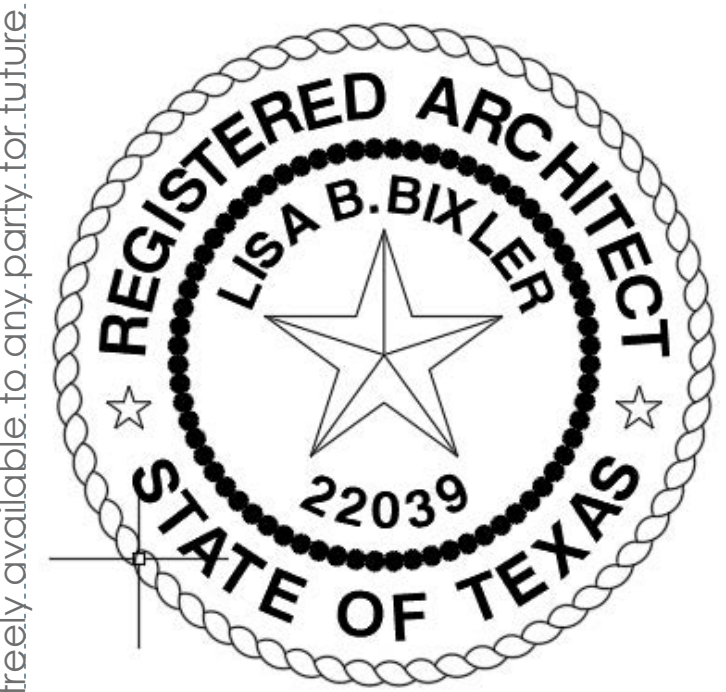
4A A500 SECTION DETAIL AT UNIT DOOR SILL (2ND OR 3RD FLOOR)
3" = 1'-0"

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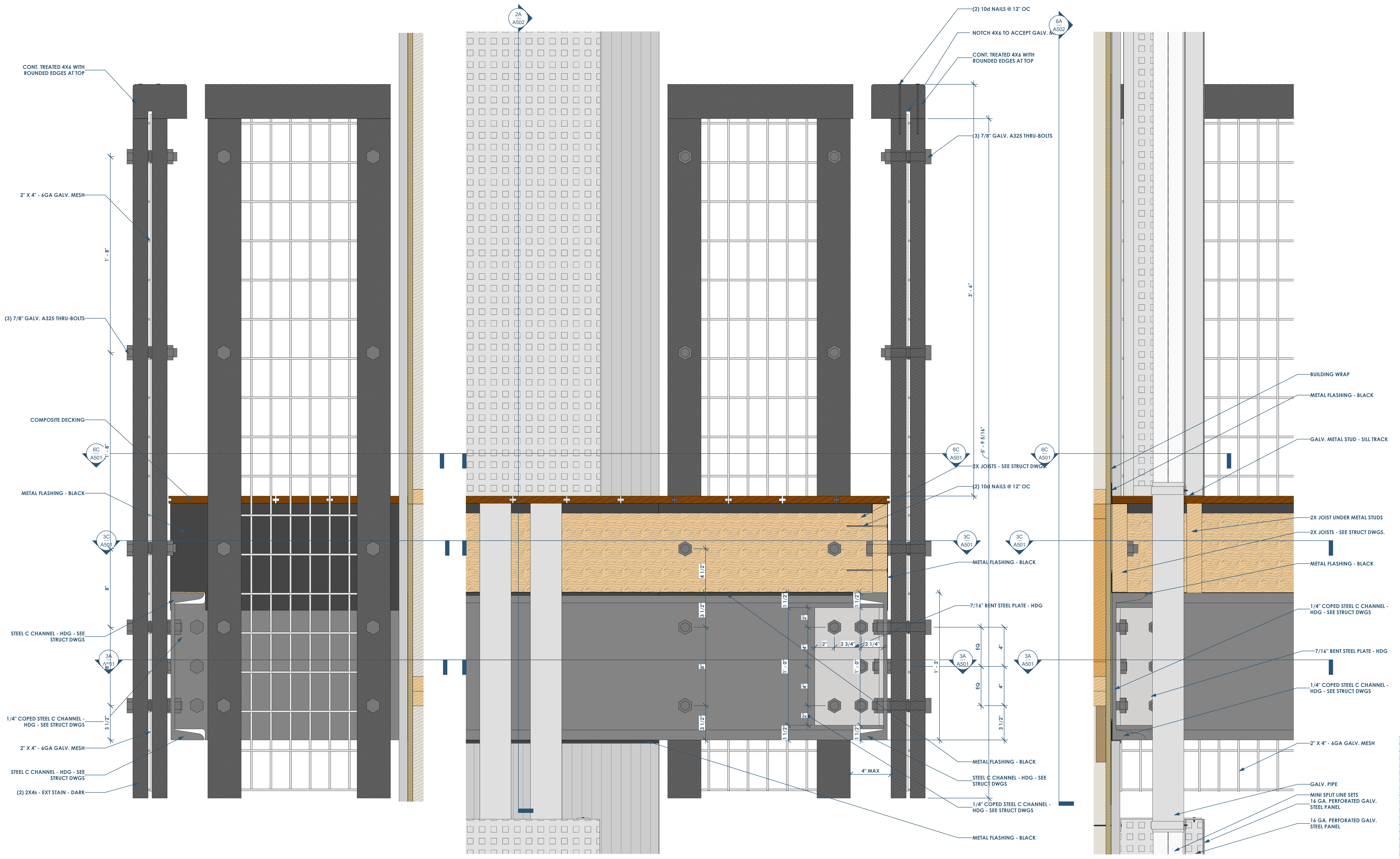


Lisa B. Bixler
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6A A502 SECTION (ELEVATION) DETAIL AT SOUTH BALCONY - LOOKING EAST OR WEST
3" = 1'-0"

5A A502 SECTION DETAIL AT SOUTH BALCONY - LOOKING EAST OR WEST
3" = 1'-0"

2A A502 SECTION AT BALCONY 4
3" = 1'-0"

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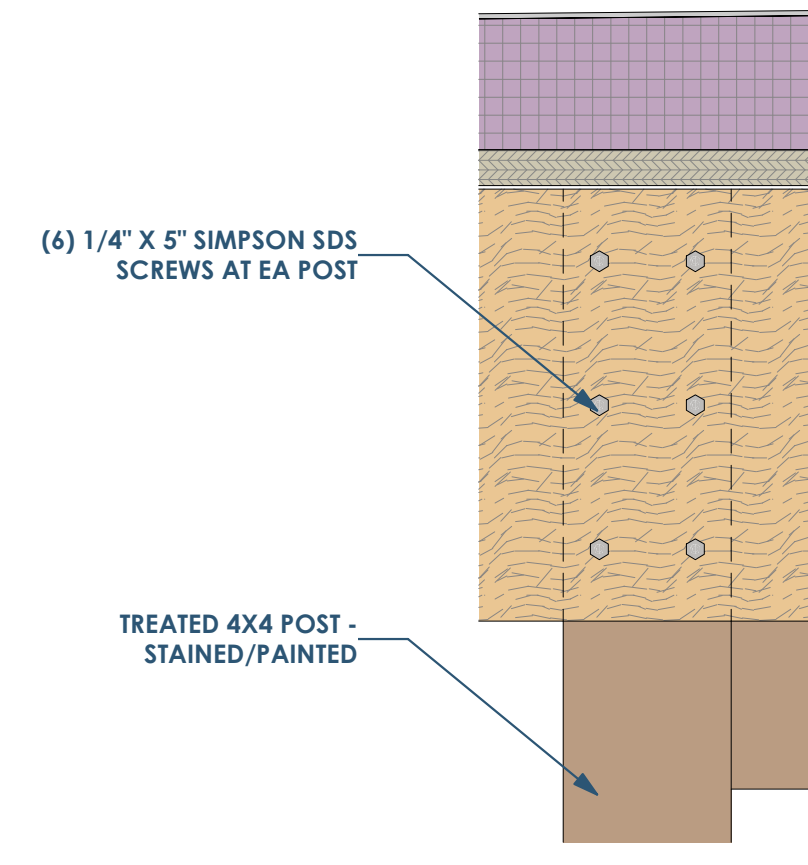


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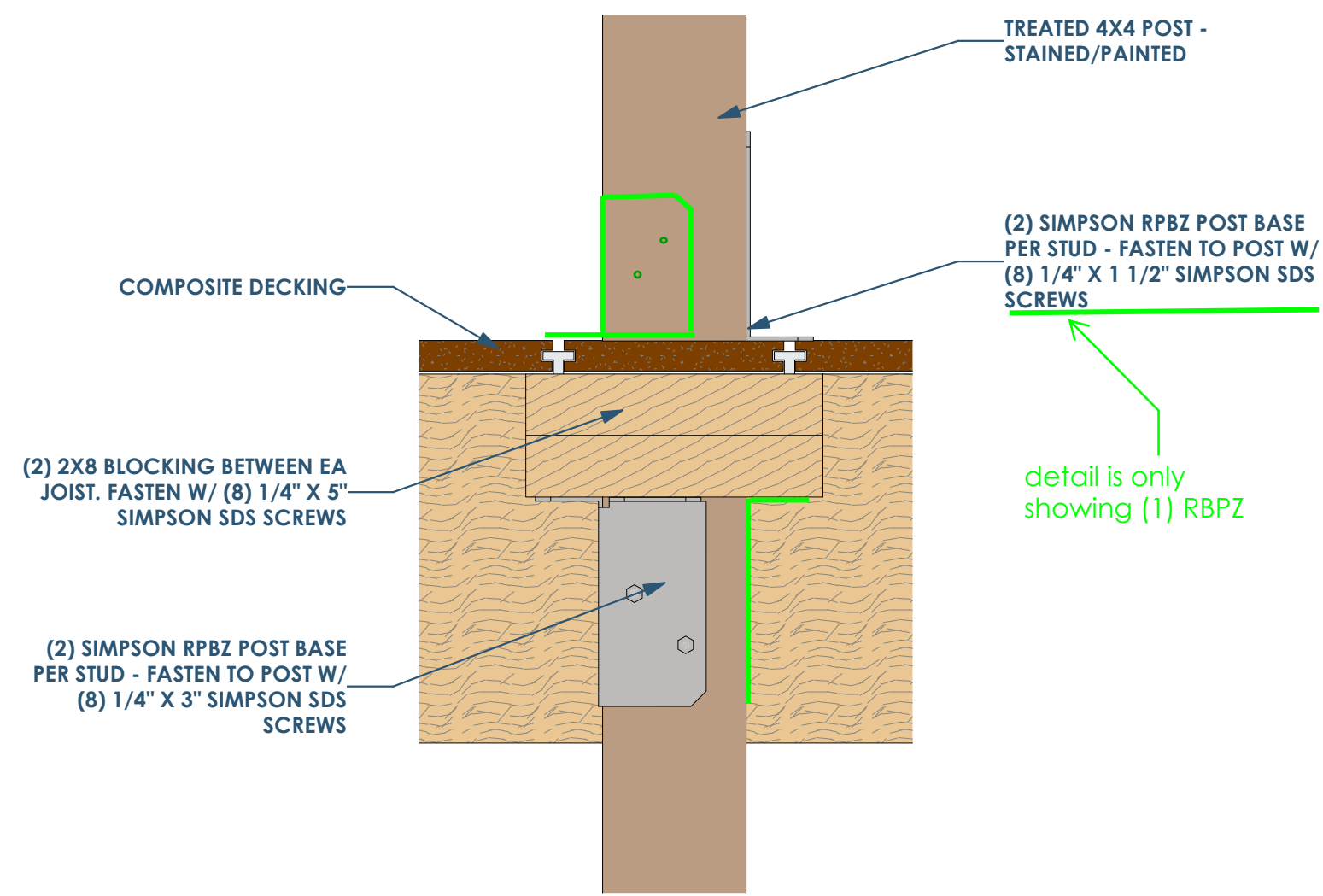
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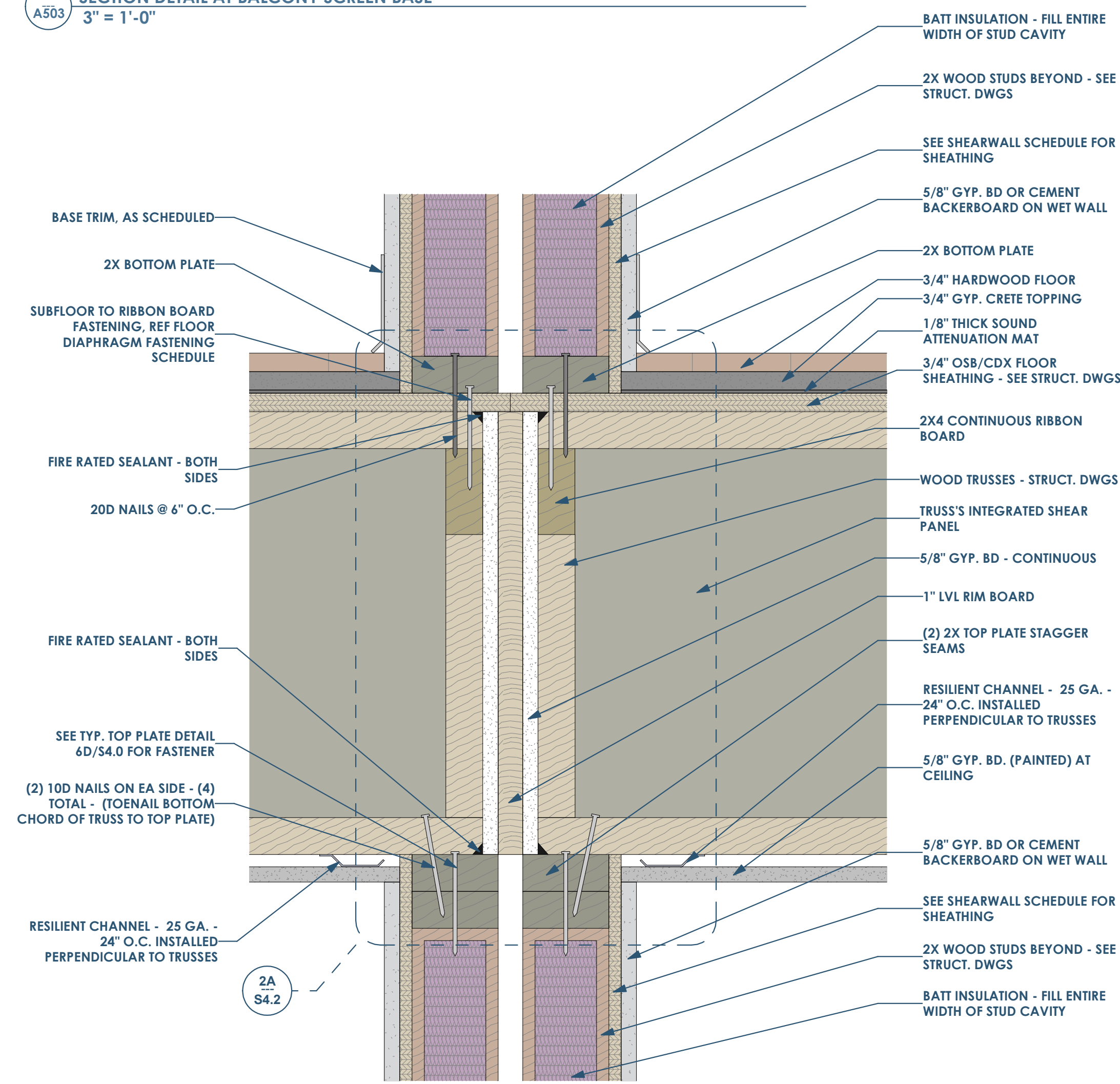
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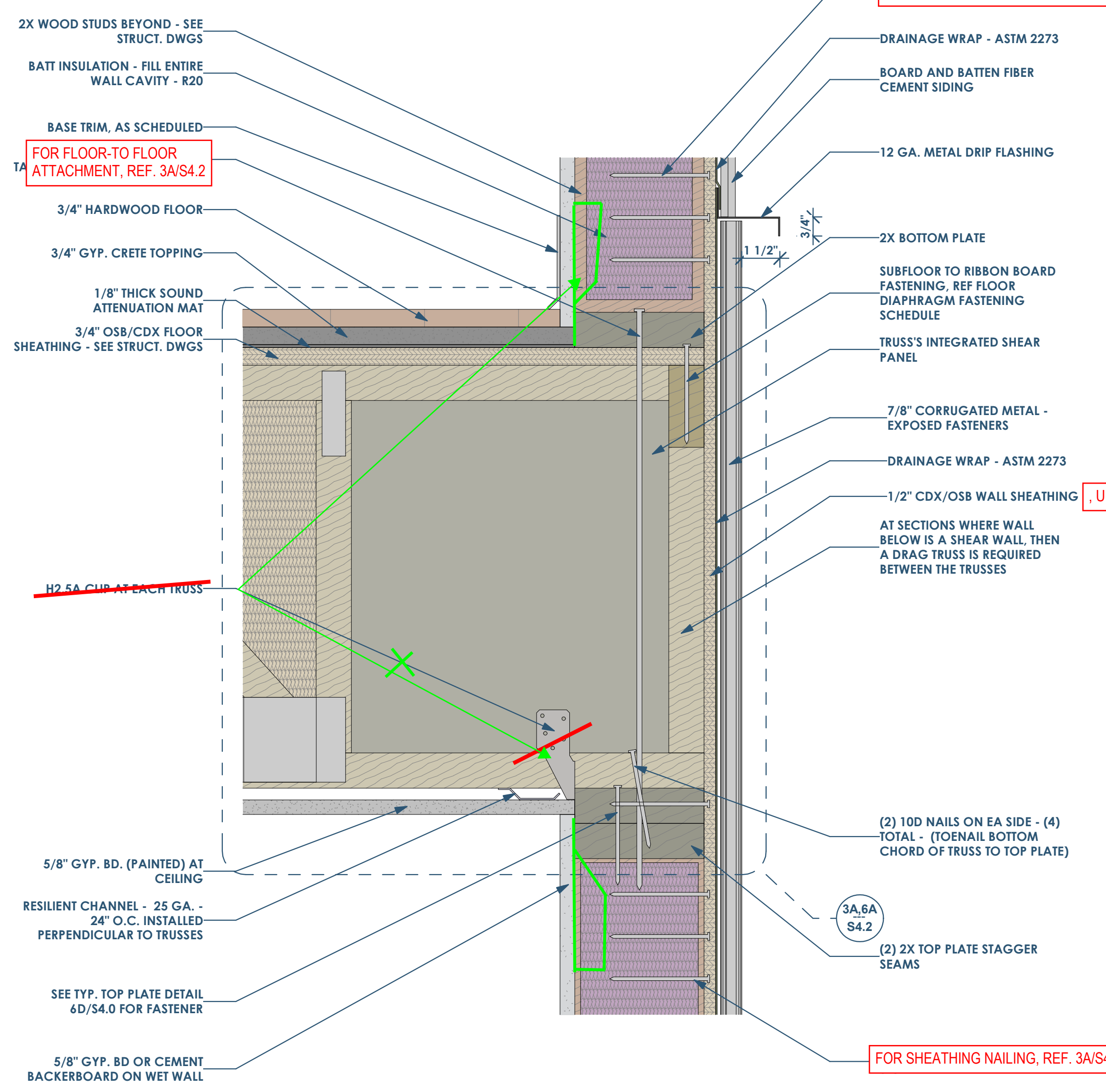
4E A503 SECTION DETAIL AT BALCONY SCREEN HEAD
3" = 1'-0"



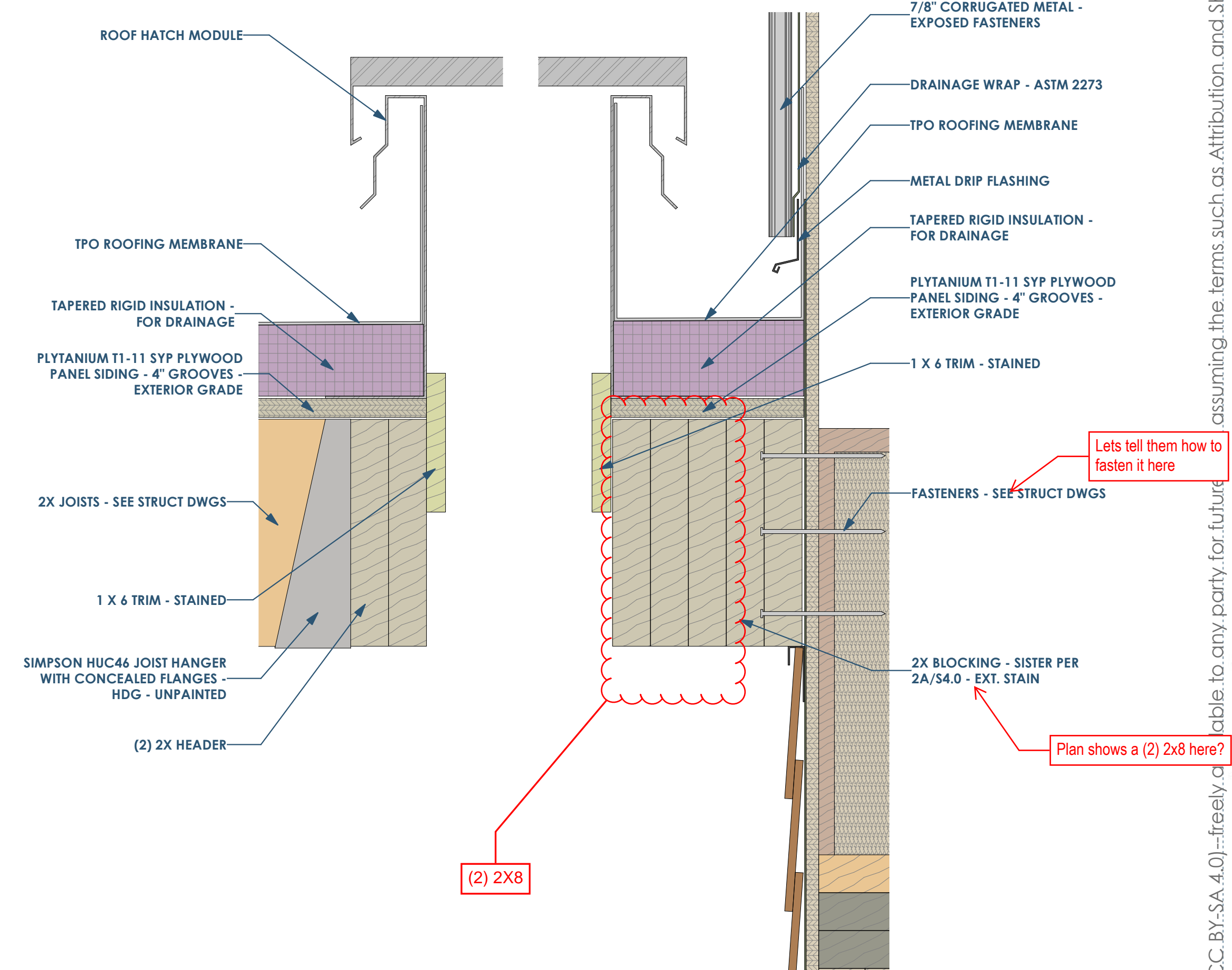
6C A503 SECTION DETAIL AT BALCONY SCREEN BASE
3" = 1'-0"



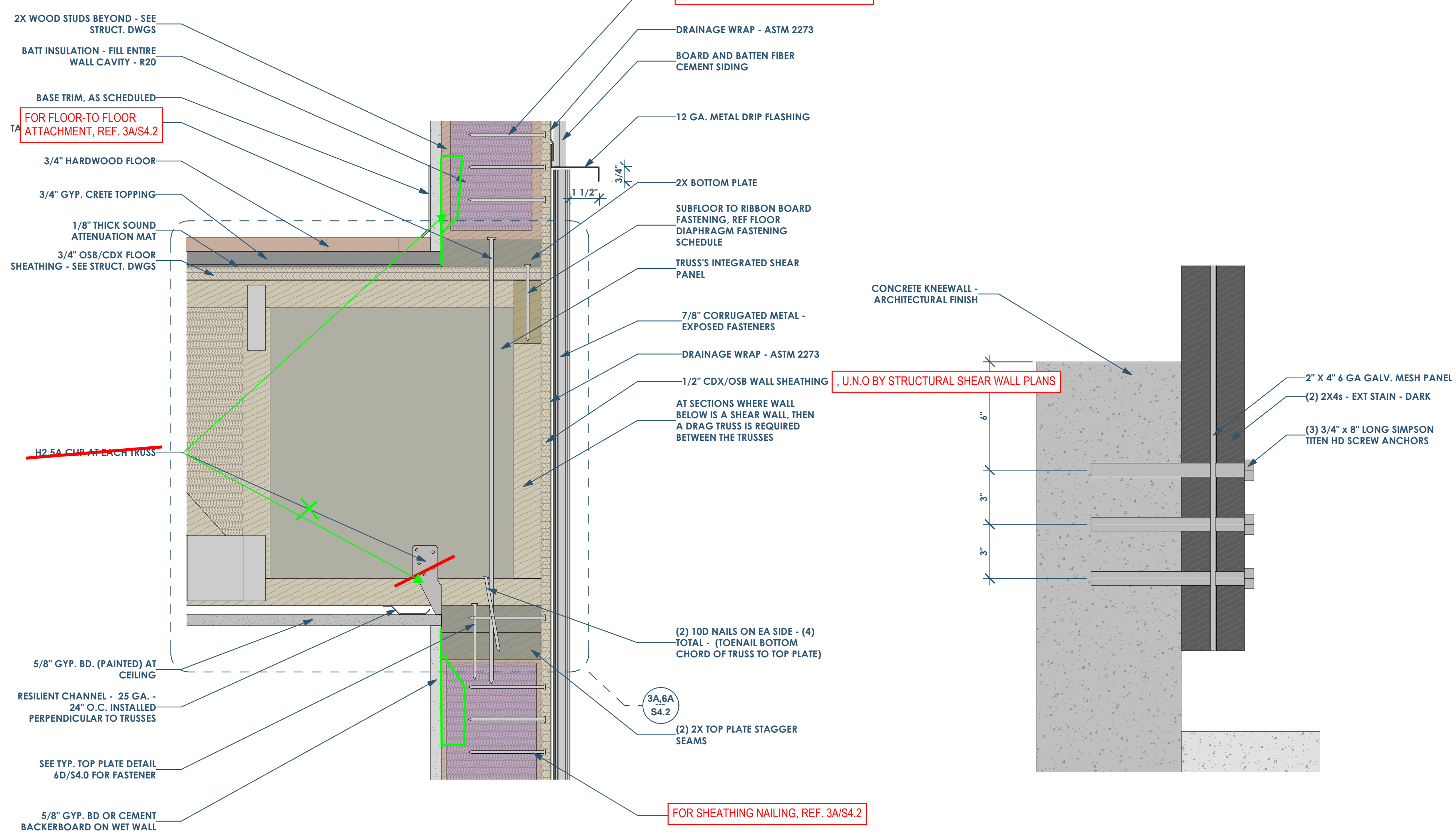
6A A503 SECTION DETAIL - PARTY WALL AND FLOOR TRUSS
3" = 1'-0"



4A A503 SECTION DETAIL - EXTERIOR WALL & FLOOR TRUSS
3" = 1'-0"



2C A503 SECTION DETAIL - ROOF HATCH
3" = 1'-0"



2A A503 SECTION DETAIL - AT CONCRETE KNEEWALL
3" = 1'-0"

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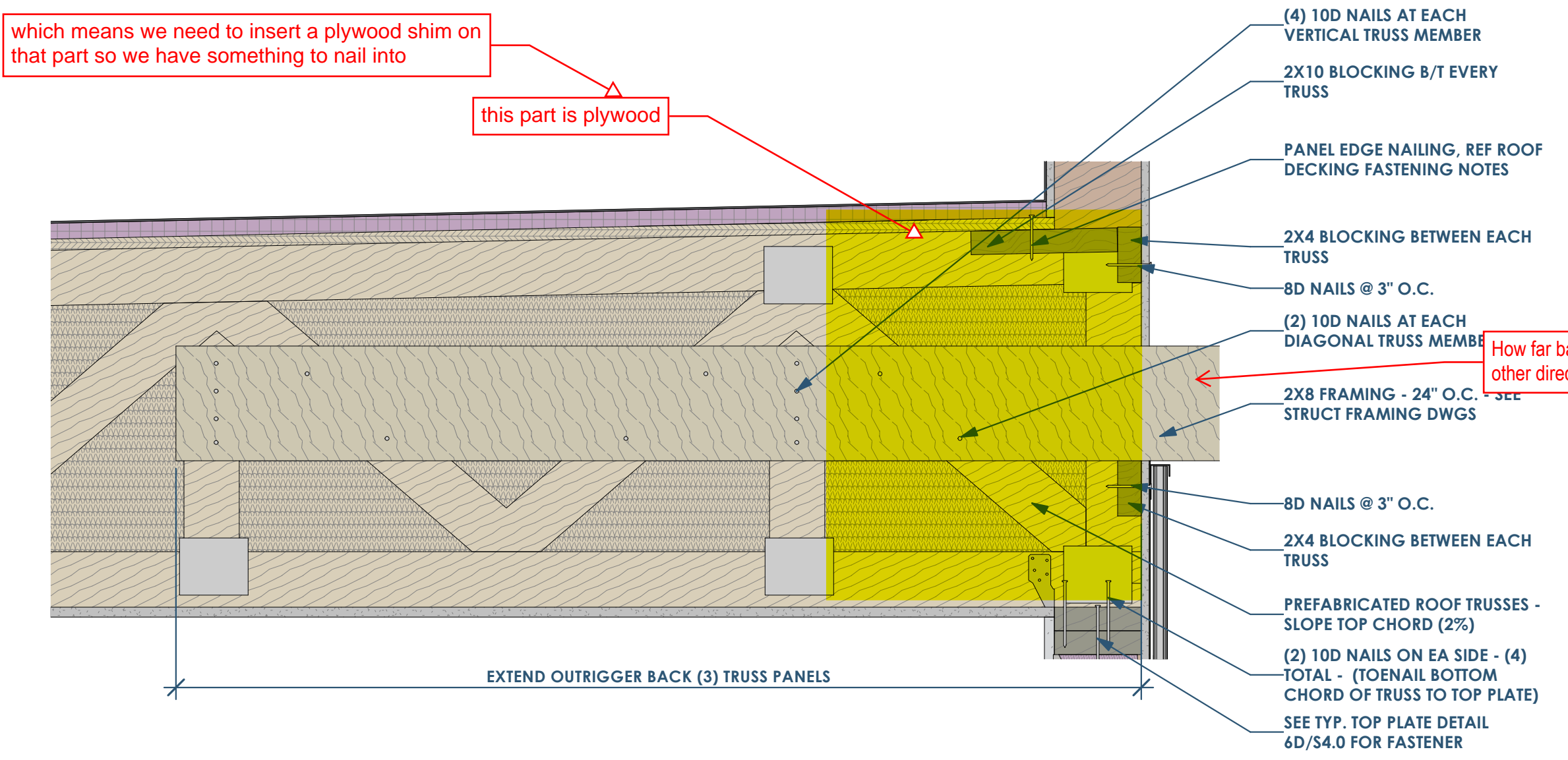


6-10-22

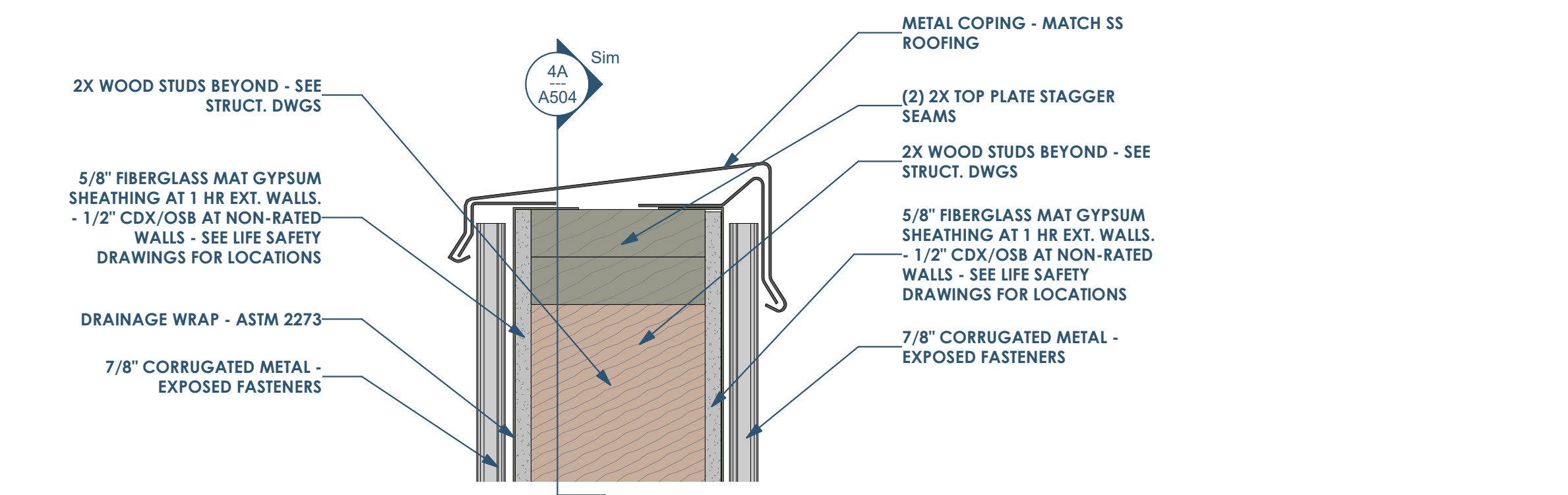
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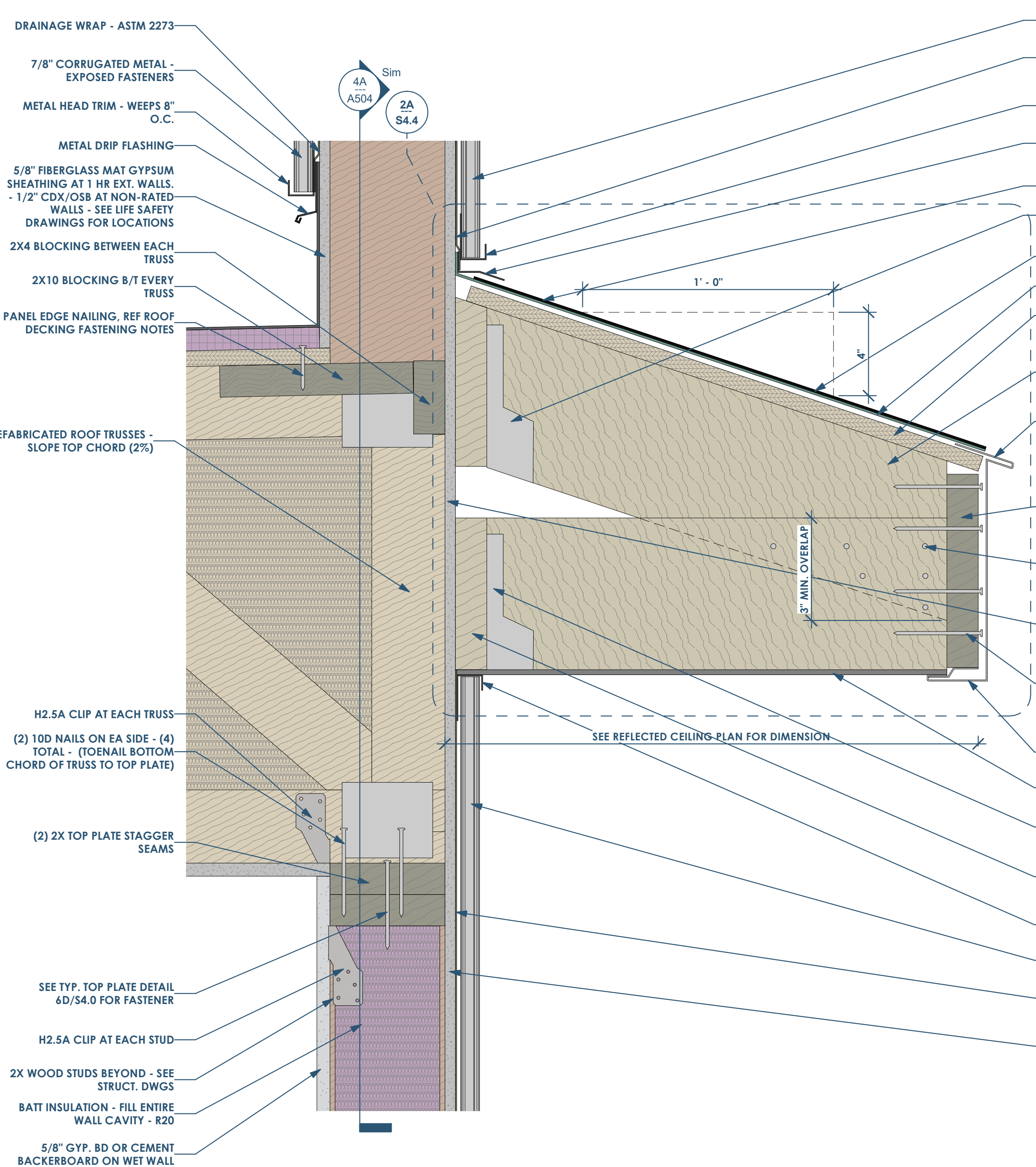
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6E SECTION DETAIL AT OUTRIGGER
1 1/2" = 1'-0"

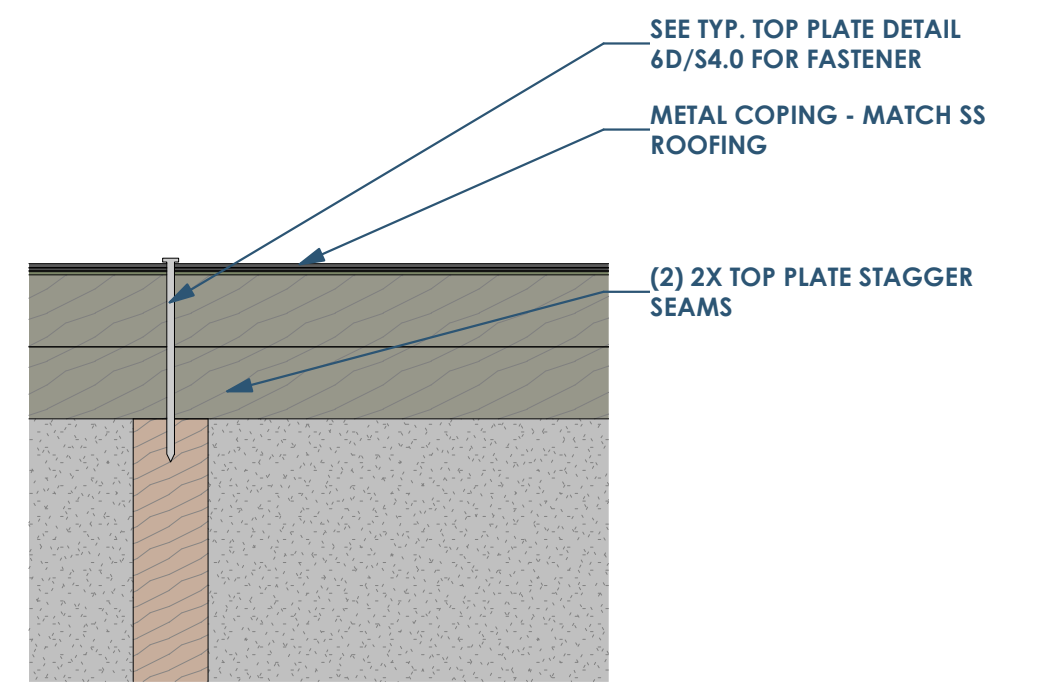


6D SECTION DETAIL - TOP OF PARAPET
3" = 1'-0"

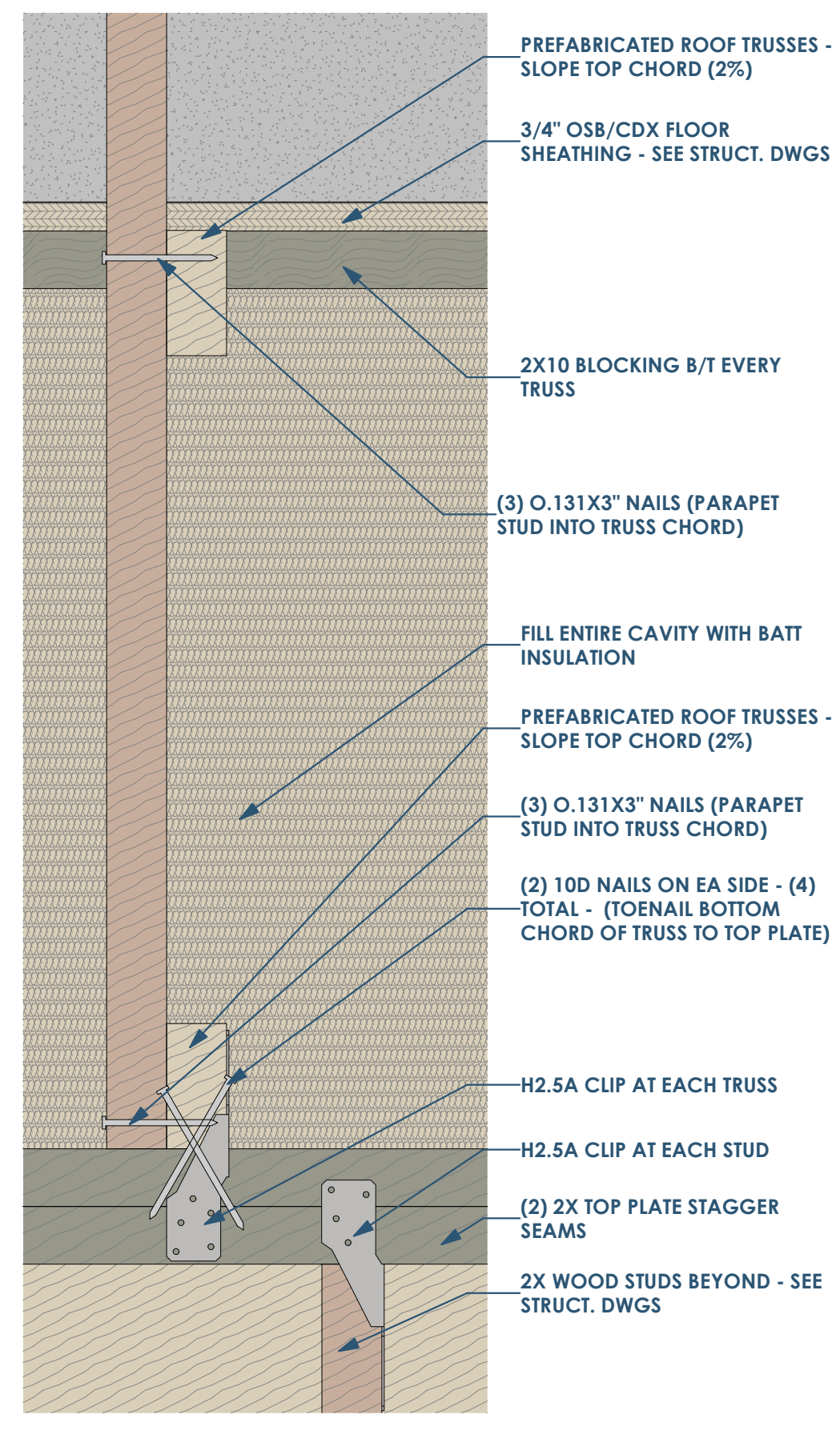


4A SECTION DETAIL - AT PARAPET WALL
3" = 1'-0"

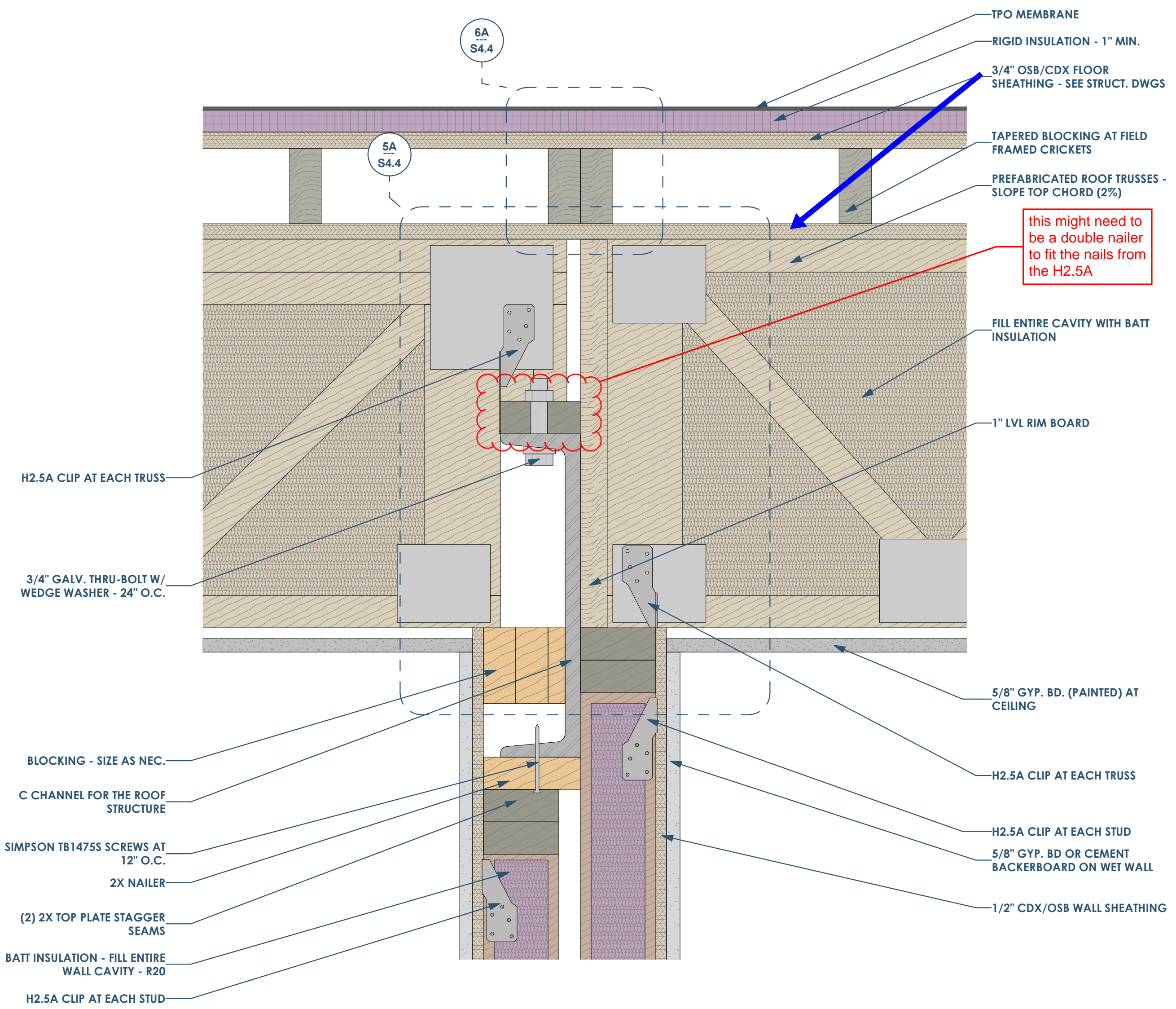
6A SECTION DETAIL - ROOF AND SOFFIT
3" = 1'-0"



3C SECTION DETAIL - AT ROOF BEAM
3" = 1'-0"



3A SECTION DETAIL - AT SOFFIT AND ALCOVE
3" = 1'-0"



2A SECTION DETAIL - ALCOVE AT ROOF BEAM
3" = 1'-0"

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UL Product IQ®
BXUV.L521 - Fire-resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

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

Fire-resistance Ratings - ANSI/UL 263

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

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

See General Information for Fire-Resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

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

Design No. L521

February 14, 2022

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5/19/2022, 8:54 PM

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 1/4 in. (6 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat II

Metal Lath (Optional) — For use with 3/8 in. (10 mm) floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand. Refer to the manufacturer's instructions accompanying the material and/or contact the manufacturer's technical support for specific mix design and minimum thickness recommended for use with eligible floor mats.

HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill High Strength, Gyp-Span Radiant

Trusses — Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. when no Ceiling Damper* is used and 18 in. when a Ceiling Damper* is used. Truss members secured together with min 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx. 7/8 in. centers with four rows of teeth per inch of plate width.

Air Duct* — Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.

Ceiling Damper* — For use with min 18 in. deep trusses. Max nom area shall be 324 sq in. with the length not to exceed 24 in. and the width not to exceed 20 in. Max height of damper shall be 14 in. Aggregate damper openings shall not exceed 162 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.

C&S AIR PRODUCTS — Model RD-521-RT

POTTORFF — Model CFD-521

Alternate Ceiling Damper* — For use with min 18 in. deep trusses. Max nom area shall be 196 sq in. with the length not to exceed 26 in. and the width not to exceed 14 in. Max height of damper shall be 7 in. Aggregate damper openings shall not exceed 98 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.

C&S AIR PRODUCTS — Model RD-521-RT

POTTORFF — Model CFD-521-BT

Alternate Ceiling Damper* — For use with min 18 in. deep trusses. Max nom area shall be 256 sq in. with the length not to exceed 24 in. and the width not to exceed 20 in. Max height of damper shall be 17 in. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.

C&S AIR PRODUCTS — Models RD-521-IP, RD-521-NP

POTTORFF — Models CFD-521-IP, CFD-521-NP

5 of 14

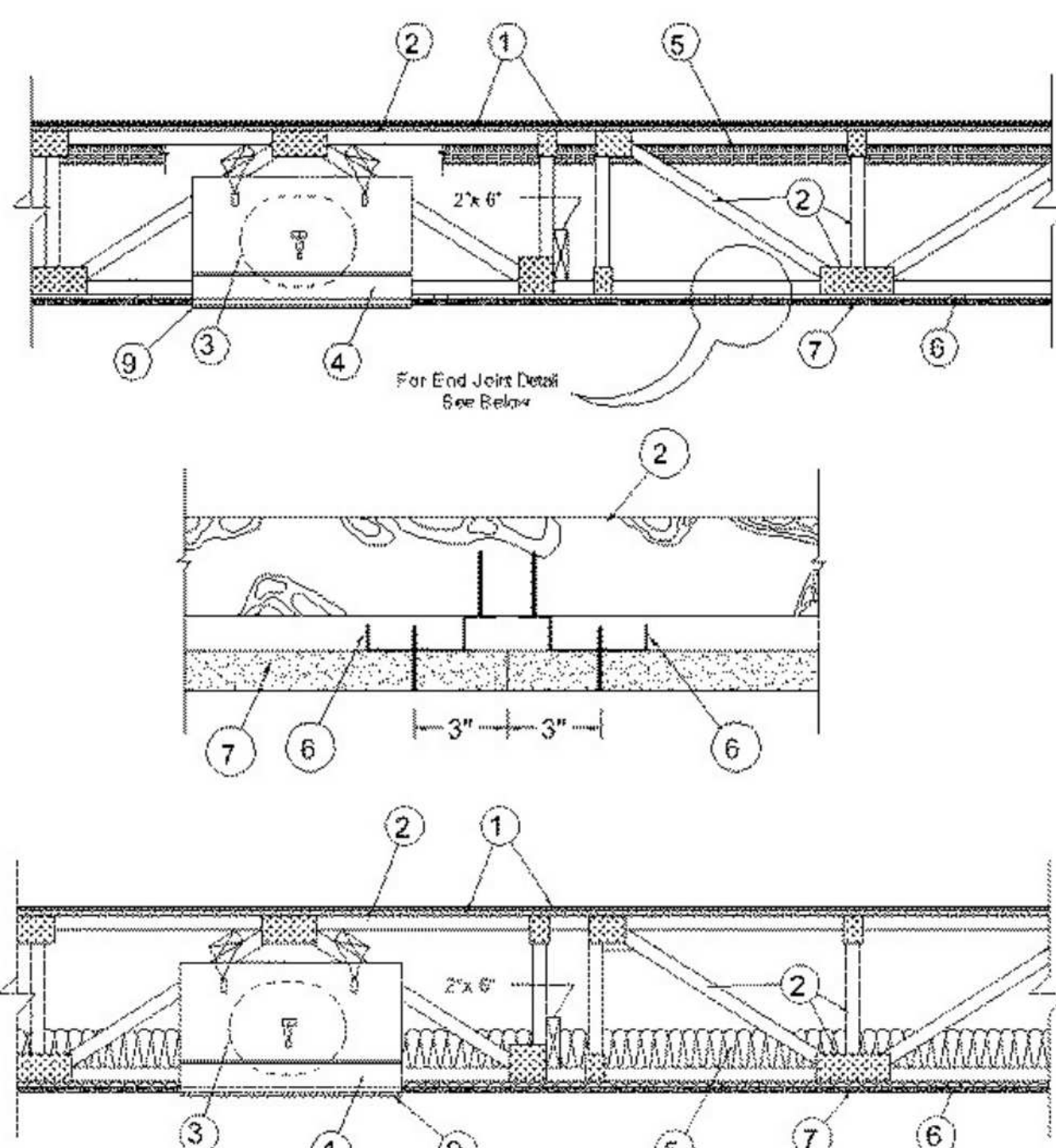
5/19/2022, 8:54 PM6 of 14

5/19/2022, 8:54 PM7 of 14

5/19/2022, 8:54 PM8 of 14

5/19/2022, 8:54 PM

6A A612 L521 12" = 1'-0"



Alternate Insulation Placement

- 1. Flooring System — The flooring system shall consist of one of the following:
System No. 1
Finish Flooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.
Vapor Barrier* — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.
Finish Floor* — Min 1 by 4 in. T & G lumber installed perpendicular to trusses, or min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor." Face grain of gumber or strength axis of panel to be perpendicular to joints with joints staggered.
System No. 2
Finish Flooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

- Vapor Barrier* — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.
Finish Flooring* — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
UNITED STATES GYPSUM CO — Types LK, HSLR, CSD
LATICRETE SUPERCAP L L C — Types LK, HSLR
USG MEXICO S A D E C V — Types LK, HSLR, CSD
Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25
Alternate Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding minimum thickness of floor topping over floor mat.
GRASSWORX L L C — SC Types
System No. 3 (For Use with Item 7A Only)
Finish Floor* — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and 2-1/2 in. long nails, spaced 12 in. OC along each truss and 8 in. OC at the perimeter.

- System No. 4
Structural Cement-Fiber Units* — Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self-countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP
Finish Flooring* — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
UNITED STATES GYPSUM CO — Types LK, HSLR, CSD
LATICRETE SUPERCAP L L C — Types LK, HSLR
USG MEXICO S A D E C V — Types LK, HSLR, CSD
Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25
Structural Cement-Fiber Units* — Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self-countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP
Finish Flooring* — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
UNITED STATES GYPSUM CO — Types LK, HSLR, CSD
LATICRETE SUPERCAP L L C — Types LK, HSLR
USG MEXICO S A D E C V — Types LK, HSLR, CSD
Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25
Structural Cement-Fiber Units* — Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self-countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP

- System No. 5
Structural Cement-Fiber Units* — Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self-countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP
Finish Flooring* — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
UNITED STATES GYPSUM CO — Types LK, HSLR, CSD
LATICRETE SUPERCAP L L C — Types LK, HSLR
USG MEXICO S A D E C V — Types LK, HSLR, CSD
Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25
Structural Cement-Fiber Units* — Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self-countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP

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accordance with installation instructions.
BROAN-NUTONE L L C — Model RDWMT

Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9-11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
BROAN-NUTONE L L C — Model RDWMT2

Batts and Blankets* — (Optional) — Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced 24 in. OC, no insulation shall be installed in the concealed space. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced 16 in. OC, the insulation shall be a max of 3-1/2 in. thick, and shall be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space with 0.090 in. diam galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced a max of 12 in. OC or when the Steel Framing Members (Item 6B) are used, there is no limit in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient or furring channels (or Steel Framing Members) and gypsum panel membrane. When Steel Framing Members (Item 6C) are used, max 3-1/2 in. thick insulation shall be draped over the furring channels (Item 6C) and gypsum board ceiling membrane, and flection-fitted between trusses and Steel Framing Members (Item 6C). The finished rating has only been determined when the insulation is secured to the subflooring.

Fiber, Sprayed* — (Dry Dense Packed 100% Borate Formulation) — (Optional) — As an alternate to Item 5. When used, the resilient channel and gypsum board attachment is modified as specified in Items 6 and 7 and wire mesh (Item 10) shall be attached to the furring channels to facilitate installation of the material. The finished rating when Fiber, Sprayed is used has not been determined. The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product. When Item 5A (Fiber, Sprayed) is used, two layers of gypsum board required as described in Item 7. Not evaluated for use with Item 6B, 6C, 6E, 6F, 6G, 6H or 6I.
U S GREENFIBER L L C — IN573, IN574, IN575LD, IN576LD, IN577LD, & SANCTUARY to be used with dry application only.

Fiber, Sprayed* — (Loose Fill 100% Borate Formulation) — (Optional) — As an alternate to Items 5 and 5A. The finished rating when Fiber, Sprayed is used has not been determined. The fiber is applied without water or adhesive at a minimum dry density of 0.5 lb/ft³ and at a max thickness of 3-1/2 in., in accordance with the application instructions supplied with the product. Wire mesh (Item 10) shall be attached to the furring channels to facilitate installation of the material. When Item 5B (Fiber, Sprayed) is used, two layers of gypsum board required as described in Item 7. Not evaluated for use with Item 6B, 6C, 6E, 6F, 6G, 6H or 6I.
U S GREENFIBER L L C — IN573, IN574, IN575LD, IN576LD, IN577LD, & SANCTUARY to be used with dry application only.

Foamed Plastic* — (As alternate to Item 5, 5A, or 5B, Not Shown) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft³ density, while maintaining a minimum 8-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). Spray foam insulation is limited for use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type 5 screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4K) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 5 through 5B, or 6A through 6I.
SES FOAM INC — Suresaai

Cavity Insulation - Batts and Blankets* or Fiber, Sprayed* — (As described above in Items 5 through 5B) — (For Use with Item 7A, Not Shown) — Min. 3-1/2 in. thickness with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6H/gypsum board (Item 7A) ceiling membrane.

Foamed Plastic* — (As alternate to Item 5, 5A, or 5C, Not Shown) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft³ or 2.0 lb/ft³ density, depending on the product installed. Spray foam insulation is limited to use with minimum 18 in. deep trusses (Item 2).

- System No. 6
Subflooring* — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.
Vapor Barrier* — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.
Floor Mat Materials* — (Optional) — Floor mat material nom 1/8 in. (3 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 3/4 in. (19 mm).
HACKER INDUSTRIES INC — FIRM-FILL SCM 125
Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 1/4 in. (6 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38 mm).
HACKER INDUSTRIES INC — Type FIRM-FILL SCM 250

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 3/8 in. (10 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (32 mm)
HACKER INDUSTRIES INC — FIRM-FILL SCM 400

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 3/4 in. (19 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38 mm).
HACKER INDUSTRIES INC — Type FIRM-FILL SCM 750

Metal Lath (Optional) — (Optional) — For use with 3/8 in. (10 mm), or greater, floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1 in. (25 mm) over the floor mat.
Finish Flooring* — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand. Refer to the manufacturer's instructions accompanying the material and/or contact the manufacturer's technical support for specific mix design and minimum thickness recommended for use with eligible floor mats.
HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Gyp-Span Radiant

System No. 7
Subflooring* — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier* — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.
Finish Floor* — Mineral and Fiber Board* — Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft.
HOMASOTE CO — Type 440-32 Mineral and Fiber Board

System No. 8
Subflooring* — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier* — (Optional) - Nom 0.030 in. thick commercial asphalt saturated felt.
Floor Mat Materials* — (Optional) — Floor mat material nom 5/8 in. (2 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of floor-topping mixture. Floor topping thickness a min 1 in. over the floor mat.
HACKER INDUSTRIES INC — Type Hacker Sound-Mat

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When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type 5 screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Not evaluated for use with Items 5 through 5B, or 6A through 6I.
BAS COIP — EnerLite® NM, EnerLite® G, FE178®, SprayLite® 178, SprayLite® 81206, WalLite® 200, WalLite® US, WalLite® US-N, and WalLite® HP

Foamed Plastic* — (As alternate to Item 5, 5A, 5B, 5C or 5E, Not Shown) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 17 in. at a nominal 0.5 lb/ft³ density, while maintaining a minimum 7 in. clearance between the spray foam insulation and the gypsum board (Item 7). Spray foam insulation is limited for use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type 5 screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Not evaluated for use with Items 5 through 5B, or 6A through 6I.
SES FOAM INC — EasySeal5

Foamed Plastic* — (As alternate to Item 5 - not to be used in combination with any alternates to Item 5) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 11 in. at a nominal 0.5 lb/ft³ - 2.5 lb/ft³ density, while maintaining a minimum 7 in. clearance between the spray foam insulation and the gypsum board (Item 7). Spray foam insulation is limited for use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board spaced maximum 3 in. away from gypsum butt joints. Gypsum board to be installed using minimum 1-1/4 in. long Type 5 screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Only for use with Item 6 not evaluated for use with alternates to Item 6.

CARLISLE SPRAY FOAM INSULATION — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCK, SealTite Pro Tri-Ton 21, SealTite Pro One Zero, Foamulate Closed Cell, Foamulate OCK, Foamulate 70, and Foamulate HFO.

Resilient Channels* — Formed from min 25 MSG galv steel installed perpendicular to trusses. When there is no insulation installed in the concealed space the resilient channels are spaced 24 in. OC. When insulation (Item 5) is secured to the underside of the subfloor the resilient channels are spaced 16 in. OC. When insulation, Items 5, 5A or 5B is applied over the resilient channel/gypsum panel ceiling membrane, or when Item 5C, 5E or 5F is applied to underside of subflooring, the resilient channels are spaced 12 in. OC. Channels secured to each truss with 1-1/4 in. long Type 5 bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint as shown in the above illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.

Steel Framing Members* — (Not Shown) — As an alternate to Item 6.
Furring Channels* — Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 5, 5A or 5B is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item 6. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

Steel Framing Members* — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC. R5C-1 and R5C-1 (2.75) clips secured to alternating trusses with No. 8 x 1-1/2 in. coarse drywall screw through the center grommet. R5C-V and R5C-V (2.75) clips secured to alternating trusses with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. R5C-Si-X secured to alternating trusses with No. 10, X 3-1/2 in. coarse screw. Furring channels are friction fitted into clips. R5C-1, R5C-V and R5C-Si-X clips for use with 2-9/16 in. wide furring channels. R5C-1 (2.75) and R5C-V (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that

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supports the gypsum board butt joints, as described in Item 7. When **Fiber-Sprayed** (Item 5B) is used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board shall be installed as described in Item 7.

PAC INTERNATIONAL L L C — Types R5C-1, R5C-V, R5C-1 (2,75), R5C-V (2,75), R5C-SI-X

6B. Steel Framing Members — (Not Shown) — As an alternate to Item 6, main runners, cross tees, cross channels and wall angle as listed below.
a. Main Runners — Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runner/cross tee intersections. Hanger wires wrapped and twist-tied on 16d nails driven in the side of trusses at least 5 in. above the bottom flange.

b. Cross Tees or Channels — Nom 4 ft long cross tees, with 15/16 in. or 1-1/2 in. wide face, or nom 4 ft long cross channels, with 1-1/2 in. wide face, either spaced 16 in. OC, installed perpendicular to the main runners. Additional cross tees or channels used 8 in. from each side of butted gypsum board end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.

c. Wall Angle or Channel — Painted or galv steel angle with 1 in. legs or channel with 1 in. legs, 1-9/16 in. deep attached to wall at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw-attachment of the gypsum panel.
CGC INC — Type DGL or RX

USG INTERIORS LLC — Type DGL or RX

6C. Steel Framing Members — (Not Shown) — As an alternate to Item 6.
a. Furring Channels — Hat-shaped furring channels, 7/8 in. deep by 2-5/8 in. wide at the base and 1-1/4 in. wide at the face, formed from No. 25 ga. galv steel, spaced max. 16 in. OC, perpendicular to trusses and Cold Rolled Channels (Item 6C). Furring channels secured to Cold Rolled Channels at every intersection with a 1/2 in. pan-head self-drilling screw through each furring channel leg. Ends of adjoining channels overlapped 4 in. and tied together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap. Supplemental furring channels at base layer and outer layer gypsum board butt joints are not required. Batts and Blankets draped over furring channels as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 7.

b. Cold Rolled Channels — 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, friction-fitted into the channel cavity on the Steel Framing Members (Item 6C). Adjoining lengths of cold-rolled channels lapped min. 6 in. and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. Blocking — Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 6 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the truss (Item 2) at the top and bottom of the blocking at each Steel Framing Member (Item 6C) location.

d. Steel Framing Members — Hangers spaced 48 in. OC, max along truss, and secured to the blocking (Item 6C) on alternating trusses with a single 5/16 in. by 2 in. hex head lag bolt or four #6 1-1/4 in. drywall screws through mounting holes on the hanger bracket. The two 1/4 in. long steel teeth on the hanger are embedded in the side of the blocking. Hanger positioned on blocking and leveling bolt height adjusted such that furring channels are flush with bottom of trusses before gypsum board installation. Spring gauge of hanger chosen per manufacturer's instructions.
KINETICS NOISE CONTROL INC — Type ICW

6D. Steel Framing Members — (Not Shown) — As an alternate to Item 6.
a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.

b. Steel Framing Members — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC, and secured to

the bottom chord of alternating trusses with two No. 8 x 2-1/2 in. course drywall screws, one through the hole at each end of the clip. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive trusses. Furring channels are friction fitted into clips. Adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the furring channel that supports one end of the gypsum board butt joints, as described in Item 7. Two layers of gypsum board required as described in Item 7. Not evaluated for use with Item 5B.

KINETICS NOISE CONTROL INC — Type IsoMax

6E. Steel Framing Members — (Not Shown) — As an alternate to Item 6.
a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.

b. Steel Framing Members — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC, and secured to the bottom chord of alternating trusses with one No. 8 x 2-1/2 in. course drywall screw through center grommet. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive trusses. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7. Two layers of gypsum board required as described in Item 7. Not evaluated for use with Item 5B.

PLTTEQ INC — Type Genie Clip

6F. Steel Framing Members — (Not Shown) — As an alternate to Items 6, furring channels and Steel Framing Members as described below.
a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to joists. Channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold furring channel that supports the gypsum board butt joints as described in Item 7.

b. Steel Framing Members — Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the joists with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold furring channel that supports the gypsum board butt joints as described in Item 7.

STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

6G. Steel Framing Members — (Not Shown) — As an alternate to Item 6 — Not for use with Items 5, 5A or 5B — Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.
USG INTERIORS LLC — Type DGL or RX

6H. Resilient Channels — For Use With Item 7A - Formed from min 25 MSG galv steel installed perpendicular to trusses and spaced 16 in. OC. Channels secured to each truss with 1-5/8 in. long Type 5 bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint. Additional channels shall extend min 6 in. beyond each side edge of panel. Insulation, Item 5D is applied over the resilient channel/gypsum panel ceiling membrane.

6I. Steel Framing Members — (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Members as described below.
a. Furring Channels — Formed of No. 25 MSG galvanized steel, 2-1/2 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to trusses. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b.

b. Steel Framing Members — Used to attach furring channels (Item 6a) to the trusses (Item 2). Clips spaced 48 in. OC on alternating trusses and secured to the bottom chord of the trusses with one 2-1/2 in. coarse drywall screw through the center grommet in accordance with the manufacturer's installation instructions. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the furring channel that supports one end of the gypsum board butt joints as described in Item 7.

REGUPOL AMERICA — Type SonoClip

6J. Steel Framing Members — (Not Shown) — Used to attach resilient channels (Item 6) to trusses (Item 2). Clips spaced 48 in. OC on adjacent trusses, and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels secured to clips with one #10 x 1/2 in. pan-head self-drilling screw. Ends of adjoining channels overlapped 6 in. and secured together with two #8 15 x 1/2 in. Phillips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board butt joints require additional resilient channels spaced 3 in. from the butt joint on either side. One edge of the extra channels will extend to an adjacent truss where it is secured with a clip.
KEENE BUILDING PRODUCTS CO INC — Type RC - Assurance Clip

6K. Steel Framing Members — (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Members as described below.

a. Furring Channels — Hat channels formed of No. 25 MSG galv steel, nom 2-23/32 in. wide by 7/8 in. deep. When there is no insulation installed in the concealed space the resilient channels are spaced 24 in. OC. When insulation (Item 5) is secured to the underside of the subfloor the resilient channels are spaced 16 in. OC. When insulation, Items 5, 5A or 5B is applied over the resilient channel/gypsum panel ceiling membrane, or when Item 5C, 5E or 5F is applied to underside of subflooring, the resilient channels are spaced 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. Steel Framing Members — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC with No. 8 x 2-1/2 in. course drywall screw through the center grommet. Furring channels are friction fitted into clips. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.

CLARNDIETROCH BUILDING SYSTEMS — Type Clark/Dietrich Sound Clip

6L. Steel Framing Members — (Not Shown) — As an alternate to Item 6.
a. Furring Channels — Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 6, perpendicular to the trusses. Channels secured to Cold Rolled Channels at every intersection with a 3/4 in. TEK screw through each furring channel leg. Ends of adjoining channels overlapped 12 in. and fastened together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap, or with two 3/4 in. TEK screws in each leg of the overlap section. Two furring channels used at end joints of gypsum board (Item 7), each extending a min of 6 in. beyond both side edges of the board.

b. Cold Rolled Channels — 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, friction-fitted into the channel cavity on the Steel Framing Members (Item 6L) and secured with two 3/4 in. TEK screws. Adjoining lengths of cold-rolled channels lapped min. 12 in. and secured along bottom legs with four 3/4 in. TEK screws and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. Blocking — Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 12 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the trusses at the top and bottom of the blocking at each Steel Framing Member (Item 6L) location with 16d nails or minimum 2-1/2 in. screws.

d. Steel Framing Members — Spaced 48 in. OC, max along truss, and secured to the truss on alternating trusses with two, #10 x 1-1/2 in. screws through mounting holes on the hanger bracket.
PAC INTERNATIONAL L L C — Type R5C-SI-CRC E2 Clip

6M. Steel Framing Members — (Not Shown) — As an alternate to Item 6.
a. Furring Channels — Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 6, perpendicular to trusses and friction fit into Steel Framing Members (Item 6M). Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap or with two TEK screws along each leg of the 6 in. overlap. Two furring channels used at end joints of gypsum board (Item 7). Butt joint channels held in place by blocking.

from base layer end joints. Butted side joints of outer layer to be offset min. 18 in. from butted side joints of base layer. When **Steel Framing Members** (Item 6C) are used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels (Item 6Ca). Base layer attached to the furring channels using 1 in. long Type 5 bugle head steel screws spaced 8 in. OC along butted end joints and 12 in. OC in the field of the board. Butted end joints centered on the continuous furring channels. Butted base layer end joints to be offset a min of 16 in. in adjacent courses. Outer layer attached to the furring channels using 1-5/8 in. long Type 5 bugle head steel screws spaced 8 in. OC at butted end joints and 12 in. OC in the field. Butted end joints centered on the continuous furring channels and offset a min of 6 in. from butted end joints of base layer. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base layer. When **Steel Framing Members** (Item 6D) are used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels. Base layer attached to the furring channels using 1 in. long Type 5 bugle-head steel screws spaced 12 in. OC in the field of the board. Butted end joints shall be staggered min 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The two furring channels shall be spaced approximately 4 in. OC, and be attached to underside of the truss with one IsoMax clip at each end of the channel. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Outer layer attached to the furring channels using 1-5/8 in. long Type 5 bugle-head steel screws spaced 12 in. OC in the field. The end of the outer layer boards at the butt joint shall be attached to the base layer boards with 1-5/8 in. long Type G screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min of 8 in. from base layer end joints. Butted side joints of outer layer to be offset min 18 in. from butted side joints of base layer. Outer layer shall be finished as described in Item 8. When **Steel Framing Members** (Item 6E) are used, one layer of nom 5/8 in. thick, 4 ft wide are installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels using 1 in. long No. 6 Type 5 bugle-head steel screws spaced 12 in. OC in the field of the board. Butted end joints shall be staggered minimum 2 ft, within the assembly. Additional furring channels constructed as per Item 6E shall be used to support each end of each gypsum board. These additional furring channels shall be attached to underside of the truss with Genie clips as described in Item 6E. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Outer layer attached to the furring channels using 1-5/8 in. long No. 6 Type 5 bugle-head steel screws spaced 12 in. OC in the field. The outer layer boards at the butt joint shall be attached to the base layer boards with No. 10, 1-1/2 in. long drywall screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min of 24 in. from base layer end joints. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base layer. When **Steel Framing Members** (Item 6F) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type 5 bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. in from joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel.

When alternate **Steel Framing Members** (Item 6G) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the 8 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board.

When **Steel Framing Members** (Item 6I) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1-1/4 in. long, fine thread, #6, Type 3 bugle-head steel screws spaced 8 in. OC along butt joints and in the field of the board. Gypsum board butted end joints shall be staggered minimum 24 in. and occur 3 in. from the continuous furring channels. At the gypsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6 in. from the continuous furring channels) to support the floating end of the gypsum board. Each of these shorter sections of furring channel shall extend one truss beyond the width of the gypsum panel and be attached to the adjacent trusses with one SonoClip at every truss involved with the butt joint.

When **Steel Framing Members** (Item 6J) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to resilient channels. Gypsum board secured to resilient channels with nom 1 in. long Type 5 bugle-head steel screws spaced 8 in. OC in the field of the board and located 3/4 in. from side joints and 3 in. end joints. Gypsum board joints are to be staggered by a minimum of 24 in.

When **Steel Framing Members** (Item 6B) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Adjacent butt joints staggered minimum 48 in. OC.

When **Steel Framing Members** (Item 6M) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Butt joints staggered minimum 24 in. OC.

CGC INC — Types C, IP-X2, IPC-AR

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE CV — Types C, IP-X2, IPC-AR

7A. Gypsum Board — For use with Items 5D and 6H. Nom 5/8 in. thick, 48 in. wide gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type 5 bugle head steel screws spaced 8 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. Finish Rating with this ceiling system is 20 min.
CGC INC — Type ULIX

UNITED STATES GYPSUM CO — Type ULIX

8. Finishing System — (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

9. Grille — Grille installed in accordance with the installation instructions provided with the ceiling damper.

10. Wire Mesh — (Not Shown) — For use with Item 5A and 5B — 1 in. 20 gauge galvanized poultry netting installed between the furring channels and gypsum board. The poultry netting is attached with washers and 1/2 in. washer head screws, spaced 24 in. OC, to the furring channels. The **Fiber-Sprayed** (Item 5A or 5B) is installed through cut-openings in the poultry netting, in-between trusses. The cut-openings in the poultry netting shall be staggered at a maximum of 6 ft.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively. Last Updated on 2022-02-14

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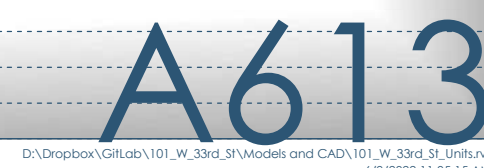
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Table with 2 columns: Date, Description. Row 1: 06/10/2022, Issued for Permit

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5/26/22, 11:33 AM iqluprospector.com_en/profile_XHEZ.F-C-3012 - Through-penetration Firestop Systems | UL Product IQ

UL Product IQ®

XHEZ.F-C-3012 - Through-penetration Firestop Systems

Design/System/Construction/Assembly Usage Disclaimer

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

XHEZ - Through-penetration Firestop Systems

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

See General Information for Through-penetration Firestop Systems

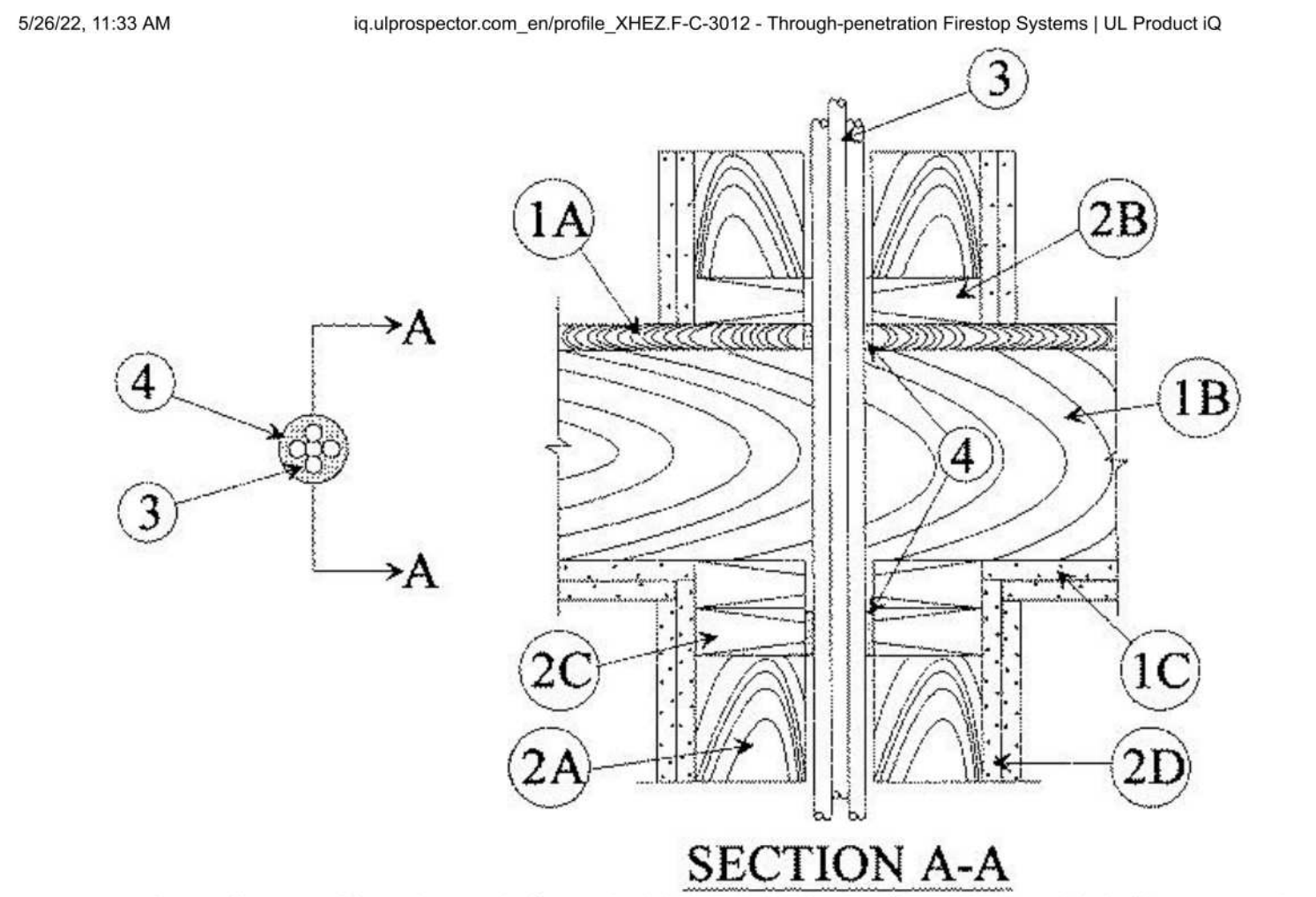
See General Information for Through-penetration Firestop Systems Certified for Canada

System No. F-C-3012
April 06, 2018

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|--|--|
| F Ratings — 1 and 2 Hr (See Item 1) | F Ratings — 1 and 2 Hr (See Item 1) |
| T Ratings — 0, 1 and 1-3/4 Hr (See Item 3) | FT Ratings — 0, 1 and 1-3/4 Hr (See Item 3) |
| | FH Ratings — 1 and 2 Hr (See Item 1) |
| | FTH Ratings — 0, 1 and 1-3/4 Hr (See Item 3) |

https://iqluprospector.com/en/profile?e=175270 1/3

6A A614 FIRE STOP - FLOOR - FRAMED - ELECTRIC CABLE - F 1HR&2HR - T 1HR&2HR - L NA - HILTI - XHEZ.F-C-3012 12" = 1'-0"



- Floor-Ceiling Assembly** — The 1 or 2 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:
 - Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening for 1 or 2 hr assembly is 2-1/2 in. (64 mm) or 2 in. (51 mm), respectively.
 - Wood Joists*** — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.
 - Furring Channels** — (Not Shown) — (As required) — Resilient galvanized steel furring installed in accordance with the manner specified in the individual L500 Series Designs in the Fire Resistance Directory.
 - Gypsum Board*** — Thickness, type, number of layers and fasteners shall be as specified in the individual Floor-Ceiling Design. Max diam of opening for 1 or 2 hr assembly is 2-1/2 in. (64 mm) or 2 in. (51 mm), respectively.
- The F Rating of the firestop system is equal to the rating of the floor-ceiling assembly.
- Chase Wall** — (Optional) — The through penetrant (Item 3) may be routed through a fire-rated or non-rated single, double or staggered wood stud/gypsum wallboard chase wall. The chase wall shall be constructed to include the following construction features:
 - Studs** — Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.
 - Sole Plate** — Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening for 1 or 2 hr rated assembly is 2-1/2 in. (64 mm) or 2 in. (51 mm), respectively.
 - Top Plate** — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening for 1 or 2 hr rated assembly is 2-1/2 in. (64 mm)

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- or 2 in. (51 mm), respectively.
- Gypsum Board*** — One or two layers of min 1/2 in. (13 mm) gypsum board.
- Cables** — In 1 hr fire-rated assemblies, aggregate cross-sectional area of cables in opening to be max 45 percent of the cross-sectional area of the opening (max 2 in. (51 mm) diam bundle). Cables to be rigidly supported on both sides of floor assembly. Any combination of the following types and sizes of copper conductors may be used:
 - RG 59 coaxial cable with single copper conductor, cellular polyethylene cellular foam insulation and polyvinyl chloride (PVC) jacket.
 - Max 8/C No. 22 AWG telephone cable with polyvinyl chloride (PVC) jacketing.
 - Max 2/C No. 12 AWG cable with polyvinyl chloride (PVC) insulation and jacketing.
 - Max 3/C with ground No. 2/0 AWG aluminum or copper Type SER cable with polyvinyl chloride (PVC) insulation.
 - Max 3/C with ground No. 2/0 AWG Type NM cable with polyvinyl chloride (PVC) insulation.
 - Max 3/C No. 12 AWG MC (BX) cable with polyvinyl chloride (PVC) insulation.
 - Max 1 in. diam metal clad TEK cable with PVC jacket.
 - Max 4/C with ground No. 300 kcmil (or smaller) aluminum SER cable with PVC insulation and jacket.
- L Through Penetrating Product*** — Any cables, **Metal-Clad Cable*** or **Armored Cable*** currently Classified under the **Through Penetrating Products** category.
- See **Through Penetrating Product (XHLV)** category in the Fire Resistance Directory for names of manufacturers.
- The T Rating is 1 and 1-3/4 hr for 1 and 2 hr rated assemblies, respectively, for cables 3A through 3G. The T Rating is 0 hr for cables 3H and 3L.**
- Fill, Void or Cavity Material* — Sealant** — Min 3/4 in. (19 mm) thickness of fill material applied within the annulus, flush with top surface of floor or sole plate. Min 5/8 in. (16 mm) thickness of fill material also applied within the annulus, flush with bottom surface of ceiling or lower top plate.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC** — FS-611A Sealant or FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

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

Last Updated on 2018-04-06

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5/26/22, 11:38 AM iqluprospector.com_en/profile_XHEZ.F-C-8009 - Through-penetration Firestop Systems | UL Product IQ

UL Product IQ®

XHEZ.F-C-8009 - Through-penetration Firestop Systems

Design/System/Construction/Assembly Usage Disclaimer

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

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

See General Information for Through-penetration Firestop Systems

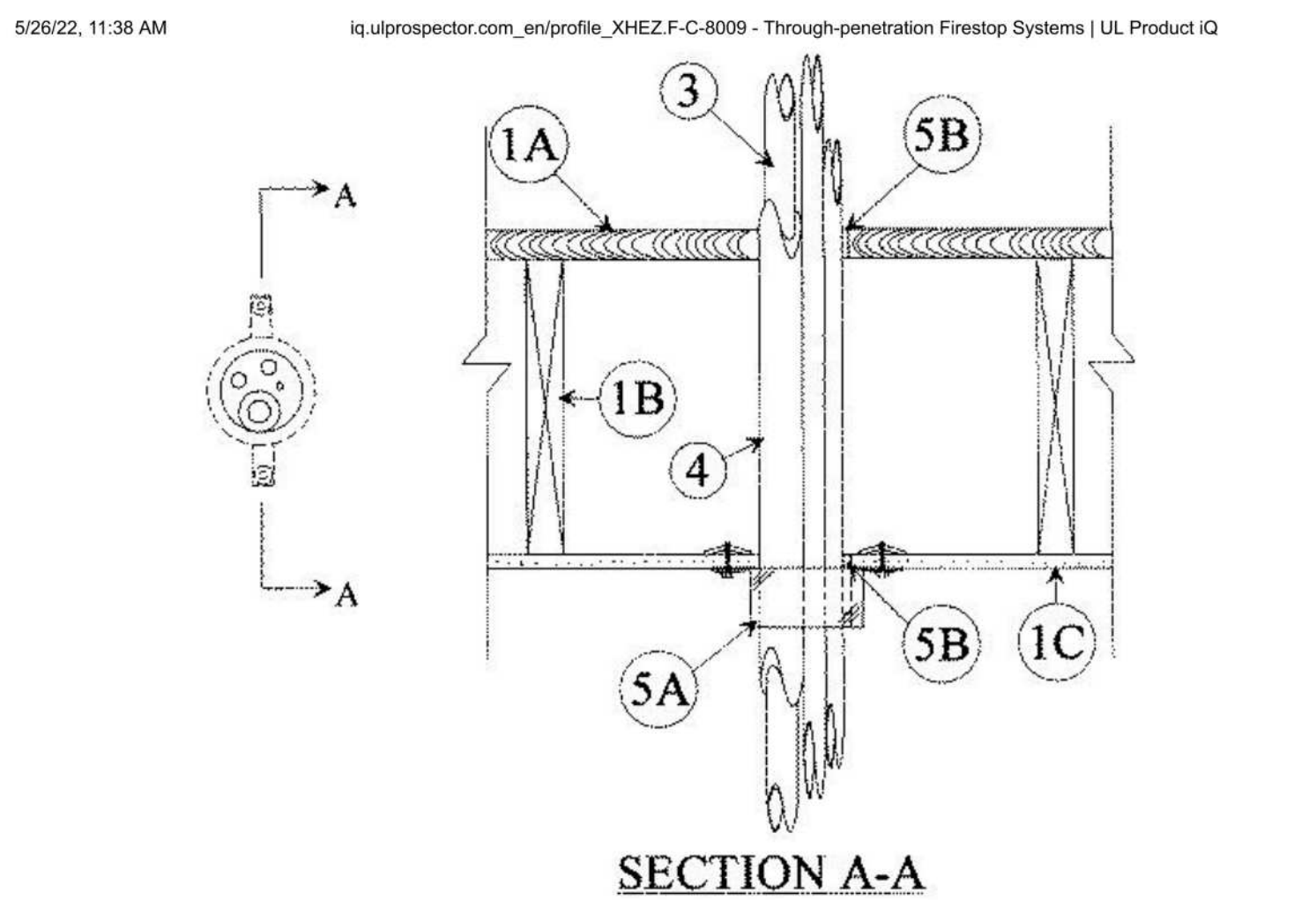
See General Information for Through-penetration Firestop Systems Certified for Canada

System No. F-C-8009
January 21, 2015

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|-------------------------|-------------------|
| F Rating — 1 Hr | F Rating — 1 Hr |
| T Rating — 1 Hr | FT Rating — 1 Hr |
| | FH Rating — 1 Hr |
| | FTH Rating — 1 Hr |

https://iqluprospector.com/en/profile?e=175371 1/3

6A A614 FIRE STOP - FLOOR - FRAMED - GROUPINGS - F 1HR&2HR - T 1HR&2HR - L NA - HILTI - XHEZ.F-C-8009 12" = 1'-0"



- System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.**
- Floor-Ceiling Assembly** — The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory, as summarized below:
 - Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening is 3 in. (76 mm).
 - Wood Joists*** — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.
 - Gypsum Board*** — Thickness, type, number of layers and fasteners shall be as specified in the individual Floor-Ceiling Design. Max diam of opening in ceiling (when chase wall (Item 2) is not provided) is 3 in. (76 mm).
 - Chase Wall** — (Optional, Not Shown) — The through penetrant (Item 3) may be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum wallboard chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs** — Nom 2 by 6 in. (51 by 152 mm) lumber or double nom 2 by 4 in. (51 by 102 mm) lumber studs.
 - Sole Plate** — Nom 2 by 6 in. (51 by 152 mm) lumber or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening shall be 3 in. (76 mm).
 - Top Plate** — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) lumber plates or 2 sets of parallel nom 2 by 4 in. (51 by 102 mm) lumber, tightly butted. Max diam of opening is 3 in. (76 mm).

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- 5/26/22, 11:38 AM iqluprospector.com_en/profile_XHEZ.F-C-8009 - Through-penetration Firestop Systems | UL Product IQ
- Gypsum Board*** — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.
- Through Penetrants** — Pipe, cable and tubing to be bundled and rigidly supported on both sides of floor assembly. A nom annular space of min 0 in. (point contact) to max 1/2 in. (13 mm) is required within the firestop system. The following types and sizes of pipe, cable and tubing are to be used in the firestop system in sufficient quantities to fill the firestop device:
 - Cable** — Type PTF thermoset cable, 5/8 in. 18 AWG copper conductor, plastic insulation and jacket.
 - Polyvinyl Chloride (PVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - Copper Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - Copper Tubing** — Nom 1/2 in. (13 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - Tube Insulation — Plastics** — Nom 1/2 in. (13 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. Insulation to be installed only on one through relevant having a max nom diam of 3/4 in. (19 mm).

See **Plastics*** (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL94 Flammability Classification of 94-5VA may be used.
 - Firestop System** — The firestop system shall consist of the following:
 - Firestop Device*** — **Firestop Collar** — Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar to be installed and latched around the penetrants and secured to underside of gypsum wallboard ceiling using the anchor hooks provided with the collar. The anchor hooks are to be secured to the surface of the ceiling with min 3/16 in. diam min 2-1/2 in. long toggle bolts.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 64-3 90/3"™, CP 64-3 63/2"™, CP 64-3 50/1-1/2"™.
- *Bearing the UL Recognized Component Mark
- *Bearing the UL Classification Marking
- Last Updated on 2015-01-21

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Lisa B. Bixler
6-10-22

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| Date | Description |
|------------|-------------------|
| 06/10/2022 | Issued for Permit |

UL Product IQ®

XHEZ.F-C-1168 - Through-penetration Firestop Systems

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements.
When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design.

XHEZ - Through-penetration Firestop Systems
XHEZ7 - Through-penetration Firestop Systems Certified for Canada

See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

System No. F-C-1168

April 29, 2020

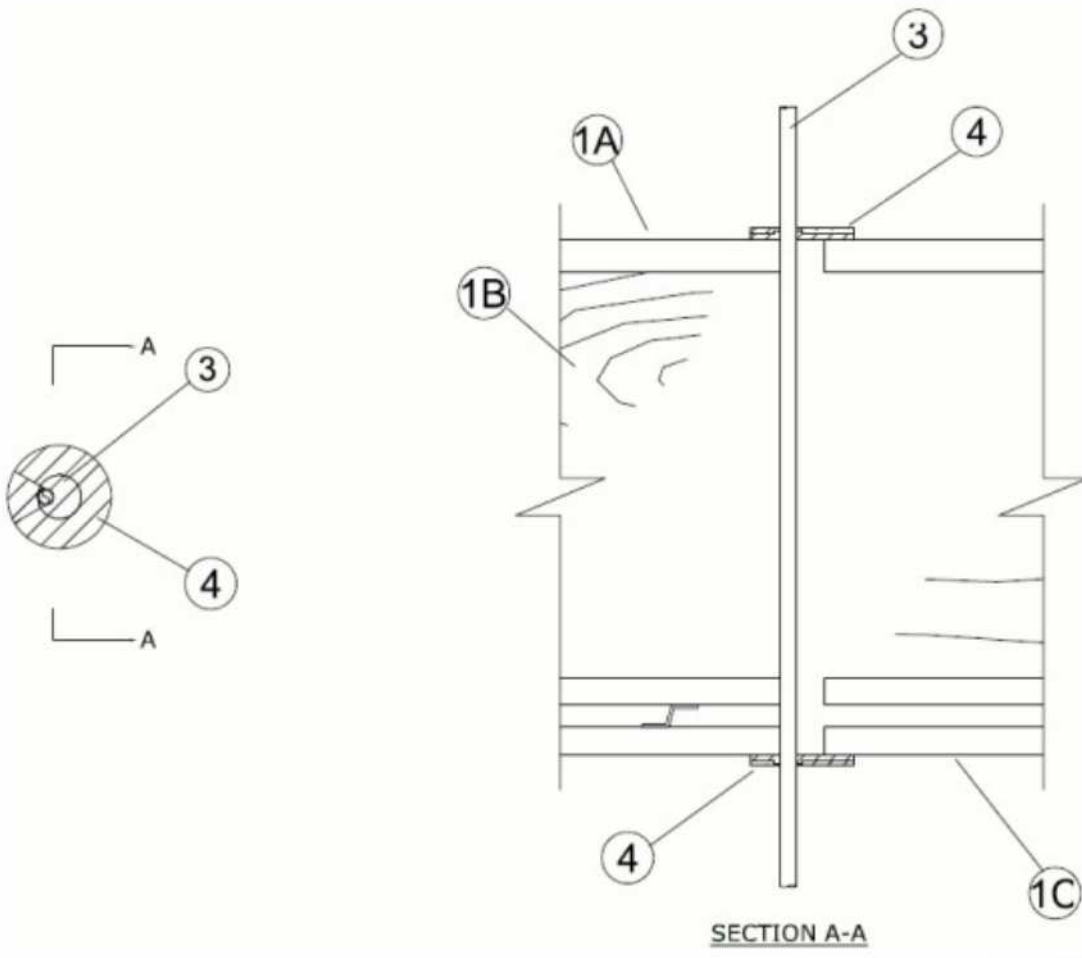
Table with 2 columns: ANS/UL1479 (ASTM E814) and CAN/ULC 5115. Rows include F Ratings, T Ratings, L Rating at Ambient, and L Rating at 400 F.

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https://iqluprospector.com/en/profile?e=175143

D. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.



1. Floor-Ceiling Assembly — The 1 or 2 hr fire-rated solid or trussed lumber joist Floor-Ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory, as summarized below:

A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Opening may be round, rectangular or irregular with a max diam or dimension of 1 in. (25 mm).

B. Joists — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.

C. Gypsum Board* — Nom 4 ft (122 cm) wide by 5/8 in. (16 mm) thick. Gypsum board direct-attached to joists or screw-attached to furring channels as specified in the individual Floor-Ceiling Design. Opening may be round, rectangular or irregular with a max diam or dimension of 1 in. (25 mm).

The F, FT, FH and FTH Rating of the firestop system is equal to the rating of the floor-ceiling assembly.

2. Chase Wall — (Optional, Not Shown) — The through penetrants (Item 3) may be routed through a fire-rated or non-rated single, double or staggered wood stud/gypsum board chase wall constructed of the materials and Partition design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Nom 2 by 4 in. (51 by 102 mm), 2 by 6 in. (51 by 152 mm) or 2 by 8 in. (51 by 203 mm) lumber studs.

B. Sole Plate — Nom 2 by 4 in. (51 by 102 mm), 2 by 6 in. (51 by 152 mm) or 2 by 8 in. (51 by 203 mm) lumber plates. Opening to be centered in sole plate. Opening may be round, rectangular or irregular with a max diam or dimension of 1 in. (25 mm).

C. Top Plate — The double top plate shall consist of two nom 2 by 4 in. (51 by 102 mm), 2 by 6 in. (51 by 152 mm) or 2 by 8 in. (51 by 203 mm) lumber. Opening to be centered in top plate. Opening may be round, rectangular or irregular with a max diam or dimension of 1 in. (25 mm).

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Last Updated on 2020-04-29

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6C A615 FIRE STOP - FLOOR - FRAMED - METALLIC PIPE, CONDUIT OR TUBING - F_1HR&2HR - T_1HR&2HR - L_NA - HILTI - XHEZ.F-C-1168 12" = 1'-0"

UL Product IQ®

XHEZ.F-C-2030 - Through-penetration Firestop Systems

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Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements.
When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design.

XHEZ - Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. F-C-2030

April 06, 2018

F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0, 3/4, 1, 1-1/2 and 2 Hr (See Item 3)

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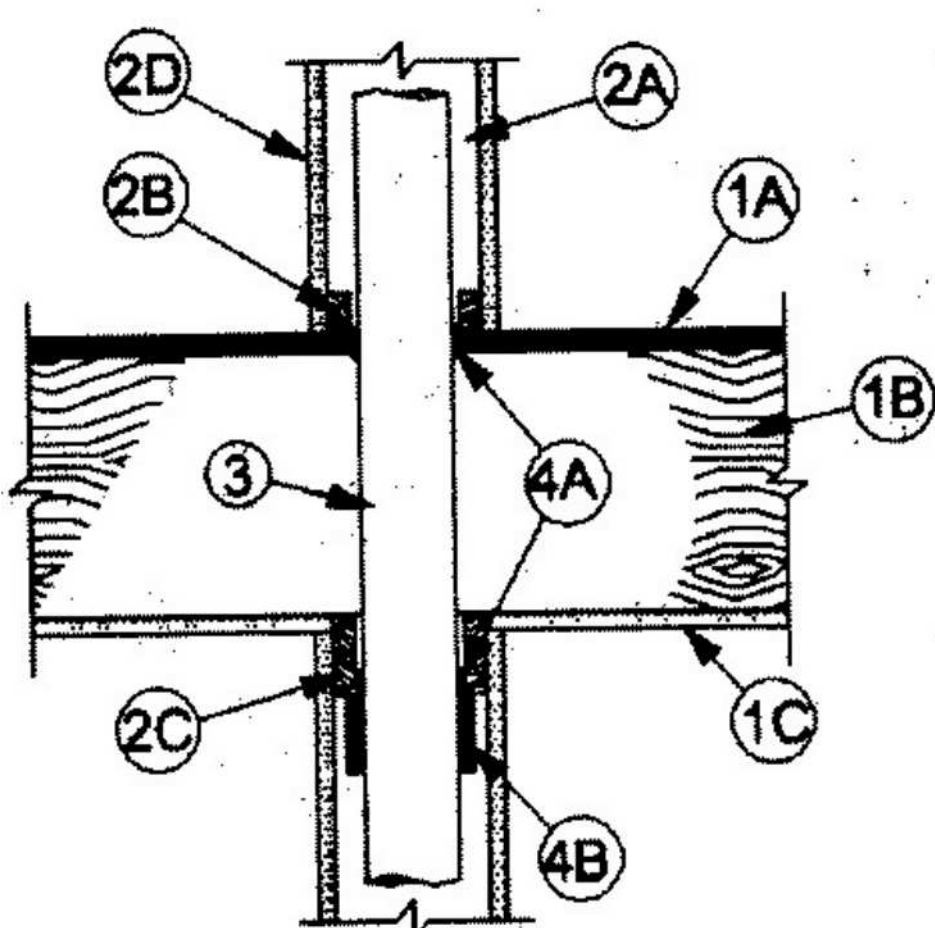
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https://iqluprospector.com/en/profile?e=175154

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System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Floor-Ceiling Assembly — The 1 or 2 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The F Rating of the firestop system is equal to the rating of the floor-ceiling and wall assemblies. The general construction features of the floor-ceiling assembly are summarized below:

A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).

B. Joists — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.

C. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in the individual Floor-Ceiling Design. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).

D. Furring Channels — (Not Shown) (As required) - Resilient galvanized steel furring installed in accordance with the manner specified in the individual L500 Series Designs in the Fire Resistance Directory.

2. Chase Wall — (Optional) - The through penetrant (Item 3) may be routed through a fire-rated or non-rated single, double or staggered wood stud/gypsum wallboard chase wall. The chase wall shall be constructed to include the following construction features:

A. Studs — Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

B. Sole Plate — Nom 2 by 6 in. (51 by 152 mm) (or larger) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).

C. Top Plate — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) (or larger) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).

D. Gypsum Board* — One or two layers of min 1/2 in. (13 mm) gypsum board.

3. Through-Penetrants — One nom 1-1/2 in. (38 mm), 2 in. (51 mm), 3 in. (76 mm) or 4 in. (102 mm) diam nonmetallic pipe to be installed within the firestop system. Diam of opening through flooring system and through sole and top plates of chase wall to be max 2-1/8 in. (64 mm), 2-5/8 in. (67 mm), 4 in. (102 mm) or 5 in. (127 mm) for nom 1-1/2 in. (38 mm), 2 in. (51 mm), 3 in. (76 mm) or 4 in. (102 mm) diam nonmetallic pipe sizes, respectively. Pipe to be rigidly supported on both sides of the floor-ceiling assembly. The T Rating is dependent on the size of the through-penetrant. For 2 hr rated assemblies, the T Rating is 2 hr for 1-1/2 in. (38 mm) diam (and smaller) pipes and 1-1/2 hr for pipes greater than 1-1/2 in. (38 mm) diam. For 1 hr rated assemblies, the T Rating is 1 hr for 1-1/2 in. (38 mm) diam (and smaller) pipes, 3/4 hr for 2 in. (51 mm) diam pipes and 0 hr for pipes greater than 2 in. (51 mm) diam. The following types of nonmetallic pipes may be used:

A. Polyvinyl Chloride (PVC) Pipe — Schedule 40 solid-core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — SDR17 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

C. Acrylonitrile Butadiene Styrene (ABS) pipe — Schedule 40 solid-core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

D. Flame Retardant Polypropylene (FRPP) Pipe — Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

4. Firestop System — The details of the firestop system shall be as follows:

A. Fill, Void or Cavity Material* — Sealant — Min 3/4 in. (19 mm) thickness of fill material to be installed within the annular space between the pipe and the flooring (Item 1A) or sole plate. Min 5/8 in. (16 mm) thickness applied within the annular space, flush with the bottom surface of ceiling or lower top plate. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — FS-ONE Sealant FS-ONE MAX Intumescent Sealant.

B. Firestop Device* — Firestop Collar — Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar to be installed and latched around the pipe and secured to underside of ceiling or chase wall top plate (Item 2C) using the anchor hooks provided with the collar. (Minimum 2 anchor hooks for 1-1/2 (38 mm) and 2 in. (51 mm) diam pipes and 3 anchor hooks for 3 in. (76 mm) diam pipes). The anchor hooks are to be secured to the ceiling with min 3/16 in. (5 mm) diam steel toggler bolts or to the chase wall top plate with min No. 12 by min 1 in. (25 mm) long steel wood screws in conjunction with steel washers. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP 643 50/1.5"N, CP643 63/2"N, CP 643 90/3"N or CP643 110/4"N Firestop Collar

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

Last Updated on 2018-04-06

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6A A615 FIRE STOP - FLOOR - FRAMED - NONMETALLIC PIPE CONDUIT TUBING - F_1HR&2HR - T_1HR&2HR - L_NA - HILTI - XHEZ.F-C-2030 12" = 1'-0"



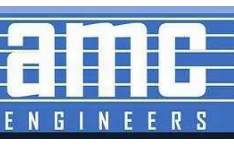
Owner: Renovation Wranglers
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kateracasonline.com | 979.450.9969



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Handwritten signature and date 6-10-22

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Table with 2 columns: Date, Description. Row 1: 06/10/2022, Issued for Permit

UL Product IQ®

XHEZ.W-L-3441 - Through-penetration Firestop Systems

Design/System/Construction/Assembly Usage Disclaimer

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- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

XHEZ - Through-penetration Firestop Systems

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

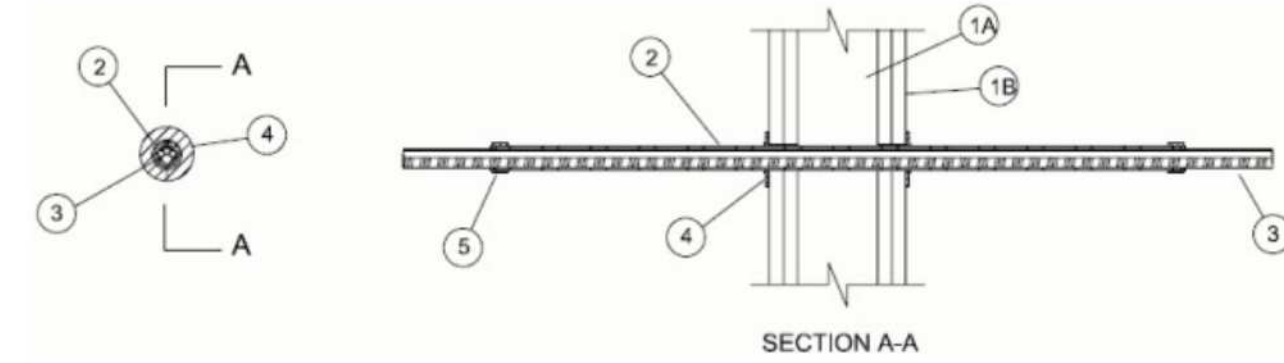
System No. W-L-3441

April 29, 2020

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings — 1 and 2 Hr (See Item 1) | F Ratings — 1 and 2 Hr (See Item 1) |
| T Ratings — 1 and 2 Hr (See Item 1) | FT Ratings — 1 and 2 Hr (See Item 1) |
| L Rating at Ambient — Less than 1 CFM/Opening | FH Ratings — 1 and 2 Hr (See Item 1) |
| L Rating at 400 F — Less than 1 CFM/Opening | FTH Ratings — 1 and 2 Hr (See Item 1) |
| | L Rating at Ambient — Less than 5.1 L/s/m ² /Opening |
| | L Rating at 204 C — Less than 5.1 L/s/m ² /Opening |

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1. Wall Assembly — The 1 or 2 fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board — Nom 5/8 in. (16 mm) thick gypsum board, with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Opening may be round, rectangular or irregular with a max diam or dimension of 1-1/8 in. (19 mm).

The Ratings of the firestop system are equal to the fire rating of the wall assembly.

2. Metallic Sleeve — Nom 1 in. (25 mm) diam (or smaller) rigid steel conduit installed flush with wall surfaces. The annular space between steel sleeve and periphery of opening shall be min 0 in. (point contact) to max 1/8 in. (3 mm). When opening dimension exceeds 1 in. (25 mm), max annular space is 3/8 in. (10 mm). The sleeve shall extend up to 12 in. (305 mm) beyond one or both wall surfaces. As an option, sleeve may extend continuously beyond one wall surface. The conduit sleeve shall be secured to the adjacent stud within the wall cavity with a steel conduit strap attached to web of stud with min two no. 8 sheet metal screws with washers or shall be rigidly supported on those sides of the wall where the sleeve is extended. As an option, the sleeve may be provided with a plastic grommet at the ends of the sleeve.

3. Cables — Within the sleeve (Item 2), the cables may represent a 0 to 100 percent visual fill. Cables to be tightly bundled within the sleeve and rigidly supported on both sides of wall assembly. Any combination of the following types of cables may be used:

- A. Max 3/C No. 8 AWG NM copper conductor cable (Romex) with PVC insulation and jacket.
- B. Type RG 6/U coaxial cable with fluorinated ethylene or PVC insulation and jacketing.
- C. Max 24 fiber optic cable with polyvinyl chloride (PVC) or polyethylene (PE) jacket and insulation.
- D. Max 4 pr No. 22 AWG (or smaller) Cat 5 or Cat 6 computer cables with PVC or plenum rated insulation and jacketing.
- E. Maximum 3/C No. 10 AWG copper conductor metal-clad cable.
- F. **Through Penetrating Product*** — Max two copper conductor No. 18 AWG (or smaller) Power or Non-Power Limited Fire Alarm Cable with or without a jacket under a metal armor.
AFC CABLE SYSTEMS INC
- G. Max 7/C-No. 12 AWG copper conductor control cable with PVC or XLPE insulation and jacket.
- H. Max 100 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with PVC or plenum rated insulation and jacketing.

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4. Fill, Void or Cavity Material* — Nom 60 mm diam by 3 mm thick putty disc with one seam at radius. Paper-backer of disc to be removed and disc firmly pressed around the sleeve at each surface of wall to lap min 5 mm onto sleeve and firmly pressed to lap onto the wall around periphery of opening. Disc seams to be firmly pressed and sealed tight. Discs to be installed at both sides of wall opening.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-D 1" Firestop Cable Disc

5. Fill, Void or Cavity Material* — Nom 60 mm diam by 3 mm thick putty disc with one seam at radius. Paper-backer of disc to be removed and disc firmly pressed around the cable/cable bundle at exit from each end of sleeve, lapping min 5 mm onto cables to completely cover opening and firmly pressed to lap onto the sleeve periphery. Disc seam to be firmly pressed and sealed tight. Discs to be installed at both sides of wall opening.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-D 1" Firestop Putty Disc

6. Fill, Void or Cavity Material*— Sealant — As an alternate to Item 4, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the sleeve/wall interface. Fill material installed symmetrically on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 or FS-ONE MAX Intumescent Sealant

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

Last Updated on 2020-04-29

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6C A616 FIRE STOP - WALLS - FRAMED WALLS - ELECTRIC CABLE - F 1HR&2HR - T 1HR&2HR - L 5 - HILTI - XHEZ.W-L-3441 12" = 1'-0"

UL Product IQ®

XHEZ.W-L-1095 - Through-penetration Firestop Systems

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- Only products which bear UL's Mark are considered Certified.

XHEZ - Through-penetration Firestop Systems

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

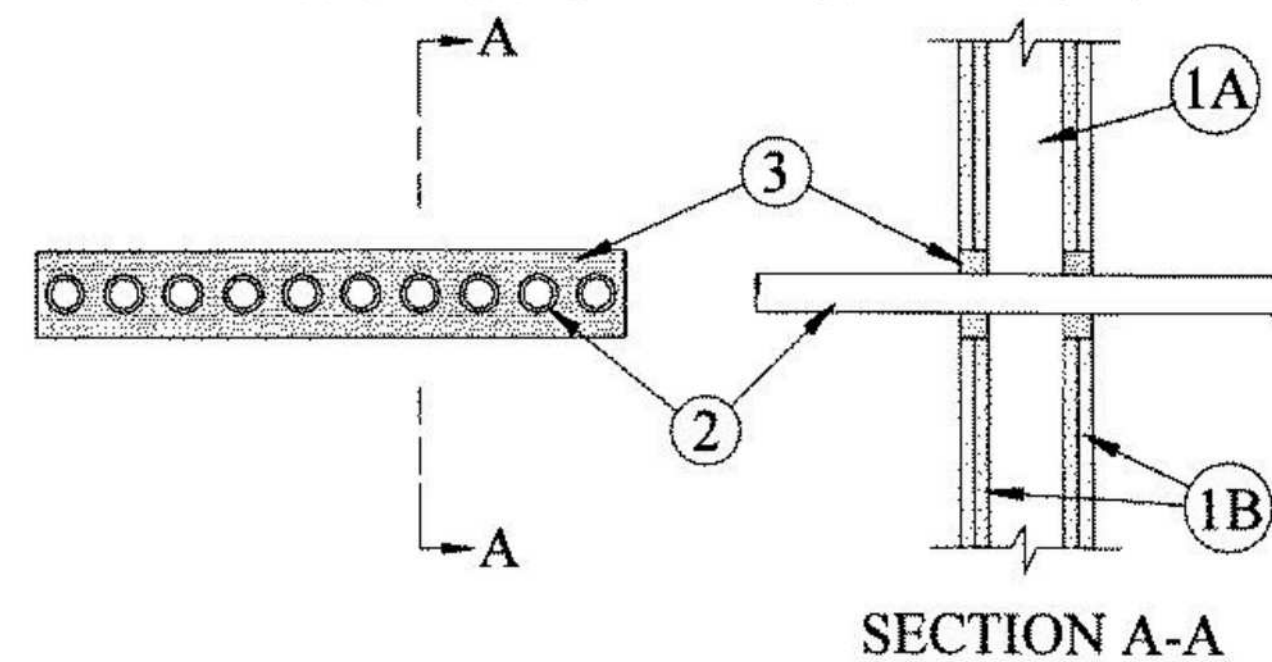
System No. W-L-1095

January 21, 2015

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings — 1 & 2 Hr (See Item 1) | F Ratings — 1 & 2 Hr (See Item 1) |
| T Ratings — 1 & 2 Hr (See Item 3) | FT Ratings — 1 & 2 Hr (See Item 3) |
| L Rating At Ambient — Less Than 1 CFM/sq ft | FH Ratings — 1 & 2 Hr (See Item 1) |
| L Rating At 400 F — 4 CFM/sq ft | FTH Ratings — 1 & 2 Hr (See Item 3) |
| | L Rating At Ambient — Less Than 1 CFM/sq ft |
| | L Rating At 400 F — 4 CFM/sq ft |

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1. Wall Assembly — The 1 or 2 h fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max size of opening 2-5/8 in. (67 mm) by 18 in. (457 mm). The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Electric Metallic Tubing (EMT) — One or more nom 1 in. (25 mm) diam steel electric tubing. The annular space shall be min 1/2 in. (13 mm) to a max 1 in. (25 mm). Conduit to be rigidly supported on both sides of wall assembly.

3. Fill, Void or Cavity Material* — Sealant — For 2 h F Rating, min 1-1/4 in. (32 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. For 1 h F Rating, min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

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Last Updated on 2015-01-21

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6A A616 FIRE STOP - WALLS - FRAMED WALLS - METALLIC PIPE, CONDUIT OR TUBING - F 1HR&2HR - T 1HR&2HR - L 5 - HILTI - XHEZ.W-L-1095 12" = 1'-0"

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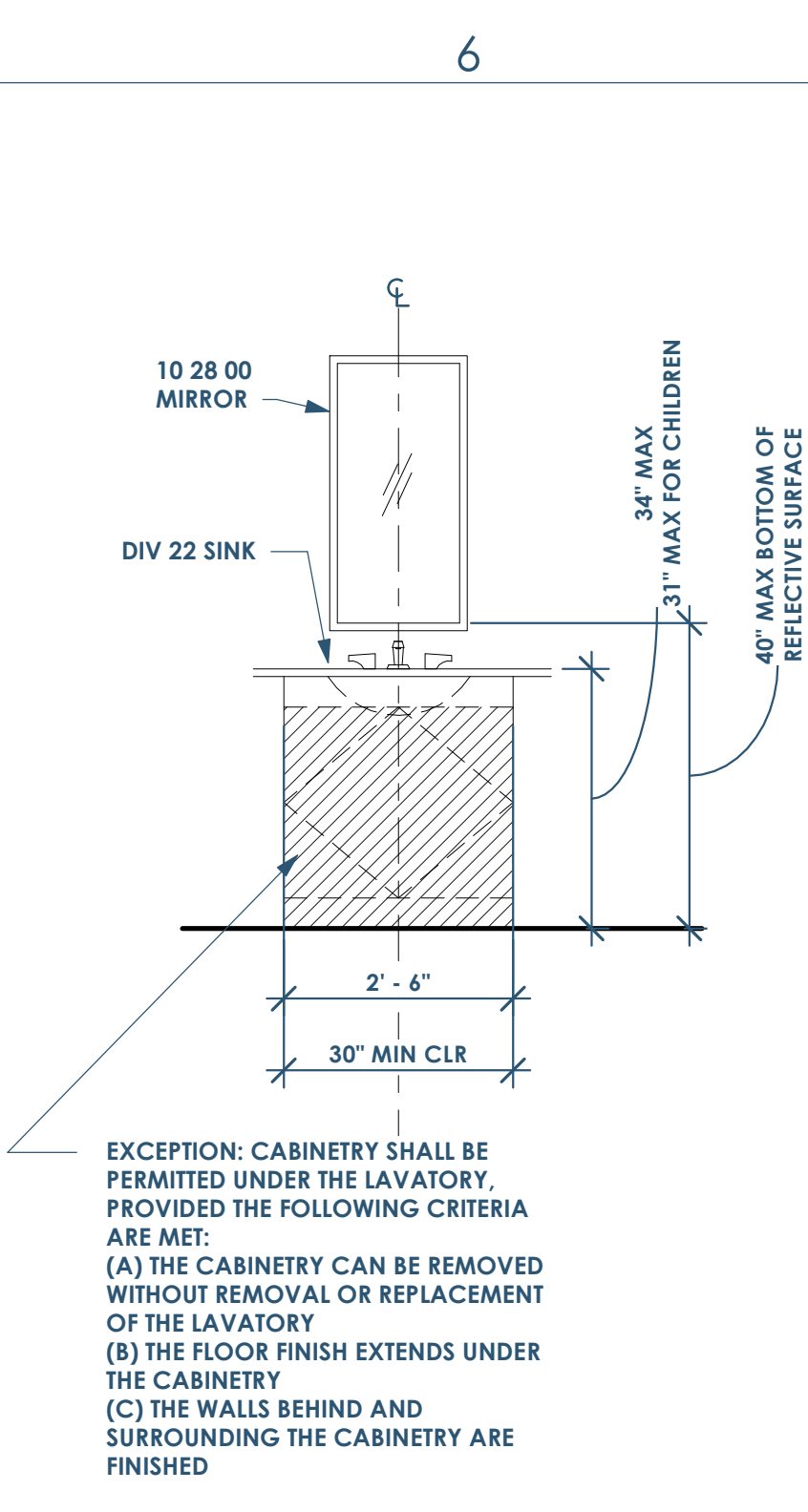
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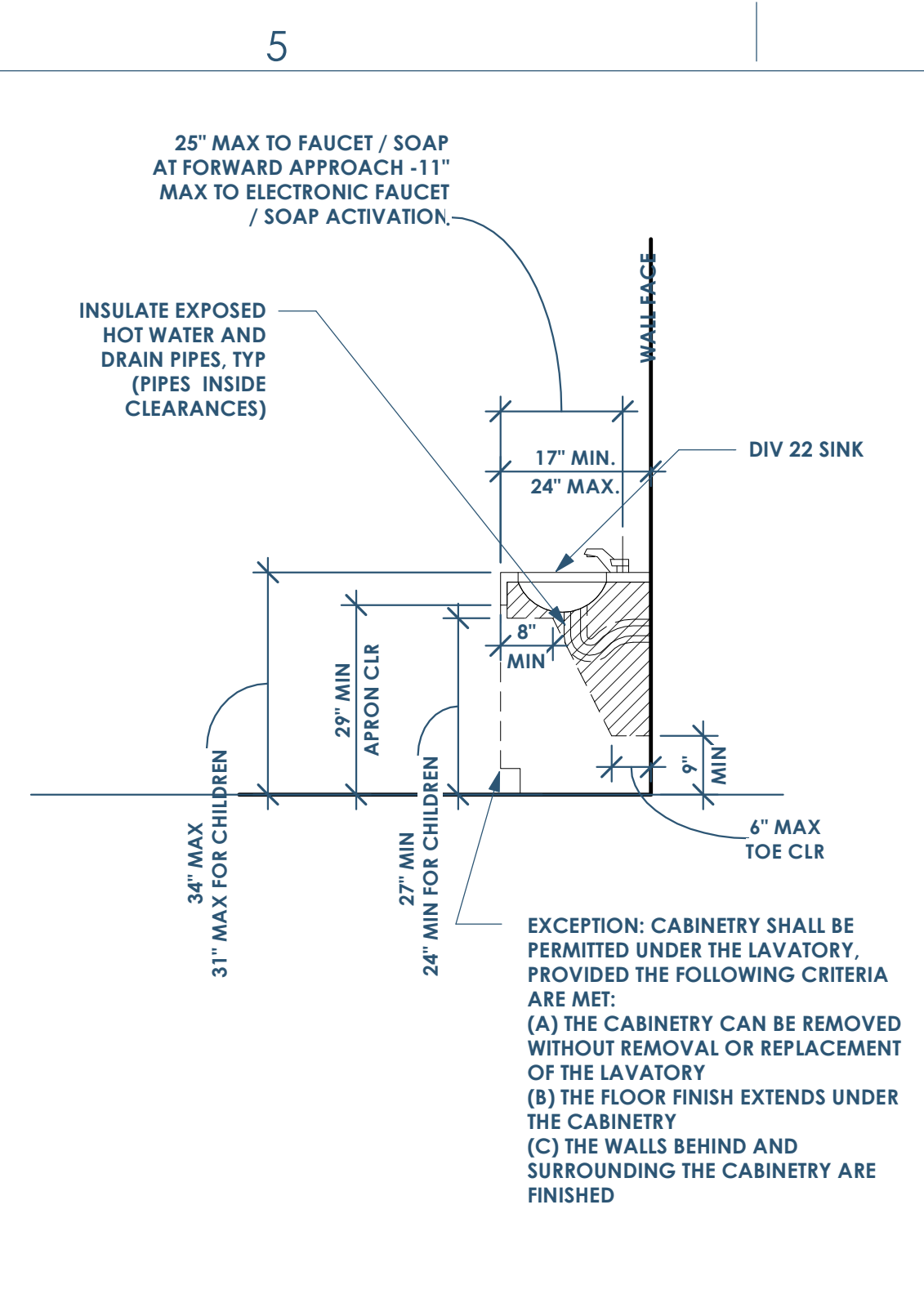
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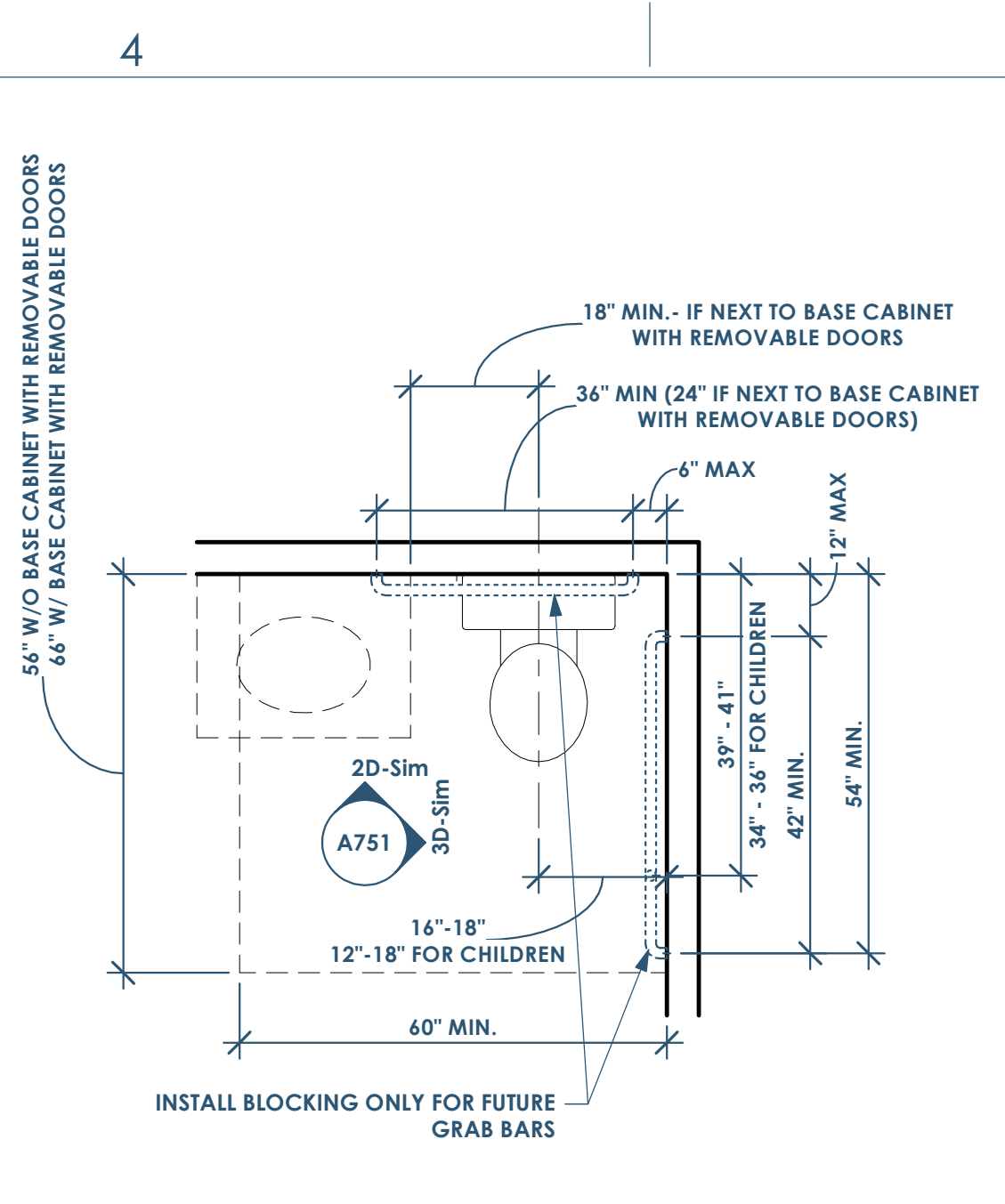
| Date | Description |
|------------|-------------------|
| 06/10/2022 | Issued for Permit |



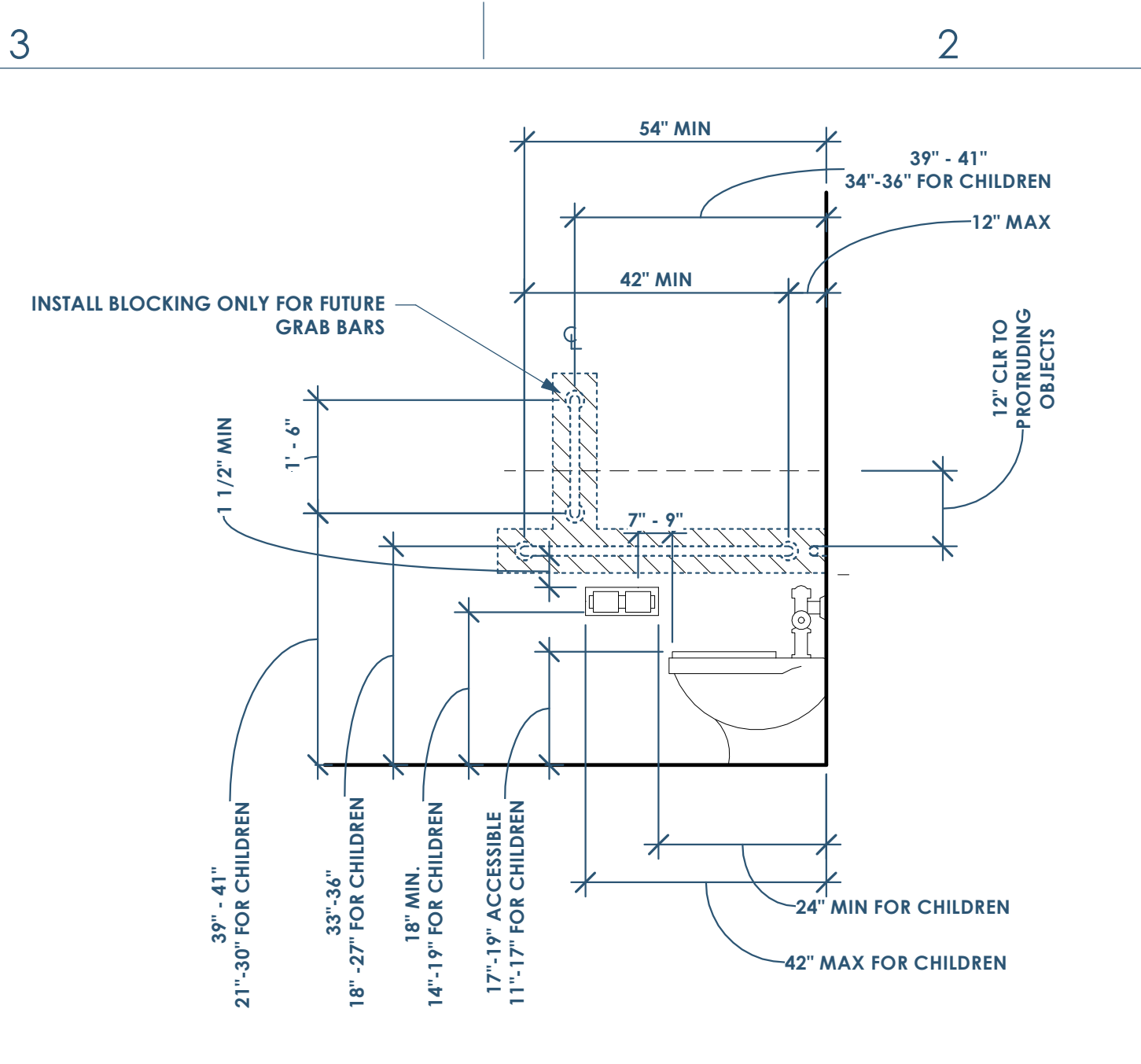
6D A751 ADA - TYPE A - LAVATORY - FRONT (OR TYPE B FRONT APPROACH)
1/2" = 1'-0"



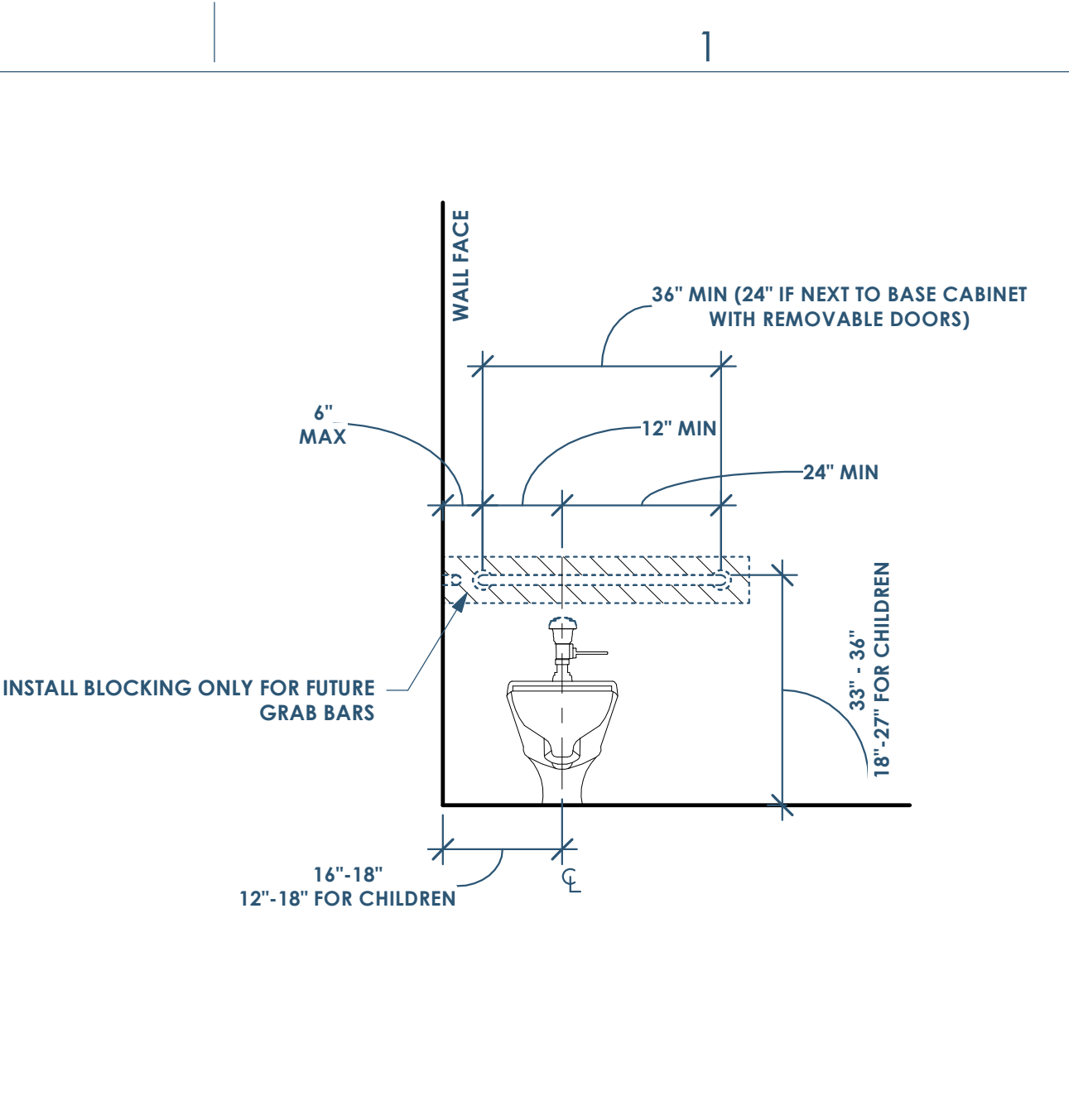
5D A751 ADA - TYPE A - LAVATORY - SIDE (OR TYPE B FRONT APPROACH)
1/2" = 1'-0"



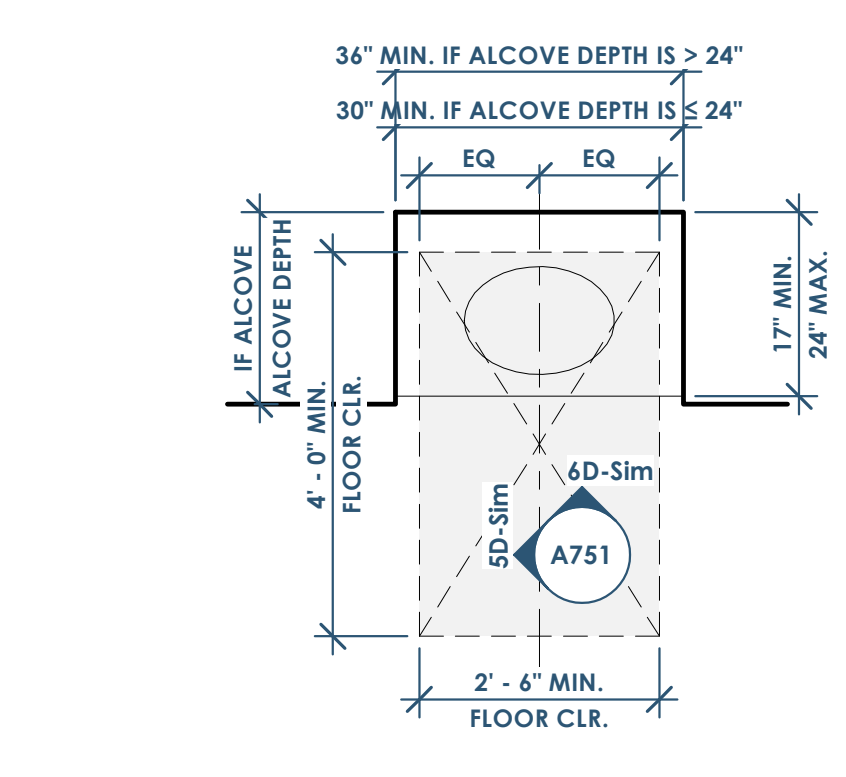
4D A751 ADA - TYPE A - WATER CLOSET - FLOOR PLAN (OR TYPE B FRONT APPROACH)
1/2" = 1'-0"



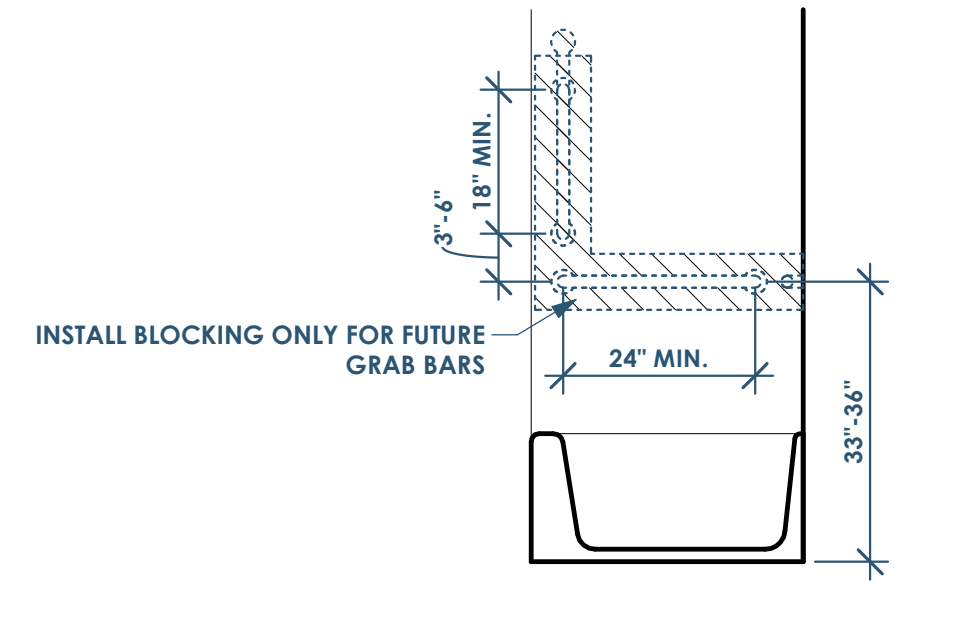
3D A751 ADA - TYPE A - WATER CLOSET - SIDE
1/2" = 1'-0"



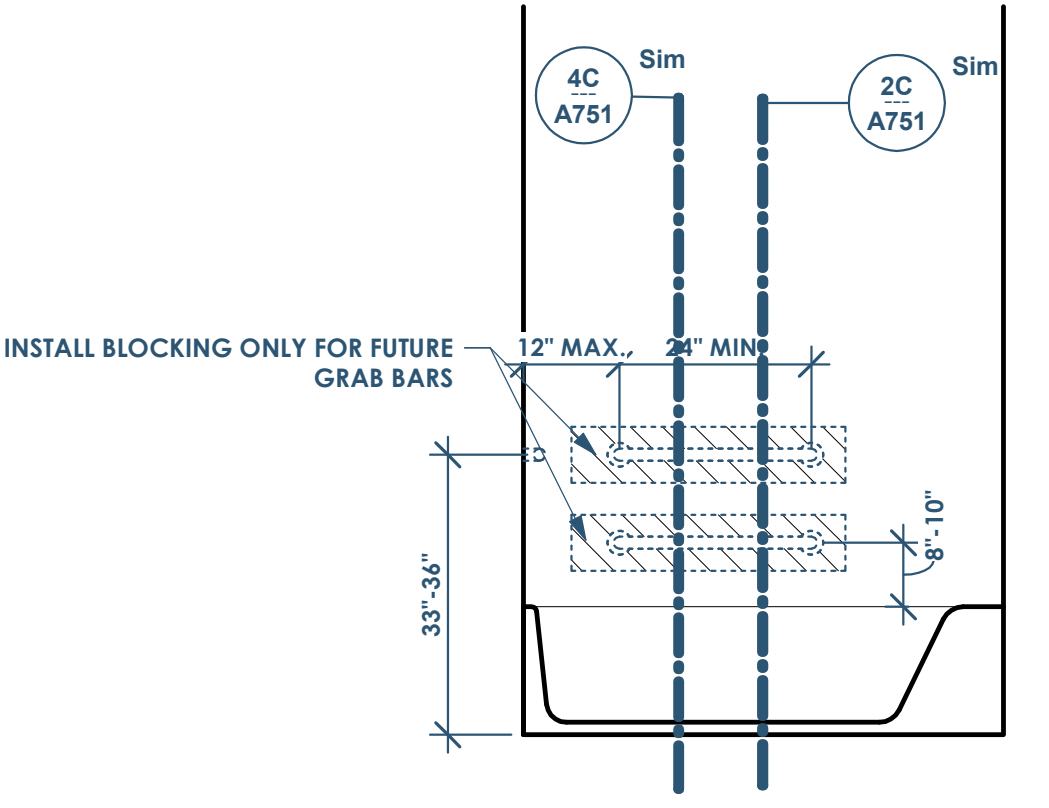
2D A751 ADA - TYPE A - WATER CLOSET - FRONT
1/2" = 1'-0"



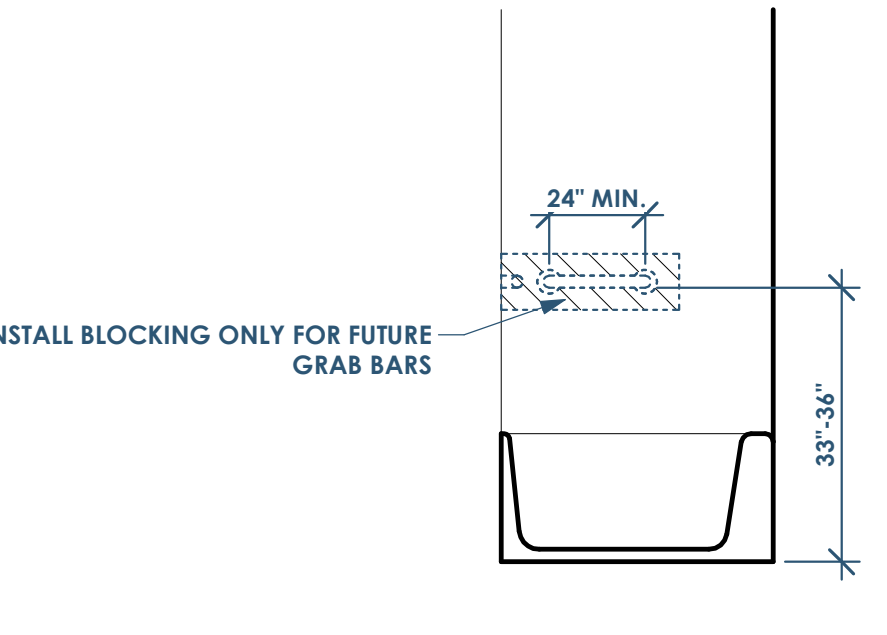
4C A751 ADA - TYPE A - LAVATORY - PLAN
1/2" = 1'-0"



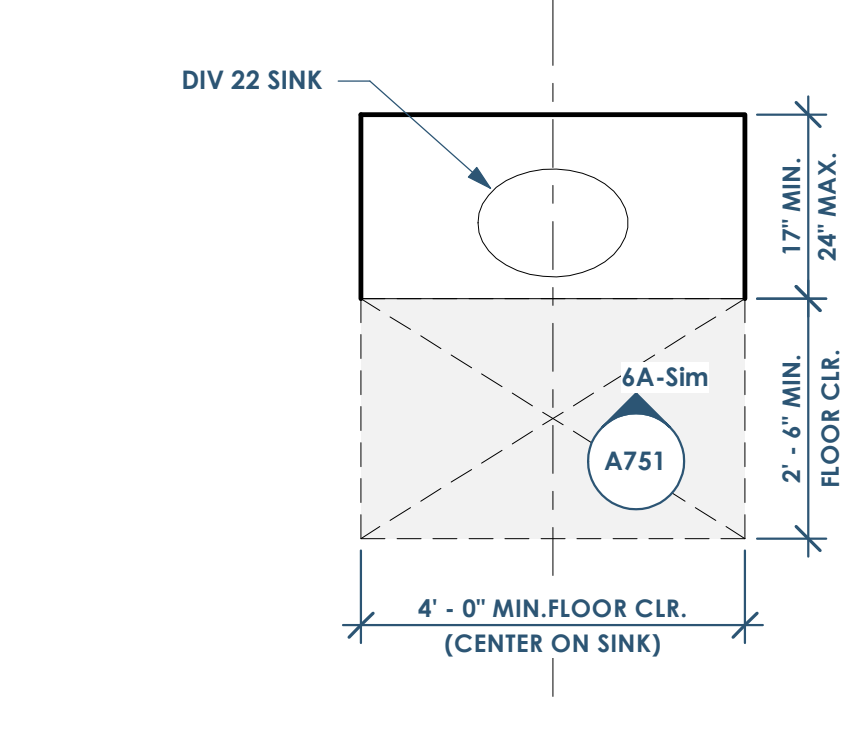
4C A751 ADA - TYPE A & B - BATH - CONTROLS SIDE
1/2" = 1'-0"



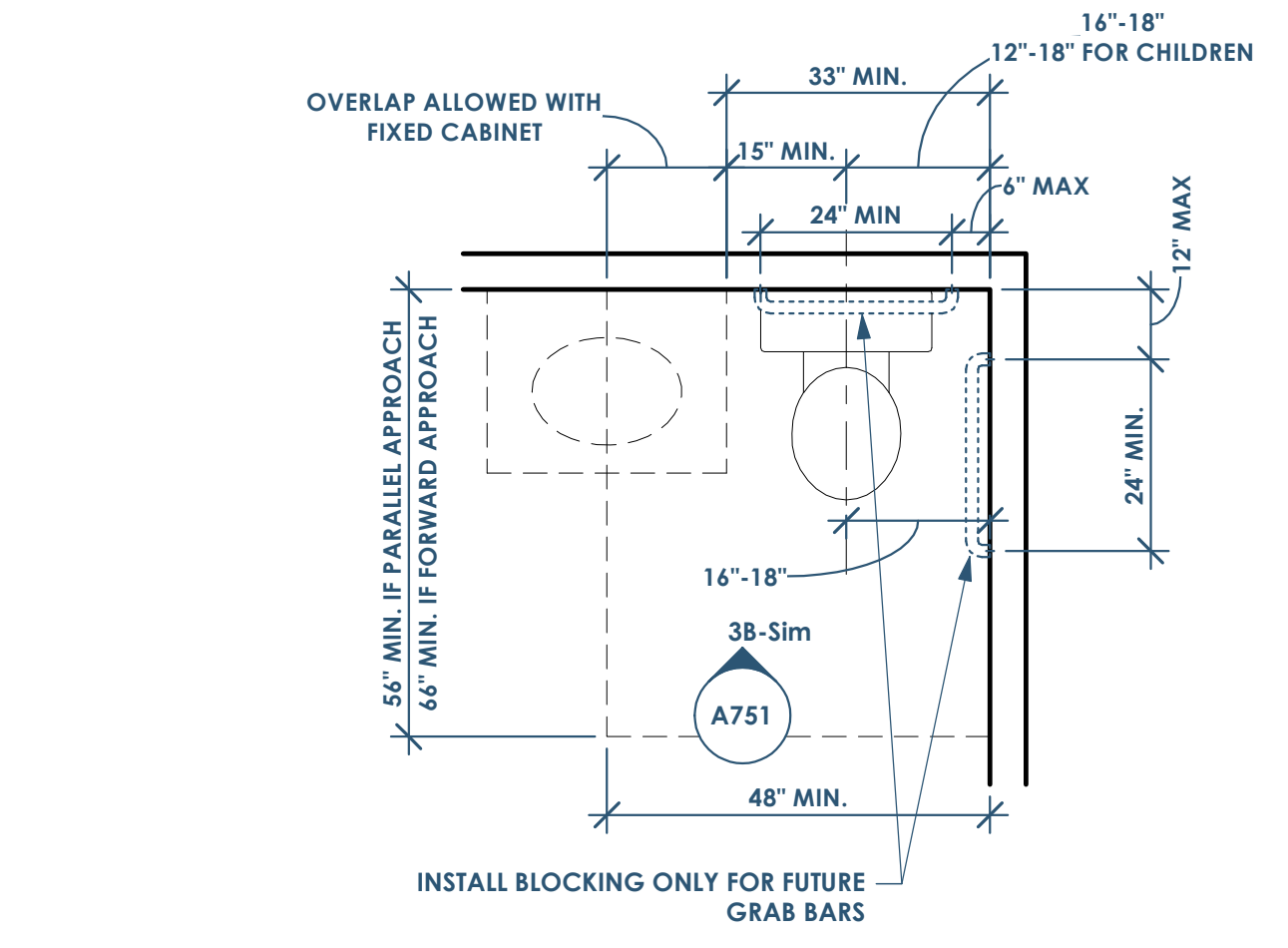
3C A751 ADA - TYPE A & B - BATH - FRONT
1/2" = 1'-0"



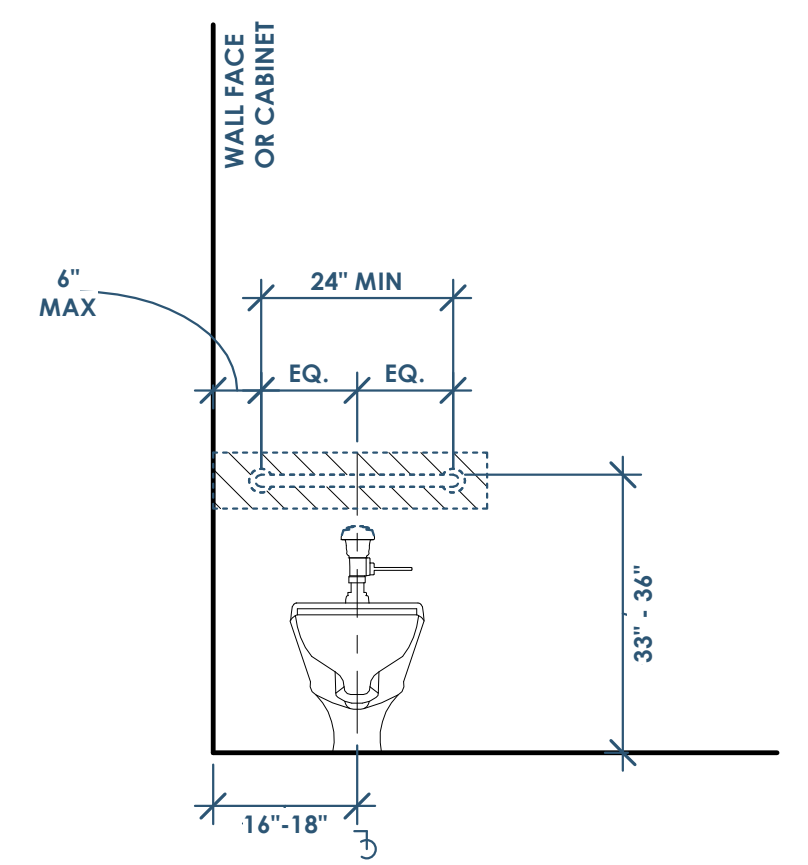
2C A751 ADA - TYPE A & B - BATH - NON-CONTROL SIDE
1/2" = 1'-0"



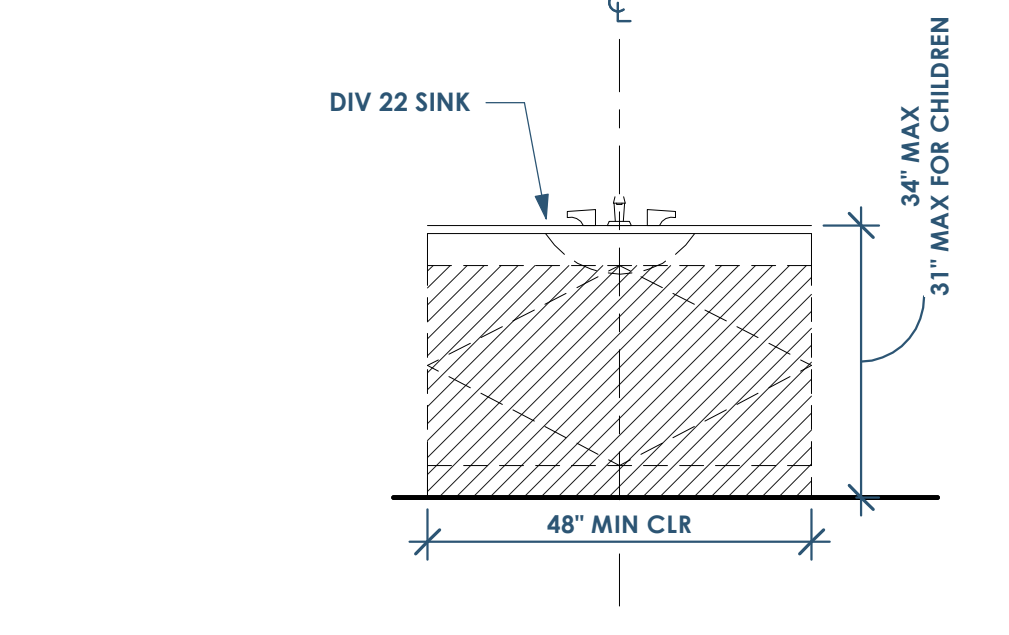
4B A751 ADA - TYPE B - LAVATORY - PLAN
1/2" = 1'-0"



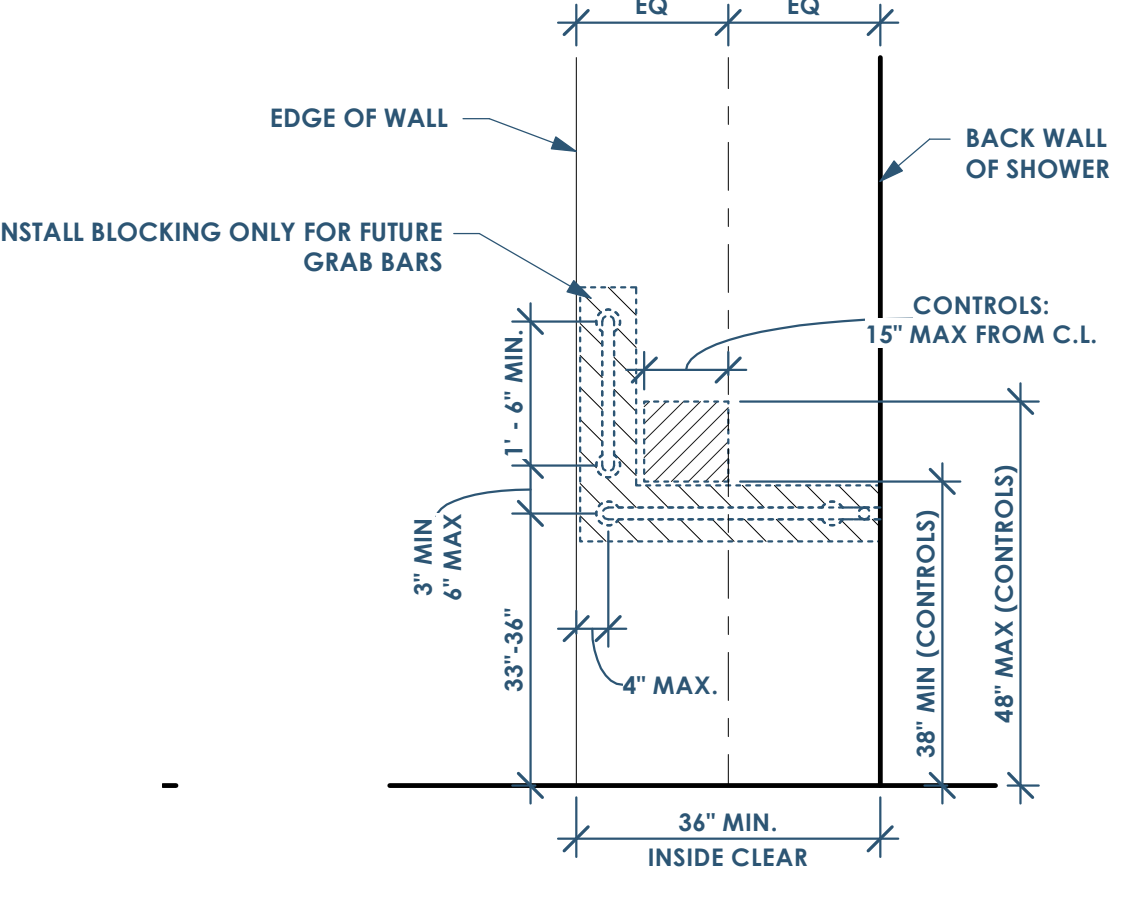
5B A751 ADA - TYPE B - WATER CLOSET - FLOOR PLAN
1/2" = 1'-0"



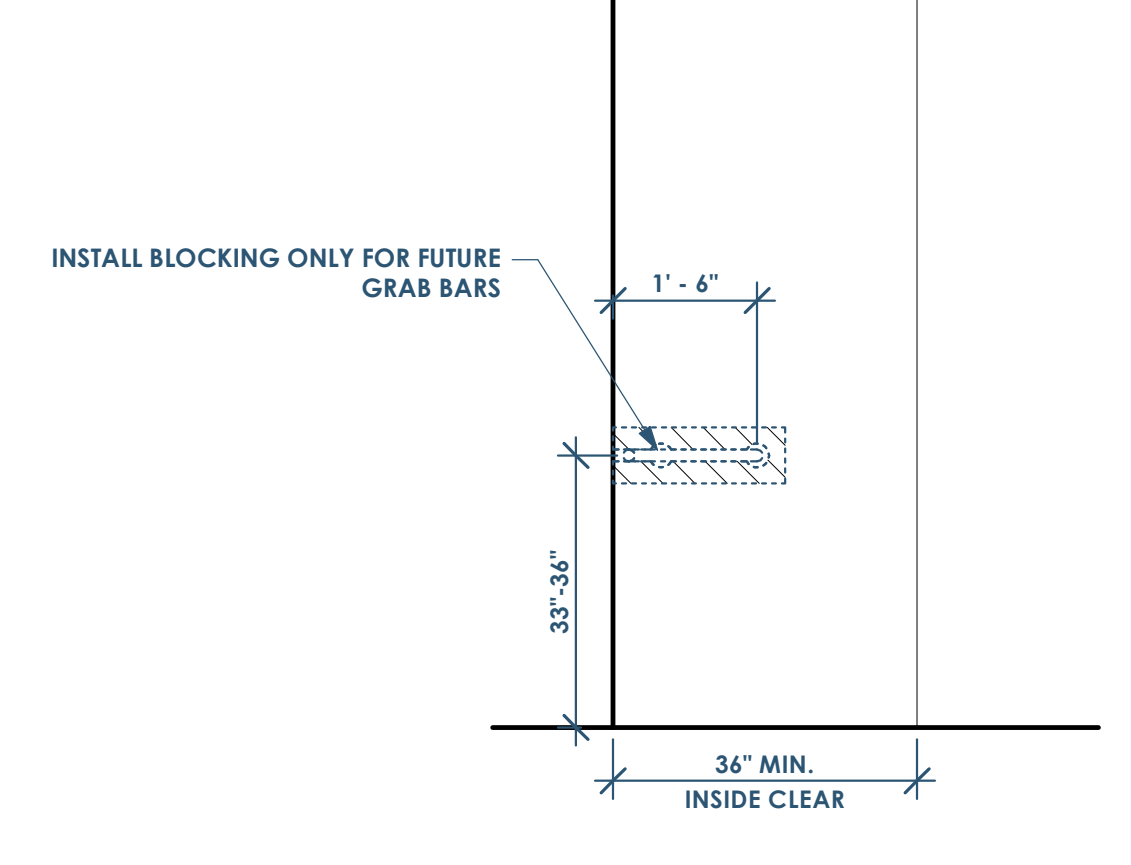
3B A751 ADA - TYPE B - WATER CLOSET - FRONT
1/2" = 1'-0"



6A A751 ADA - TYPE B - LAVATORY - FRONT
1/2" = 1'-0"



4A A751 ADA - TYPE A & B - SHOWER - SIDE
1/2" = 1'-0"



3A A751 ADA - TYPE A & B - SHOWER - BACK
1/2" = 1'-0"

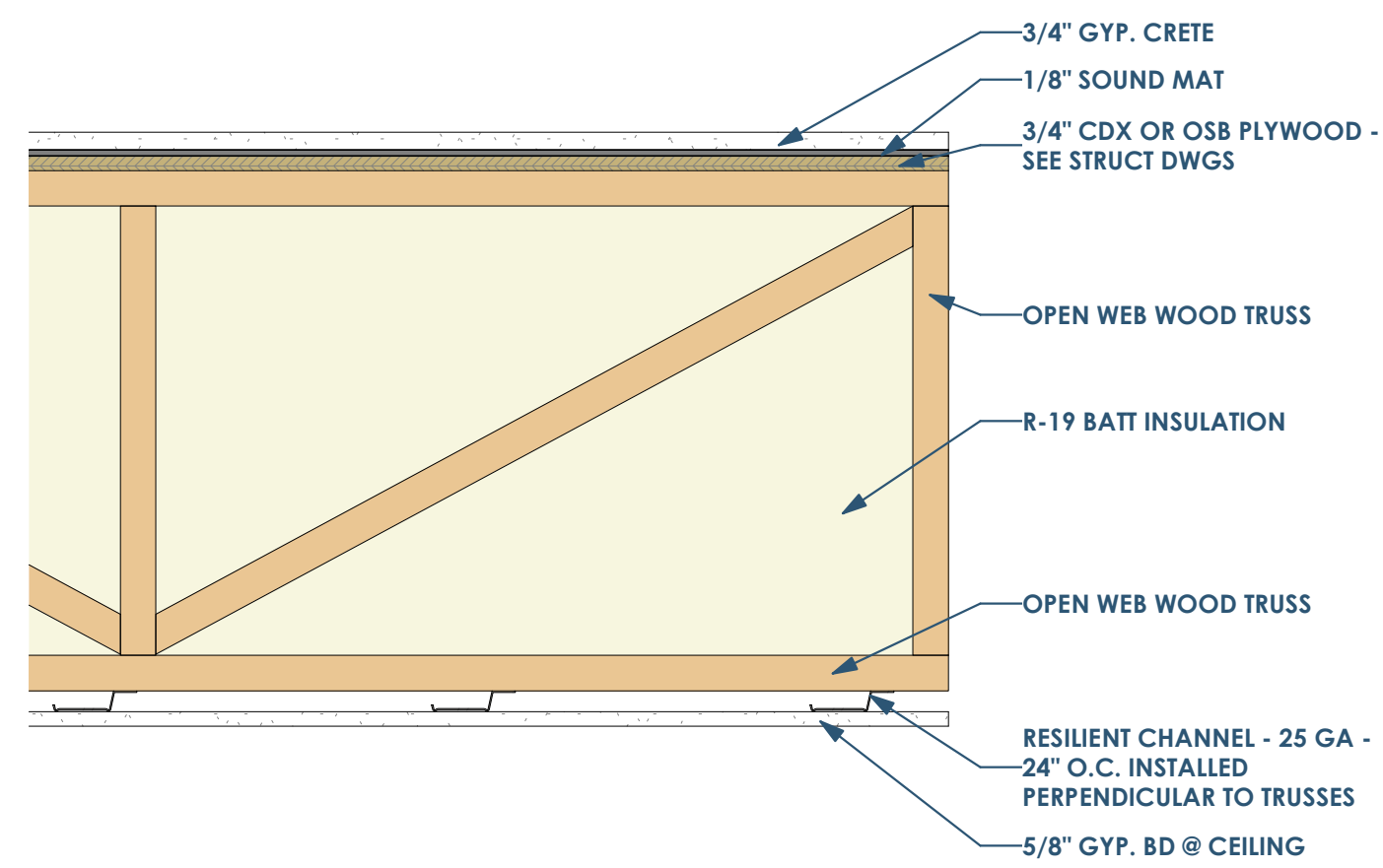
GENERAL NOTES:
 • NOTE: PER IBC1210.2.2 WALLS AND PARTITIONS WITHIN 2 FEET (610MM) OF SERVICE SINKS, URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE, TO A HEIGHT OF NOT LESS THAN 4 FEET (1219 MM) ABOVE THE FLOOR, AND EXCEPT FOR STRUCTURAL ELEMENTS, THE MATERIAL USED IN SUCH WALLS SHALL BE OF A TYPE THAT IS NOT ADVERSELY AFFECTED BY MOISTURE
 • THESE ADA CLEARANCES AND GRAB BAR BLOCKING ARE ONLY REQUIRED FOR THE 1ST FLOOR UNITS



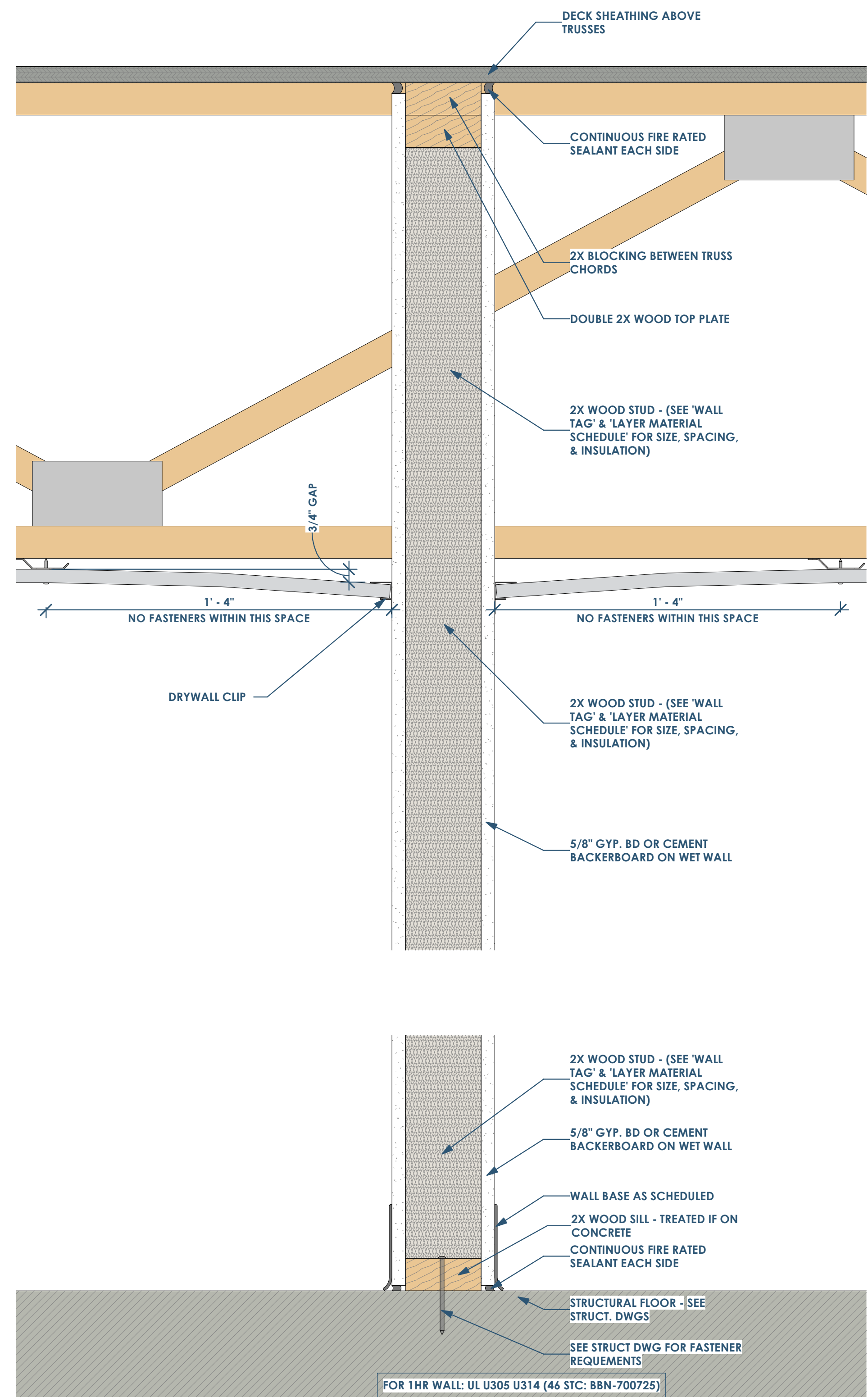
6-10-22

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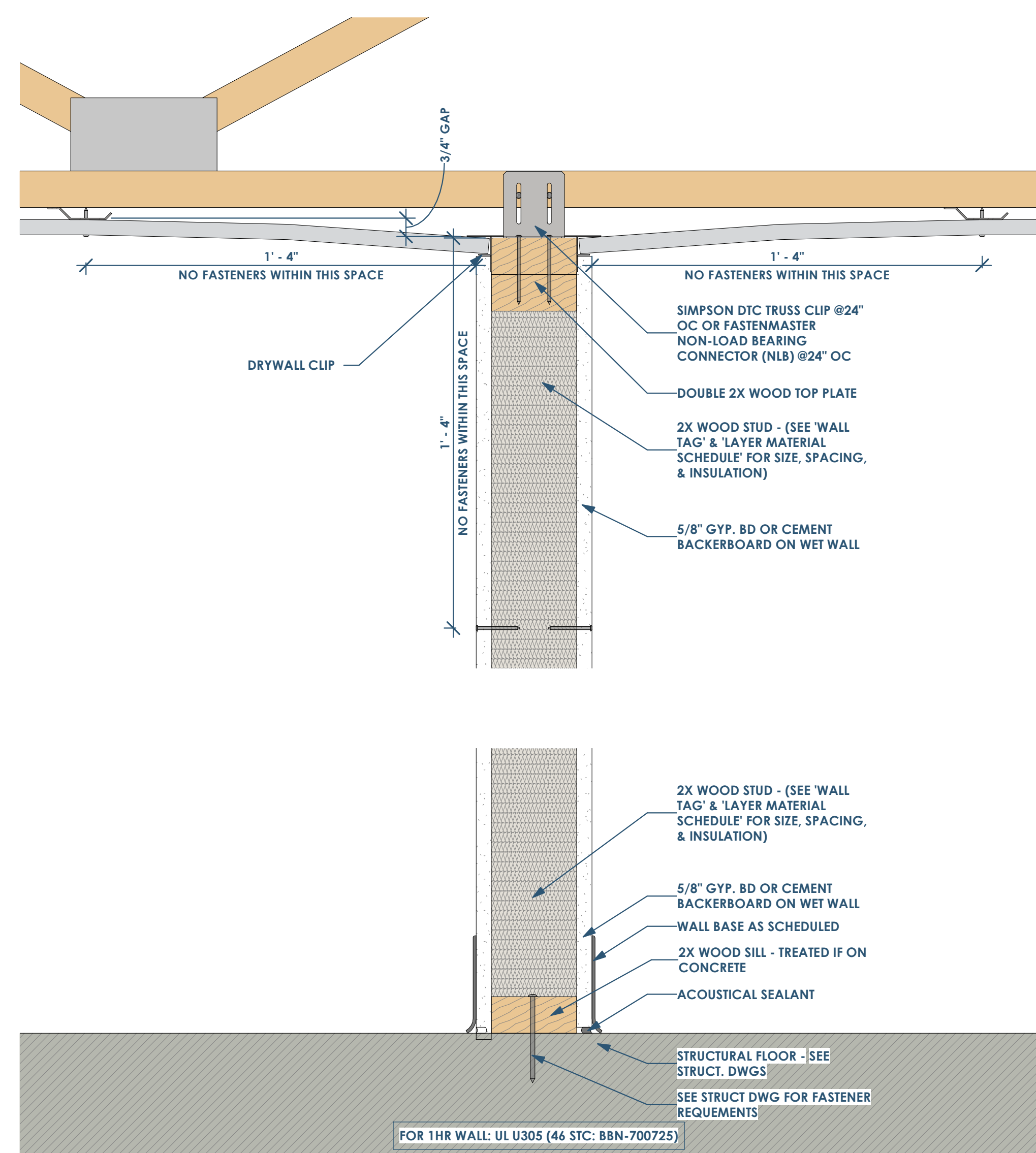
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65
A800 FLOOR/CEILING ASSEMBLY - L521
1 1/2" = 1'-0"



6A
A800 W () 1D - FULL HEIGHT - TO DECK - PARTITION (1 HR RATED)
3" = 1'-0"



5A
A800 W () 0F FULL HEIGHT PARTITION
3" = 1'-0"

PARTITION TAG NOMENCLATURE

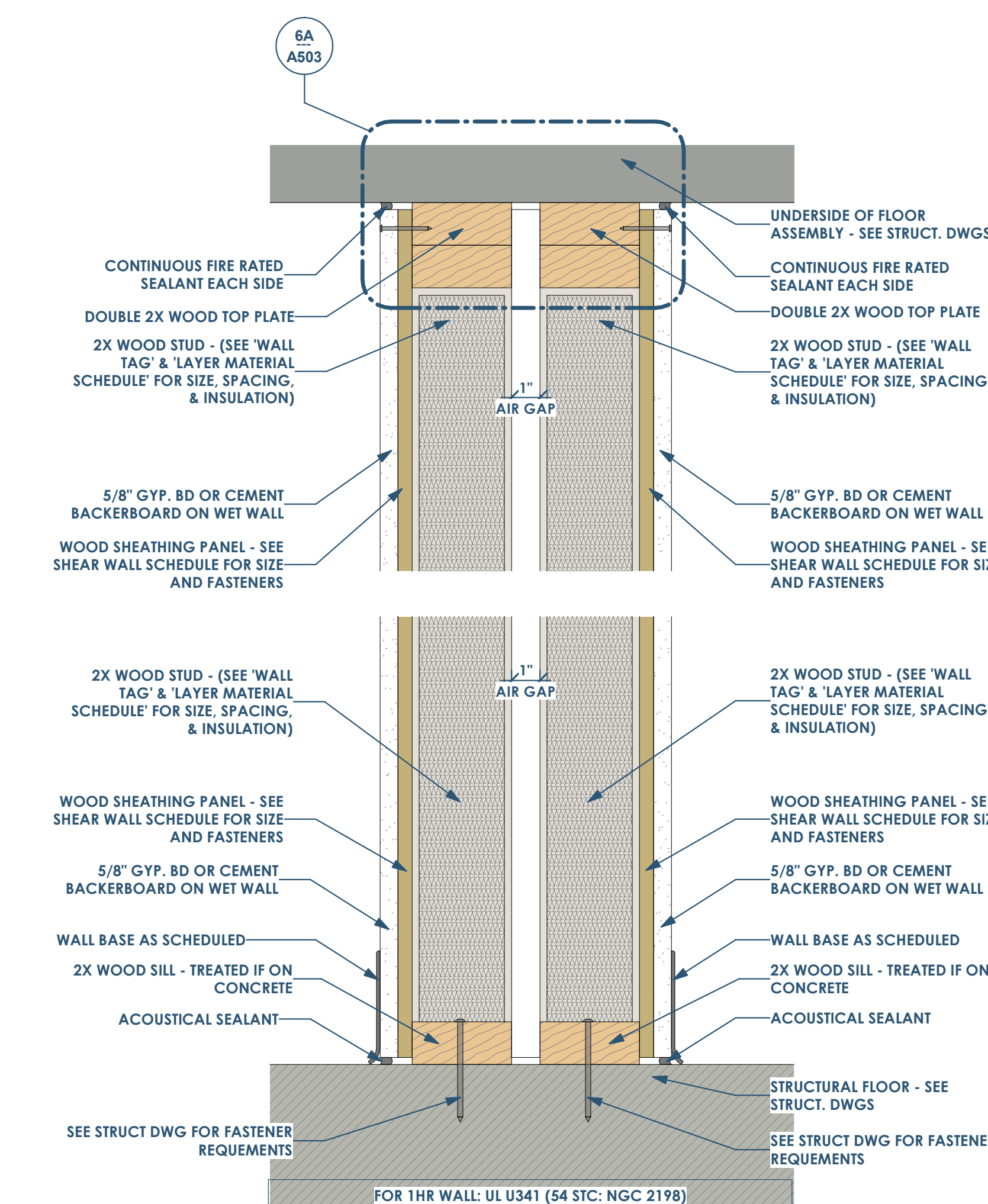
- 1ST LETTER = CORE MATERIAL
 - W= WOOD
 - M=METAL
 - C=CONCRETE
 - B=MASONRY BLOCK
- 2ND LETTER = SIZE OF CORE
 - WOOD: NOMINAL STUD SIZES (EX: 4 = 3 1/2")
 - METAL STUD: (EX 358 = 3 5/8")
 - CONCRETE: ACTUAL WALL THICKNESS (EX: 8 = 8")
 - MASONRY: NOMINAL BRICK MODULES (EX: 8 = 7 5/8")
- 3RD LETTER = LAYER MATERIAL

| TAG | LAYER MATERIAL (3RD LETTER) | | | | | | IF FIRE RATED - UL NUMBER |
|-----|--|--|--|---|--|---------------------------|------------------------------|
| | LAYER 3 | LAYER 2 | LAYER 1 | CORE | LAYER 1 | LAYER 2 | |
| A= | - | - | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | STUDS 16" O.C. (20 GA. IF METAL) | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | - | UL U305 |
| B= | - | - | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | STUDS 16" O.C. (20 GA. IF METAL) BATT INSULATION | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | - | UL U305 |
| C= | - | - | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | STUDS 16" O.C. (20 GA. IF METAL) | (PROVIDE 1/4" AIR GAP IF AGAINST CONCRETE OR MASONRY) | - | - |
| D= | - | - | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | STUDS 16" O.C. (20 GA. IF METAL) BATT INSULATION | (PROVIDE 1/4" AIR GAP IF AGAINST CONCRETE OR MASONRY) - USE TREATED WOOD STUDS IF IN CONTACT WITH CONCRETE/MASONRY | - | - |
| G= | - | - | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 1" AIR GAP (PART OF A DOUBLE STUD WALL) | - | UL 341 |
| H= | - | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | SHEATHING - SEE STRUCT. DWGS | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 1" AIR GAP (PART OF A DOUBLE STUD WALL) | - | UL 341 |
| Q= | FIBER CEMENT - CLAPBOARD SIDING | DRAINAGE WRAP - ASTM 2273 | SHEATHING - SEE STRUCT. DWGS | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL | - | - |
| R= | FIBER CEMENT - BATTEN AND BOARD SIDING | DRAINAGE WRAP - ASTM 2273 | SHEATHING - SEE STRUCT. DWGS | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL & SHEATHING LAYER, IF AT PARTY WALL (SEE STRUCT DWGS) | - | - |
| S= | 7/8" CORRUGATED METAL SIDING | DRAINAGE WRAP - ASTM 2273 | SHEATHING - SEE STRUCT. DWGS | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL & SHEATHING LAYER, IF AT PARTY WALL (SEE STRUCT DWGS) | - | - |
| T= | FIBER CEMENT - CLAPBOARD SIDING | DRAINAGE WRAP - ASTM 2273 | 5/8" FIBERGLASS MAT GYPSUM SHEATHING | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL & SHEATHING LAYER, IF AT PARTY WALL (SEE STRUCT DWGS) | - | UL U305 |
| U= | FIBER CEMENT - BATTEN AND BOARD SIDING | DRAINAGE WRAP - ASTM 2273 | 5/8" FIBERGLASS MAT GYPSUM SHEATHING | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL & SHEATHING LAYER, IF AT PARTY WALL (SEE STRUCT DWGS) | - | UL U305 |
| V= | 7/8" CORRUGATED METAL SIDING | DRAINAGE WRAP - ASTM 2273 | 5/8" FIBERGLASS MAT GYPSUM SHEATHING | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 5/8" GYP. BD OR CEMENT BACKERBOARD ON WET WALL & SHEATHING LAYER, IF AT PARTY WALL (SEE STRUCT DWGS) | - | UL U305 |
| W= | 7/8" CORRUGATED METAL SIDING | DRAINAGE WRAP - ASTM 2273 | SHEATHING - SEE STRUCT. DWGS | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | SHEATHING - SEE STRUCT. DWGS | DRAINAGE WRAP - ASTM 2273 | 7/8" CORRUGATED METAL SIDING |
| X= | 7/8" CORRUGATED METAL SIDING | DRAINAGE WRAP - ASTM 2273 | 5/8" FIBERGLASS MAT GYPSUM SHEATHING | SEE WALL STUD SCHEDULE - STRUCT. DWGS. - W/(R-19) BATT INSULATION | 5/8" FIBERGLASS MAT GYPSUM SHEATHING | DRAINAGE WRAP - ASTM 2273 | 7/8" CORRUGATED METAL SIDING |
| Z= | - | - | 16 GA PERFORATED GALV. STEEL | 2.5" 12GA. STRUCTURAL METAL STUD - C/P90 GALV. | - | - | - |

- 4TH NUMBER: FIRE RATING
 - 0=0 HOUR
 - 1=1 HOUR
 - 2=2 HOUR
 - 3=3 HOUR
 - 5=1/2 HOUR

- 5TH (AND BEYOND) LETTERS = MODIFIERS
 - A=PARTIAL HEIGHT PARTITION (WALL LAYER 1, 2, & 3 TO EXTEND 4" ABOVE FINISHED CEILING HEIGHT)
 - B=PARTIAL HEIGHT WALL (WALL LAYER 1, 2, & 3 TO TERMINATE AT OR BELOW HUNG CEILING)
 - D=FULL HEIGHT TO UNDERSIDE OF STRUCTURAL DECK/SHEATHING (CORE AND WALL LAYER 1, 2, & 3 TO TERMINATE AT STRUCTURAL DECK)
 - F=FULL HEIGHT TO THE BOTTOM OF STRUCTURE
 - K=KNEE WALL PARTITION
 - R=FURRED OUT WALL

- EXAMPLE: M358B0AR
 - M=METAL
 - 358=3 5/8" METAL STUD
 - B=20 GA METAL STUDS 16" O.C. W/ BATT INSULATION
 - 0=0 HOUR
 - A=PARTIAL HEIGHT PARTITION (WALL LAYER 1, 2, & 3 TO EXTEND 4" ABOVE FINISHED CEILING HEIGHT)
 - R=FURRED OUT WALL



2A
A800 W4 () 5F PARTY WALL - 1 HR RATED WALL (ONLY NEEDS TO BE 1/2 HR RATED)
3" = 1'-0"

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6-10-22

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NOTES TO PLUMBING CONTRACTOR:

1. ALL WORK WILL BE PERFORMED BY A LICENSED PLUMBER AND CONFORM TO ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES.
2. INSULATE ALL WATER LINES. IN EXTERIOR AND UNCONDITIONED SPACES, INSULATE AGAINST MODERATE FREEZE AS PER CODE.
3. ALL EQUIPMENT USING CONNECTIONS TO THE POTABLE WATER SUPPLY SYSTEM THAT CAN CREATE A POSSIBLE CROSS CONNECTION EFFECT ON HEALTH REQUIRE BACKFLOW PROTECTION. BACKFLOW PROTECTION DEVICES SHALL BE THIRD PARTY CERTIFIED.
4. NO PLUMBING VENT SHALL BE WITHIN 10 FEET FROM ANY FRESH AIR INTAKE. REFER TO MECHANICAL PLANS FOR LOCATIONS.
5. COORDINATE ALL WORK WITH OTHER TRADES.
6. PROVIDE ALL CLEANOUTS AS REQUIRED BY CODE. ALL VISABLE CLEANOUTS OR COVERS ARE TO BE IN A LOCATION APPROVED BY ARCHITECT.
7. INSTALL ISOLATION VALVES FOR ALL FIXTURES AND EQUIPMENT.
8. COORDINATE ALL SHUTDOWNS WITH OWNER OR OWNERS DESIGNATED REPRESENTATIVE AND AFFECTED TENANTS.
9. SET HOT WATER TEMPERATURE AT 140°. PROVIDE MIXING VALVE WITH ACCESS TO REDUCE WATER TEMPERATURE TO 110° TO SUPPLY HAND SINK AND LAVS.
10. ROUTE ALL HVAC CONDENSATE DRAINS TO NEAREST APPROVED INDIRECT WASTE RECEPTOR TYP OR LAV TAIL PIECE. COORDINATE WITH MECHANICAL CONTRACTOR.
11. FIRE SEAL ALL PENETRATIONS AT FIRE BARRIERS HORIZONTALLY AND VERTICALLY BETWEEN UNITS TO MAINTAIN FIRE SEPARATION VALUES.

NOTES BY SYMBOL

1. EXTEND 3/4" COLD WATER TO UNIT. AT WATER HEATER PROVIDE 1/4 TURN BALL VALVE AND SUB-METER WITH UNIONS. EXTEND COLD WATER TO EWH-1 SUSPENDED FROM CEILING ABOVE WASHING MACHINE.
2. EXTEND 1/2" CW & HW TO WM-1 FIRE RATED BOX FOR WASHING MACHINE. INSTALL PER MANUFACTURES INSTRUCTIONS TO MAINTAIN WALLS RATING.
3. EXTEND 1/2" CW & HW TO SK-1. PROVIDE 1/4 TURN VALVE AND BRAIDED STAINLESS STEEL HOSES. PROVIDE DUAL VALVE SHUT OFF UNDER SINK FOR HOT WATER CONNECTION TO DISHWASHER.
4. MAKE PLUMBING CONNECTIONS TO DISHWASHER AND PROVIDE VACUUM BREAK IN SINK FOR DRAIN.
5. EXTEND 1/2" CW TO FIRE RATED ICE BOX. INSTALL PER MANUFACTURES INSTRUCTIONS TO MAINTAIN WALLS RATING.
6. EXTEND 1/2" CW & HW TO LAVATORY. PROVIDE 1/4 TURN VALVE AND BRAIDED STAINLESS STEEL HOSES.
7. EXTEND 1/2" CW TO WATER CLOSET WITH 1/4 TURN VALVE AND BRAIDED STAINLESS STEEL HOSES.
8. EXTEND 1/2" CW TO TUB/SHOWER FIXTURES.
9. ROUTE 3/4" TPR VALVE AND DRAIN PAN LINE TO AUXILIARY WASTE BOX ADJACENT TO WASHING MACHINE BOX AND PROVIDE AIR GAP. INSTALL PER MANUFACTURES INSTRUCTIONS TO MAINTAIN WALLS RATING.
10. ROUTE DISHWASHER DRAIN TO VACUUM BREAKER AT SINK AND CONNECT TO GARBAGE DISPOSAL.

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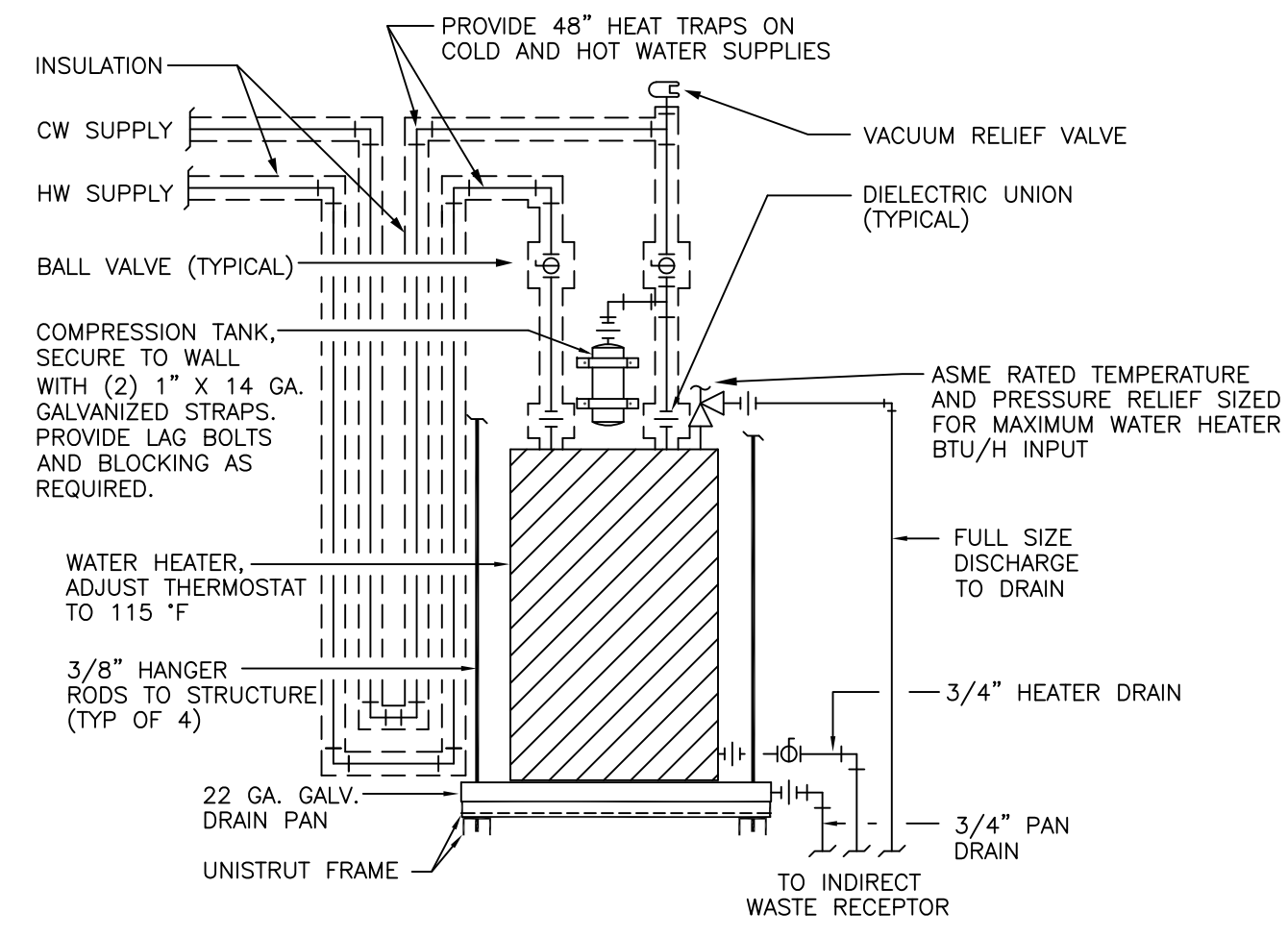
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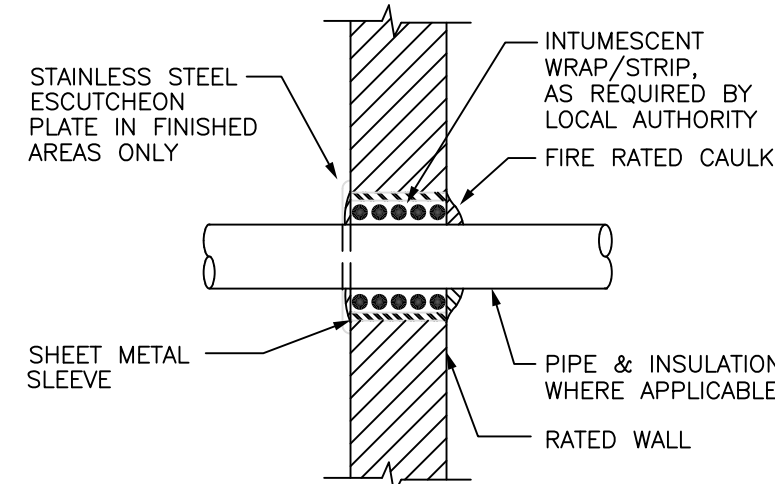
1 PLUMBING WATER PLAN - UNITS 1 / 2 / 3
1/4" = 1'-0" MIRRORED 4 / 5 / 6

2 PLUMBING WASTE PLAN - UNITS 1 / 2 / 3
1/4" = 1'-0" MIRRORED 4 / 5 / 6

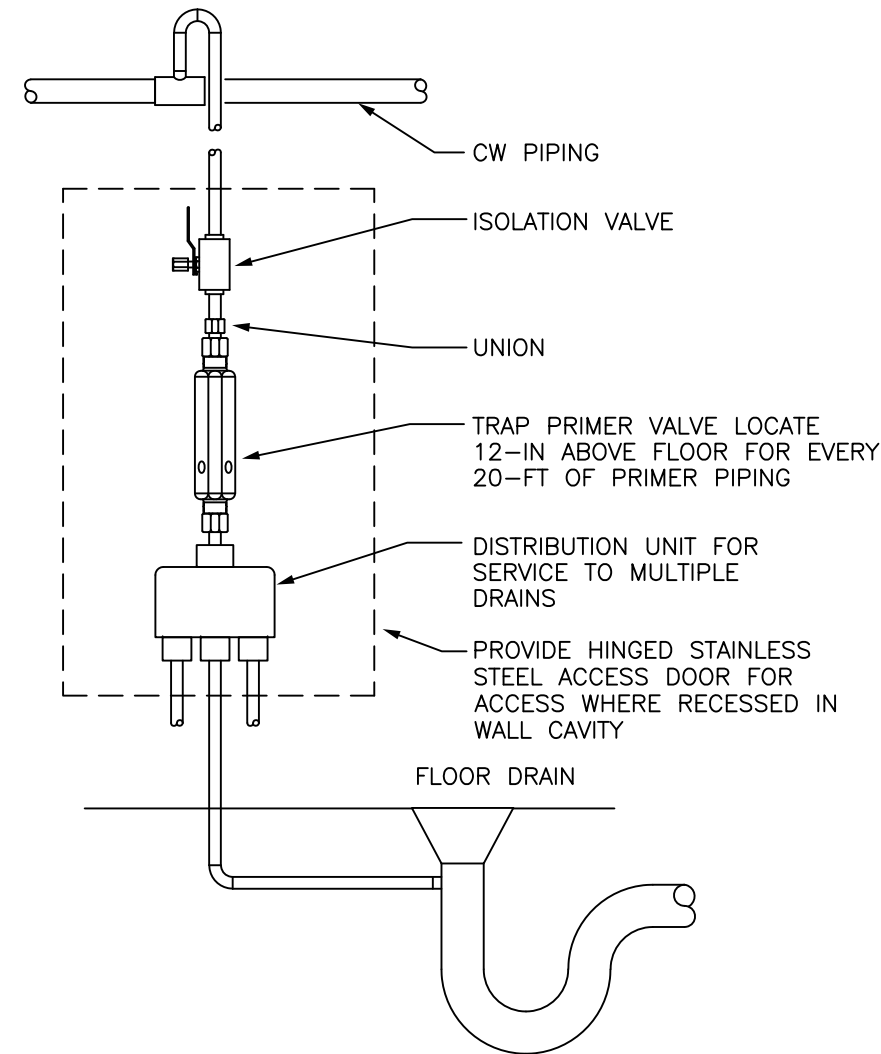
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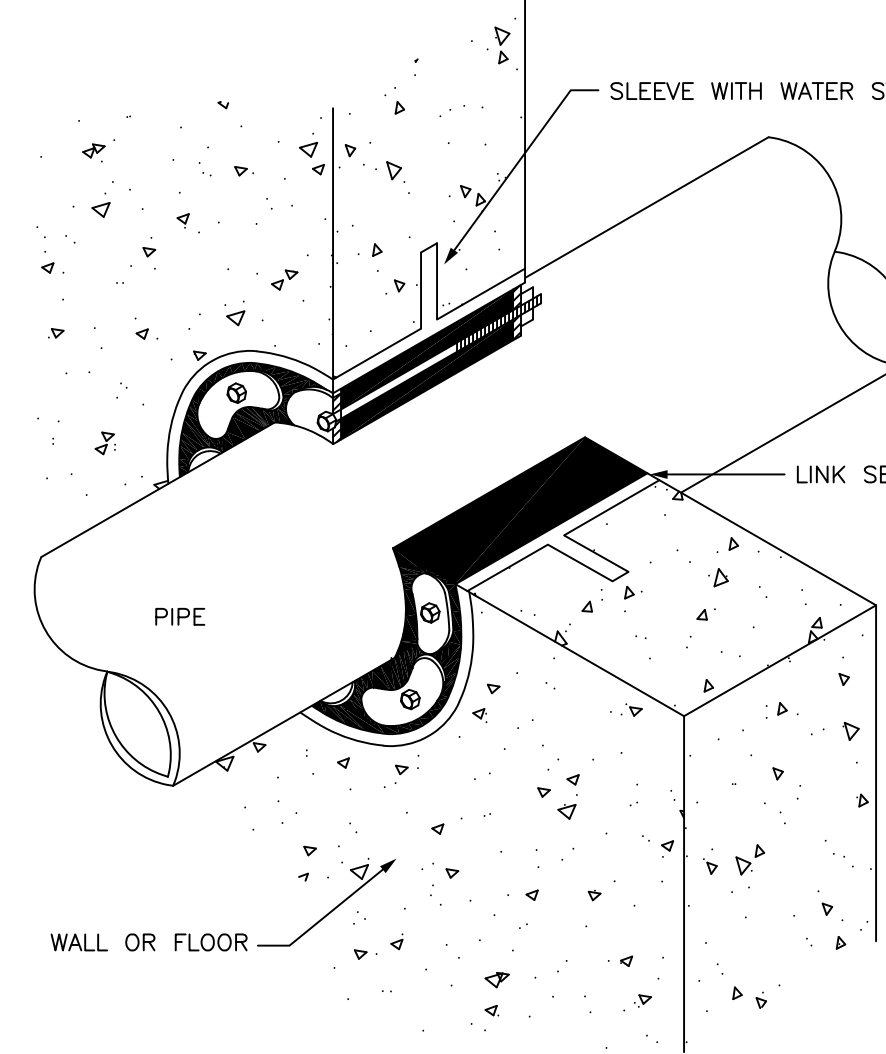
1 SUSPENDED WATER HEATER DETAIL (EWH-1) NTS



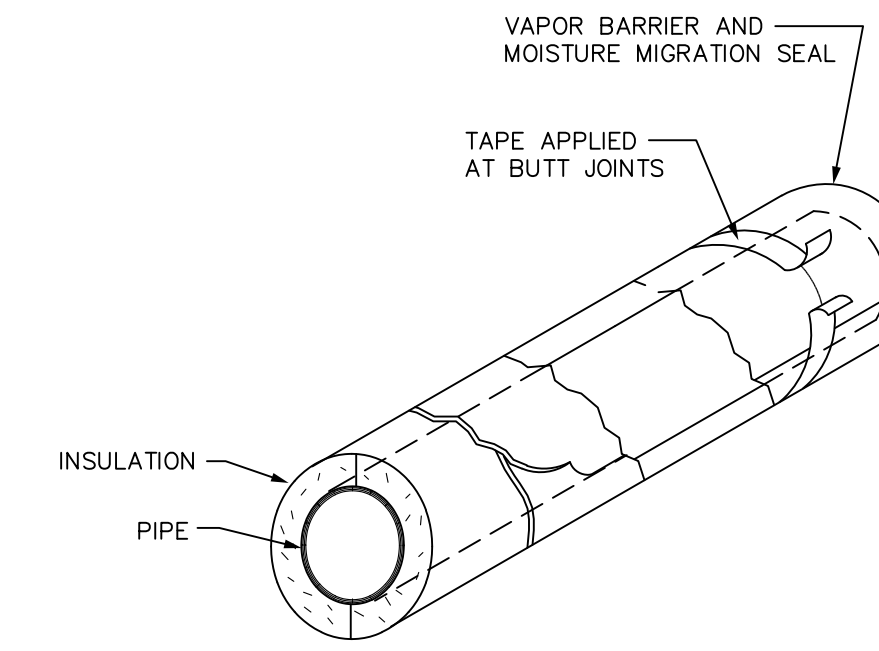
2 FIRE RATED PIPE PENETRATION NTS



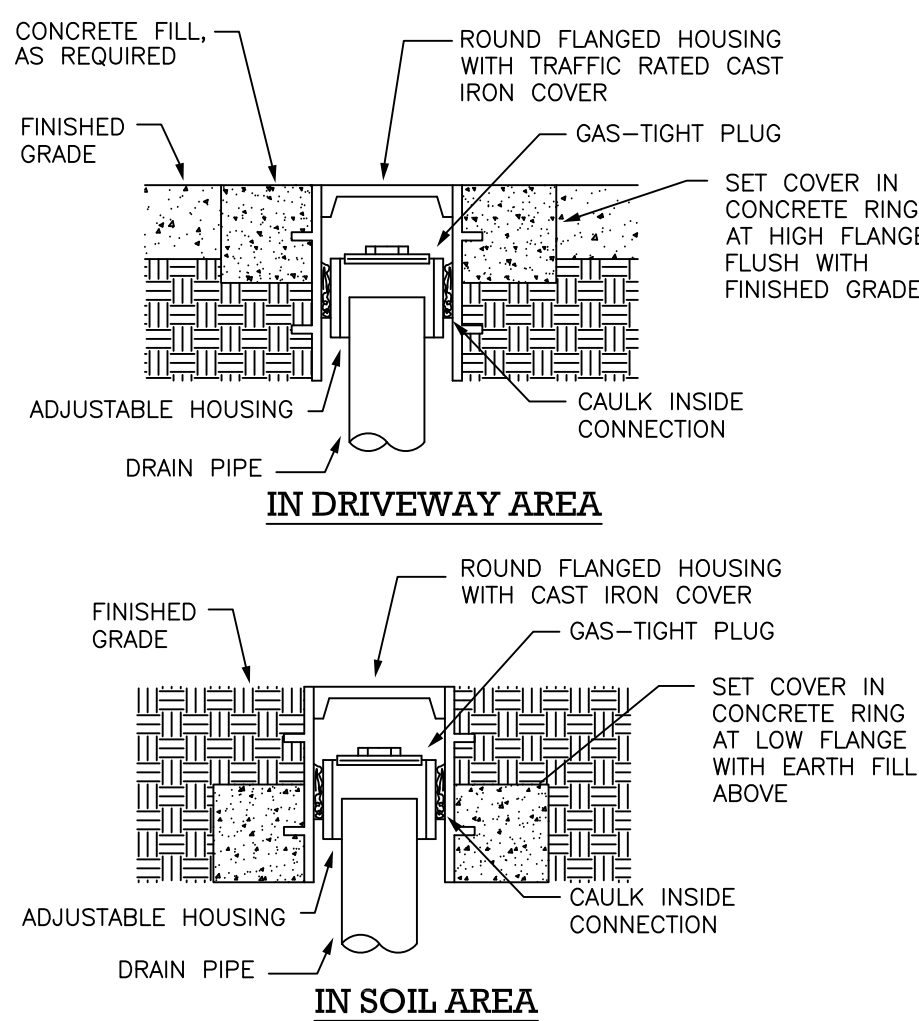
3 PRESSURE TYPE TRAP PRIMER NTS



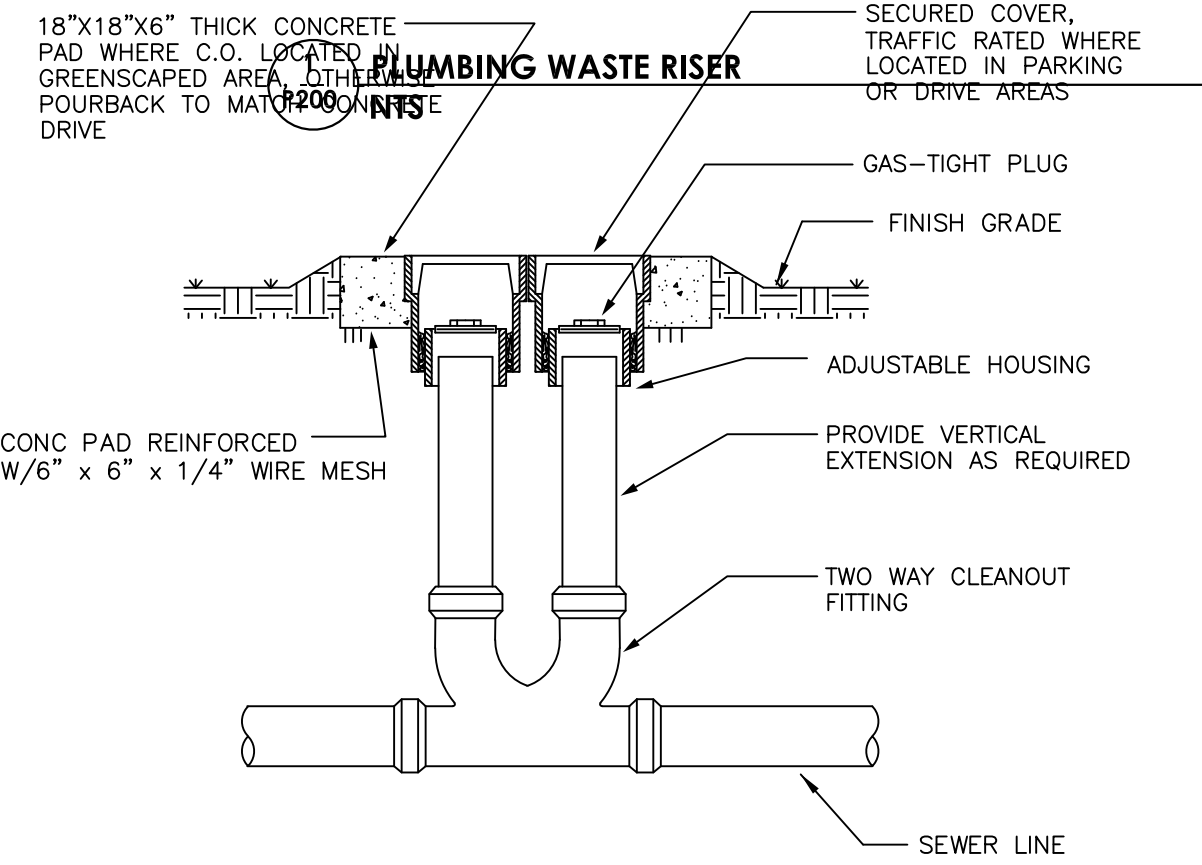
4 WATER TIGHT SEAL NTS



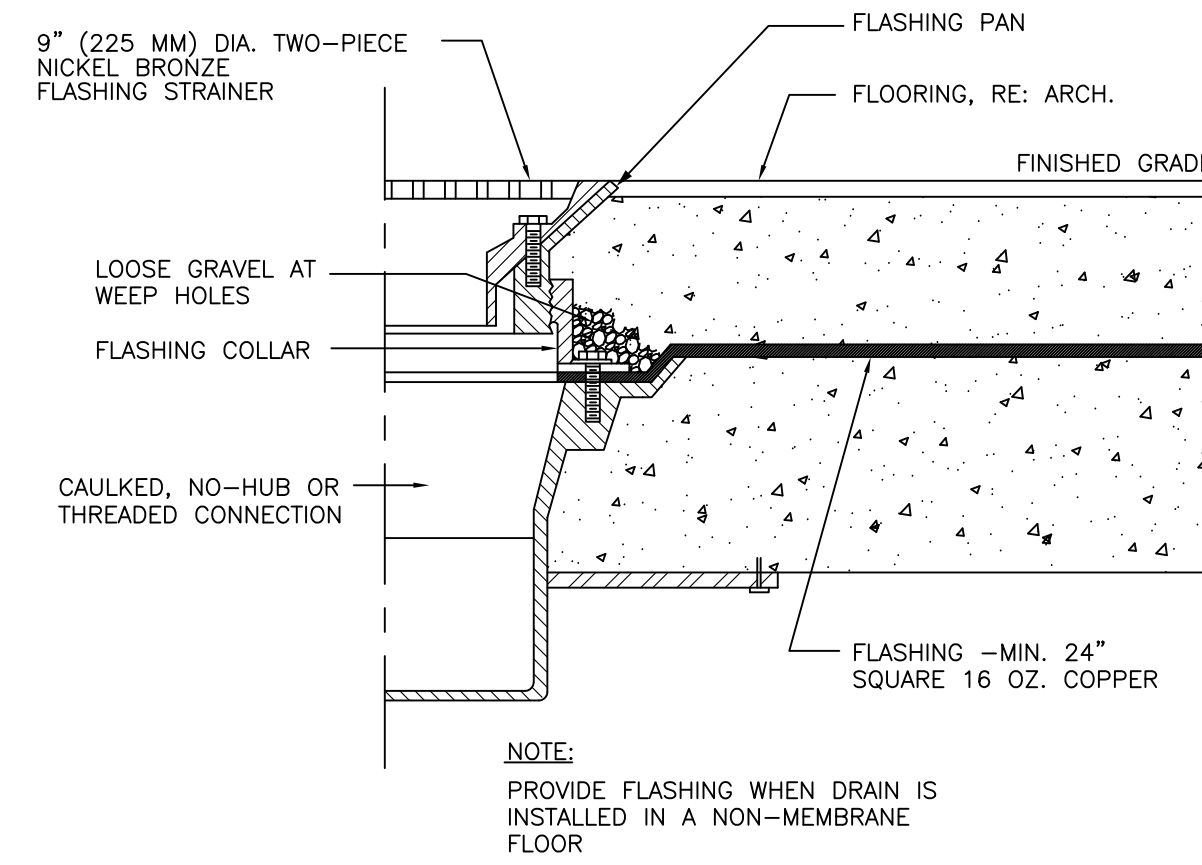
5 PIPE INSULATION AND VAPOR JACKET NTS



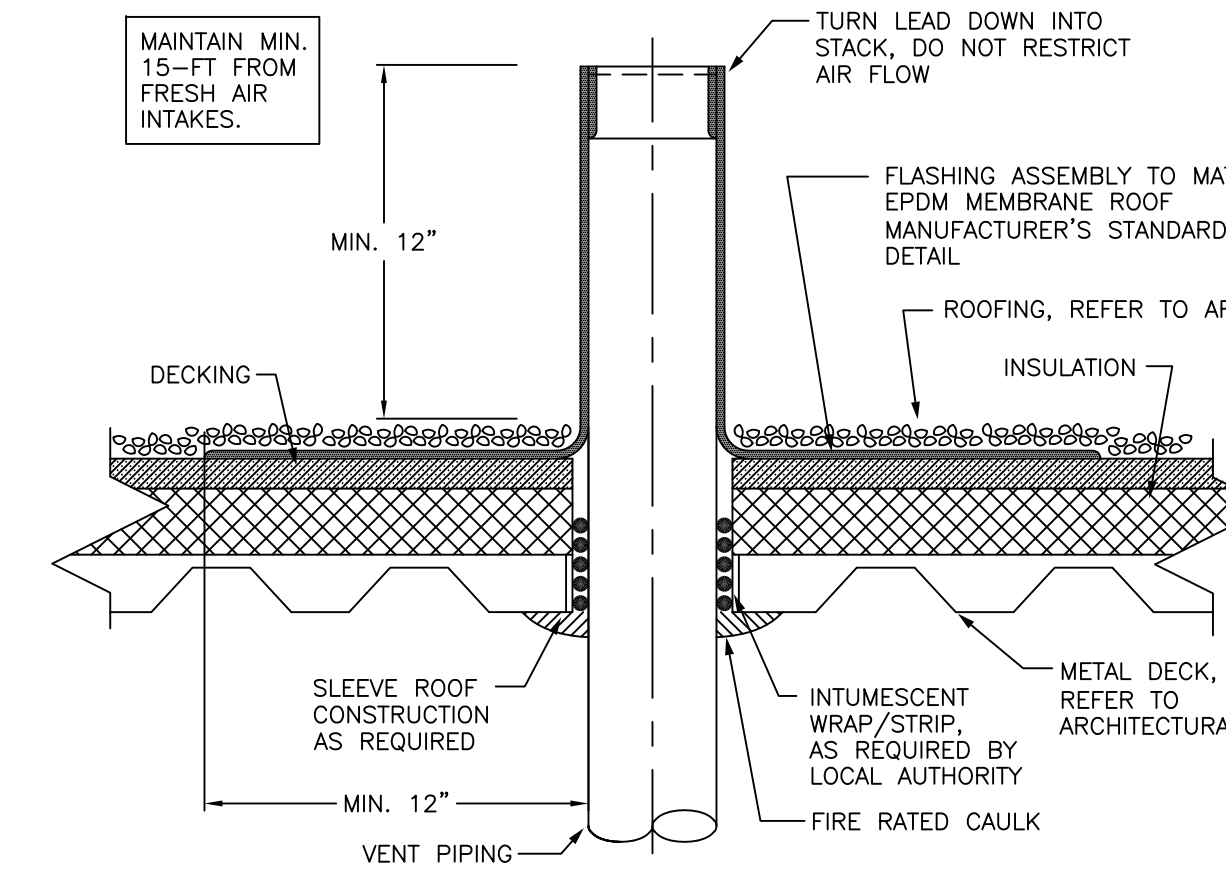
6 EXTERIOR CLEAN-OUT NTS



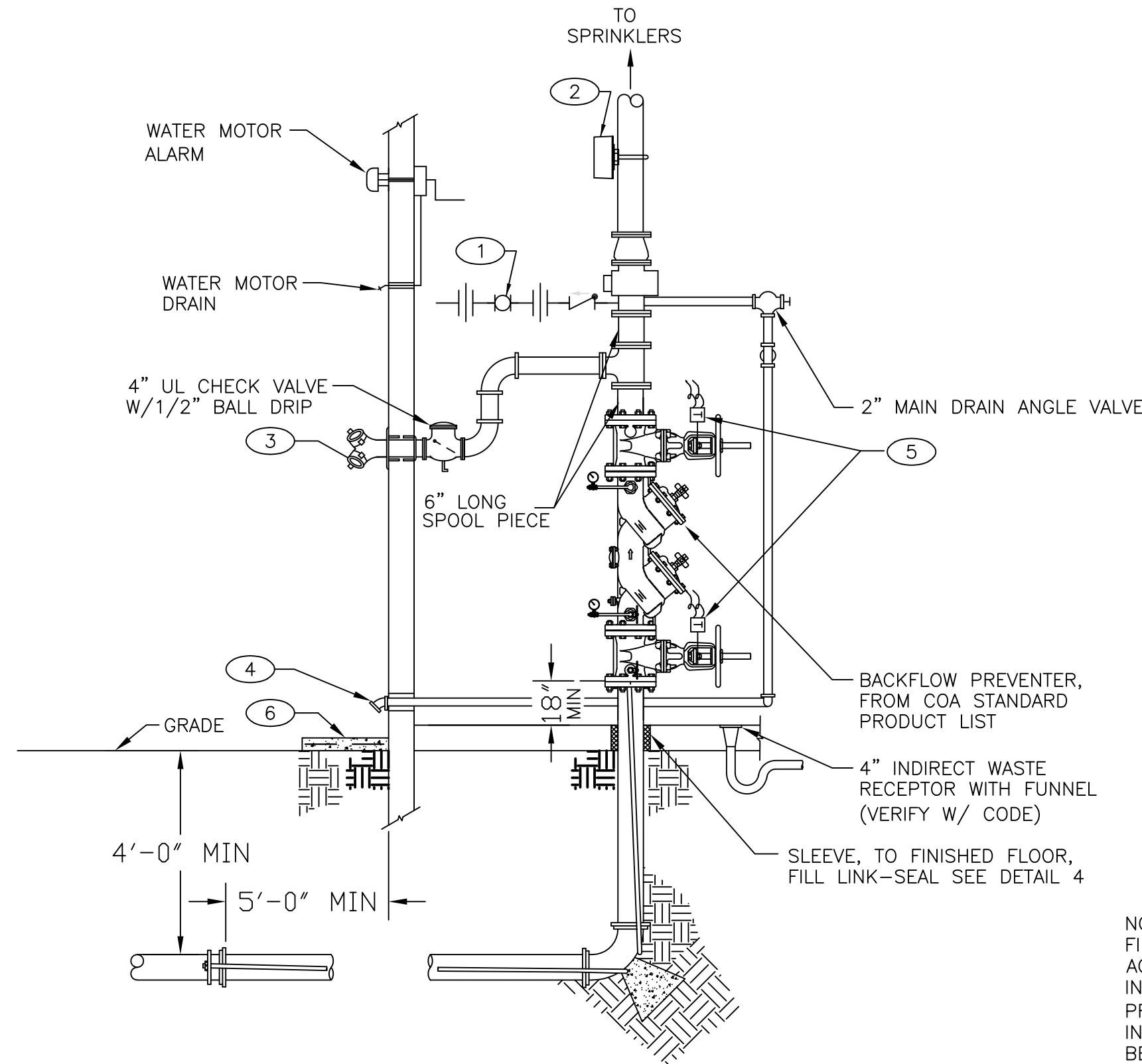
7 DOUBLE YARD CLEAN-OUT NTS



8 INDIRECT WASTE RECEPTOR NTS



9 VENT THROUGH ROOF NTS

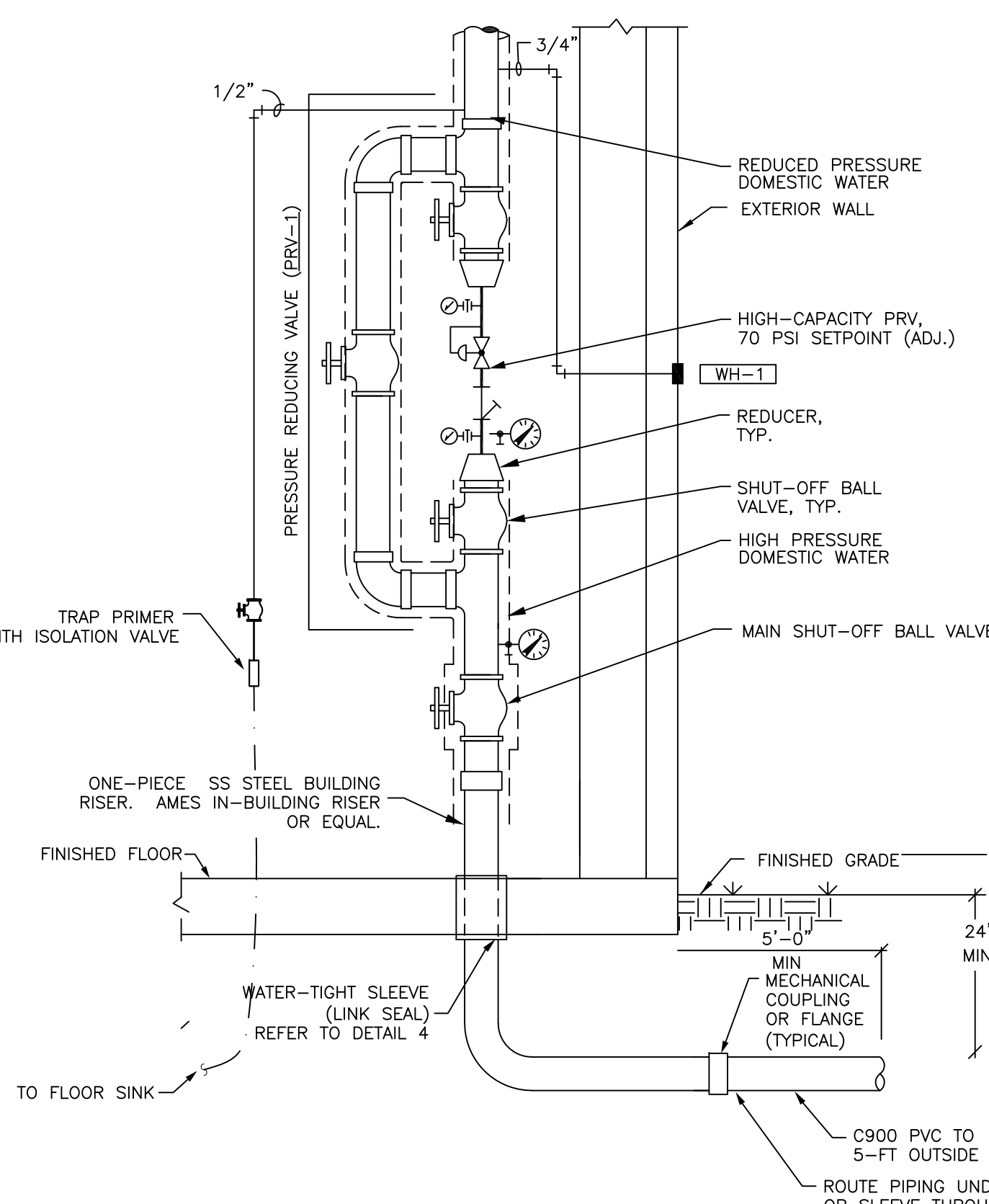


10 FIRE RISER DETAIL NTS

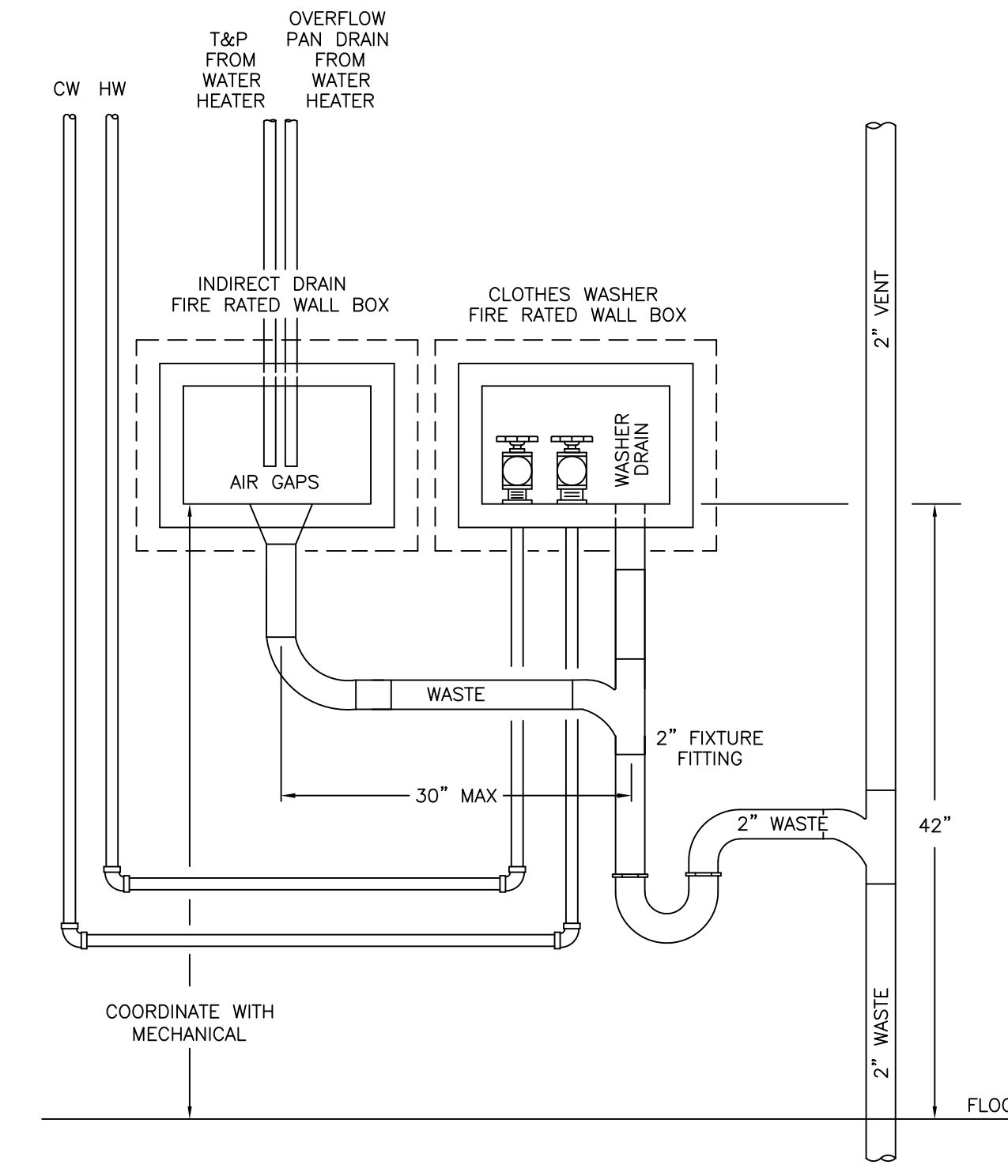
KEYED NOTES:

- ALARM SHUTOFF VALVE WITH TAMPER SWITCH.
- FLOW SWITCH
- 2-1/2" X 2-1/2" FIRE DEPARTMENT SIAMESE CONNECTION.
- 2" MAIN DRAIN WITH 45° ELBOW TURN DOWN.
- TAMPER SWITCH.
- CONCRETE SPLASH BLOCK.

NOTE: THIS DETAIL IS REPRESENTATIONAL ONLY. FIRE PROTECTION CONTRACTOR TO PROVIDE ACTUAL DESIGN, SIZING, LOCATION, AND DETAILS IN SHOP DRAWING SUBMITTALS. BACKFLOW PREVENTER (DOUBLE CHECK VALVE) TO BE INSTALLED. TRAP PRIMER FOR FLOOR SINK TO BE INSTALLED.



11 DOMESTIC RISER DETAIL NTS



12 LAUNDRY/INDIRECT WASTE BOX DETAIL NTS

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DUDDLEY
STRUCTURAL

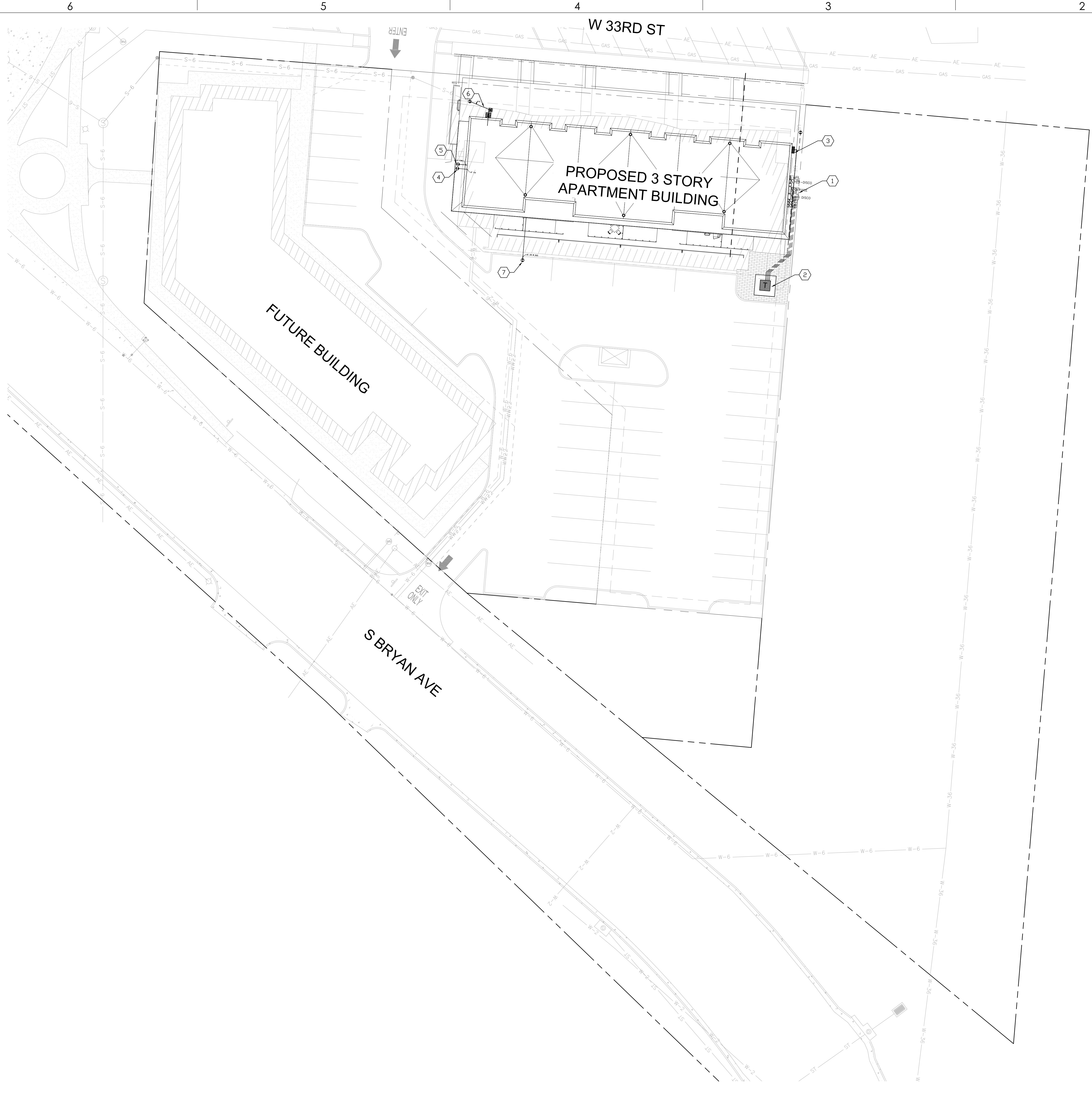
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STATE OF TEXAS
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NOTES BY SYMBOL "⬡"

1. INSTALL NEW ELECTRICAL SERVICE FOR BUILDING. ROUTE SERVICE FEEDERS UNDERGROUND FROM TRANSFORMER. SEE ELECTRICAL RISER SHEET E200.
2. APPROXIMATE LOCATION OF ELECTRIC UTILITY TRANSFORMER. COORDINATE PAD AND PRIMARY CONDUIT REQUIREMENTS WITH BRYAN TEXAS UTILITIES.
3. APPROXIMATE LOCATION OF CABLE TV / INTERNET DEMARK LOCATION. COORDINATE UNDERGROUND CONDUIT SIZE WITH UTILITY COMPANY. FOR PRICING USE 2-1/2" PVC.
4. APPROXIMATE LOCATION OF WATER LINE. COORDINATE WITH CIVIL SITE PLAN.
5. APPROXIMATE LOCATION OF FIRE LINE. COORDINATE WITH CIVIL SITE PLAN.
6. APPROXIMATE LOCATION OF SEWER LINE. COORDINATE WITH CIVIL SITE PLAN.
7. APPROXIMATE LOCATION OF STORM SEWER. COORDINATE WITH CIVIL SITE PLAN.

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 6102 Imperial Loop Drive
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 (979) 777-0720

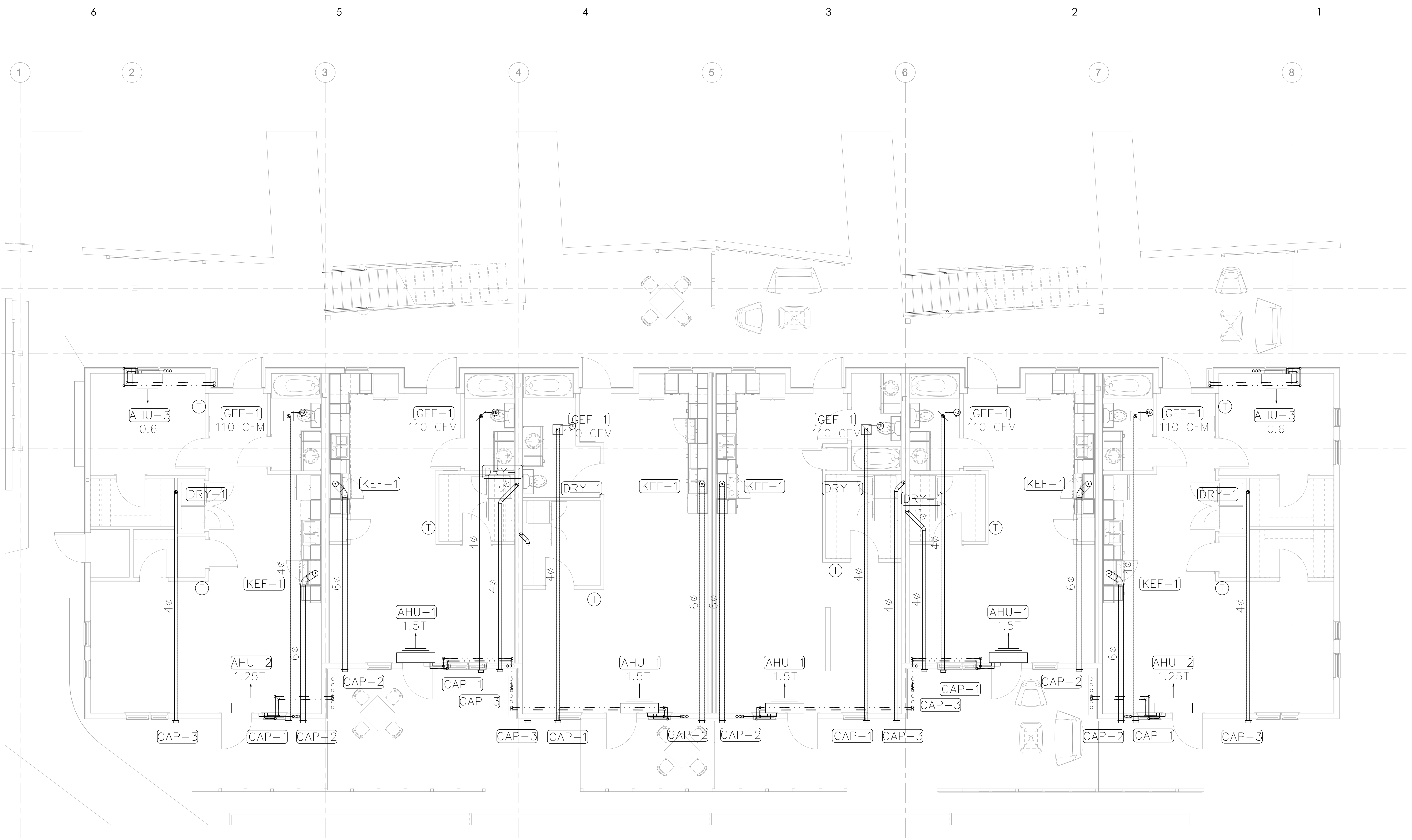
amc ENGINEERS
 MEP: AMC Engineers
 508 E Jackson St # 552
 Burnet, TX 78611
 info@amcengineers.com

STATE OF TEXAS
 ADAM M. CULVER
 91747
 LICENSED PROFESSIONAL ENGINEER
 06/10/2022

openingdesign
 Architect: OpeningDesign
 17 S Fairchild | FL 7
 Madison, WI 53703
 ryan@openingdesign.com | 773.425.6456

| Date | Description |
|------------|-------------------|
| 06.10.2022 | Issued for Permit |

1 POWER PLAN - TYPICAL UNITS 1/2/3
 E100 1/4" = 1'-0" MIRRORED 4/5/6



- NOTES TO HVAC CONTRACTOR:**
- COORDINATE LOCATION OF ALL ROOF OR EXTERIOR WALL PENETRATIONS (IF ANY) WITH ARCHITECTURAL & BUILDING OWNER PRIOR TO STARTING WORK. ALL ROOF/WALL PENETRATIONS ARE TO BE FLASHED TO ROOF MANUFACTURERS SPECIFICATIONS AND DETAILS. MAINTAIN RATING OF WALL AND ROOF ASSEMBLY.
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MECHANICAL PLAN - FIRST FLOOR
 1/4" = 1'-0"

RENOVATION
 Wranglers
 Owner: Renovation Wranglers
 102 E 26th St
 Bryan, TX 77803
 kateneason@rme.com | 979.450.9969

LKB
 ARCHITECTURE
 Architect of Record: LKB Architecture
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 Houston, TX 77019
 isa@lkbarchitecture.com | 713.425.3076

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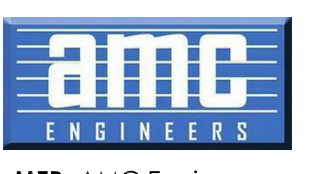
Owner: Renovation Wranglers
102 E 26th St
Bryan, TX 77803
katieneason@me.com | 979.450.9969



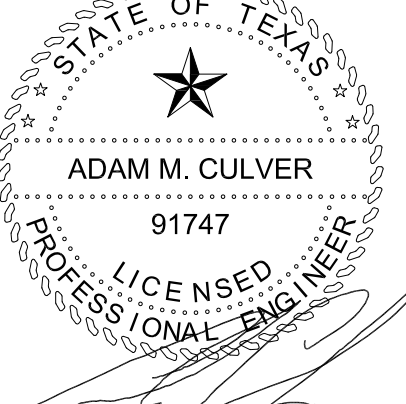
ARCHITECTURE
Architect of Record: LKB Architecture
2929 Allen Pkwy Suite 200
Houston, TX 77019
isa@lkbarchitecture.com | 713.425.3076



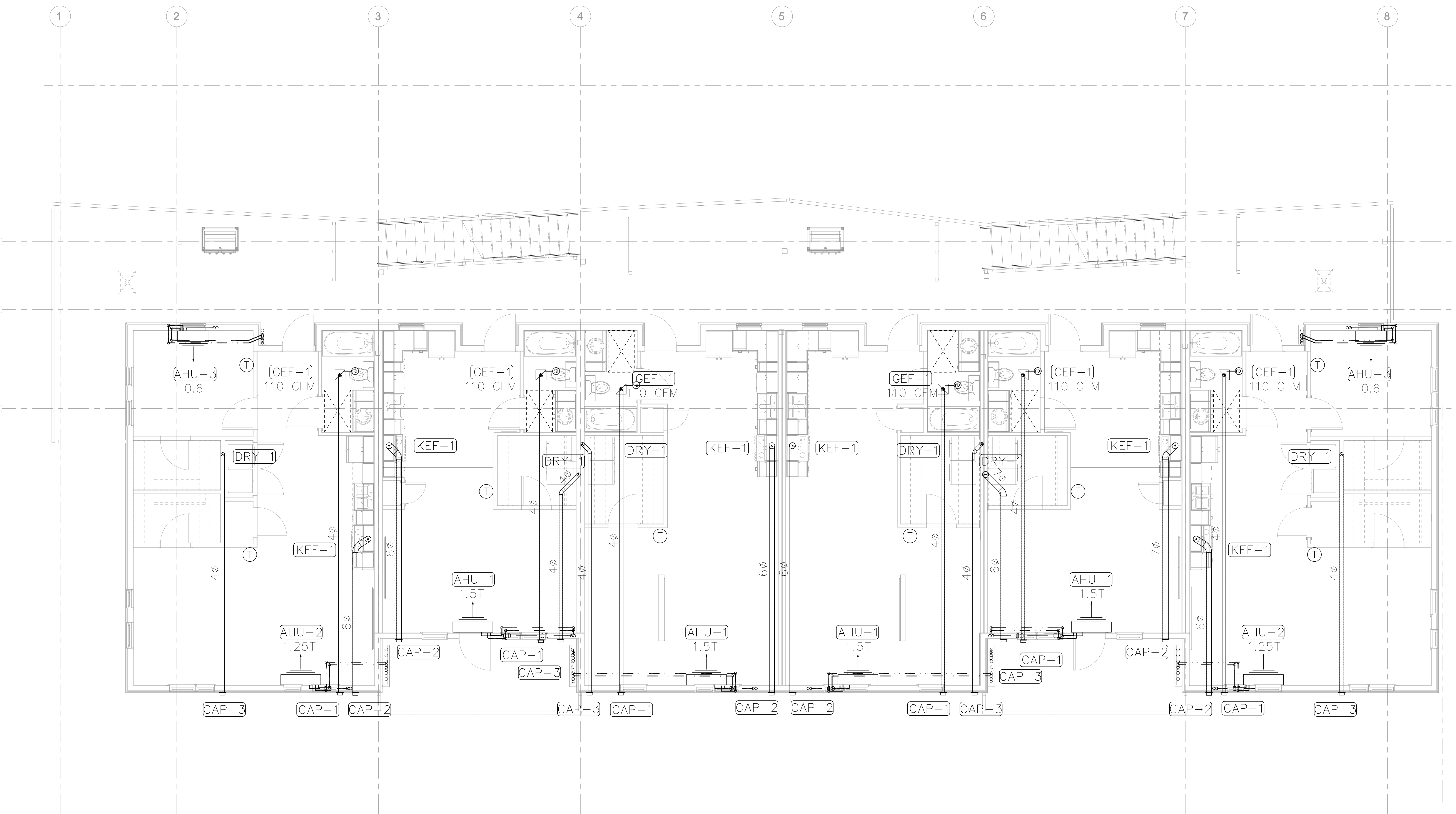
Structural: Dudley
6102 Imperial Loop Drive
College Station, TX 77845
(979) 777-0720



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MECHANICAL PLAN - SECOND FLOOR
1/4" = 1'-0"

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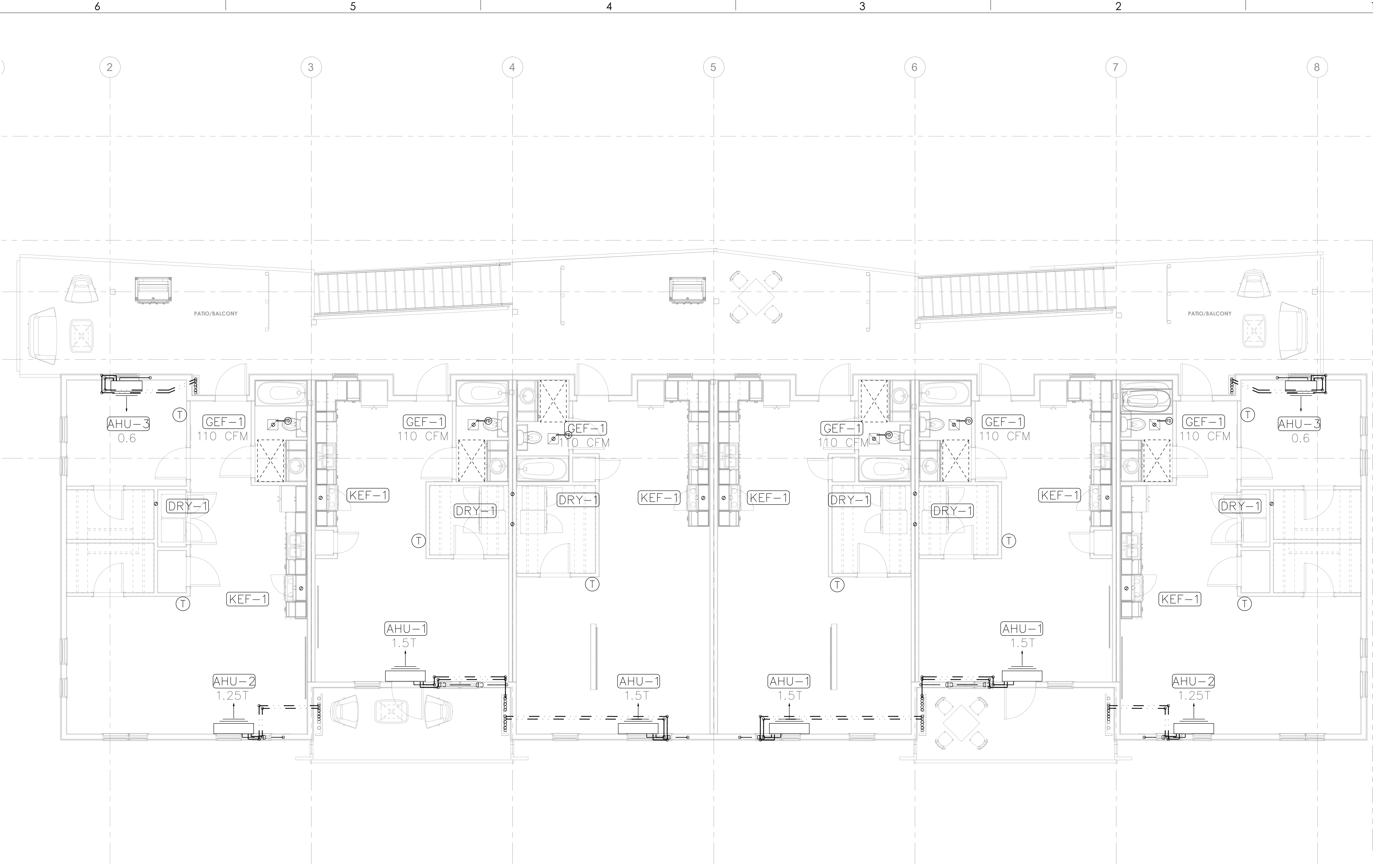
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MECHANICAL PLAN - THIRD FLOOR
 1/4" = 1'-0"

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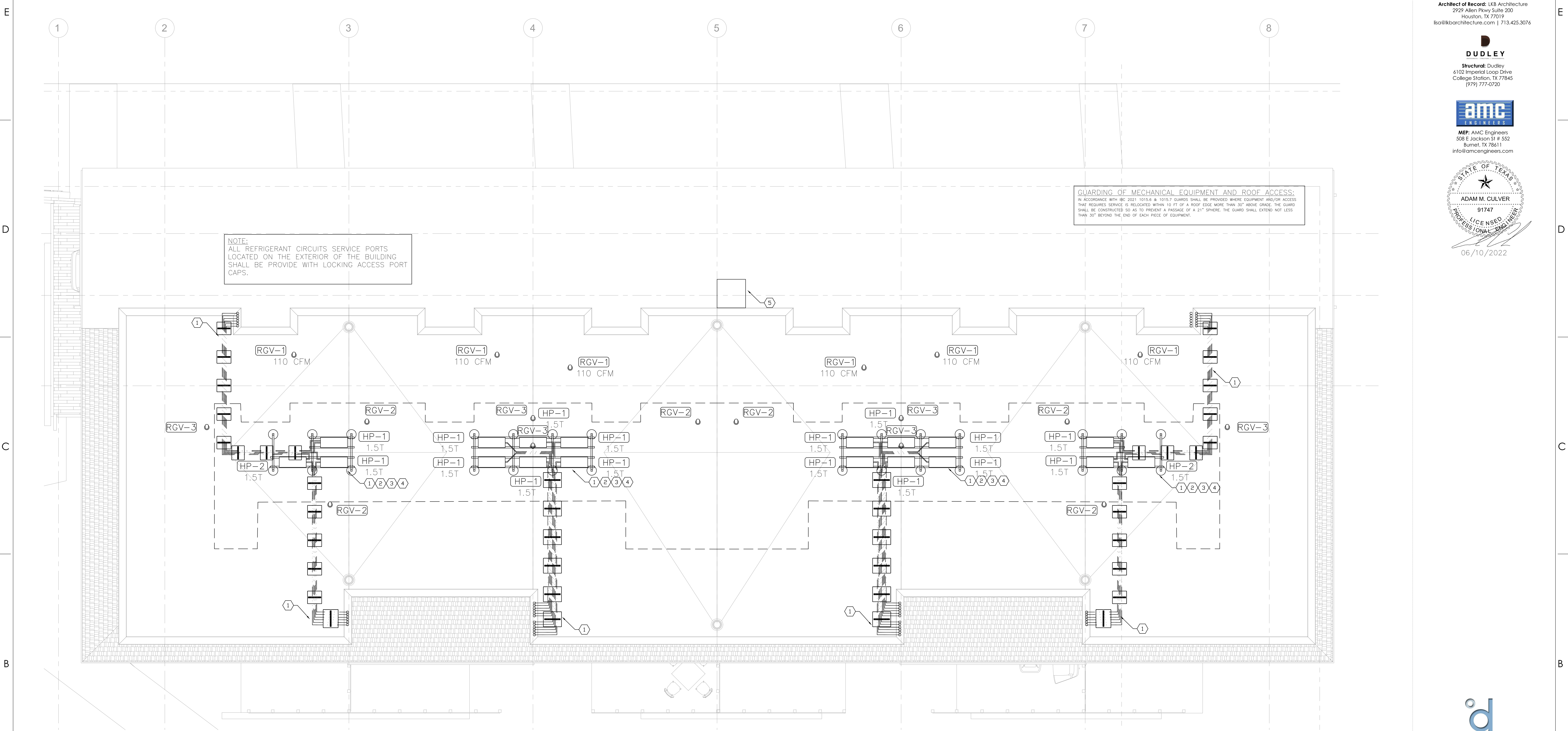
DUDLEY
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NOTE:
ALL REFRIGERANT CIRCUITS SERVICE PORTS
LOCATED ON THE EXTERIOR OF THE BUILDING
SHALL BE PROVIDED WITH LOCKING ACCESS PORT
CAPS.

GUARDING OF MECHANICAL EQUIPMENT AND ROOF ACCESS:
IN ACCORDANCE WITH IBC 2021 1015.6 & 1015.7 GUARDS SHALL BE PROVIDED WHERE EQUIPMENT AND/OR ACCESS
THAT REQUIRES SERVICE IS RELOCATED WITHIN 10 FT OF A ROOF EDGE MORE THAN 30" ABOVE GRADE. THE GUARD
SHALL BE CONSTRUCTED SO AS TO PREVENT A PASSAGE OF A 2" SPHERE. THE GUARD SHALL EXTEND NOT LESS
THAN 30" BEYOND THE END OF EACH PIECE OF EQUIPMENT.

NOTES TO HVAC CONTRACTOR:

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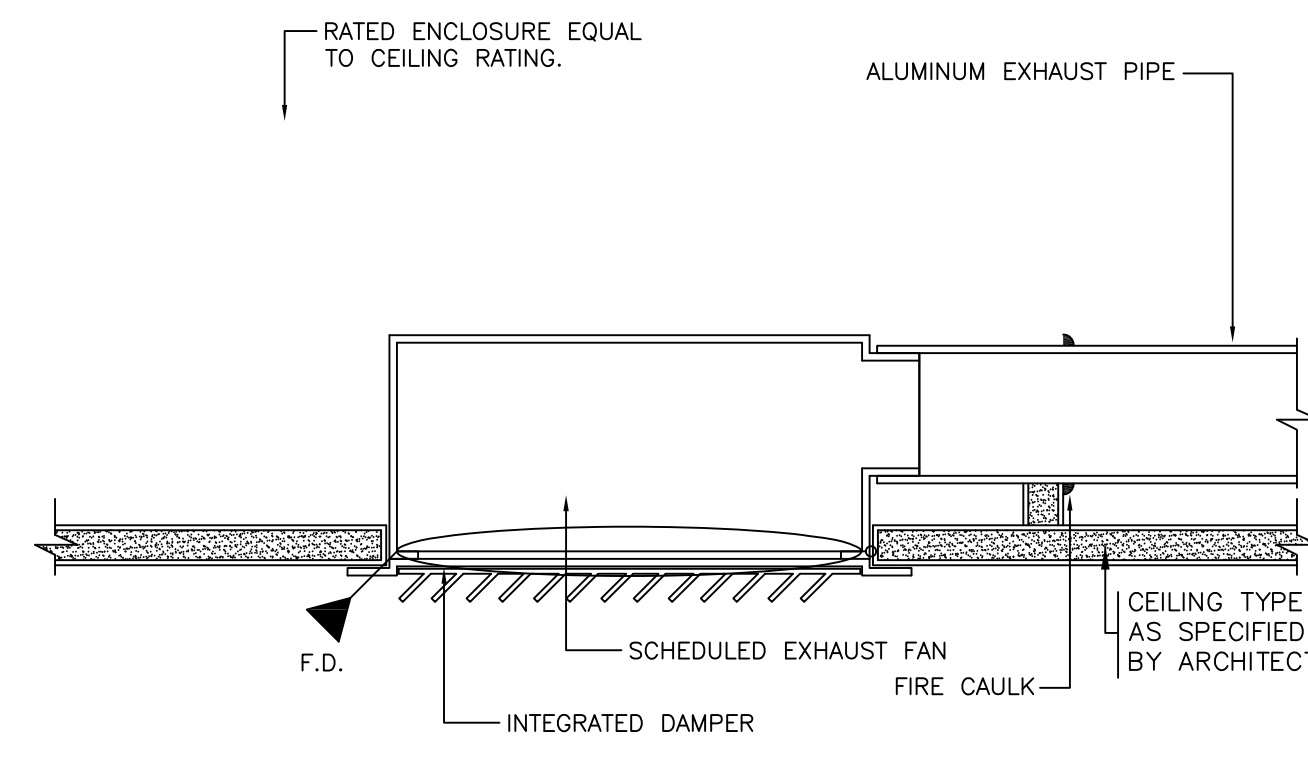
MECHANICAL PLAN - ROOF
1/4" = 1'-0"

NOTES BY SYMBOL "□"

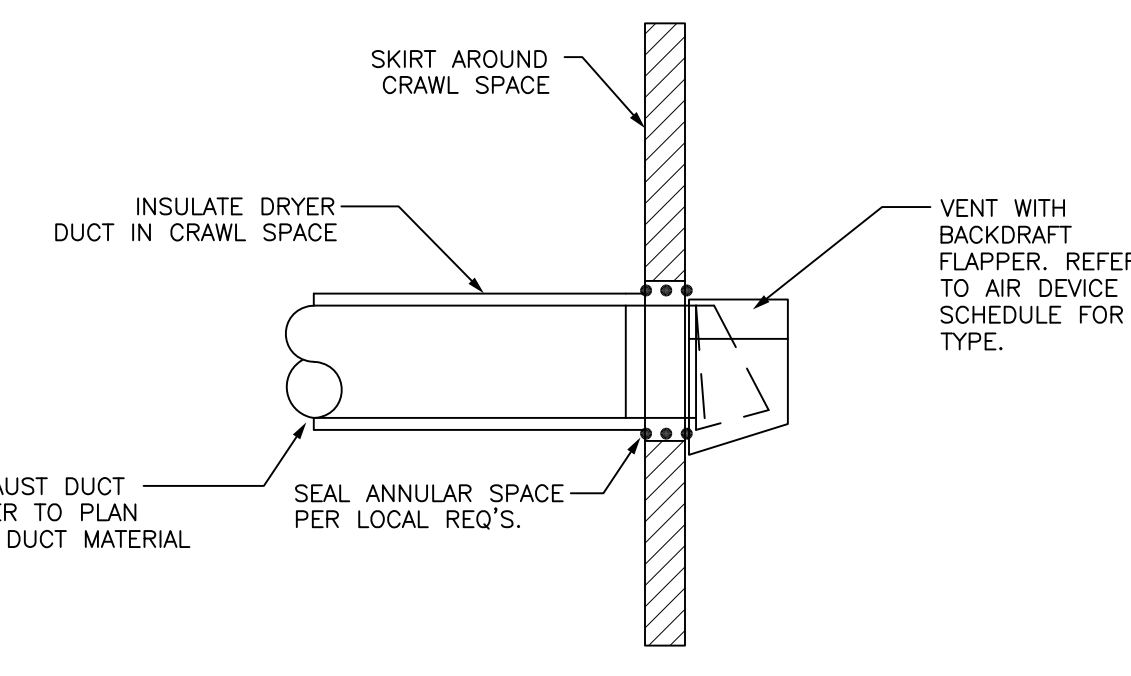
- PROVIDE HEAT PUMP MINI-SPLIT SYSTEM EQUIPMENT AS SCHEDULED. MOUNT ON ROOF SUPPORT SYSTEMS RTSEQR-MINI-SPLIT EQUIPMENTS SUPPORTS OR APPROVED EQUAL. POSITION AS REQUIRED TO ACHIEVE MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES. CONFIRM FINAL MOUNTING LOCATION WITH ARCHITECT. MECHANICAL CONTRACTOR TO PROVIDE THE FOLLOWING:
 - REFRIGERANT LINES: ROUTE REFRIGERANT LINES AS SHOWN AND MAINTAIN RATING OF CEILING AND WALL ASSEMBLES. ROUTE FROM COMPRESSOR TO PARAPET AS SHOWN AND SUPPORT ON MIRO INDUSTRIES 16-BASE STRUT-8 STRUT SUPPORT (OR APPROVED EQUAL) AT 3' OC OR MANUFACTURER'S RECOMMENDED SPACING. PENETRATE THRU PARAPET USING AIREX MFG TGS TITAN OUTLET (OR APPROVED EQUAL) ON BOTH SIDES OF THE PARAPET AND DOWN BEHIND ARCHITECTURAL COVER TO DESIGNATED FLOOR. COORDINATE ANY BLOCKING NEEDED WITH FRAMERS. WRAP REFRIGERANT LINES ON ROOF WITH UV PROTECTANT AND VAPOR RETARDER. FIELD VERIFY ALL DIMENSIONS PRIOR TO INSTALLATION. COORDINATE WALL PENETRATIONS WITH G.C. AND ARCHITECT.
- PROVIDE ROOFTOP SUPPORT SYSTEM RTSEQR-COMPRESSOR RACKS, OR APPROVED EQUAL, AS SHOWN FOR COMPRESSORS.
- LAYOUT ALL EQUIPMENT PRIOR TO INSTALLATION. VERIFY ALL REQUIRED MECHANICAL AND ELECTRICAL CLEARANCES AS REQUIRED BY CODE AND EQUIPMENT MANUFACTURERS.

- COORDINATE WITH ELECTRICAL CONTRACTOR LOCATION OF WP GFCI SERVICE RECEPTACLE ON ROOF. ALL EQUIPMENT TO BE WITHIN 25 FT OF A SERVICE RECEPTACLE.
- PROPOSED LOCATION OF PERMANENT ROOF ACCESS LADDER. LADDER IS ACCESSIBLE FROM 3RD FLOOR BALCONY OF BUILDING.

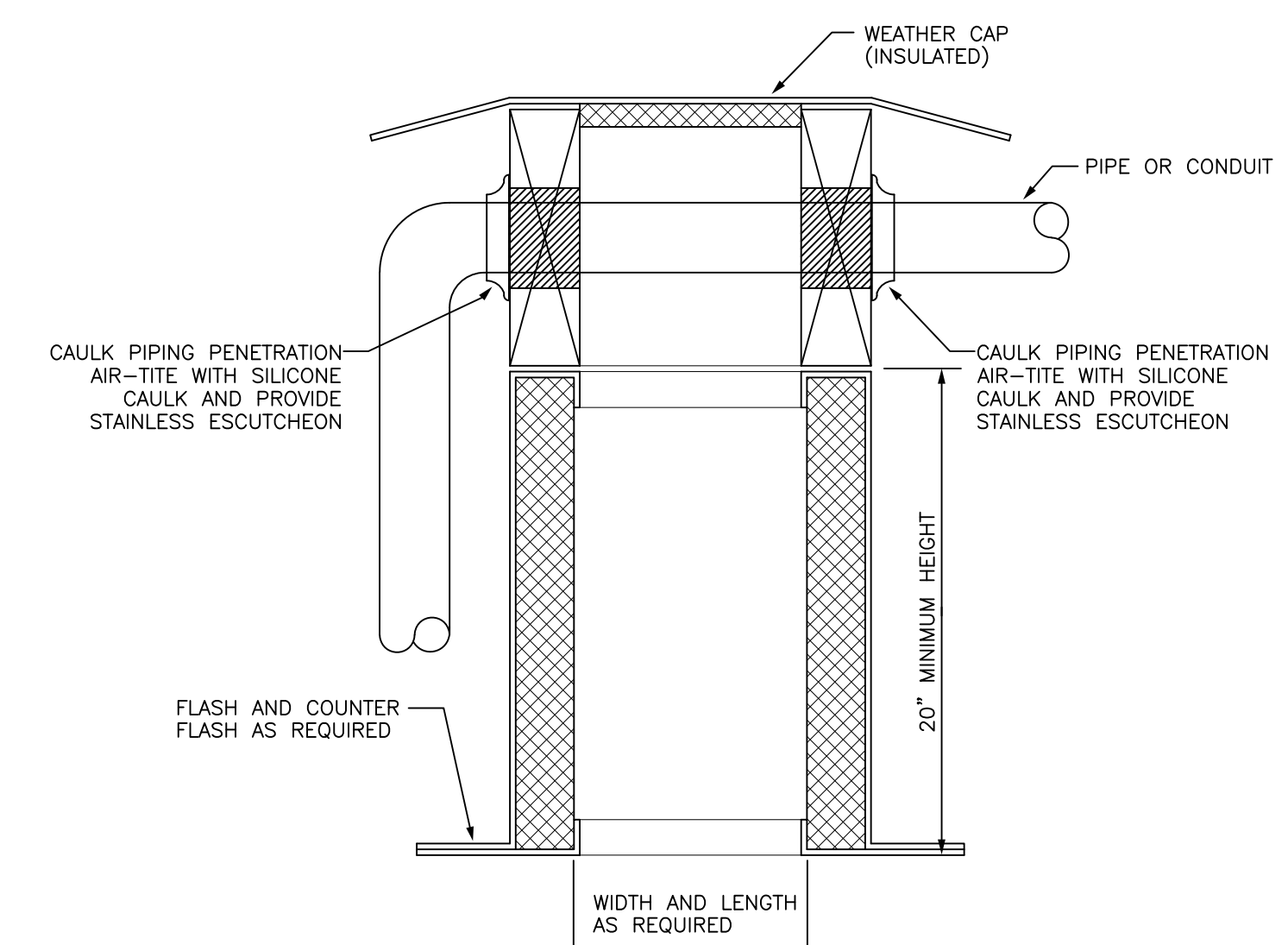
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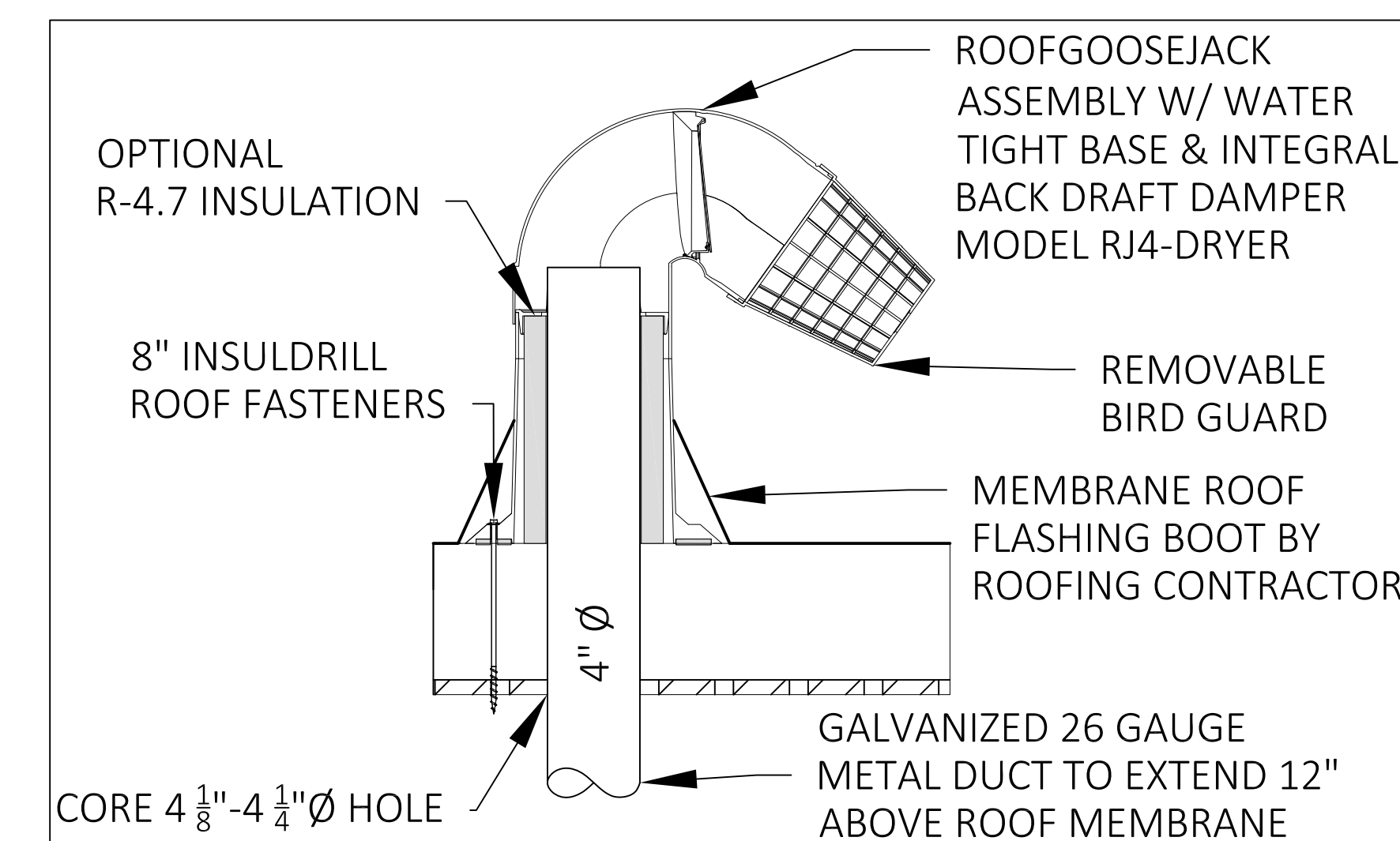
1 BATHROOM EXHAUST FAN NTS



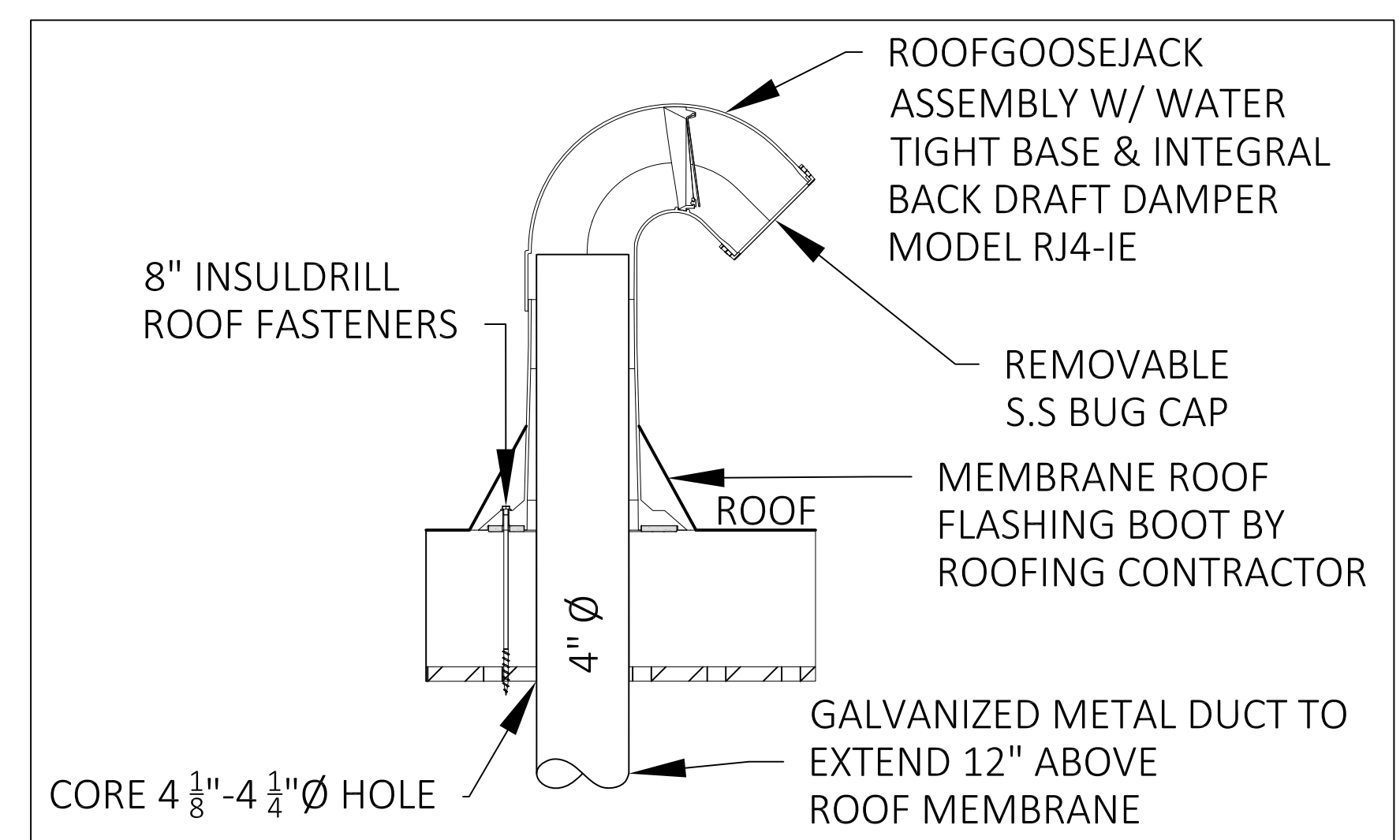
2 WALL CAP NTS



3 PARAPET PENETRATION NTS



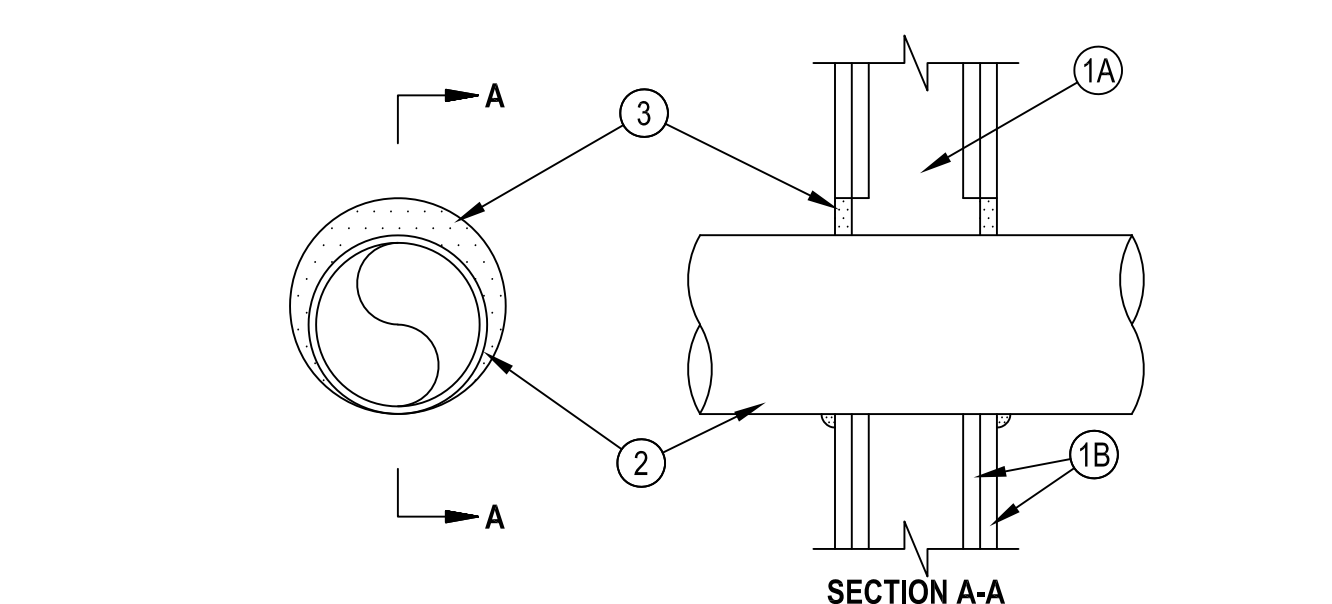
4 ROOF DRYER VENT DETAIL NTS



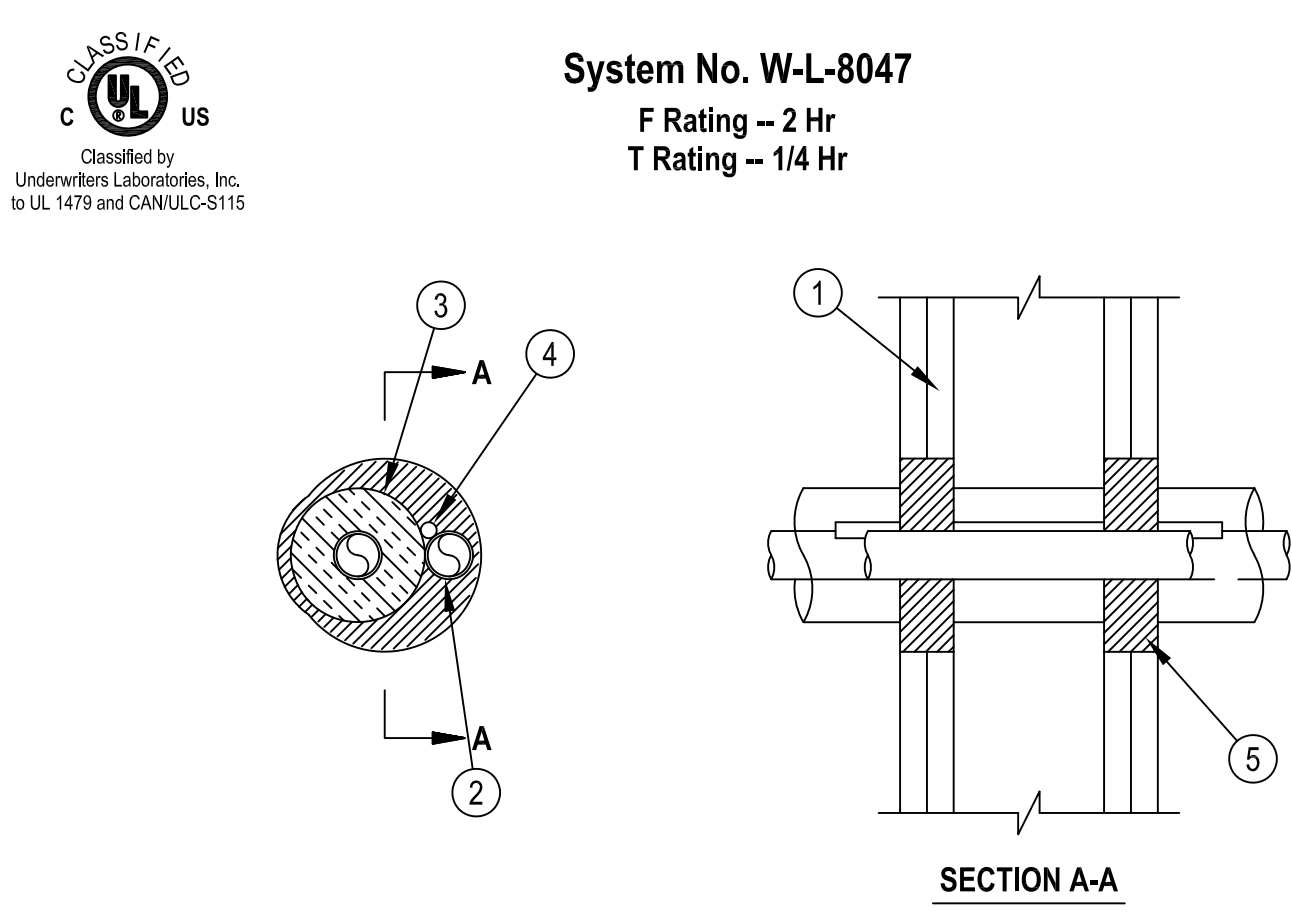
5 ROOF EXHAUST VENT DETAIL NTS

System No. W-L-1054

| ANSI/UL1479 (ASTM E814) | CANULC S115 |
|--|--|
| F Rating — 1 and 2 Hr (See Items 1 and 3) | F Rating — 1 and 2 Hr (See Items 1 and 3) |
| T Rating — 0 Hr | FT Rating — 0 Hr |
| L Rating (Without Movement) at Ambient — Less Than 1 CFM/sq ft | FH Rating — 1 and 2 Hr (See Items 1 and 3) |
| L Rating (Without Movement) at 400°F — Less Than 1 CFM/sq ft | FTH Rating — 0 Hr |
| M Rating (Movement) — See Table 1 | FTH Rating — 0 Hr |
| | L Rating at Ambient — Less Than 5.1 L/s/m ² |
| | L Rating at 204°C — Less Than 5.1 L/s/m ² |



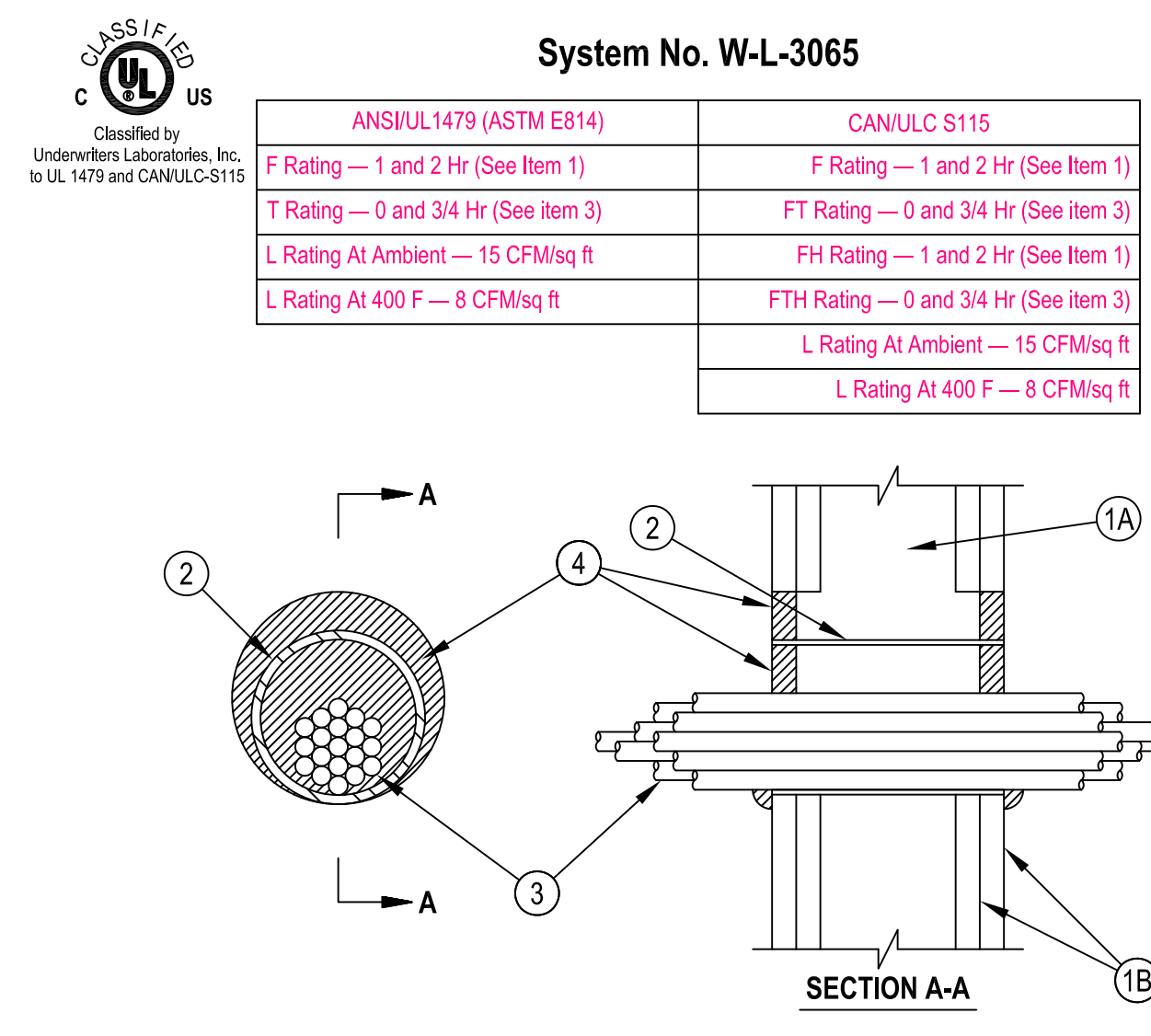
1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. For M Rating, steel studs to be min 3-5/8 in. (92 mm) wide. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
 - B. Gypsum Board — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls. The F and FH Ratings of the freestop system are equal to the fire rating of the wall assembly. The M Rating is applicable only to 1 hr rated walls.



1. Wall Assembly — The 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
 - B. Gypsum Board — The gypsum board type, thickness number of layers, fastener type and sheet orientation shall be specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max diam of opening is 4-1/2 in. (114 mm).
2. Through Penetrants — One or more pipe or tubing to be installed concentrically or eccentrically within the opening. The space between any penetrant and the periphery of the opening shall be min 0 in. (point contact) to max 1-1/4 in. (32 mm). Pipes or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
 - A. Copper Tube — Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tube.
 - B. Copper Pipe — Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Tube Insulation — Plastics — Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/styrene (ABS) or polyethylene (PE) flexible foam furnished in the form of tubing. Tube insulation to be installed on one or more of the metallic pipes or tubes. See Plastics (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.
4. Cables — Max of one 4 pair No. 16 AWG (or smaller) cable with PVC insulation and jacket materials.
5. Fill, Void or Cavity Material — Sealant — Min 1-1/4 in. (32 mm) thickness of fill material applied within annulus between penetrants and gypsum board, flush with both surfaces of wall. At point contact, a 1/4 in. (6 mm) bead of fill material shall be applied at the penetrant/gypsum board interface on both sides of wall.

| Movement Direction | Penetrant Item | Nominal Penetrant Diameter | Annular Space | Movement | Sealant Depth | F-Rating | L Rating with Movement |
|--------------------|----------------|----------------------------|---------------|----------|---------------|----------|------------------------|
| Y | 2A, 2C* | 2 in. | Max 2-1/4 in. | 5% | 5/8 in. | 1 hr | N/A |
| Z | 2A, 2C* | 2 in. | 2-1/4 in. | 0.25 in. | 5/8 in. | 1 hr | N/A |

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



1. Wall Assembly — The 1 or 2 fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
 - B. Gypsum Board — Nom 5/8 in. (16 mm) thick gypsum board, with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max diam of opening is 5-1/2 in. (138 mm) when sleeve (Item 2) is employed. Max diam of opening is 4 in. (102 mm) when sleeve (Item 2) is not employed.
2. Metallic Sleeve — (Optional) — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or Schedule 5 (or heavier) steel pipe or min 0.016 in. thick (0.41 mm, No. 28 g) galv steel sleeve installed flush with wall surfaces. The annular space between steel sleeve and periphery of opening shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm). When Schedule 5 steel pipe or EMT is used, sleeve may extend up to 18 in. (457 mm) beyond the wall surfaces. As an option when Schedule 5 steel pipe or EMT is used, sleeve may extend continuously beyond one wall surface. When cable bundle penetrates wall assembly at an angle of 45 degrees, no metallic sleeve is used.

- System No. W-L-3065**
3. Cables — Aggregate cross-sectional area of cable in opening to be max 45 percent of the cross-sectional area of the opening. The annular space between the cable bundle and the periphery of the opening to be min 0 in. (point contact) to max 1 in. (25 mm). When sleeve is continuous on one side of wall (see Item 2), the cable fill may be 0 to 45% and the max annular space is not limited. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types and sizes of copper conductor cables may be used:
 - A. Max 7/8 No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.
 - B. Max 25 pair No. 24 AWG telephone cable with PVC insulation and jacket.
 - C. Type RGU coaxial cable with polyethylene (PE) insulation and PVC jacket having a max outside diameter of 1/2 in. (13 mm).
 - D. Max RG 6U coaxial cable with fluorinated ethylene insulation and jacketing.
 - E. Through Penetrating Products — Max three copper conductor No. 8 AWG Metal-Clad Cable, AFC CABLE SYSTEMS INC.
 - F. Max 3/8 (with ground) (or smaller) No. 8 AWG copper conductor cable with PVC insulation and jacketing.
 - G. Max 3/4 in. (19 mm) diam copper ground cable with or without a PVC jacket.
 - H. Fire Resistant Cables — Max 1-1/4 in. (32 mm) diam single conductor or multi conductor Type MI cable. A min 1/8 in. (3 mm) separation shall be maintained between MI cables and any other types of cables.
 - I. Max 4/8 with ground 300 kcmil (or smaller) aluminum SER cable with PVC insulation and jacket.
 - J. Through Penetrating Product — Any cables, Metal-Clad Cable or Armored Cable currently Classified under the Through Penetrating Products category.
 - K. Maximum 3/8 No. 8 AWG metal-clad cable.
 - L. Maximum 5/8 diam fiber-optic cable with PVC jacket.
 4. Fill, Void or Cavity Material — Sealant or Putty — Fill material applied within the annulus, flush with each end of the steel sleeve or wall surface. Fill material installed symmetrically on both sides of the wall. A min 5/8 in. (16 mm) thickness of sealant is required for the 1 or 2 hr F Rating. An additional 1/2 in. (13 mm) diam bead of fill material shall be applied at the interface of sleeve with gypsum board.
 5. Picking Material — (Optional, Not Shown) — Mineral wool forming material may be used as a backer for the fill material (Item 4). When used, it shall be firmly packed into annular space within the sleeve as a permanent form and recessed from end of sleeve to accommodate the required thickness of fill material.
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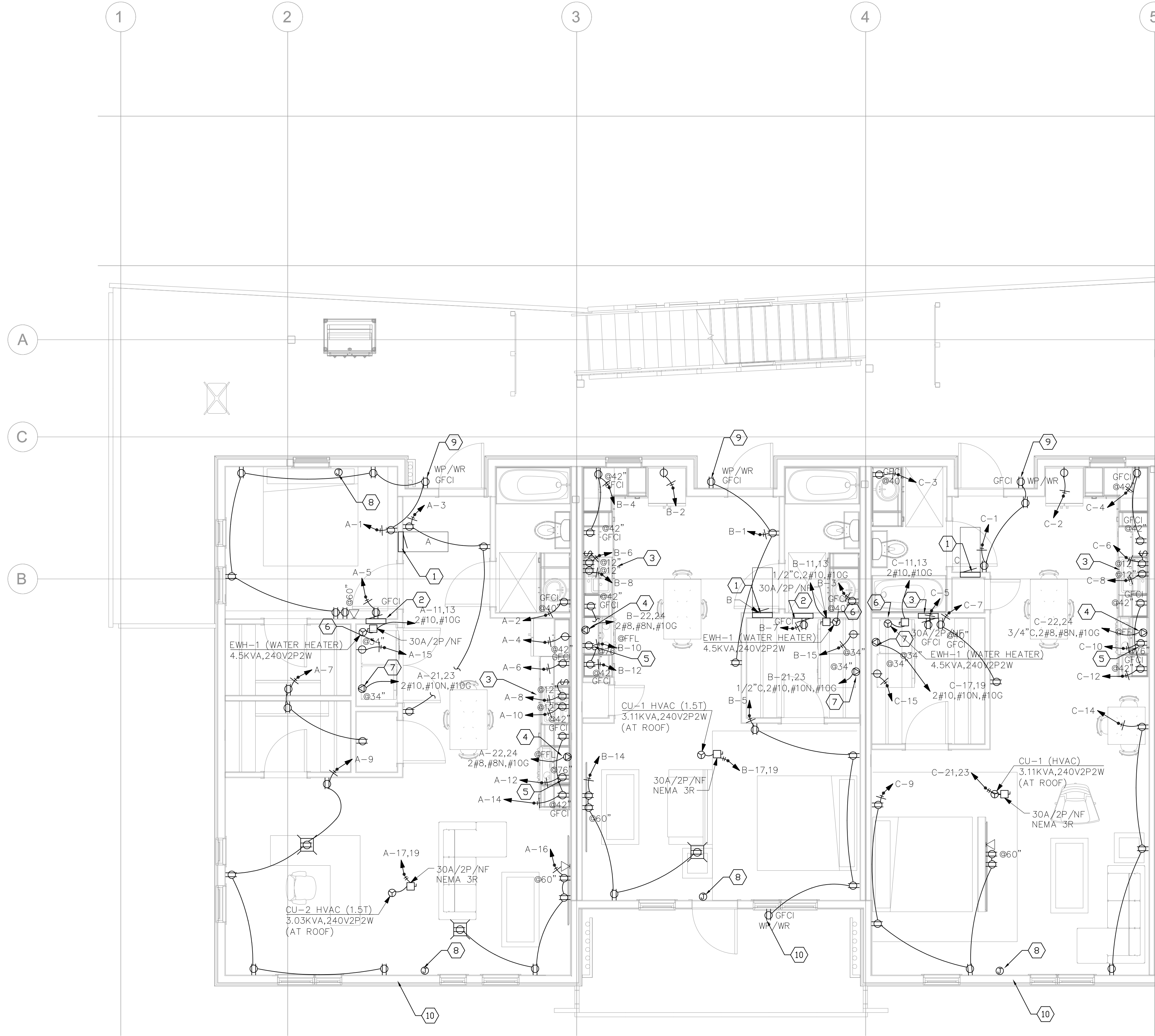
STATE OF TEXAS
 ADAM M. CULVER
 91747
 LICENSED PROFESSIONAL ENGINEER
 06/10/2022

GENERAL NOTES

- ALL WORK IS TO BE PERFORMED BY A LICENSED ELECTRICIAN AND IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- REFER TO SHEET E300 FOR ELECTRICAL SCHEDULES.
- FIELD VERIFY ELECTRICAL POINT OF CONNECTION. COORDINATE WITH ELECTRIC COMPANY REPRESENTATIVE.
- PRIOR TO ROUGH-IN, FIELD VERIFY ALL ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS.
- FIELD VERIFY MOUNTING HEIGHT OF ALL RECEPTACLES PRIOR TO ROUGH-IN.
- COORDINATE SWITCH, RECEPTACLE, & COVER COLOR WITH OWNER.
- ALL PLUG IN KITCHEN APPLIANCE OUTLETS ARE TO BE DEDICATED TO A SINGLE APPLIANCE.
- AT RESIDENTIAL UNITS, PROVIDE TAMPER-RESISTANT RECEPTACLES FOR ALL 120V/10/20A OUTLETS.
- ALL DWELLING BRANCH CIRCUITS OUTLETS AS REQUIRED BY NEC 210.12 (A) SHALL BE PROTECTED BY A BY A 20-AMP RATED ARC-FAULT CIRCUIT INTERRUPTER.
- PROVIDE WEATHER-RESISTANT RECEPTACLES FOR ALL 120V/10/20A EXTERIOR OUTLETS.
- CONTRACTOR SHALL USE MULTI-GANG BOXES IN ALL POSSIBLE LOCATIONS WHERE NECESSARY.
- SOUNDPROOF ALL GANG BOXES AND FIXTURES IN COMMON WALLS WITH SOUND AND FIRE RATED ACOUSTICAL PUTTY PAD TMS ACOUSTICAL PUTTY PAD OR APPROVED EQUAL.
- COORDINATE PLACEMENT OF COMMON WALL ELECTRICAL GANG BOXES TO MAINTAIN FIRE RATING OF WALL ASSEMBLY, FIRE SEAL ALL PENETRATIONS AS REQUIRED BY CODE.

NOTES BY SYMBOL "□"

- INSTALL DWELLING UNIT PANEL PER SCHEDULE. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH OWNER/ARCHITECT.
- INSTALL LEVITON SERIES 140 STRUCTURED MEDIA ENCLOSURE WITH HINGED COVER AND #47666-BNP HOME NETWORK PANEL. PROVIDE LEVITON 47666-SP AC RECEPTACLE AND SURGE PROTECTOR INTEGRATED TO THE BOTTOM OF THE ENCLOSURE. ROUTE (1) 3/4" CONDUITS W/PULL STRINGS FOR BUNDLED STRUCTURED CABLE WITH CAT6 (DATA) AND RG6 (TV) FROM ENCLOSURE TO THE COMMUNICATIONS JUNCTION BOX AT EXTERIOR OF THE BUILDING.
- RECEPTACLES LOCATED BELOW CABINET FOR CONNECTION TO DISPOSER AND DISHWASHER. VERIFY EXACT SWITCH LOCATION FOR DISPOSER WITH THE ARCHITECT PRIOR TO INSTALLATION. SWITCH SHALL BE PERMANENTLY LABELED "DISPOSER". THE DISHWASHER SHALL NOT REQUIRE A SWITCH. PROVIDE APPLIANCE CORDS AND INSTALL APPLIANCE CORDS FOR EACH EQUIPMENT. COORDINATE EXACT LOCATIONS WITH THE PLUMBING CONTRACTOR.
- RECEPTACLE FOR CONNECTION TO RANGE/OVEN. VERIFY NEMA CONFIGURATION WITH OWNER. COORDINATE EXACT PLACEMENT WITH OWNER BASED ON UNIT ORDERED. UTILIZE 3Ø8, #10G MINIMUM.
- RECEPTACLE FOR CONNECTION TO COMBINATION MICROWAVE/VENT. COORDINATE EXACT LOCATION/HEIGHT WITH OWNER BASED ON PRODUCT ORDERED.
- JUNCTION BOX FOR CONNECTION TO WATER HEATER. PROVIDE DISCONNECT OR BREAKER LOCK-OUT AS REQUIRED AT RESPECTIVE LOAD CENTER FOR WATER HEATER DISCONNECT AS REQUIRED PER NEC ARTICLE 422.31(B). UTILIZE 2#10, #10G MINIMUM.
- RECEPTACLE FOR CONNECTION TO DRYER. VERIFY NEMA CONFIGURATION WITH OWNER. UTILIZE 3#10, #10G MINIMUM.
- JUNCTION BOX FOR CONNECTION TO MECHANICAL UNIT. PROVIDE DISCONNECT ADJACENT TO AHU OR BREAKER LOCK-OUT AS REQUIRED BY LOCAL AHU AT RESPECTIVE LOAD CENTER. COORDINATE WIRE REQUIREMENTS WITH ELECTRICAL CONTRACTOR. UTILIZE #12 MINIMUM FOR CONTROL WIRES AT AHU. ROUTE (1) 3/4" CONDUIT FROM AHU TO CONDENSER UNIT ON ROOF FOR CONTROLS.
- EXTERIOR GFI RECEPTACLES SHALL BE WIRED TO THE LINE SIDE ONLY OF THE RECEPTACLE.
- NOT ALL PATIO RECEPTACLES ARE SHOWN AS PATIO VARY FROM LEVEL TO LEVEL. IF A PATIO AND REAR DOOR EXIST PROVIDE RECEPTACLE ADJACENT TO REAR DOOR. EXTERIOR GFI RECEPTACLES SHALL BE WIRED TO THE LINE SIDE ONLY OF THE RECEPTACLE.
- PROVIDE CEILING MOUNTED JUNCTION BOX WITH UNSWITCHED 120-VOLT CIRCUIT INDICATED FOR CONNECTION TO SMOKE DETECTOR. SMOKE DETECTOR SHALL BE GENTEX 9000 SERIES (OR APPROVED EQUAL) WITH 120-VOLT RATED SUPPLY, BACK-UP BATTERY, AND AUDIBLE ALARM. ALL SMOKE DETECTORS WITHIN RESPECTIVE UNITS SHALL BE INTERLOCKED (WITH CONDUIT AND WIRING AS REQUIRED BY THE MANUFACTURER) TO PROVIDE AN AUDIBLE ALARM AT ALL SMOKE DETECTORS WITHIN THE RESPECTIVE UNIT UPON ALARM ACTIVATION OF ANY SMOKE DETECTOR. RE: SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



POWER PLAN - TYPICAL UNITS 1/2/3
 1/4" = 1'-0" MIRRORED 4/5/6

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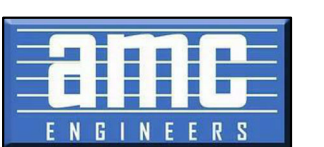
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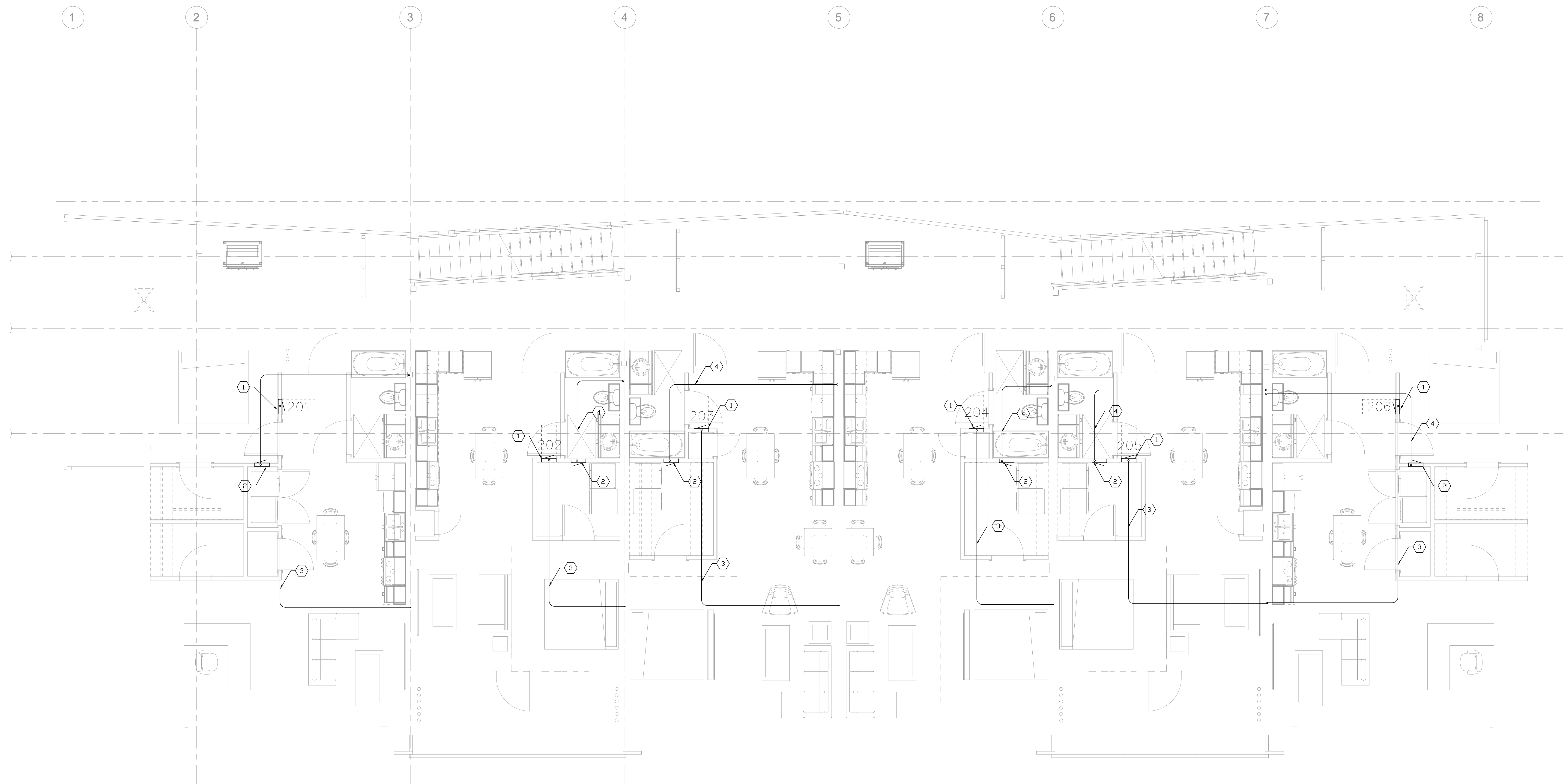
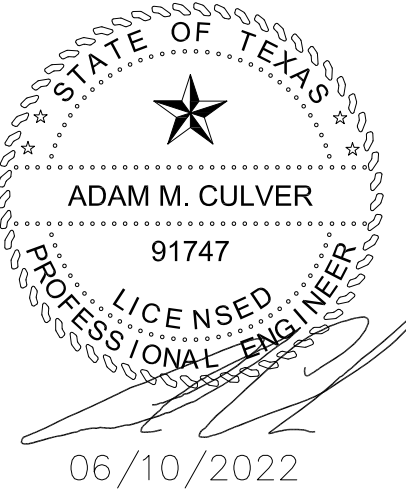
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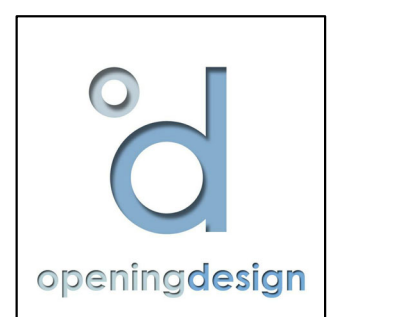
1 POWER PLAN - SECOND FLOOR
E102 1/4" = 1'-0"

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- FIELD VERIFY MOUNTING HEIGHT OF ALL RECEPTACLES PRIOR TO ROUGH-IN
- COORDINATE SWITCH, RECEPTACLE, & COVER COLOR WITH OWNER.
- ALL PLUG IN KITCHEN APPLIANCE OUTLETS ARE TO BE DEDICATED TO A SINGLE APPLIANCE.
- AT RESIDENTIAL UNITS, PROVIDE TAMPER-RESISTANT RECEPTACLES FOR ALL 120V/1Ø/2ØA OUTLETS.
- ALL DWELLING BRANCH CIRCUITS OUTLETS AS REQUIRED BY NEC 210.12 (A) SHALL BE PROTECTED BY A 2Ø-AMP RATED ARC-FAULT CIRCUIT INTERRUPTER.
- PROVIDE WEATHER-RESISTANT RECEPTACLES FOR ALL 120V/1Ø/2ØA EXTERIOR OUTLETS.
- CONTRACTOR SHALL USE MULTI-GANG BOXES IN ALL POSSIBLE LOCATIONS WHERE NECESSARY.
- SOUNDPROOF ALL GANG BOXES AND FIXTURES IN COMMON WALLS WITH SOUND AND FIRE RATED ACOUSTICAL PUTTY PAD TMS ACOUSTICAL PUTTY PAD OR APPROVED EQUAL.
- COORDINATE PLACEMENT OF COMMON WALL ELECTRICAL GANG BOXES TO MAINTAIN FIRE RATING OF WALL ASSEMBLY. FIRE SEAL ALL PENETRATIONS AS REQUIRED BY CODE.

NOTES BY SYMBOL "⬡"

- INSTALL DWELLING UNIT PANEL PER SCHEDULE. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH OWNER/ARCHITECT.
- INSTALL LEVITON SERIES 14Ø STRUCTURED MEDIA ENCLOSURE WITH HINGED COVER AND #47806-RNP HOME NETWORK PANEL. PROVIDE LEVITON 47805-DP AC RECEPTACLE AND SURGE PROTECTOR INTEGRATED TO THE BOTTOM OF THE ENCLOSURE. ROUTE (1) 3/4" CONDUITS W/PULL STRINGS FOR BUNDLED STRUCTURED CABLE WITH CAT6 (DATA) AND RG6 (TV) FROM ENCLOSURE TO THE COMMUNICATIONS JUNCTION BOX AT EXTERIOR OF THE BUILDING.
- ROUTE PANEL FEEDER 3W + G SER CABLE FROM SERVICE DISCONNECT TO FLOOR ABOVE.
- ROUTE 3/4" CONDUIT FROM JUNCTION BOX ENCLOSURE TO FLOOR ABOVE.



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1 2 3 4 5

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DUDLEY

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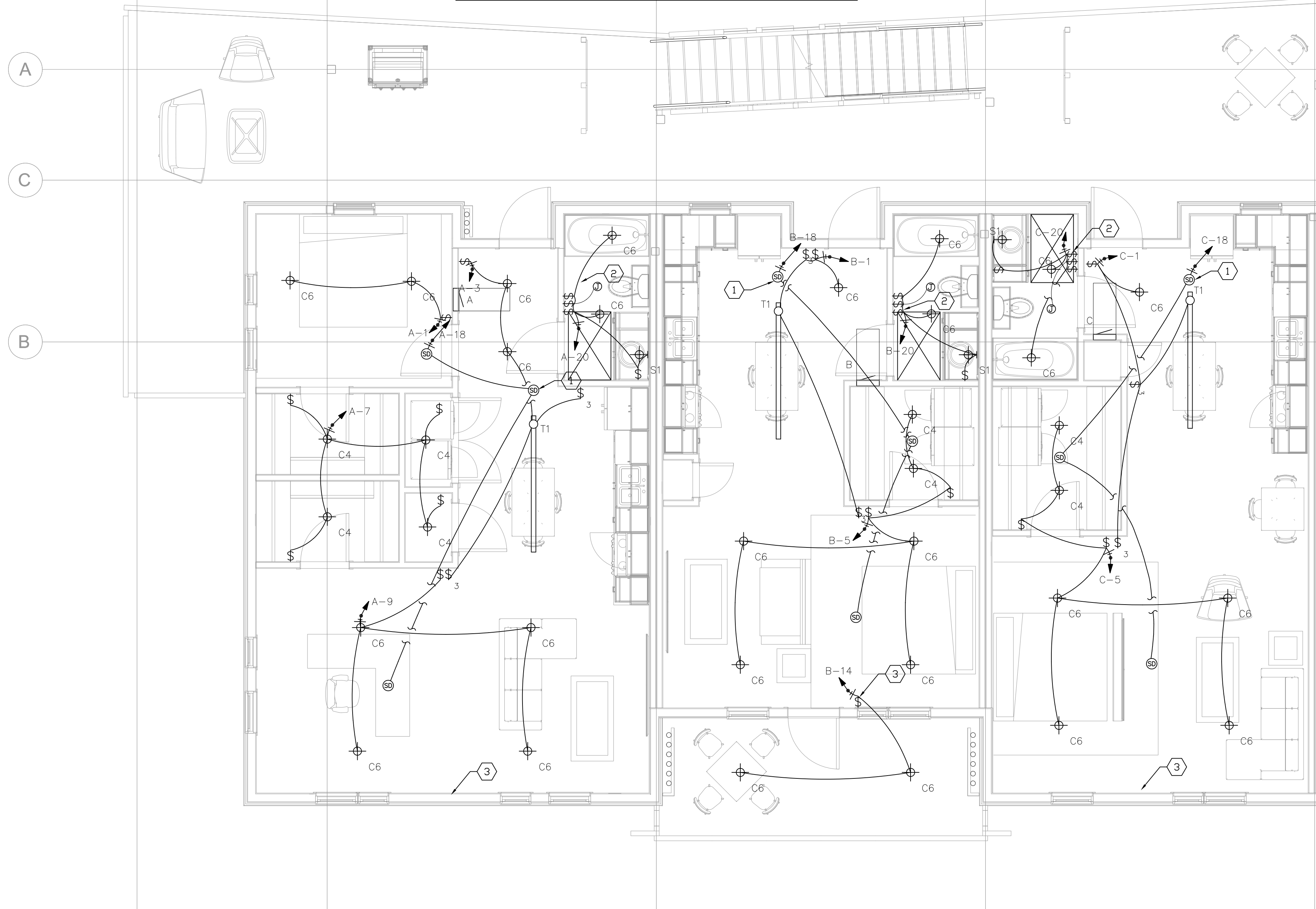
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NOTES BY SYMBOL "C"

- PROVIDE CEILING MOUNTED JUNCTION BOX WITH UNSWITCHED 120-VOLT CIRCUIT INDICATED FOR CONNECTION TO SMOKE DETECTOR. SMOKE DETECTOR SHALL BE GENTEX 9000 SERIES (OR APPROVED EQUAL) WITH 120-VOLT RATED SUPPLY, BACK-UP BATTERY, AUDIBLE ALARM AND EMERGENCY EGRESS LIGHTING. ALL SMOKE DETECTORS WITHIN RESPECTIVE UNITS SHALL BE INTERLOCKED (WITH #12/3 WIRING AS REQUIRED BY THE MANUFACTURER) TO PROVIDE AN AUDIBLE ALARM AT ALL SMOKE DETECTORS WITHIN THE RESPECTIVE UNIT UPON ALARM ACTIVATION OF ANY SMOKE DETECTOR.
- PROVIDE DEDICATED CIRCUIT FOR BATHROOM FAN AND LIGHTS.
- WHEN UNIT HAS A REAR PORCH WITH LIGHTS PLACE SWITCH INSIDE ADJACENT TO DOOR CLOSING SIDE AND POWER SWITCH AND LIGHTS FROM CIRCUIT ON REAR WALL.

SPECIAL NOTE
PROVIDE TENMAT OR APPROVED EQUAL COVERS ON ALL RATED CEILING/FLOOR ASSEMBLIES AT ALL LIGHT, J-BOXES AND FIRE ALARMS. INSTALL PER MANUFACTURERS INSTRUCTIONS TO MAINTAIN THE RATING OF THE ASSEMBLY.



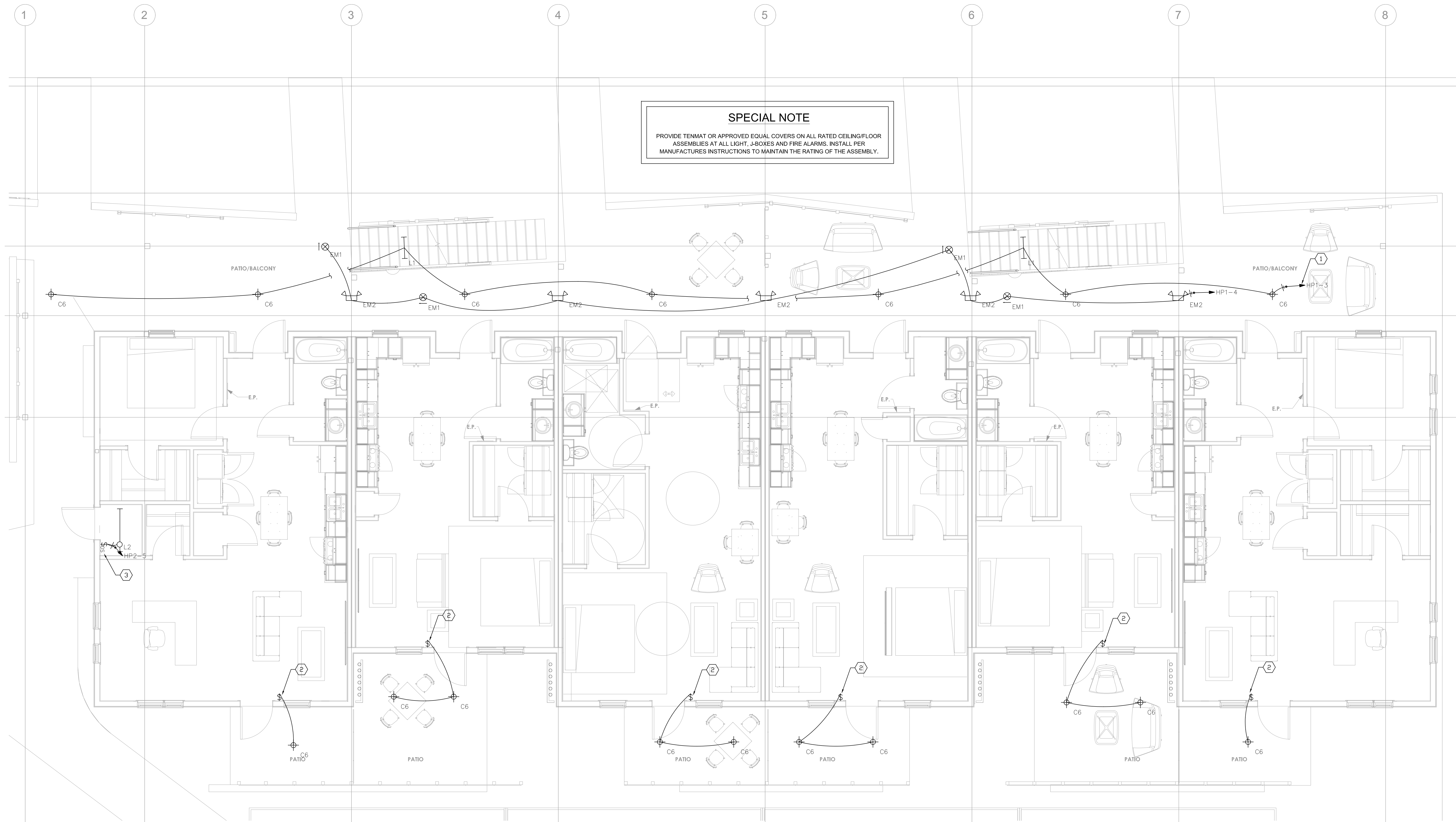
E120 LIGHTING PLAN - TYPICAL UNITS 1/2/3
1/4" = 1'-0" MIRRORED 4/5/6

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SPECIAL NOTE
 PROVIDE TENMAT OR APPROVED EQUAL COVERS ON ALL RATED CEILING/FLOOR ASSEMBLIES AT ALL LIGHT, J-BOXES AND FIRE ALARMS. INSTALL PER MANUFACTURERS INSTRUCTIONS TO MAINTAIN THE RATING OF THE ASSEMBLY.

GENERAL NOTES

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4. PRIOR TO ROUGH-IN, FIELD VERIFY ALL ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS.
5. FIELD VERIFY MOUNTING HEIGHT OF ALL RECEPTACLES PRIOR TO ROUGH-IN.
6. COORDINATE SWITCH, RECEPTACLE, & COVER COLOR WITH OWNER.
7. ALL PLUG IN KITCHEN APPLIANCE OUTLETS ARE TO BE DEDICATED TO A SINGLE APPLIANCE.
8. AT RESIDENTIAL UNITS, PROVIDE TAMPER-RESISTANT RECEPTACLES FOR ALL 120V/10/20A OUTLETS.
9. ALL DWELLING BRANCH CIRCUITS OUTLETS AS REQUIRED BY NEC 210.12 (A) SHALL BE PROTECTED BY A BY A 20-AMP RATED ARC-FAULT CIRCUIT INTERRUPTER.
10. PROVIDE WEATHER-RESISTANT RECEPTACLES FOR ALL 120V/10/20A EXTERIOR OUTLETS.
11. CONTRACTOR SHALL USE MULTI-GANG BOXES IN ALL POSSIBLE LOCATIONS WHERE NECESSARY.
12. SOUNDPROOF ALL GANG BOXES AND FIXTURES IN COMMON WALLS WITH SOUND AND FIRE RATED ACOUSTICAL PUTTY PAD TMS ACOUSTICAL PUTTY PAD OR APPROVED EQUAL.
13. COORDINATE PLACEMENT OF COMMON WALL ELECTRICAL GANG BOXES TO MAINTAIN FIRE RATING OF WALL ASSEMBLY. FIRE SEAL ALL PENETRATIONS AS REQUIRED BY CODE.

1 EXTERIOR LIGHT PLAN - FIRST FLOOR
 1/4" = 1'-0"

NOTES BY SYMBOL "□"

1. ROUTE CANOPY LIGHTS THROUGH LIGHTING CONTROLS FOR SUNSET ON / SUNRISE OFF.
2. WIRE PATIO LIGHTS AS SHOW. CONNECT TO NEAREST CIRCUIT FROM RECEPTACLE ADJACENT TO DOOR. SEE SHEET E100.
3. INSTALL OCCUPANCY SENSOR FOR LIGHT SWITCH.

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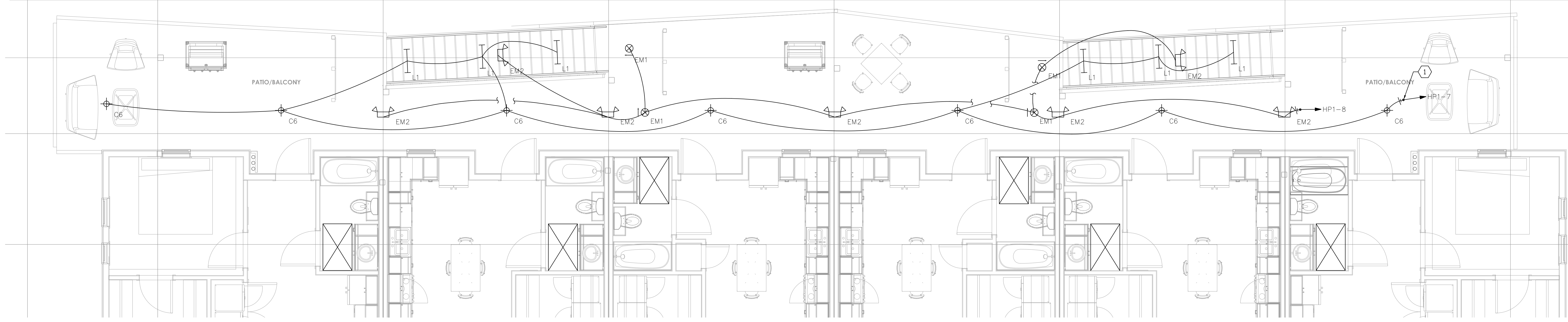
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SPECIAL NOTE

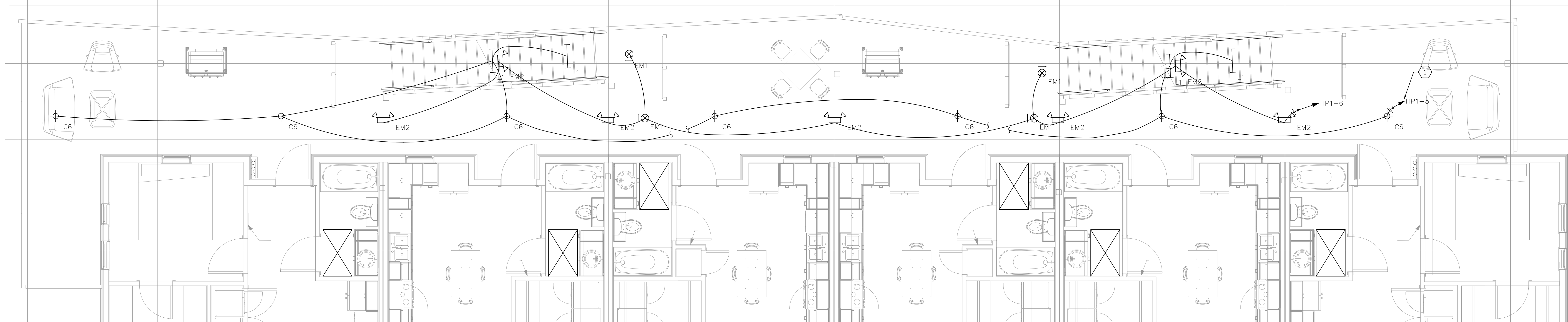
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2 EXTERIOR LIGHT PLAN - THIRD FLOOR
1/4" = 1'-0"

SPECIAL NOTE

PROVIDE TENMAT OR APPROVED EQUAL COVERS ON ALL RATED CEILING/FLOOR ASSEMBLIES AT ALL LIGHT, J-BOXES AND FIRE ALARMS. INSTALL PER MANUFACTURERS INSTRUCTIONS TO MAINTAIN THE RATING OF THE ASSEMBLY.



1 EXTERIOR LIGHT PLAN - SECOND FLOOR
1/4" = 1'-0"

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- PROVIDE WEATHER-RESISTANT RECEPTACLES FOR ALL 120V/10/20A EXTERIOR OUTLETS.
- CONTRACTOR SHALL USE MULTI-GANG BOXES IN ALL POSSIBLE LOCATIONS WHERE NECESSARY.
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- COORDINATE PLACEMENT OF COMMON WALL ELECTRICAL GANG BOXES TO MAINTAIN FIRE RATING OF WALL ASSEMBLY. FIRE SEAL ALL PENETRATIONS AS REQUIRED BY CODE.

NOTES BY SYMBOL "□"

- ROUTE CANOPY LIGHTS THROUGH LIGHTING CONTROLS FOR SUNSET ON / SUNRISE OFF.

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Date: 06.10.2022
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GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL COSTS ASSOCIATED WITH THE INSTALLATION OF THE ELECTRICAL SERVICE WITH BRYAN TEXAS UTILITIES AND INCLUDE IN PRICING. CONTACT BRYAN TEXAS UTILITIES FOR ELECTRICAL SERVICE COORDINATION AND REQUIREMENTS.
2. ALL METERING ENCLOSURES AND EQUIPMENT SHALL BE APPROVED BY BRYAN TEXAS UTILITIES AND INSTALLED PER BRYAN TEXAS UTILITIES REQUIREMENTS. CONTACT AUSTIN ENERGY AT (979) 821-5770 FOR ELECTRICAL METERING COORDINATION.
3. ALL GROUNDING SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE EDITION OF THE NEC.
4. ALL SERVICE CONDUCTORS FROM UTILITY TRANSFORMER TO SERVICE DISCONNECT SHALL BE COPPER WITH THWN-2 (EXTERIOR AND BELOW GRADE) PROPERLY SIZED ALUMINUM CONDUCTORS MAY BE SUBSTITUTED WITH APPROVAL OF ENGINEER, OWNER, AND BRYAN TEXAS UTILITIES.
5. FIRE CAULK ALL WALL AND FLOOR/CEILING ASSEMBLIES TO MAINTAIN FIRE RATING OF ASSEMBLIES

NOTES BY SYMBOL "E"

1. NEW 230V/1PH/3W/1000A SERVICE. SEE SHEET MEP1.0 FOR LOCATION.
2. THREE (3) 3" SECONDARY SERVICE RISER CONDUITS WITH PULL-STRINGS TO BE INSTALLED BY THE ELECTRICAL CONTRACTOR. PROVIDE AND INSTALL THE CONDUIT AS REQUIRED BY BRYAN TEXAS UTILITIES. IF ALUMINUM CONDUCTORS ARE USED 4 CONDUITS MAYBE REQUIRED.
3. INSTALL NEW 30"x30"x12" TAP BOX WITH TERMINAL BLOCKS.
4. INSTALL NEW 240 VOLT, 200A, NEMA3R, 1Ø, 3W FUSED DISCONNECT WITH 200A RK1 FUSES.
5. INSTALL NEW 240 VOLT, 200A, NEMA3R, 1Ø, 3W MLO HOUSE PANEL HP1.
6. 240/120VOLT, 1Ø, 3-WIRE 1200A/1000AF CLASS T 1200A RATED BUSS MODULAR METER MAIN DEVICE ENCLOSURE. SQUARE-D HEZM116125CLUX OR EQUAL. PROVIDE WITH FIVE(5) 125-AMP, 65 KAIC RATED, TWO-POLE CIRCUIT BREAKERS FOR UNIT LOAD CENTERS. VERIFY METER REQUIREMENTS WITH BRYAN TEXAS UTILITIES PRIOR TO ORDERING EQUIPMENT.
7. 240/120-VOLT RATED, 1Ø INCOMING, 1Ø OUTGOING MODULAR METERING ENCLOSURE WITH (6) RINGLESS TYPE 5-JAW 125-AMP RATED METER SOCKETS WITH NO BYPASS AND 1200A BUSBAR. SQUARE-D HEZM116125CLUX OR EQUAL. PROVIDE WITH FIVE(5) 125-AMP, 65 KAIC RATED, TWO-POLE CIRCUIT BREAKERS FOR UNIT LOAD CENTERS. VERIFY METER REQUIREMENTS WITH BRYAN TEXAS UTILITIES PRIOR TO ORDERING EQUIPMENT.
8. NEW BRYAN TEXAS UTILITIES PAD-MOUNTED UTILITY TRANSFORMER FOR 240/120-VOLT, 1-PHASE SERVICE TO THE BUILDING

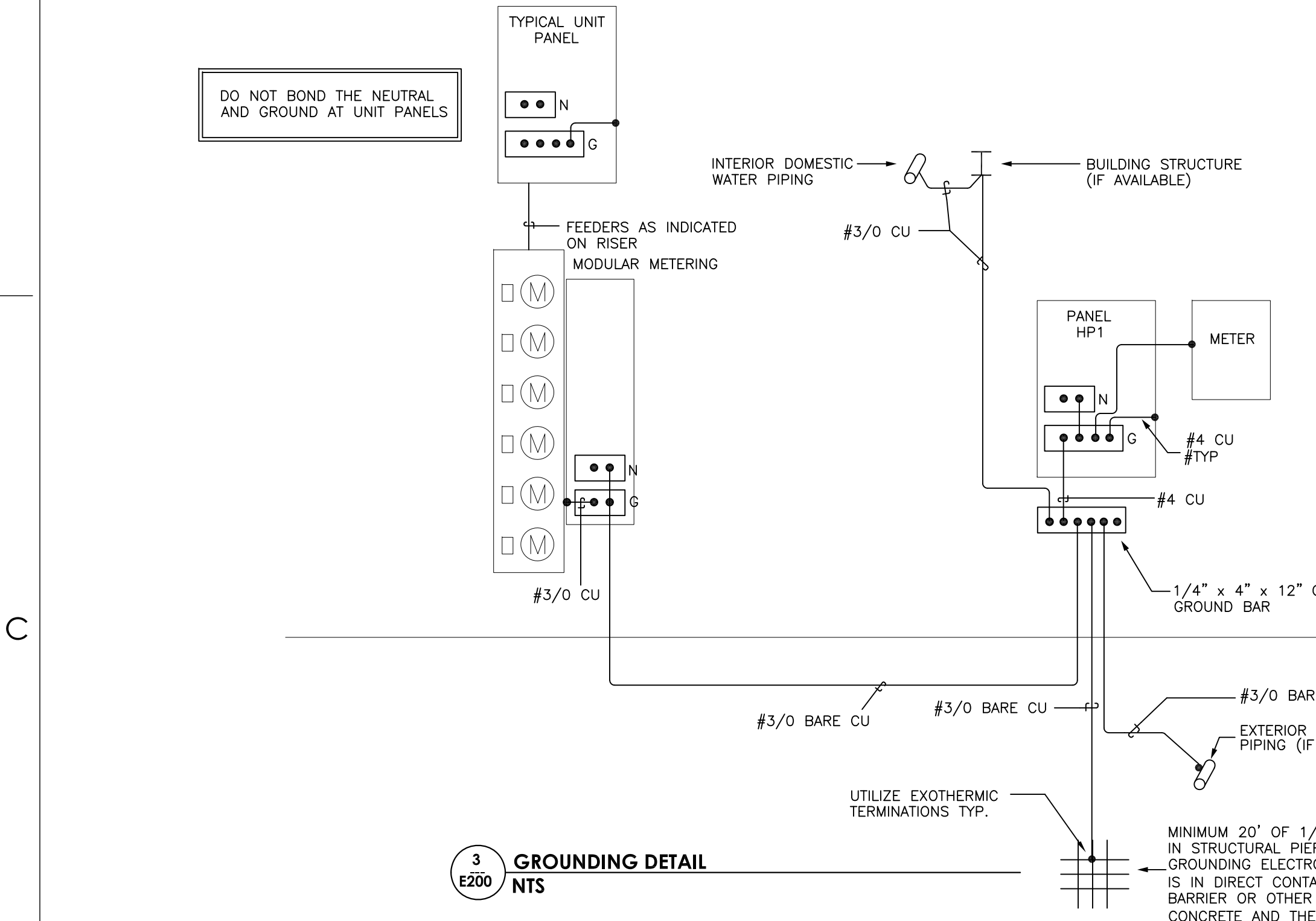
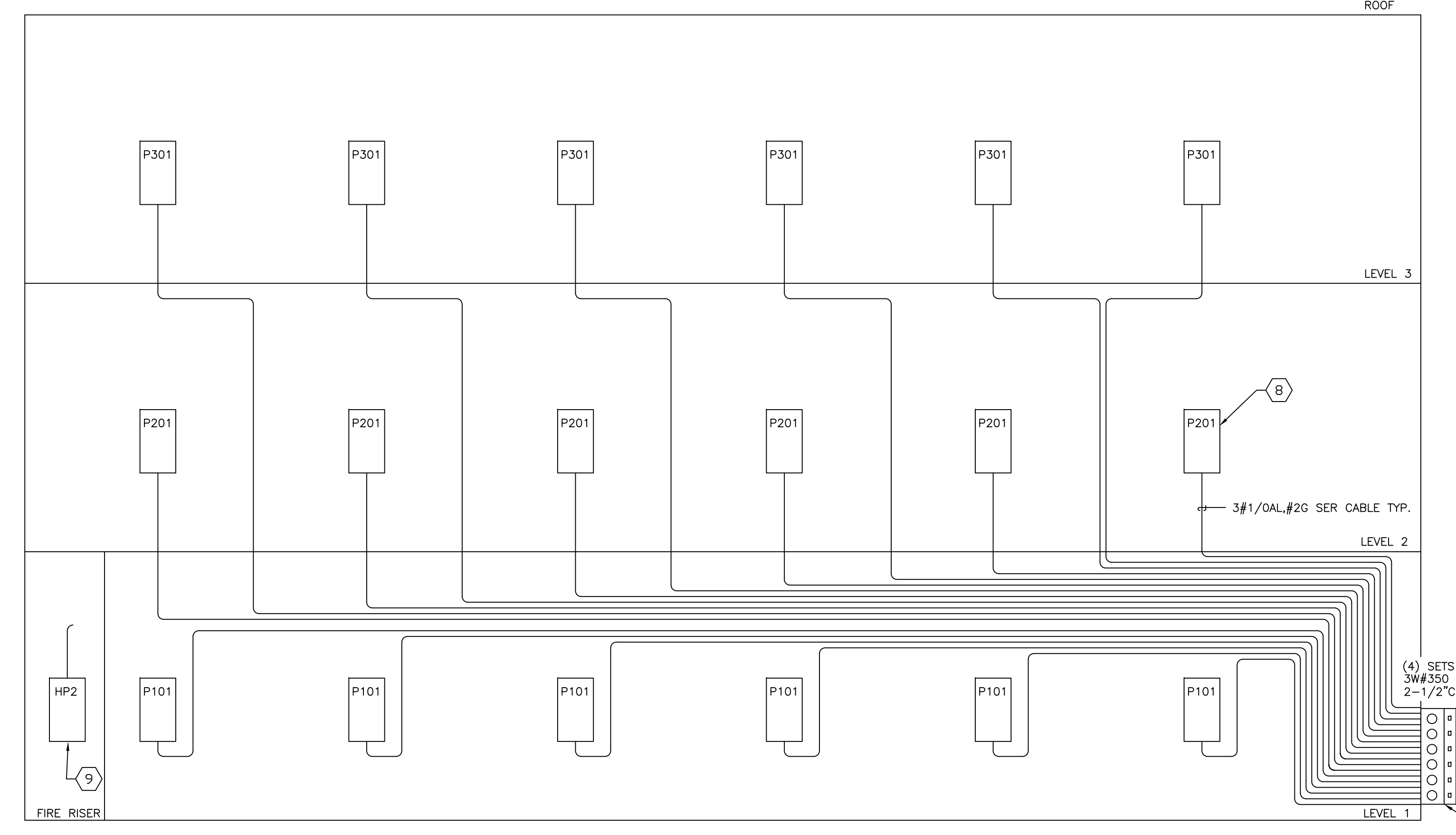
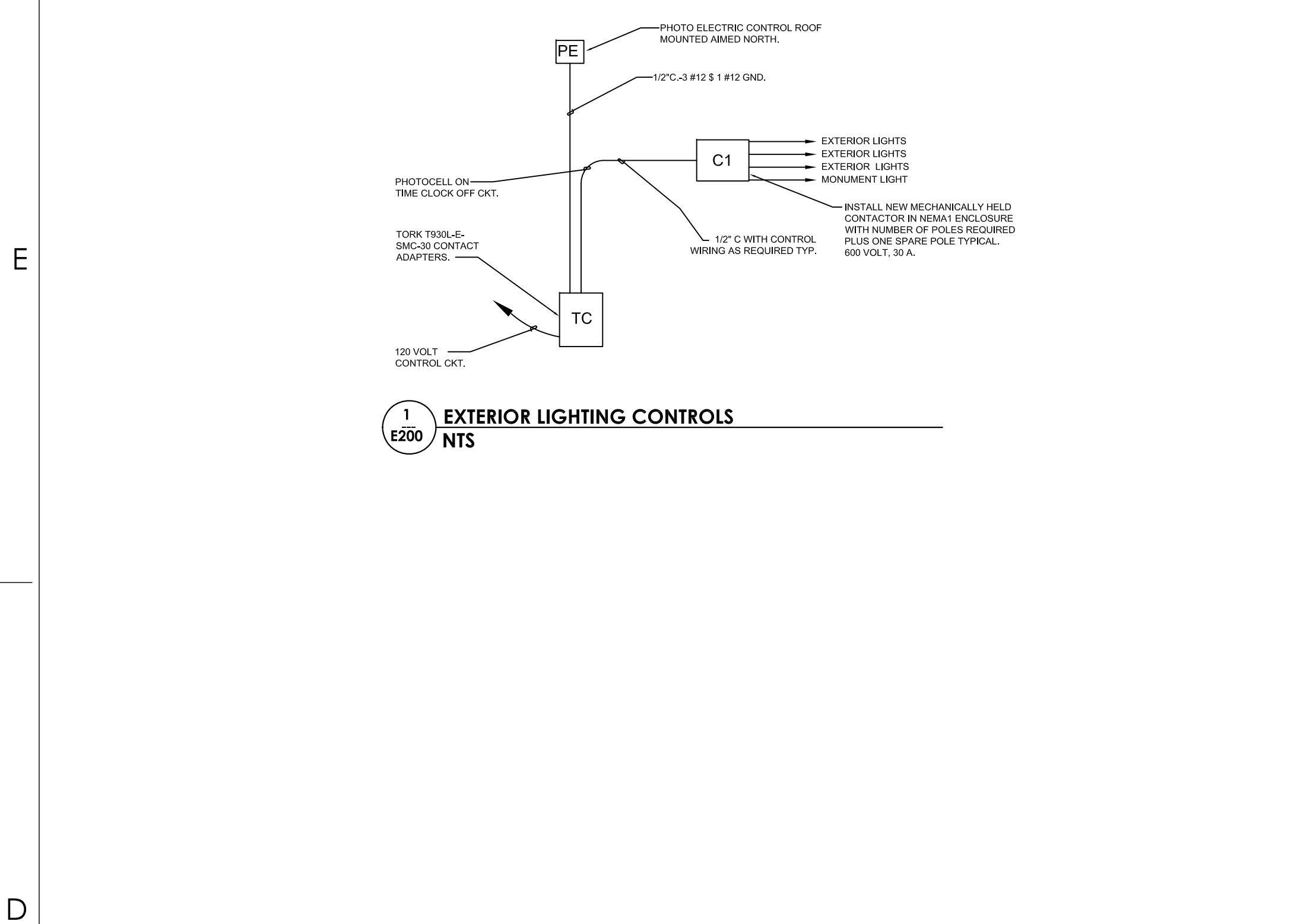
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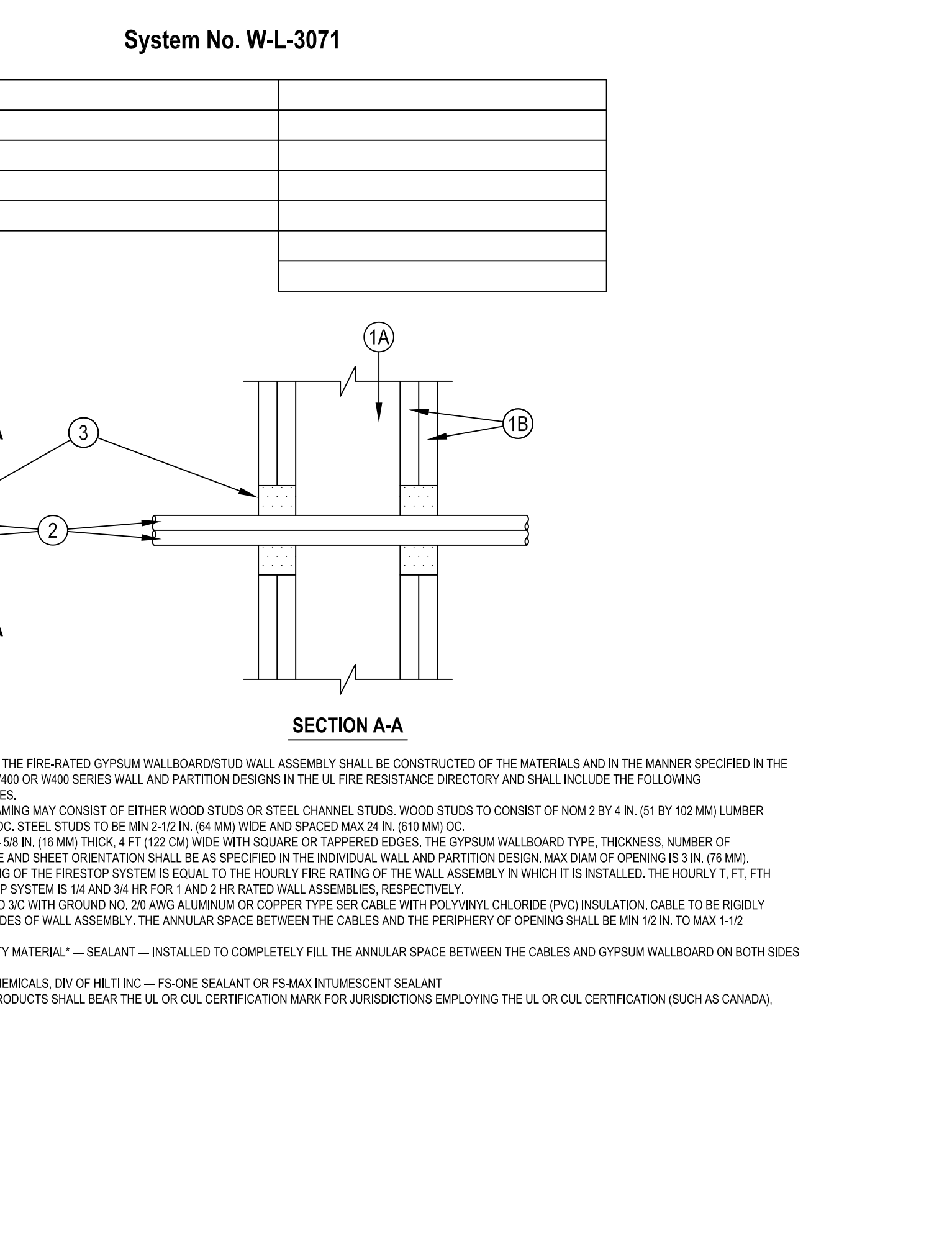
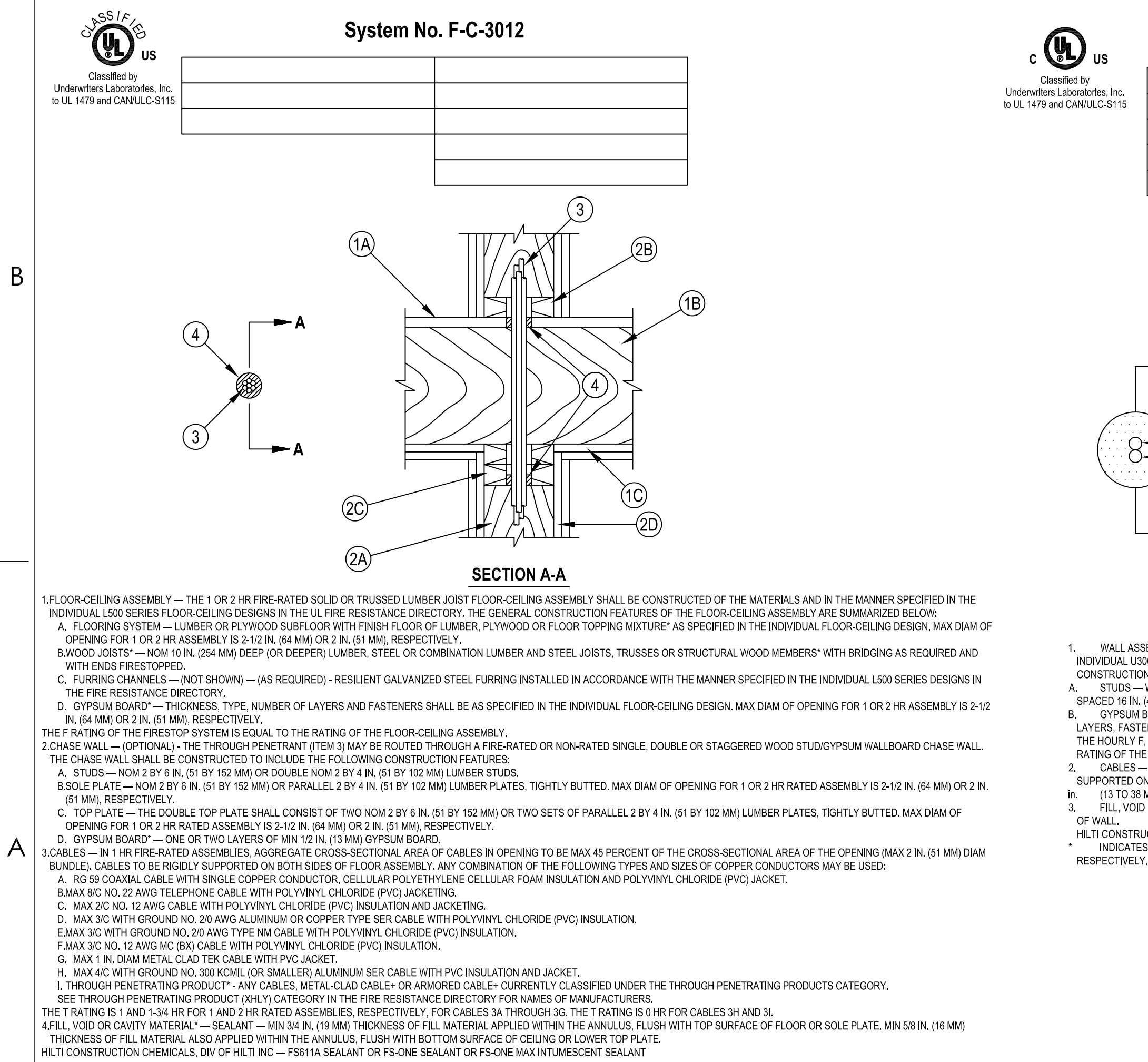
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METERING EQUIPMENT SCHEDULE

- GENERAL NOTES:
1. METERING EQUIPMENT TO CONFORM BRYAN TEXAS UTILITY SPECIFICATION FOR MODULAR METERING.
 2. TENANT DISCONNECTS TO BE INSTALLED AS SCHEDULED WITH SQUARE-D QO-VH CIRCUIT BREAKERS.
 3. MAIN DISCONNECT TO BE LOCKABLE BY PADLOCK.
 4. TENANT DISCONNECTS TO BE LOCKABLE BY PADLOCK.
 5. BUS BAR TO BE RATED FOR 1200A.
 6. ALL ENCLOSURES TO BE RATED NEMA 3R
 7. LABEL METERS AS REQUIRED BY LOCAL UTILITY.
 8. MOUNT PER MANUFACTURES RECOMMENDATIONS
- PRIOR TO ORDERING VERIFY JAW FOR UTILITY METER AND IF RINGLESS OR RING TYPE METER ARE TO BE USE. WILL AFFECT PART NUMBER OF COMPONENT B.

| MARK | MANUFACTURER'S CATALOG NUMBER | AMPERE RATING | SHORT CIRCUIT RATING | QUANTITY | DESCRIPTION AND COMMENTS |
|------|--|---|----------------------|----------|--|
| A | SQUARE D - EZ METER-PAK EZM11200FSB | 1200A AL BUS | 100,000 | 1 | 1Ø3W 120/240 VAC EZ METER-PAK METER CENTER MAIN UNIT WITH MAIN FUSIBLE SWITCH & CLASS T CURRENT LIMITING FUSES (1Ø INCOMING / 1Ø OUTGOING), NEMA 3R CONSTRUCTION, UNDERGROUND FEED |
| B | SQUARE D - EZ METER-PAK EZMR116125CLUX | 1200A CU BUS 125A MAX TENANT DISCONNECT | 65,000 | 3 | 1Ø3W 120/240 VAC EZ METER-PAK METER CENTER BRANCH DEVICE, 6 METER SOCKETS, 5-JAW, RINGLESS, NEMA 3R CONSTRUCTION, COPPER BUS BAR. INSTALL SQUARE D QO-VH CIRCUIT BREAKERS AS SCHEDULED |



SERVICE

ROOM MOUNTING SURFACE VOLTS 240/120V 2P 3W AIC 100,000
FED FROM UTILITY LUGS STANDARD

| CKT # | BREAKER TRIP / POLES | CIRCUIT DESCRIPTION | LOAD KVA | | FEEDER RACEWAY AND CONDUCTORS |
|------------------------------|----------------------|-----------------------------|----------|------|---|
| | | | A | B | |
| 1 | 1000/2 | FUSED DISCONNECT MAIN DISCO | 301 | 303 | (4)2-1/2"C,2#350kcmil AL,#350kcmil AL,N,#2/0G |
| 2 | 200/2 | FUSED DISCONNECT HP1-DISCO | 5.46 | 4.22 | 2"C,2#250kcmil AL,#250kcmil AL,N,#6G |
| TOTAL CONNECTED KVA BY PHASE | | | 306 | 307 | |

OPTIONAL MULTIFAMILY DWELLING CALCULATION (NEC 220.84)

| | DWELLING UNIT LOADS | | | HOUSE LOADS | | |
|--------------------------|---------------------|---------------------|------|-------------|----------|-----|
| | KVA | (VA/SF) | | CONN KVA | CALC KVA | |
| LIGHTING AND RECEPTACLES | 37.9 | 12,618 SF (3 VA/SF) | 2.6 | 2.6 | 100% | 489 |
| SMALL-APPLIANCE | 54 | | 2.6 | 39.4 | (38%) | 18 |
| LAUNDRY | 117 | | | | | 186 |
| APPLIANCES | 81 | | | | | |
| ELECTRIC COOKING | 144 | (100%) | | | | |
| HEATING | 55.5 | (0%) | | | | |
| COOLING | 55.5 | (0%) | | | | |
| TOTAL HOUSE LOAD | | | 2.6 | 2.6 | (100%) | |
| TOTAL DWELLING UNIT LOAD | | | 186 | 236 | (20%) | |
| TOTAL HOUSE LOAD | | | 50.2 | 984 A | | |

Date: 06.10.2022 Description Issued for Permit

openingdesign
Architect: OpeningDesign
17 S Fairchild | FL 7
Madison, WI 53703
ryan@openingdesign.com | 773.425.6456

| DEVICE | FAULT | AIC RATING | I-1 VOLTS | FEEDER | | TRANSFORMER | | | MOTOR FAULT |
|------------|--------|------------|-----------|-----------------|--------|-------------|----|------------------|-------------|
| | | | | SIZE | LENGTH | KVA | Z% | FAULT AT PRIMARY | |
| SERVICE | 82,920 | 100,000 | 240V | (4)#350kcmil AL | | | | | 920 |
| HP1-DISCO | 50,379 | 100,000 | 240V | #250kcmil AL | 13' | | | | 304 |
| HP1 | 35,527 | 42,000 | 240V | #250kcmil AL | 12' | | | | 137 |
| HP2 | 3,857 | 22,000 | 240V | #1/0 AL | 138' | | | | 1 |
| MAIN DISCO | 74,268 | 100,000 | 240V | (4)#350kcmil AL | 13' | | | | 921 |
| M1 | 42,308 | 50,000 | 240V | (3)#400kcmil | 12' | | | | 308 |
| 101 | 3,941 | 22,000 | 240V | #1/0 AL | 145' | | | | 52 |
| 102 | 5,093 | 22,000 | 240V | #1/0 AL | 110' | | | | 53 |
| 103 | 5,616 | 22,000 | 240V | #1/0 AL | 99' | | | | 54 |
| 104 | 7,322 | 22,000 | 240V | #1/0 AL | 74' | | | | 55 |
| 105 | 9,147 | 22,000 | 240V | #1/0 AL | 58' | | | | 58 |
| 106 | 11,995 | 22,000 | 240V | #1/0 AL | 42' | | | | 63 |
| M2 | 42,308 | 50,000 | 240V | (3)#400kcmil | 13' | | | | 308 |
| 201 | 3,656 | 22,000 | 240V | #1/0 AL | 156' | | | | 52 |
| 202 | 4,622 | 22,000 | 240V | #1/0 AL | 122' | | | | 54 |
| 203 | 5,050 | 22,000 | 240V | #1/0 AL | 111' | | | | 53 |
| 204 | 6,381 | 22,000 | 240V | #1/0 AL | 86' | | | | 54 |
| 205 | 7,732 | 22,000 | 240V | #1/0 AL | 70' | | | | 56 |
| 206 | 9,688 | 22,000 | 240V | #1/0 AL | 54' | | | | 59 |
| M3 | 42,308 | 50,000 | 240V | (3)#400kcmil | 14' | | | | 308 |
| 301 | 3,400 | 22,000 | 240V | #1/0 AL | 169' | | | | 51 |
| 302 | 4,221 | 22,000 | 240V | #1/0 AL | 134' | | | | 53 |
| 303 | 4,574 | 22,000 | 240V | #1/0 AL | 123' | | | | 53 |
| 304 | 5,639 | 22,000 | 240V | #1/0 AL | 99' | | | | 54 |
| 305 | 6,667 | 22,000 | 240V | #1/0 AL | 82' | | | | 55 |
| 306 | 8,079 | 22,000 | 240V | #1/0 AL | 66' | | | | 56 |

VOLTAGE DROP SCHEDULE

| DEVICE | FEEDER | | BRANCH CIRCUIT | | TOTAL VOLTAGE DROP |
|------------|--------------|-----------------|-------------------|-----------|--------------------|
| | VOLTAGE DROP | WIRE SIZE | MAX VOLTAGE DROP | WIRE SIZE | |
| SERVICE | 0% | (4)#350kcmil AL | -- | -- | 0% |
| HP1-DISCO | 0.05% | #250kcmil AL | -- | -- | 0.05% |
| HP1 | 0.09% | #250kcmil AL | 1.21% (CKT 7) | #10 | 1.3% |
| HP2 | 0.54% | #1/0 AL | 0.56% (CKT 3) | #12 | 1.1% |
| MAIN DISCO | 0.15% | (4)#350kcmil AL | -- | -- | 0.15% |
| M1 | 0.2% | (3)#400kcmil | -- | -- | 0.2% |
| 101 | 2.03% | #1/0 AL | 1.37% (CKT 17,19) | #10 | 3.4% |
| 102 | 1.57% | #1/0 AL | 1.27% (CKT 17,19) | #10 | 2.84% |
| 104 | 1.13% | #1/0 AL | 1.39% (CKT 9) | #12 | 2.52% |
| 105 | 0.92% | #1/0 AL | 1.27% (CKT 17,19) | #10 | 2.19% |
| 106 | 0.73% | #1/0 AL | 1.37% (CKT 17,19) | #10 | 2.1% |
| M2 | 0.2% | (3)#400kcmil | -- | -- | 0.2% |
| 201 | 2.18% | #1/0 AL | 1.37% (CKT 17,19) | #10 | 3.56% |
| 202 | 1.73% | #1/0 AL | 1.27% (CKT 17,19) | #10 | 3% |
| 203 | 1.6% | #1/0 AL | 1.39% (CKT 9) | #12 | 2.99% |
| 204 | 1.29% | #1/0 AL | 1.39% (CKT 9) | #12 | 2.68% |
| 205 | 1.07% | #1/0 AL | 1.27% (CKT 17,19) | #10 | 2.35% |
| 206 | 0.89% | #1/0 AL | 1.37% (CKT 17,19) | #10 | 2.26% |
| M3 | 0.21% | (3)#400kcmil | -- | -- | 0.21% |
| 301 | 2.34% | #1/0 AL | 1.37% (CKT 17,19) | #10 | 3.72% |
| 302 | 1.89% | #1/0 AL | 1.27% (CKT 17,19) | #10 | 3.16% |
| 303 | 1.76% | #1/0 AL | 1.39% (CKT 9) | #12 | 3.15% |
| 304 | 1.45% | #1/0 AL | 1.39% (CKT 9) | #12 | 2.84% |
| 305 | 1.23% | #1/0 AL | 1.27% (CKT 17,19) | #10 | 2.5% |
| 306 | 1.05% | #1/0 AL | 1.37% (CKT 17,19) | #10 | 2.42% |

MAIN DISCO

| ROOM | FED FROM | SERVICE | VOLTS | 240/120V 2P 3W | FRAME SIZE | 1000 |
|--|--------------------|---------------------|----------|---------------------|-------------------------------------|-------------------------------|
| NOTE | | | AIC | 100,000 | TRIP SIZE | 1000 |
| CKT # | BREAKER TRIP/POLES | CIRCUIT DESCRIPTION | LOAD KVA | A | B | FEEDER RACEWAY AND CONDUCTORS |
| 1 | 1000/2 | PANEL MAIN | 100 | 101 | (3)3"C,2#400kcmil,#400kcmil N,#2/0G | |
| 2 | 1000/2 | PANEL MAIN | 100 | 101 | (3)3"C,2#400kcmil,#400kcmil N,#2/0G | |
| 3 | 1000/2 | PANEL MAIN | 100 | 101 | (3)3"C,2#400kcmil,#400kcmil N,#2/0G | |
| TOTAL CONNECTED KVA BY PHASE | | | 301 | 303 | | |
| OPTIONAL MULTIFAMILY DWELLING CALCULATION (NEC 220.84) | | | | | | |
| LIGHTING AND RECEPTACLES | | | 37.9 | 12,618 SF (3 VA/SF) | CONNECTED LOAD | 489 |
| SMALL-APPLIANCE | | | 54 | | DWELLING UNITS | 18 |
| LAUNDRY | | | 117 | | DEMAND FACTOR | (38%) |
| APPLIANCES | | | 81 | | CALCULATED LOAD | 186 |
| ELECTRIC COOKING | | | 144 | | BALANCED LOAD | 775 A |
| HEATING | | | 55.5 | (100%) | | |
| COOLING | | | 55.5 | (0%) | | |

HP1-DISCO

| ROOM | FED FROM | SERVICE | VOLTS | 240/120V 2P 3W | FRAME SIZE | 200 |
|--|--------------------|---------------------|----------|----------------|--------------------------------------|--|
| NOTE | | | AIC | 100,000 | TRIP SIZE | 200 |
| CKT # | BREAKER TRIP/POLES | CIRCUIT DESCRIPTION | LOAD KVA | A | B | FEEDER RACEWAY AND CONDUCTORS |
| 1 | 200/2 | PANEL HP1 | 5.46 | 4.22 | 2"C,2#250kcmil AL,#250kcmil AL N,#6G | |
| TOTAL CONNECTED KVA BY PHASE | | | 5.46 | 4.22 | | |
| OPTIONAL MULTIFAMILY DWELLING CALCULATION (NEC 220.84) | | | | | | |
| DWELLING UNIT LOADS | | | KVA | | | |
| CONNECTED LOAD | | | 0 | | | |
| DWELLING UNITS | | | 0 | | | |
| DEMAND FACTOR | | | (N/A) | | | |
| CALCULATED LOAD | | | 0 | | | |
| HOUSE LOADS | | | | | | |
| LIGHTING | | | 4.55 | 5.68 | (125%) | RECEPTACLES HEATING 2.54 2.6 (50%>10) (100%) |
| TOTAL DWELLING UNIT LOAD | | | 0 | | | |
| TOTAL HOUSE LOAD | | | 10.8 | | | |
| TOTAL LOAD BALANCED LOAD 45.1 A | | | | | | |

HP1

| ROOM | AT SERVICE LOCATION | VOLTS | 240/120V 2P 3W | AIC | 42,000 | |
|--|---------------------|---------------------|----------------|-------|-------------------------|--|
| NOTE | | | BUS AMPS | 200 | MAIN BKR | 200 |
| NEUTRAL 100% | | | | | | |
| CKT # | CKT BKR | CIRCUIT DESCRIPTION | LOAD KVA | A | B | FEEDER RACEWAY AND CONDUCTORS |
| 1 | 20/1 | RECEPTACLE | 0.36 | 0.226 | 2 | 20/1 MONUMENT SIGN |
| 3 | 20/1 | 1ST FLOOR LIGHTING | 0.226 | 4 | 20/1 EMERGENCY LIGHTING | |
| 5 | 20/1 | 2ND FLOOR LIGHTING | 0.354 | 6 | 20/1 EMERGENCY LIGHTING | |
| 7 | 20/1 | 3RD FLOOR LIGHTING | 0.482 | 8 | 20/1 EMERGENCY LIGHTING | |
| 9 | 20/1 | SPACE | 0 | 10 | 20/1 SPACE | |
| 11 | 20/1 | SPACE | 0 | 12 | 20/1 SPACE | |
| 13 | 20/1 | SPACE | 0 | 14 | 20/1 SPACE | |
| 15 | 20/1 | SPACE | 0 | 16 | 20/1 SPACE | |
| 17 | 20/1 | SPACE | 0 | 18 | 20/1 SPACE | |
| 19 | 20/1 | SPACE | 0 | 20 | 20/1 SPACE | |
| 21 | 20/1 | SPACE | 0 | 22 | 100/2 PANEL HP2 | |
| 23 | 20/1 | SPACE | 0 | 24 | 2 | 2.3 |
| 25 | 20/1 | SPACE | 0 | 26 | 20/1 SPACE | 0 |
| 27 | 20/1 | SPACE | 0 | 28 | 20/1 SPACE | 0 |
| 29 | 20/1 | SPACE | 0 | 30 | 20/1 SPACE | 0 |
| TOTAL CONNECTED KVA BY PHASE | | | 5.46 | 4.22 | | |
| TOTAL CONNECTED AMPS BY PHASE | | | 45.5 | 35.2 | | |
| OPTIONAL MULTIFAMILY DWELLING CALCULATION (NEC 220.84) | | | | | | |
| DWELLING UNIT LOADS | | | | | | |
| CONNECTED LOAD 0 | | | | | | |
| DWELLING UNITS 0 | | | | | | |
| DEMAND FACTOR (N/A) | | | | | | |
| CALCULATED LOAD 0 | | | | | | |
| HOUSE LOADS | | | | | | |
| LIGHTING | | | 4.55 | 5.68 | (125%) | RECEPTACLES HEATING 2.54 2.6 (50%>10) (100%) |
| TOTAL DWELLING UNIT LOAD | | | 0 | | | |
| TOTAL HOUSE LOAD | | | 10.8 | | | |
| TOTAL LOAD BALANCED LOAD 45.1 A | | | | | | |

HP2

| ROOM | FIRE RISER ROOM | VOLTS | 240/120V 2P 3W | AIC | 22,000 | |
|--|-----------------|---------------------|----------------|------|---------------------------|--|
| NOTE | | | BUS AMPS | 100 | MAIN BKR | MLO |
| NEUTRAL 100% | | | | | | |
| CKT # | CKT BKR | CIRCUIT DESCRIPTION | LOAD KVA | A | B | FEEDER RACEWAY AND CONDUCTORS |
| 1 | 20/1 | RECEPTACLE | 0.18 | 2 | 20/1 SPRINKLER CONTROLLER | 1 |
| 3 | 20/1 | SPRINKLER MONITOR | 0.064 | 4 | 20/1 SPACE | 0 |
| 5 | 20/1 | LIGHTING | 0 | 6 | 20/1 SPACE | 0 |
| 7 | 20/1 | SPACE | 0 | 8 | 20/1 SPACE | 0 |
| 9 | 20/1 | SPACE | 0 | 10 | 20/1 SPACE | 0 |
| 11 | 20/1 | SPACE | 0 | 12 | 20/1 SPACE | 0 |
| 13 | 20/1 | SPACE | 0 | 14 | 20/1 SPACE | 0 |
| 15 | 20/1 | SPACE | 0 | 16 | 20/1 SPACE | 0 |
| 17 | 20/1 | SPACE | 0 | 18 | 20/2 UH-1 | 1.3 |
| 19 | 20/1 | SPACE | 0 | 20 | 20/1 | 1.3 |
| TOTAL CONNECTED KVA BY PHASE | | | 2.54 | 2.3 | | |
| TOTAL CONNECTED AMPS BY PHASE | | | 21.2 | 19.2 | | |
| OPTIONAL MULTIFAMILY DWELLING CALCULATION (NEC 220.84) | | | | | | |
| DWELLING UNIT LOADS | | | | | | |
| CONNECTED LOAD 0 | | | | | | |
| DWELLING UNITS 0 | | | | | | |
| DEMAND FACTOR (N/A) | | | | | | |
| CALCULATED LOAD 0 | | | | | | |
| HOUSE LOADS | | | | | | |
| LIGHTING | | | 0.064 | 0.08 | (125%) | RECEPTACLES HEATING 2.18 2.6 (50%>10) (100%) |
| TOTAL DWELLING UNIT LOAD | | | 0 | | | |
| TOTAL HOUSE LOAD | | | 4.86 | | | |
| TOTAL LOAD BALANCED LOAD 20.3 A | | | | | | |

A

| ROOM | MOUNTING | FLUSH | VOLTS | 240/120V 2P 3W | AIC | 22,000 |
|---|----------|----------------------|----------|------------------|---------------------------------------|--|
| NOTE | | | BUS AMPS | 125 | MAIN BKR | MLO |
| NEUTRAL 100% | | | | | | |
| CKT # | CKT BKR | CIRCUIT DESCRIPTION | LOAD KVA | A | B | FEEDER RACEWAY AND CONDUCTORS |
| 1 | 20/1 | LIGHTING, RECEPTACLE | 1.29 | 2 | 20/1 RECEPTACLE | 0.18 |
| 3 | 20/1 | LIGHTING, RECEPTACLE | 0.576 | 4 | 20/1 REFRIGERATOR | 1.25 |
| 5 | 20/1 | RECEPTACLE | 0.18 | 6 | 20/1 CONV. RECEPT. KITCHEN | 1.5 |
| 7 | 20/1 | LIGHTING, RECEPTACLE | 0.58 | 8 | 20/1 GARBAGE DISPOSAL | 1.25 |
| 9 | 20/1 | LIGHTING, RECEPTACLE | 0.956 | 10 | 20/1 DISHWASHER | 1.2 |
| 11 | 30/2 | EW-1 (WATER HEATER) | 2.25 | 12 | 20/1 MICROWAVE / VENT | 1 |
| 13 | 20/1 | SPACE | 2.25 | 14 | 20/1 CONV. RECEPT. KITCHEN | 1.5 |
| 15 | 20/1 | LAUNDRY | 1.5 | 16 | 20/1 RECEPTACLE | 0.2 |
| 17 | 20/2 | CU-2 HVAC (1.5T) | 1.52 | 18 | 20/1 SMOKE DETECTORS | 0.041 |
| 19 | 30/2 | DRYER | 2.5 | 20 | 20/1 LIGHTING | 4 |
| 21 | 30/2 | DRYER | 2.5 | 22 | 40/2 ELECTRIC RANGE | 4 |
| 23 | 20/1 | SPACE | 0 | 24 | 20/1 SPACE | 0 |
| 25 | 20/1 | SPACE | 0 | 26 | 20/1 SPACE | 0 |
| 27 | 20/1 | SPACE | 0 | 28 | 20/1 SPACE | 0 |
| 29 | 20/1 | SPACE | 0 | 30 | 20/1 SPACE | 0 |
| TOTAL CONNECTED KVA BY PHASE | | | 17.3 | 17.5 | | |
| TOTAL CONNECTED AMPS BY PHASE | | | 144 | 146 | | |
| OPTIONAL DWELLING UNIT CALCULATION (NEC 220.82) | | | | | | |
| LIGHTING AND RECEPTACLES | | | 2.54 | 848 SF (3 VA/SF) | GENERAL LOAD UP TO 10 KVA OVER 10 KVA | 10 10 (100%) 5.82 (40%) (220.82(C)(1)) |
| SMALL-APPLIANCE | | | 3 | | MAX HEATING OR COOLING | 3.03 |
| LAUNDRY | | | 6.5 | | TOTAL LOAD | 18.9 |
| APPLIANCES | | | 4.5 | | BALANCED LOAD | 78.5 A |
| ELECTRIC COOKING | | | 8 | | | |
| TOTAL GENERAL LOAD | | | 24.5 | | | |

B

| ROOM | 102/105/202/205/302/305 | VOLTS | 240/120V 2P 3W | AIC | 22,000 | |
|--------------|-------------------------|----------------------|----------------|-----|----------------------------|-------------------------------|
| NOTE | | | BUS AMPS | 125 | MAIN BKR | MLO |
| NEUTRAL 100% | | | | | | |
| CKT # | CKT BKR | CIRCUIT DESCRIPTION | LOAD KVA | A | B | FEEDER RACEWAY AND CONDUCTORS |
| 1 | 20/1 | LIGHTING, RECEPTACLE | 0.562 | 2 | 20/1 REFRIGERATOR | 1.25 |
| 3 | 20/1 | RECEPTACLE | 0.18 | 4 | 20/1 CONV. RECEPT. KITCHEN | 1.5 |
| 5 | 20/1 | LIGHTING, RECEPTACLE | 0.796 | 6 | 20/1 GARBAGE DISPOSAL | 1.25 |
| 7 | 20/1 | RECEPTACLE | 0.18 | 8 | 20/1 DISHWASHER | 1.2 |
| 9 | 20/1 | SPACE | 0 | 10 | 20/1 MICROWAVE / VENT | 1 |
| 11 | 30/2 | EW-1 (WATER HEATER) | 2.25 | 12 | 20/1 CONV. RECEPT. KITCHEN | 1.5 |
| 13 | 20/1 | SPACE | 2.25 | 14 | 20/1 LIGHTING, RECEPTACLE | 1.07 |
| 15 | 20/1 | WASHING MACHINE | 1.5 | 16 | 20/1 SPACE | 0 |

| SYMBOL LEGEND | | NOT ALL SYMBOLS WILL APPLY TO THIS PROJECT | |
|---------------|--|--|---|
| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
| | EXISTING REMOVE NEW WORK | | EMERGENCY LIGHTING UNIT |
| | HOMERUN CONDUIT | | CEILING MOUNTED EXIT SIGN - ARROW AS INDICATED |
| | NEUTRAL PHASE GROUND | | TWO FACED EXIT SIGN |
| | FLEXIBLE CONDUIT | | WALL MOUNTED EXIT SIGN |
| | CONDUIT TURNING DOWN | | SWITCHBOARD, POWER PANELBOARD |
| | CONDUIT TURNING UP | | LIGHTING PANELBOARD |
| | BUSWAY WITH DESCRIPTION | | TRANSFORMER |
| | CABLE TRAY WITH DESCRIPTION | | NON-FUSIBLE SAFETY SWITCH (NUMBER INDICATES SWITCH SIZE) |
| | CEILING JUNCTION BOX | | FUSED SAFETY SWITCH (NUMBERS INDICATE FUSE/SWITCH SIZES) |
| | WALL JUNCTION BOX | | COMBINATION MAGNETIC STARTER AND CIRCUIT BREAKER |
| | DUPLEX RECEPTACLE | | TRIP |
| | OUTLET | | SINGLE POLE SWITCH - USE SUBSCRIPT TO DESIGNATE CONTROL OF PARTICULAR OUTLETS |
| | DOUBLE DUPLEX RECEPTACLE | | DOUBLE POLE SWITCH |
| | GROUND FAULT CIRCUIT INTERRUPTER | | THREE-WAY SWITCH |
| | DUPLEX OUTLET WITH WEATHERPROOF COVER | | FOUR-WAY SWITCH |
| | SPLIT WIRED DUPLEX RECEPTACLE | | WEATHERPROOF SWITCH |
| | DUPLEX ISOLATED GROUND | | KEY OPERATED SWITCH |
| | SPECIAL PURPOSE OUTLET - USE SUBSCRIPT TO IDENTIFY TYPE IN SPECS | | DIMMER SWITCH - NUMBER INDICATES WATTAGE |
| | FLOOR RECEPTACLE OUTLET USE SUBSCRIPT TO IDENTIFY TYPE IN SPECS | | OCCUPANCY SENSING SWITCH |
| | CLOCK RECEPTACLE | | PHOTOCELL |
| | RECEPTACLE RACEWAY | | DATA PORT / PHONE |
| | FLUORESCENT LUMINAIRE | | |
| | FLUORESCENT STRIP LUMINAIRE | | |
| | WALL MOUNTED FLUORESCENT LUMINAIRE | | |
| | CEILING MOUNTED LUMINAIRE | | |
| | WALL MOUNTED LUMINAIRE | | |
| | LIGHT POLE WITH LUMINAIRE | | |

ELECTRICAL GENERAL NOTES:

- PERFORM INSTALLATION IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), AND APPLICABLE COA ORDINANCES, AND BRYAN TEXAS UTILITY DESIGN CRITERIA. EQUIPMENT SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (UL).
 - PROVIDE AND MAINTAIN A CLEAR WORKING SPACE ABOUT ELECTRIC EQUIPMENT (SWITCHBOARDS, PANELBOARDS, ETC.) IN ACCORDANCE WITH NEC ARTICLES 110.26 AND 110.34.
 - ALL GROUNDING SHALL BE PER NEC AND LOCAL CODES.
 - THE ELECTRICAL CONTRACTOR SHALL VERIFY SIZES OF BREAKERS, FUSES, WIRES, ETC FOR ALL EQUIPMENT PROVIDED AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO MAKING CONNECTIONS.
 - PROVIDE CIRCUIT BREAKERS WITH UL LISTED INTERRUPTING RATING (RMS SYMMETRICAL AMPERES) GREATER THAN THE AVAILABLE FAULT CURRENT SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM.
 - BOND RACEWAYS AND THE FRAMES AND ENCLOSURES OF MOTORS, BREAKERS, SWITCHES, AND OTHER ELECTRICAL EQUIPMENT TO THE BUILDING GROUNDING SYSTEM. INSTALL AN INSULATED EQUIPMENT GROUND CONDUCTOR IN EACH RACEWAY OR CONDUIT. SIZE EQUIPMENT GROUND CONDUCTOR IN ACCORDANCE WITH NEC TABLE 250.122.
 - USE 12 AWG OR LARGER CONDUCTORS FOR ALL WIRING, UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE DRAWINGS. MINIMUM WIRE/CONDUIT SIZES ARE #12 AWG COPPER IN 1/2" CONDUIT.
 - USE ONLY COPPER CONDUCTORS ON CIRCUITS 600V AND LESS. CONDUCTORS 10 AWG AND SMALLER SHALL BE SOLID AND 8 AWG AND LARGER AWG SHALL BE STRANDED. PROVIDE TYPE THHN/THWN WIRE INSULATION; XHHW INSULATION MAY BE USED FOR 1 AWG AND LARGER. NM WIRE MAYBE USED FOR DWELLING CIRCUITS WERE ALLOWED BY CODE.
 - INSTALL OUTDOOR EQUIPMENT TO BE WEATHERPROOF AND TO EXCLUDE BIRDS AND RODENTS WITH MAXIMUM 1/2" DIAMETER UNPROTECTED OPENINGS IN ENCLOSURES.
 - TEST CONDUCTORS FOR CONTINUITY AND FREEDOM FROM SHORTS AND UNINTENTIONAL GROUNDS. NO WIRING SHALL BE LOADED BEYOND THE PERMITTED AMPACITIES ALLOWED BY NEC.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND MATERIALS NECESSARY TO MAKE A COMPLETE AND WORKABLE JOB.
 - THE ELECTRICAL CONTRACTOR SHALL LAYOUT SERVICE ENTRANCE AND METERING EQUIPMENT TO SCALE WITH ACTUAL COMPONENTS TO BE INSTALLED TO ENSURE PROPER FIT AND CLEARANCES PRIOR TO INSTALLATION. NOTIFY ENGINEER OF ANY DIMENSIONAL CONFLICTS.
 - THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO SUBMITTING BID.
 - KEEP JOB SITE IN AN ORDERLY CONDITION AND AT PROJECT COMPLETION, REMOVE ALL WASTE. LEAVE THE JOB SITE IN A CONDITION ACCEPTABLE TO THE OWNER OR OWNERS REPRESENTATIVE.
 - IF A CONFLICT ARISES BETWEEN THE FIELD CONDITIONS AND THESE GENERAL ELECTRICAL REQUIREMENTS, CONTACT THE DESIGN ENGINEER AND OWNER FOR DIRECTIONS.
 - UNLESS OTHERWISE NOTED, BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER (THW OR EQUAL, NM FOR DWELLING CIRCUITS AS ALLOWED BY CODE) SIZED AS FOLLOWS:
- | BREAKER RATINGS | WIRE SIZE | BREAKER RATING | WIRE SIZE |
|-----------------|-----------|----------------|-----------|
| 15 AMP | #12 AWG | 90 AMP | #2 AWG |
| 20 AMP | #12 AWG | 100 AMP | #1 AWG |
| 30 AMP | #10 AWG | 110 AMP | #1 AWG |
| 40 AMP | #8 AWG | 125 AMP | #1 AWG |
| 50 AMP | #6 AWG | 150 AMP | #1/0 AWG |
| 60 AMP | #4 AWG | 175 AMP | #2/0 AWG |
| 70 AMP | #4 AWG | 200 AMP | #3/0 AWG |
| 80 AMP | #4 AWG | | |
- ALL BRANCH CIRCUITS WITH AN OVERALL LENGTH IN EXCESS OF 75 FT SHALL BE INCREASED IN WIRE SIZE TO ACCOMMODATE VOLTAGE DROP.
- CONTRACTOR SHALL INDICATE ALL CHANGES FROM THE ORIGINAL PLANS MADE DURING THE INSTALLATION OF HIS WORK IN RED INK ON TWO BLUELINE PRINTS. ALSO PROVIDE ELECTRONIC "AS-BUILT".
 - THE CONTRACTOR SHALL PREPARE A TYPED PANEL DIRECTORY FOR EACH PANEL UTILIZED FOR THIS PROJECT. THIS DIRECTORY SHALL IDENTIFY THE CIRCUIT NUMBER, DEVICES SERVED, AND LOCATION OF DEVICES BY ROOM NUMBER. HE SHALL FILE THEM WITH THE BUILDING MANAGER WHEN THE WORK IS COMPLETED.
 - SHOULD ANY ERRORS, OMISSIONS, CONFLICTS OR AMBIGUITIES EXIST IN EITHER/OR BOTH THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BRING THESE TO THE ATTENTION OF THE CONTRACTING OFFICER IMMEDIATELY FOR ADJUSTMENT IN WRITING BEFORE SIGNING THE CONTRACT OR PROCEEDING WITH THE WORK. OTHERWISE, HE SHALL AT HIS OWN EXPENSE, SUPPLY THE PROPER MATERIALS AND LABOR TO MAKE GOOD ANY DAMAGE OR DEFECT CAUSED BY SUCH UNINTENTIONAL ERROR.
 - MAKE ALL PENETRATIONS THROUGH WALLS AT 90 DEGREE ANGLES. SEAL ALL PENETRATIONS AT FIRE AND SMOKE PARTITIONS WITH FIRE SAFING MATERIAL. SEAL ALL PENETRATIONS AT SOUND WALLS WITH SOUNDPROOFING MATERIAL.
 - ALL MATERIALS FURNISHED UNDER THIS CONTRACT SHALL BE NEW UNLESS OTHERWISE NOTED.
 - ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION OR ACCEPTANCE OF THE WORK. THE CONTRACTOR SHALL REPAIR OR REPLACE, AT HIS OWN EXPENSE WHEN ORDERED TO DO SO, ALL WORK THAT MAY DEVELOP DEFECTS IN MATERIAL OR WORKMANSHIP WITHIN SAID PERIOD OF TIME.
 - ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS FOR SERVICE INTENDED, AS INTERPRETED BY THE CONTRACTING OFFICER. THE INSTALLATION OF ALL EQUIPMENT SHALL BE MADE BY EXPERIENCED CRAFTSMAN IN A NEAT, WORKMANLIKE MANNER. ALL MATERIALS, TOOLS, COSTS, AND SERVICES NECESSARY TO COMPLETELY INSTALL ALL ELECTRICAL WORK SHALL BE PROVIDED BY THE CONTRACTOR.
 - IT IS THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS THAT THE CONTRACTOR SHALL PROVIDE AN ELECTRICAL INSTALLATION THAT IS COMPLETE. ALL ITEMS AND APPURTENANCES NECESSARY, REASONABLY INCIDENTAL, OR CUSTOMARILY INCLUDED, EVEN THOUGH EACH AND EVERY ITEM IS NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED.
 - CONFIRM EXACT LOCATION OF CEILING FIXTURES WITH OWNER BEFORE ROUGH-IN.
 - COORDINATE WITH THE OWNER FOR EXACT LIGHTING FIXTURE AND OUTLET LOCATIONS. WHEN INSTRUCTED BY THE CONTRACTING OFFICER THE CONTRACTOR SHALL RELOCATE OUTLETS LOCATED AT UNACCEPTABLE LOCATIONS AT NO ADDITIONAL COST IF NEW LOCATIONS ARE LESS THAN TWO-FEET.
 - COORDINATE THE EXACT LOCATION OF ALL UNIT LOAD CENTERS AND HOME NETWORK PANEL WITH THE ARCHITECT PRIOR TO INSTALLATION. ALL FEEDER CONDUIT ROUTING SHALL BE COORDINATED WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO INSTALLATION. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A COMPLETE SHOP DRAWING THAT INDICATES THE ROUTING AND SIZE OF ALL CONDUIT FOR REVIEW PRIOR TO INSTALLATION.
 - ROUTE (1) 3/4" CONDUIT WITH PULLSTRING FROM EACH INDOOR MECHANICAL UNIT TO RESPECTIVE CONDENSING UNIT FOR CONTROL WIRING. ROUTE (1) 3/4" CONDUIT FROM EACH UNIT LOAD CENTER TO THE RESPECTIVE CONDENSING UNIT FOR POWER CONNECTION.
 - ALL DWELLING BRANCH CIRCUITS OUTLETS AS REQUIRED BY NEC 210.12 (A) SHALL BE PROTECTED BY A BY A 20-AMP RATED ARC-FAULT CIRCUIT INTERRUPTER. FOR ALL 120V/1Ø/2ØA BRANCH CIRCUITS SUPPLYING OUTLETS IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, DENS, MEDIA ROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS.
 - AT RESIDENTIAL UNITS, SWITCHES FOR RESTROOM EXHAUST FANS SHALL BE INSTALLED USING A COMMON COVER PLATE WITH THE ADJACENT LIGHT SWITCHES. RE: LIGHTING PLANS.
 - AT RESIDENTIAL UNITS, RECEPTACLES LOCATED ON OPPOSITE SIDES OF A COMMON WALL SHALL BE ROUGHED IN A MINIMUM OF 1'-0" APART HORIZONTALLY TO LIMIT NOISE TRANSMISSION.
 - ROUTE 3/4" CONDUIT WITH PULL STRING FROM EACH VOICE/DATA AND CABLE TV OUTLET TO THE HOME NETWORK PANEL.
 - ALL EXTERIOR FIRE ALARM DEVICES SHALL BE WEATHERPROOF.
 - PROVIDE FIRE RATED LIGHT COVER FOR ALL CEILING MOUNTED LIGHT FIXTURES AND CEILING JUNCTION BOXES. UTILIZE TENMAT #FF103-300 OR EQUAL. VERIFY FIXTURE HEIGHT PRIOR TO PURCHASE AND PROVIDE APPROPRIATE FIRE RATED COVER AS REQUIRED.
 - AT RESIDENTIAL UNITS, PROVIDE TAMPER-RESISTANT RECEPTACLES FOR ALL 120V/1Ø/2ØA OUTLETS.
 - PROVIDE WEATHER-RESISTANT RECEPTACLES FOR ALL 120V/1Ø/2ØA EXTERIOR OUTLETS.
 - CONTRACTOR SHALL USE MULTI-GANG BOXES IN ALL POSSIBLE LOCATIONS WHERE NECESSARY.
 - PROVIDE EXPANSION FITTINGS ON ALL CONDUIT CROSSING EXPANSION JOINTS.
 - CONDUIT SHALL BE EMT WITH COMPRESSION FITTING (MINIMUM 1/2").
 - FLEX CONDUIT MAYBE USED WHEN INSTALLED IN ACCORDANCE WITH NEC AND LOCAL ORDINANCES.
 - ALL RECEPTACLES AND SWITCHES SHALL BE RATED AT 20 AMPERE MINIMUM.
 - ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH: 2008 NEC; 2009 IECC ENERGY CODE.
 - ELECTRICAL CONTRACTOR SHALL COMPLY WITH COLOR CODING OF CONDUCTORS IN ACCORDANCE WITH NEC.

| CALLOUT | SYMBOL | LAMP | DESCRIPTION | MOUNTING | MODEL | INPUT WATTS | VOLTS | NOTE 1 |
|---------|--------|-----------------|---|----------|---|-------------|------------|---|
| C4 | | (1) 10W LED | 4 in. Ultra Thin Selectable LED Downlight Fixture - 10 Watt | CEILING | Lithonia Lighting WF4 LED 30K40K50K MVOLT 90CRI MW M6 | 10 | 120V 1P 2W | VERIFY FINAL FINISH WITH ARCHITECT |
| C6 | | (1) 14W LED | 6" low lumen Matte White Wafer Selectable White LED 27K30K35K - 3500K | CEILING | Lithonia Lighting WF6 LL LED 27K30K35K 90CRI 3500K | 9.93 | 120V 1P 2W | LISTED FOR WET LOCATION. VERIFY FINAL FINISH WITH ARCHITECT |
| EM1 | | (1) | LITHONIA LIGHTING EDG-EDGR EXIT LIGHT | CEILING | LITHONIA EDG 2 R 120 | | 120V 1P 2W | EXTERIOR EXIT LIGHT SURFACE MOUNTED |
| EM2 | | (1) | THE LIGHTING SOURCE WET LOCATION EMERGENCY LIGHT | CEILING | WL LMR | 64 | 120V 1P 2W | WET LOCATION |
| L1 | | (1) 27W | DMW2 L24 3000LM WD AFL MVOLT G21 35K 90CRI (GLEDS) | CEILING | Lithonia Lighting DMW2 3000LM WD AFL MVOLT 35K 90CRI | 27.85 | 120V 1P 2W | RATED FOR WET LOCATION |
| L2 | | (1) 23.8W | LITHONIA FEM LED ENCLOSED AND GASKETED LED STRIP | CEILING | FEM L48 4000LM IMAFD WD MVOLT 35K 90CRI | 23.8 | 120V 1P 2W | |
| S1 | | (1) 13W LED | LED WALL SCONCE | WALL | | 13 | 120V 1P 2W | TO BE SELECTED BY OWNER, ARCHITECT |
| T1 | | (6) 8W LED MR16 | LED TRACK LIGHT SYSTEM W/ 6 HEADS | CEILING | TO BE SELECTED BY OWNER / ARCHITECT | 8 | 120V 1P 2W | VERIFY FINAL FINISH WITH ARCHITECT |

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