6707 RIVERSIDE

Project No: 21066

Project Status: ISSUED FOR PERMITTING AND CONSTRUCTION

Project Location: AUSTIN, TEXAS

6707 RIVERSIDELAND LLC

Client Rep:
Client Rep Email:
Client Rep Phone:

PROJECT INFORMATION:

A15.01 no longer exists-alternate suspended celing in garage

1

PROJECT DESCRIPTION:

THE PROJECT INVOLVES THE CONSTRUCTION OF A TWO STORY OFFICE BUILDING OF TYPE IIB CONSTRUCTION. THE SCOPE OF WORK INCLUDES THE CONSTRUCTION OF AN ENTRY LEVEL VESTIBULE AND OPEN PARKING GARAGE ON LEVEL 1 AND OFFICES INCLUDING A SMALL RETAIL AREA ON LEVEL 2. THE BUILDING WILL BE SPRINKLERED (NFPA 13) AND WILL BE CONSTRUCTED AS A NON-SEPARATED USE. THE S-2 OCCUPANCY IS THE MOST RESTRICTIVE AND WILL BE USED AS THE BASIS OF DESIGN.

APPLICABLE CODES:

2021 INTERNATIONAL BUILDING CODE
2021 ENERGY CONSERVATION CODE
2021 INTERNATIONAL FIRE CODE
2020 NATIONAL ELECTRIC CODE
2021 UNIFORM MECHANICAL CODE
2021 UNIFORM PLUMBING CODE

SITE PLAN CASE NUMBER:

SP-2022-0057C

TDLR REGISTRATION NO.:

TDLR REGISTRATION NO. - TABS2023001704

AHJ TESTING REQUIREMENTS:

FIRE: EMERGENCY RESPONDER COVERAGE TESTING
MECHANICAL: BLOWER DOOR TEST -

DEFERRED SUBMITTALS:

1. FIRE ALARM
2. FIRE SPRINKLER
3. SIGNAGE
4. LIGHT GAUGE METAL STUD FRAMING
5. STAIRS, HANDRAILS, AND GUARDRAILS

ARCHITECT:
FIFTH DIMENSION ARCHITECTURE & INTERIORS, LLC
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ACCESSIBILITY:
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REGISTERED ARCHITECT — WALTER D. PAYNE — 24499 — STATE OF TEXAS

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
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ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE
6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ISSUE DATE
21066	2022.09.27

SHEET NAME:
COVER SHEET

SHEET NO:
G0.00

GENERAL PROJECT NOTES

OWNER REQUIREMENTS

1. THE OWNER SHALL OBTAIN AND PAY FOR BUILDING PERMITS AND IMPACT FEES.
2. AS PART OF THE SUBMITTAL REVIEW PROCESS, THE OWNER SHALL APPROVE ALL MATERIAL FINISH AND COLOR SELECTIONS PRIOR TO PROCEEDING WITH RELATED WORK OR ORDERING RELATED MATERIALS AND EQUIPMENT.
3. THE OWNER TO PROVIDE SPECIAL INSPECTIONS AS REQUIRED BY THE CURRENT BUILDING CODE OR AHJ, REFER TO STRUCTURAL DRAWINGS FOR A LIST OF SPECIAL INSPECTION REQUIRED.
4. THE OWNER TO SECURE ALL AGREEMENTS FOR ON SITE AND OFF-SITE CONSTRUCTION ACCESS, STAGING AND STORAGE AREAS.

GENERAL

1. UNLESS NOTED OTHERWISE, THE GENERAL CONDITIONS FOR CONSTRUCTION ARE A PART OF THE CONTRACT DOCUMENTS. THE GENERAL CONDITIONS SET FORTH THE RESPONSIBILITIES OF THE VARIOUS PARTIES INVOLVED IN THE CONSTRUCTION. THE CONTRACTOR SHALL READ THESE AND FAMILIARIZE HIMSELF WITH THE REQUIREMENTS BEFORE STARTING CONSTRUCTION INCLUDING ALL NOTES THAT OCCUR THROUGHOUT THE DRAWINGS.
2. THE CONTRACTOR SHALL EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS INCLUDING SPECIFICATIONS IN THEIR ENTIRETY.
3. DEVIATIONS FROM THE DRAWINGS AND SPECIFICATIONS MUST BE APPROVED IN WRITING BY THE ARCHITECT, AND OR ENGINEER OF RECORD SUBJECT TO OWNER APPROVAL.
4. ALL MATERIAL QUANTITIES TO BE CONFIRMED AND PROVIDED BY THE CONTRACTOR.
5. UNLESS NOTED OTHERWISE IN THE PROJECT MANUAL, THE CONTRACTOR SHALL SUBMIT THE OPERATIONS AND MAINTENANCE MANUALS AT LEAST TWO WEEKS BEFORE THE FINAL INSPECTION IS SCHEDULED FOR SUBSTANTIAL COMPLETION. THE FINAL INSPECTION WILL NOT BEGIN UNTIL O&M MANUALS HAVE BEEN APPROVED.
6. THE CONSTRUCTION SCHEDULE SHALL ALLOW TIME FOR TESTING AND BALANCING AS REQUIRED BY THE PROJECT PRIOR TO SUBSTANTIAL COMPLETION. THE PROJECT WILL NOT BE CONSIDERED SUBSTANTIALLY COMPLETE UNTIL THE TESTING AND BALANCING HAS BEEN COMPLETED.
7. ALL MEANS OF EGRESS AND FIRE PROTECTION SHALL BE MAINTAINED AT ALL TIMES. ANY SHUT DOWN OF LINE SAFETY OR BUILDING SYSTEMS SHALL BE APPROVED AND COORDINATED IN ADVANCE WITH THE OWNER AND LOCAL BUILDING DEPARTMENT.

DEFINITIONS

1. **TYPICAL**: AT LOCATIONS WITHIN THE DRAWINGS, THE TERM "TYPICAL" INDICATES THE DETAIL IS APPLICABLE TO EACH AND ALL SIMILAR CONDITIONS WHETHER INDICATED OR NOT.
2. **PROVIDE**: THE USE OF THE WORDS "PROVIDE" OR "PROVIDED" IN CONNECTION WITH ANY ITEM SPECIFIED IS INTENDED TO MEAN, UNLESS OTHERWISE NOTED, THAT SUCH SHALL BE FURNISHED, INSTALLED AND CONNECTED WHERE SO REQUIRED.
3. **AS REQUIRED**: PROVIDE THE SPECIFIED COMPONENTS TO COMPLETE THE NOTED SYSTEMS.
4. **SIMILAR**: PROVIDE COMPLETE COMPONENTS FOR THE SYSTEM INDICATED THAT ARE COMPARABLE TO THE CHARACTERISTICS FOR THE CONDITION NOTED.
5. **CLEAR**: CRITICAL DIMENSIONS FROM FACE OF FINISH TO FACE OF FINISH.
6. **F/V OR FIELD VERIFY**: DIMENSIONS REQUIRED TO BE FIELD VERIFIED BY CONTRACTOR.
7. **U.N.O.**: UNLESS OTHERWISE NOTED
8. REFER TO DIVISION 1 SECTION "REFERENCES" FOR ADDITIONAL TYPICAL TERMS AND DEFINITIONS APPLICABLE TO THE CONSTRUCTION DOCUMENTS. THIS SECTION SHALL TAKE PRECEDENCE OVER ANY OTHER DEFINITIONS STATED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.

PROJECT TURNOVER REQUIREMENTS

1. UPON COMPLETION OF THE WORK REMOVE ALL APPLIANCE PROTECTION, CLEAN UP ALL STAINS, DEBRIS AND EQUIPMENT.
2. CLEAN AND LEAVE ALL INTERIOR AND EXTERIOR AREAS TO THE SATISFACTION OF THE OWNER.
3. UPON COMPLETION OF PROJECT, THE CONTRACTOR IS TO PROVIDE OWNER WITH ALL INSTRUCTION MANUALS, WARRANTIES OR OTHER DOCUMENTS REQUIRED FOR OPERATION OR MAINTENANCE OF ANY ITEM IN THE CONTRACTORS WORK.
4. UPON COMPLETION OF PROJECT, OBTAIN ALL FINAL INSPECTIONS AS REQUIRED BY LOCAL JURISDICTIONS AND FURNISH OWNER WITH EVIDENCE OF ALL SUCH INSPECTIONS AND CERTIFICATES OF OCCUPANCY.
5. UPON COMPLETION OF THE WORK, REMOVE ALL TOOLS, EQUIPMENT, TEMPORARY PROTECTION, AND EXCESS MATERIALS FROM THE SITE. CLEAN / POLISH ALL HARDWARE AND FIXTURES. CLEAN / REMOVE ALL PAINT DRIPS / SPLATTERS AND STAINS. REMOVE ALL AREAS BROOM CLEAN, FREE OF STAINS, FILM AND FOREIGN SUBSTANCES.
6. AT A MINIMUM, WARRANT ALL MATERIALS AND LABOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION, OR THE DATE OF BENEFICIAL OCCUPANCY BY THE OWNER, WHICHEVER IS LATER. REPAIR OR REPLACE ALL WORK THAT IS DISCOVERED TO BE DEFECTIVE DURING THAT PERIOD. SEE SPECIFICATIONS FOR ADDITIONAL WARRANTY REQUIREMENTS.
7. WHEN APPLICABLE, ALL DEMONSTRATION AND TRAINING OF OWNER'S PERSONNEL SHALL BE COMPLETE BEFORE THE PROJECT IS CERTIFIED TO BE SUBSTANTIALLY COMPLETE BY THE ARCHITECT.
8. THE CONTRACTOR SHALL CONDUCT TWO POST CONSTRUCTION INSPECTIONS:
   - A. THE FIRST INSPECTION WILL BE HELD APPROXIMATELY 8 MONTHS AFTER SUBSTANTIAL COMPLETION TO ADDRESS PLUMBING, HVAC, AND ELECTRICAL CONCERNS.
   - B. THE SECOND INSPECTION WILL BE HELD PRIOR TO THE EXPIRATION OF THE 1-YEAR WARRANTY PERIOD TO ADDRESS GENERAL CONSTRUCTION, INCLUDING THE ABOVE.
   - C. ALL PROBLEMS DISCOVERED DURING THESE INSPECTIONS THAT RELATE TO DEFECTIVE MATERIALS AND WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

COORDINATION AND DOCUMENT INTERPRETATION

1. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION. VERIFY ALL EXISTING SITE CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WITH THE DRAWINGS U.N.O.
2. ALL ROUGH OPENINGS REQUIRING INSTALLATION OF PREFABRICATED ITEMS INCLUDING BUT NOT LIMITED TO WINDOWS, DOOR FRAMES, TUBS, SHOWERS, ELEVATORS, AND TRASH COMPACTORS, SHALL BE FIELD MEASURED OR THE CONTRACTOR SHOULD GUARANTEE THE OPENINGS. DO NOT RELY ON THE DIMENSIONS ON THE DRAWINGS.
3. THE CONTRACTOR SHALL PROVIDE COORDINATION DRAWINGS AS SPECIFIED IN DIVISION 1 SECTION "PROJECT MANAGEMENT AND COORDINATION."
4. ALL PLAN DIMENSIONS ARE FROM FACE OF STUD, FACE OF CMU, FACE OF CAST IN PLACE WALLS OR CENTERLINE OF COLUMNS U.N.O.
5. AT PROJECTS WITH EXISTING CONSTRUCTION, WHERE FINISHES ARE NOT TO BE DEMOLISHED, DIMENSIONS ARE INDICATED FROM THE EXISTING FACE OF FINISH.
6. ALL ANGLED WALLS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
7. UPON DISCOVERY OF ANY OF THE FOLLOWING, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING AND AWAIT A WRITTEN RESPONSE PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
   - A. ANY VARIATIONS OR AMBIGUITIES BETWEEN THESE DRAWINGS AND ACTUAL SITE AND CONSTRUCTION CONDITIONS AND/OR REQUIREMENTS
   - B. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND OR DIMENSIONS AND INFORMATION CONTAINED WITHIN THE CONTRACT DOCUMENTS.
   - C. ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND ALL APPLICABLE COUNTY, STATE, CITY CODES AND AMENDMENTS.
   - D. ANY INCONSISTENCIES, DISCREPANCIES, OR CONFLICTS IN THE DRAWINGS AND SPECIFICATIONS.
8. WHERE DOORS ARE NOT DIMENSIONED IN METAL OR WOOD STUD WALLS, THEY SHALL BE EITHER CENTERED AT THE MIDPOINT OF THE WALL OR OFFSET TO PROVIDE 4" CLEAR FROM THE ADJACENT WALL CORNER IF CLEARANCE ALLOWS.
9. WHERE NO DIMENSION IS GIVEN AT INTERIOR DOOR LOCATIONS IN CMU, LOCATE EDGE OF FRAME WITHIN 8-INCHES OF ADJACENT WALL. REFER UNCERTAINTIES TO ARCHITECT FOR APPROVAL
10. WHERE WINDOW AND DOOR SCHEDULES INDICATE EQUIVALENT HEAD HEIGHTS WITHIN A ROOM, THE CONTRACTOR SHALL COORDINATE THE SPECIFIC HEIGHT OF EACH ROUGH OPENING TO ALLOW TRIM AT THESE WINDOW AND DOOR HEADS TO MAINTAIN A CONSISTENT HEIGHT ABOVE THE FINISHED FLOOR.
11. SOLID SURFACED PATIOS AND BALCONY FINISHED SURFACES AND SUPPORTING CONSTRUCTION SHALL BE SLOPED 1/4" PER 1'-0" IN THE DIRECTION INDICATED OR TO OUTERMOST EDGE OF BUILDING. SURFACES SHALL WARP AWAY FROM WALLS TO DIRECT WATER AWAY FROM WALLS AND IMPEDING BUILDING ELEMENTS U.N.O.
12. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE CONTROL JOINT SPACING.
13. CONFIRM SIZES OF ALL OPENINGS REQUIRED FOR THE INSTALLATION OF ALL STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WORK PRIOR TO FORMING CONCRETE.
14. LAYOUT AND COORDINATE SUBCONTRACTOR WORK TO AVOID CONFLICTS BETWEEN DUCTWORK, LIGHTING, CEILINGS, PIPING, BUILDING STRUCTURE, ETC. TO ACHIEVE THE INDICATED CEILING HEIGHTS AND WALL LOCATIONS INDICATED ON THE DRAWINGS.
15. COORDINATE LOCATION OF FIXTURES WITH MECHANICAL, ELECTRICAL DRAWINGS, STRUCTURAL DRAWINGS, AND SUBCONTRACTOR PROVIDED FIRE PROTECTION SHOP DRAWINGS (WHERE APPLICABLE). COORDINATE EXACT LOCATION OF ALL CEILING REGISTERS, GRILLES, AND DIFFUSERS WITH LIGHTING LAYOUT, SPRINKLER HEADS, CEILING GRID, ETC. NOTIFY ARCHITECT OF LAYOUT CONFLICTS OR DISCREPANCIES.
16. ALL DETAILS AND SECTIONS ARE INTENDED TO BE TYPICAL FOR THE GENERAL CONDITIONS IN THE PROJECT. ALL DETAILS AND SECTIONS SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR CONDITION THROUGHOUT THE PROJECT UNLESS A SPECIFIC DETAIL IS PROVIDED. REFER ANY UNCERTAINTIES TO ARCHITECT FOR CLARIFICATION.
17. CEILING UTILITY COORDINATION - INSTALL ALL ELECTRICAL AND OTHER CONDUIT TIGHT TO STRUCTURE UNO. CONNECT CEILING GRID AND LIGHTING FIXTURE TIE WIRES TO STRUCTURAL ELEMENTS ABOVE. DO NOT ATTACH TO OTHER SYSTEMS SUCH AS CONDUIT, DUCTS, PIPES, ETC. PROVIDE A MINIMUM OF 1'-0" CLEAR ZONE ADJACENT TO ANY FIRE OR SMOKE PARTITION.
18. PIPING, DUCTWORK, ETC... LOCATED IN THE FINISHED AREAS OF THE BUILDING SHALL BE CONCEALED IN CHASES/FURRED SPACES WITH THE EXCEPTION OF PIPING IN EQUIPMENT ROOMS, AND STANDPIPES, REQUIRED BY CODE TO BE EXPOSED. U.N.O.
19. PROVIDE GALVANIZED METAL ANCHORS FOR WOOD POSTS BEARING ON CONCRETE SLABS, UNLESS NOTED OTHERWISE.
20. REFERENCE CIVIL DRAWINGS FOR FINISHED FLOOR BENCHMARK ELEVATIONS.
21. WHERE INCORRECT REFERENCES TO WALL SECTIONS, DETAILS, AND DRAWING NUMBERS OCCUR, THE CONTRACTOR SHALL REFER UNCERTAINTIES TO THE ARCHITECT FOR CLARIFICATION.
22. WHERE DRAWINGS INDICATE PARTITION TYPES, ACCOMPANIED BY A PARTITION SCHEDULE, AND A WALL IS FOUND TO HAVE NO DESIGNATION, THE CONTRACTOR SHALL ASSUME THE ADJACENT PARTITION TYPE, OR IF UNCERTAIN, ASSUME THE HIGHEST QUALITY. NO CHANGE ORDERS WILL BE GRANTED DUE TO MISSING DESIGNATIONS. REQUEST CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH WORK.
23. DEFERRED SUBMITTAL ITEMS SUCH AS SPRINKLER SYSTEM, TRUSSES, POOL, ELEVATOR, ETC. SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER WHO SHALL REVIEW THEM PRIOR TO THE BUILDING OFFICIAL WITH A NOTATION THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
24. PROTRUDING OBJECTS ARE PROHIBITED ALONG ALL CIRCULATION PATHS INCLUDING ACCESSIBLE ROUTES AND STAIRS. A MAXIMUM PROJECTION OF 4" FOR OBJECTS GREATER THAN 27" ABOVE FLOOR IS ALLOWED. ANY PROTRUDING OBJECTS THAT EXTEND GREATER THAN 4" MUST BE MOUNTED WITH THEIR BOTTOM EDGE AT 80" A.F.F.
25. FLOOR TOLERANCE: IN LAYING OUT AND DETAILING THE WORK TO BE COMPLETED, CONSIDERATION SHALL BE GIVEN TO VARIATIONS IN THE FLOOR LEVELNESS RESULTING FROM CONSTRUCTION QUALITY AND LIVE AND DEAD LOADS IMPOSED ON THE STRUCTURE. FIELD VERIFICATIONS SHALL BE MADE OF CONDITIONS TO VERIFY CONSTRUCTION TOLERANCES.
26. ALIGNMENT OF DOOR HEADS AND OTHER HORIZONTAL ELEMENTS SHALL BE MAINTAINED AT A CONSTANT LEVEL AND SHALL NOT FOLLOW VARIATIONS IN FLOOR PLANE.
27. COORDINATE LOCATION AND/OR ELEVATIONS OF FLOOR DRAINS, REGISTERS, GRILLES, LOUVERS, CONVECTORS, PANELS, ETC. WITH MECHANICAL AND ELECTRICAL CONTRACTORS.
28. PROVIDE ACCESS PANELS AS MANDATED BY THE COORDINATION REQUIREMENTS.
29. COORDINATE LOCATION, CONSTRUCTION, AND DETAIL OF LOAD BEARING WALLS BEFORE WORK.
30. WHILE BUILDING IS UNDER CONSTRUCTION, OPERATING FEATURES SHALL COMPLY WITH NFPA 101.
31. CONTRACTOR TO PROVIDE AND INSTALL ALL LOCKING DEVICES, SECURITY DEVICES, AND GLASS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS, REGULATIONS AND REQUIREMENTS.

DIVISION 1 - GENERAL REQUIREMENTS

1. UNLESS NOTED OTHERWISE, THE TERM CONTRACTOR IN THE FOLLOWING NOTES SHALL REFER TO THE CONTRACTOR WHO HOLDS THE PRIME CONTRACT WITH THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK CONTAINED IN THE CONSTRUCTION DOCUMENTS.
2. ALL COSTS SUBMITTED SHALL BE BASED ON THOROUGH KNOW-LEDGE OF THE CONTRACT DOCUMENTS IN THEIR ENTIRETY. ANY DISCREPANCY AND/OR UNCERTAINTY AS TO WHAT MATERIAL OR PRODUCT IS TO BE USED SHOULD BE VERIFIED WITH THE OWNER OR ARCHITECT.
3. IT IS THE INTENT OF THE DRAWINGS TO CONFORM TO ALL APPLICABLE COUNTY, STATE, CITY CODES AND AMENDMENTS EVEN IF IT REQUIRES LABOR AND/OR MATERIALS NOT INDICATED ON PLANS.
4. ERRORS OR OMISSIONS IN ANY SCHEDULE OR DRAWING, DO NOT RELIEVE THE CONTRACTOR(S) FROM EXECUTING WORK IN THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.
5. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND GOVERNING AUTHORITIES TO ESTABLISH CONSTRUCTION TRAFFIC ACCESS TO THE SITE AND DESIGNATED CONSTRUCTION ACCESS THROUGHOUT THE BUILDING, WHERE APPLICABLE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK INCLUDED IN THE CONTRACT DOCUMENTS. ALL CORRESPONDENCE FROM SUBCONTRACTORS SHALL BE ROUTED THROUGH THE CONTRACTOR.
7. ALL SHOP DRAWINGS AND SUBMITTALS SHALL BE PROVIDED IN A PDF FORMAT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SHOP DRAWING AND SUBMITTAL LOG THAT IS TO BE SHARED WITH THE ARCHITECT.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO: PAY ALL FEES, FILE ALL REQUIRED DRAWINGS AND OBTAIN ALL PERMITS AND CERTIFICATE AS REQUIRED BY THE AHJ THAT ARE NOT PROVIDED BY THE OWNER.
9. STORE AND PROTECT ALL CONSTRUCTION MATERIALS IN ACCORDANCE WITH MANUFACTURER OR OWNER REQUIREMENTS TO PREVENT DETERIORATION.
10. REMOVE RUBBISH FROM PREMISES AS OFTEN AS NECESSARY OR AS DIRECTED TO MAINTAIN CLEAN AND SAFE PROJECT.
11. VERIFY ALL EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
12. PROTECT ALL EXISTING WORK, UTILITIES, SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO ORDERING, FABRICATION, AND INSTALLATION FOR ANY EQUIPMENT.
13. VERIFY AND COORDINATE ALL APPLICABLE DIMENSIONS OF FIXTURES AND EQUIPMENT SUPPLIED AND/OR INSTALLED BY OTHERS.
14. MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON THE SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES. ANY CONSTRUCTION OR INSTALLATION BASED ON OUT-OF-DATE PLANS SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
15. PROVIDE TEMPORARY BRACING AND/OR SHORING UNTIL THE PERMANENT BRACING IS IN PLACE.
16. DO NOT ISSUE INCOMPLETE (PARTIAL) SETS OF CONSTRUCTION DRAWINGS. DRAWINGS ARE INTERRELATED.
17. VERIFY AND COORDINATE SPECIFIC REQUIREMENTS FOR OWNER PROVIDED AND/OR INSTALLED EQUIPMENT.
18. PERFORM ALL WORK IN CONNECTION WITH THESE DRAWINGS SHALL BE IN COMPLIANCE WITH THE LATEST O.S.H.A SAFETY AND HEALTH STANDARDS.
19. ALL SUB CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS, SEE STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SIZE AND QUANTITY OF OPENINGS, SLAB REQUIREMENTS AND LINTELS.
20. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONSTRUCTION DUMPSTER(S) AND REMOVAL OF CONSTRUCTION WASTE AND DEMOLISHED ITEMS. IF DEMOLITION IS TAKING PLACE, COORDINATE WITH OWNER FOR ITEMS TO BE SALVAGED, STORED OR RETURNED TO OWNER PRIOR TO DEMOLITION.
21. UNLESS A MATERIAL IS SPECIFIED TO BE RECLAIMED, SALVAGED, OR REUSED, ALL MATERIALS SHALL PROVIDED SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. IF A CONFLICT EXISTS BETWEEN THE CONTRACT DOCUMENTS AND MANUFACTURER'S INSTRUCTIONS, THE CONFLICT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
22. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF WORK, AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
23. ADJACENT WORK, INCLUDED UNDER OTHER CONSTRUCTION CONTRACTS, WHICH IS DAMAGED DURING EXECUTION OF THIS CONTRACT WORK, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR PRIOR TO FINAL ACCEPTANCE OF THE WORK.
24. THE USE OF HAZARDOUS MATERIALS, EVEN PRODUCTS WITH TRACE AMOUNTS, SHALL NOT BE INCORPORATED INTO THE WORK.
25. MATERIALS CONTAINING MOLD SHALL BE REMOVED FROM THE JOBSITE.
26. ALL TESTS AND INSPECTIONS FOR AIR AND MOISTURE PENETRATION SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY INTERIOR FINISH MATERIALS.
27. FLOOR FINISH COVERINGS, FINISH TOPPINGS, FLOOR COATINGS, AND OTHER SHEET MEMBRANES SHALL NOT BE INSTALLED OVER CONCRETE SLABS ON GRADE PRIOR TO COMPLETE DRYING OF THE CONCRETE SLAB AND AFTER FIELD TESTING FOR ACCEPTABLE MOISTURE CONTENT.
28. FUEL POWERED EQUIPMENT AND FUEL CANS SHALL NOT BE STORED IN THE BUILDING.
29. NO ASBESTOS, ASBESTOS PRODUCTS, PCB's OR OTHER SUBSTANCE DEEMED TOXIC OR HAZARDOUS UNDER APPLICABLE FEDERAL OR STATE LAWS, RULES, REGULATIONS OR ORDINANCES, ARE TO BE CONTAINED OR INCORPORATED IN THE PROJECT WORK. IF ASBESTOS OR OTHER SUBSTANCES LISTED ABOVE ARE FOUND ON SITE, STOP WORK IMMEDIATELY, CONTACT THE REQUIRED PERSONNEL AND NOTIFY THE OWNER AND ARCHITECT OF THE ASBESTOS. OWNER AND CONTRACTOR TO COORDINATE PROPER REMEDIATION PROCEDURES PRIOR TO WORK CONTINUING. ARCHITECT CLAIMS NO RESPONSIBILITY IN FINDING, HANDLING, OR REMEDIATION OF ASBESTOS OR ANY OTHER SUBSTANCES LISTED ABOVE.
30. BRING TO THE ATTENTION OF THE OWNER ANY MATERIAL SUSPECTED OF BEING HAZARDOUS WHILE ENCOUNTERED DURING EXECUTION OF THE WORK. A DETERMINATION WILL BE MADE BY THE OWNER AS TO WHETHER THE CONTRACTOR SHALL PERFORM TESTS TO DETERMINE IF THE MATERIAL IS HAZARDOUS
31. THE GEOTECHNICAL REPORT PROVIDED BY OTHERS IS A PART OF THE PROJECT AND SHOULD BE REVIEWED BY THE CONTRACTOR.

DIVISION 2 - SITEWORK

1. PROTECT ALL EXISTING TREES, LANDSCAPING, SIDEWALKS AND OTHER SITE RELATED COMPONENTS AS INDICATED ON THE CIVIL AND LANDSCAPE DRAWINGS.
2. UNLESS NOTED OTHERWISE, GEOTECHNICAL REPORTS ARE FOR INFORMATION ONLY WHETHER OR NOT BOUND INTO THE PROJECT MANUAL.
3. UNLESS NOTED OTHERWISE, GEOTECHNICAL REPORTS ARE FOR INFORMATION ONLY WHETHER OR NOT BOUND INTO THE PROJECT MANUAL.
4. REVIEW THE GEOTECHNICAL REPORT
5. ALL SITEWORK SHALL BE ESTABLISHED AND DESIGNED BY THE CIVIL ENGINEER OR LANDSCAPE ARCHITECT.
6. REFER TO CIVIL DRAWINGS FOR DIMENSIONAL CONTROL PLAN AND GRADING, FIRE HYDRANT LOCATIONS, AND CURB CUTS.
7. REFER TO ELECTRICAL AND LANDSCAPING DRAWINGS FOR ALL TRANSFORMER LOCATIONS
8. REFER TO CIVIL DRAWINGS FOR DOWNSPOUT TIE IN LOCATIONS.
9. REFER TO MEP AND LANDSCAPE DRAWINGS FOR EXTERIOR SITE LIGHTING.
10. LOCATION OF MECHANICAL UNITS ARE APPROXIMATE. INSTALL PER MANUFACTURER'S REQUIREMENTS.

DIVISION 3 - CONCRETE

1. REFER TO STRUCTURAL DRAWINGS.
2. CONFIRM SIZES OF ALL OPENINGS REQUIRED FOR THE INSTALLATION OF ALL STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WORK PRIOR TO FORMING CONCRETE.
3. PROVIDE CONTROL JOINTS IN CONCRETE SLABS INCLUDING BALCONIES AND ELEVATED WALKWAYS AS REQUIRED PER THE DIRECTION OF THE STRUCTURAL ENGINEERINGER DRAWINGS-COORDINATE SPECIFIC LAYOUTS FOR EXPOSED FINISHED SLABS AS SHOWN ON ARCHITECTURAL PLANS.

DIVISION 4 - MASONRY

1. UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE CONTROL JOINTS IN CMU WALLS IN ACCORDANCE WITH ACI 530.1, BUT NOT MORE THAN 28 FEET ON CENTER AND WHERE WALLS CHANGE HEIGHT IN THE PLANE OF THE WALL. ARCHITECT TO APPROVE JOINT LOCATIONS.
2. UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE EXPANSION JOINTS IN CLAY MASONRY NOT TO EXCEED 24 FEET ON CENTER. ARCHITECT TO APPROVE JOINT LOCATIONS.
3. HORIZONTAL MASONRY DIMENSIONS ARE NOMINAL. CONTRACTOR SHALL CONVERT NOMINAL DIMENSIONS TO ACTUAL DIMENSIONS TO MAINTAIN MASONRY BOND PATTERN. FOR EXAMPLE, 1'-4" EQUALS 1'-3 5/8". OPENINGS ARE ALWAYS 3/8-INCHES WIDER THAN THE
4. NOMINAL DIMENSION, I.E., 4'-0" MO EQUALS 4'-0 3/8".
5. CHEMICAL CLEANERS FOR FACE BRICK SHALL BE APPROVED IN WRITING BY THE FACE BRICK AND MORTAR MANUFACTURERS PRIOR TO THEIR USE. NO EXCEPTIONS.
6. PROIDE VENT STYLE WEEPS AT TOP AND BOTTOM OF BRICK WALL TO FULLY VENT CAVITY.
7. PAINT ALL MASONRY LINTELS - COORDINATE COLOR WITH ARCHITECT.

DIVISION 5 - METALS

1. WHERE COUNTERTOPS ARE UNSUPPORTED BY BASE CABINETS, PROVIDE MISCELLANEOUS STEEL SUPPORTS IN ACCORDANCE WITH REQUIREMENTS OF DIVISION 5 SECTION "METAL FABRICATIONS."
2. RAILING SUB-CONTRACTOR TO VERIFY POUND FORCE ON GUARD RAILING TO DETERMINE ADEQUATE NUMBER OF SUPPORT POSTS. NO MIDDLE SUPPORT PREFERRED.
3. RAILING SUB-CONTRACTOR TO ENGINEER SYSTEM TO NOT PENETRATE WATERPROOF MEMBRANE AT HORIZONTAL SURFACES.
4. U.N.O. ALL RAILINGS TO BE 42" HIGH PREFINISHED ALUMINUM WITH A MAX SPACING OF VERTICAL PICKETS OF 4" O.C. MAX

DIVISION 6 - WOOD, PLASTICS, AND COMPOSITES

1. REFER TO STRUCTURAL DRAWINGS FOR THE LOCATION OF ALL SHEAR WALLS.
2. REFER TO STRUCTURAL DRAWINGS FOR THE GRADES OF ALL LUMBER.
3. REVIEW ALL PENETRATIONS THROUGH SHEAR WALL WITH STRUCTURAL. ANY PENETRATION LARGER OR NOT IN APPROVED ZONES SHOULD BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER IMMEDIATELY.
4. REFER TO FULL UL ASSEMBLIES FOR FURTHER FRAMING INFORMATION.
5. ALL NON-LOAD BEARING INTERIOR WOOD STUD WALLS TO BE 2X4 STUDS @16" O.C.
6. ALL WOOD STUD WALLS TO RECEIVE DOUBLE TOP PLATES.
7. ALL SHELVING TO HAVE SOLID WOOD BLOCKING.
8. ALL EXPOSED WOOD SHELVING TO BE PAINTED FINISH PLYWOOD WITH SOLID WOOD NOSING, SOLID WOOD OR AS OTHERWISE INDICATED IN THE DRAWINGS.
9. ALL WOOD SILLS IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED AND HAVE A CONTINUOUS SILL SEALER ON ENTIRE PERIMETER OF BUILDING.
10. FLOOR TRUSSES ARE TO BE POSITIONED SO THEY DO NOT INTERFERE WITH PLUMBING AND HVAC, ADJUST SPACING, AS NECESSARY. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11. PROVIDE CONCEALED WOOD BLOCKING OR METAL STRAPPING IN METAL STUD PARTITIONS FOR ALL SURFACE MOUNTED ACCESSORIES INCLUDING BUT NOT LIMITED TO TOILET ACCESSORIES, TOILET PARTITIONS, AND GRAB BARS, CURTAIN RODS, SHOWER SEATS, WALL MOUNTED CABINETS, HANDRAILS, ETC.
12. CABINET SUPPLIER TO FIELD MEASURE AREA OF WORK AFTER ROUGH FRAMING, TO ASSURE AN EXACT FIT. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
13. PROVIDE SOLID BLOCKING AND/OR DOUBLE JOISTS UNDER ALL PERPENDICULAR AND PARALLEL PARTITIONS AND STAIR OPENINGS.
14. PROVIDE WOOD BLOCKING IN CEILING AT CENTER OF ALL BEDROOMS FOR CEILING FAN INSTALLATION.
15. REVIEW ALL PENETRATIONS THROUGH SHEAR WALL WITH STRUCTURAL. ANY PENETRATION LARGER OR NOT IN APPROVED ZONES SHOULD BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER IMMEDIATELY.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

1. WHERE REQUIRED AND PROVIDED, VAPOR BARRIERS SHALL BE CONTINUOUS WITH ALL PENETRATIONS PROPERLY SEALED.
2. WHERE WATERPROOFING IS CALLED FOR ON THE DRAWINGS, APPLY WATERPROOFING SYSTEM TO ALL SIMILAR SURFACES BELOW GRADE WHETHER OR NOT SHOWN ON THE DRAWINGS.
3. ALL HORIZONTAL WATERPROOFING SHALL BE FLOOD TESTED BY THE CONTRACTOR AND WITNESSED BY THE TESTING AGENCY.
4. PROVIDE FLASHING BETWEEN DIS-SIMILAR MATERIALS AND MATERIAL TRANSITIONS.
5. SEAL WITH THE APPROPRIATE TYPE OF SEALANT, AND FLASH AT ALL LOCATIONS NECESSARY TO PREVENT PENETRATION OF MOISTURE AT TRANSITIONS OF DISSIMILAR MATERIALS.
6. CORROSION RESISTANT FLASHING SHALL BE INSTALLED AROUND ALL WINDOW, DOOR, AND ROOF OPENINGS AND THE INTERSECTION OF ROOF AND FRAME WALLS. SEAL AND MAKE WEATHER-TIGHT PER MANUFACTURER'S INSTRUCTIONS ALL EXTERIOR COMPONENTS.
7. PROVIDE AIR IMPERMEABLE SEALANT CONTINUOUS AT ALL EXTERIOR JOINTS AROUND WINDOW FRAMES, DOOR FRAMES, BETWEEN WALL CAVITIES, BETWEEN WALL AND FOUNDATION, BETWEEN WALL AND ROOF, BETWEEN WALL AND PANELS, ALL PENETRATIONS AND UTILITIES THROUGH WALLS AND ROOFS, BETWEEN ALL DISSIMILAR MATERIALS, AND ALL OTHER OPENINGS IN BUILDING ENVELOPE.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION (CONT.)

8. FLASHING SHALL BE INSTALLED AT ALL PLUMBING & WIRING PENETRATIONS IN EXTERIOR BUILDING ENVELOPE.
9. PROVIDE CONTINUOUS WEATHER-STRIPPING AT:
   - A. ALL EXTERIOR DOORS & WINDOWS
   - B. ALL ATTIC ACCESSES IN CONDITIONED AREAS
   - C. ALL INTERIOR DOOR OPENINGS INTO UNCONDITIONED SPACE.
10. ALL SHEET METAL FLASHING DETAILS ARE TO BE IN ACCORDANCE WITH SMACNA "ARCHITECTURAL SHEET METAL MANUAL" CURRENT EDITION U.N.O.
11. ALL GUTTERS, DOWNSPOUTS, GRAVEL STOPS, FASCIA, FLASHING, LOUVERS, SCREENS, METAL STRUCTURES AND ANY ROOF PENETRATIONS ARE TO BE INSTALLED AND FABRICATED AS PER SMACNA STANDARDS OR IN ACCORDANCE WITH ROOFING MANUFACTURER'S RECOMMENDATIONS AS REQUIRED TO OBTAIN A MANUFACTURER'S WARRANTY AS REQUIRED BY THE SPECIFICATIONS.
12. ALL SELF ADHERING MEMBRANE (SAM) TO BE SELF HEALING, 6" WIDTH AND 25 MIL MINIMUM. U.N.O.
13. SEALANTS TO MATCH ADJACENT MATERIALS. WHERE TWO MATERIALS ABUT, COORDINATE SPECIFIC COLORS WITH ARCHITECT.

DIVISION 8 - DOORS AND WINDOWS

1. WOOD DOORS SHALL NOT BE INSTALLED UNTIL THE BUILDING IS ENCLOSED, THE PERMANENT HEATING AND COOLING SYSTEMS ARE IN OPERATION, AND RESIDUAL MOISTURE FROM PLASTER, CONCRETE, MASONRY, AND TERRAZZO WORK HAS DISSIPATED.
2. IF THE DOORS MUST BE INSTALLED BEFORE THE CONDITIONS ARE ACCEPTABLE DUE TO CONSTRUCTION SCHEDULE RESTRAINTS, THE CONTRACTOR SHALL PROCEED AT HIS OWN RISK.
3. PROVIDE CEILING ACCESS PANELS IN GYPSUM BOARD CEILINGS TO ACCESS MECHANICAL EQUIPMENT, WATER VALVES, AND ELECTRICAL JUNCTION BOXES AS REQUIRED. COORDINATE WITH MEP DRAWINGS FINAL EQUIPMENT LOCATIONS.
4. ALL REMOVABLE GLAZING STOPS SHALL BE LOCATED ON THE SECURE SIDE OF OPENINGS.
5. SHIM ALL WINDOWS LEVEL AND FILL ALL GAPS AT ROUGH OPENINGS WITH LOW EXPANSION FOAM SEALANT. INTERIOR OF WINDOWS TO BE SEALED 360 DEG. WITH SEALANT AT WINDOW TO. R.O.
6. PROVIDE A 48X48 ROOF ACCESS HATCH TO PROVIDE ACCESS TO ROOFTOP MECHANICAL EQUIPMENT.

DIVISION 9 - FINISHES

1. PROVIDE SHOP DRAWINGS AND SUBMITTALS SHOWING ALL REQUIRED CONTROL JOINTS, EXPANSION JOINTS, AND SLIP JOINTS THROUGHOUT THE EXTERIOR ENVELOPE INCLUDING BUT NOT LIMITED TO, STUCCO, EIFS, BRICK, STONE, MANUFACTURED STONE, CAST STONE, METAL PANELS AND FIBER CEMENT SIDING. SUBMIT LOCATIONS AND DETAILS OF CONTROL AND EXPANSION JOINTS TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
2. PROVIDE A SUBMITTAL SHOWING THE LOCATION AND DETAIL OF ALL CONTROL JOINTS AT THE INTERIOR OF THE BUILDING WITHIN GYPSUM BOARD WALLS, AND CEILINGS.
3. AT A MINIMUM, GYPSUM BOARD INSTALLATION INCLUDING CONTROL JOINTS SHALL BE IN COMPLIANCE WITH ASTM C 840 & GA 216, GYPSUM SHEATHING; ASTM C 1280
4. PROVIDE A SUBMITTAL SHOWING THE LOCATIONS AND PROPOSED DETAILS OF ALL REQUIRED CONTROL JOINTS IN FLOORING SPECIFIC TO EACH MATERIAL'S INSTALLATION REQUIREMENTS WHETHER INDICATED OR NOT IN THE DRAWINGS. SUBMITTAL O BE COORDINATED WITH CONTROL JOINTS INDICATED ON THE STRUCTURAL DRAWINGS PRIOR TO ARCHITECT'S REVIEW.
5. PROVIDE CONTROL JOINTS IN PLASTER AND STUCCO WALLS AND CEILINGS IN ACCORDANCE WITH ASTM 1063 AND
   - A. AT VERTICAL SURFACES: 144 SF MAX AT HORIZONTAL SURFACES: 100 SF MAX
   - B. BELOW WINDOW, DOOR AND SIMILAR OPENINGS IN WALL CONSTRUCTION.
   - C. DO NOT EXCEED WITH RATIO OF 2.5:1 IN JOINT LAYOUT AND DO NOT EXCEED 18' IN ANY DIRECTION.
6. PROVIDE EXPANSION JOINTS IN ACCORDANCE WITH ASTM 1063 AND
   - A. AT FLOOR LINES
   - B. AT DISIMILAR CONSTRUCTION MATERIALS
   - C. AT EXISTING BUILDING OR EXPANSION JOINTS IN THE CONSTRUCTION
   - D. AT CHANGES IN BUILDING HEIGHT
   - E. AT COLUMNS OR CANTILEVERED AREAS
7. PROVIDE SUBMITTAL WITH ALL PROPOSED CONTROL AND EXPANSION JOINTS TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
8. ANY AND ALL PRECAUTIONS OVER AND ABOVE ANY SHOWN ON PLANS SHALL BE TAKEN BY CONTRACTOR TO MINIMIZE EXTERIOR MATERIALS CRACKING.
9. REFER TO PAINTING SPECIFICATIONS FOR TYPES OF PAINTS FOR VARIOUS SUBSTRATES.
10. PROVIDE PREFINISHED EXHAUST AND FRESH AIR VENTS, PIPES, AND PENETRATIONS TO MATCH ADJACENT SURFACE COLORS. WHERE STANDARD COLORS ARE NOT AVAILABLE TO MATCH, PAINT ALL VENTS TO MATCH ADJACENT WALL SURFACES WITH APPROPRIATE PAINT DESIGNED TO BOND TO THE SPECIFIC MATERIAL UNLESS DIRECTED OTHERWISE BY THE ARCHITECT.
11. PAINT ALL SURFACES WHICH REQUIRE PROTECTION FROM THE ELEMENTS WITH THE APPROPRIATE PAINT, INCLUDING NECESSARY PRIMER COATS AND BACK PRIMING AS RELATED TO THE EACH SPECIFIC MATERIAL.
12. METAL ACCESS PANELS, ELECTRICAL PANEL LOUVERS AND ALL FERROUS METALS SHALL NOT BE PAINTED WITH LATEX PAINT. REFER TO PAINT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13. ALL EXTERIOR STEEL TO BE GALVANIZED U.N.O. ITEMS DESIGNATED FOR ADDITIONAL PAINT COATING MUST BE PROPERLY PRIMED.
14. MAXIMUM FLAME SPREAD RATING ON ALL INTERIOR FINISH MATERIALS SHALL NOT BE GREATER THAN THE REQUIREMENTS SPECIFIED IN THE CURRENTLY ADOPTED LOCAL BUILDING CODE.
15. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, PROVIDE CONTROL JOINTS IN GYPSUM BOARD SURFACES IN ACCORDANCE WITH ASTM C 840; CEILINGS: 2500 SF, 50 FEET MAX; PARTITIONS: 30 FEET MAX.
16. ALL METAL STUD WALL FRAMING SHALL EXTEND TO THE DECK ABOVE AND PROVIDE DEFLECTION TRACKS, UNLESS NOTED OTHERWISE.
17. THICKNESS, NAILING, TAPING AND CORRECT STUD SPACING AS REFERENCED IN SPECIFIC UL OR OTHER ASSEMBLIES, ALL GYPSUM BOARD TO BE INSTALLED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF SPECIFIC ASSEMBLY REQUIREMENTS.
18. UNLESS NOTED OTHERWISE OR REQUIRED BY AN ASSEMBLY NOTED IN THE DRAWINGS, PROVIDE 5/8" TYPE "X" GYPSUM BOARD MANUFACTURED IN THE U.S.A.
19. AT RESIDENTIAL SPACES, PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT KITCHEN AND BATH BACK SPLASHES, BEHIND TOILETS, TUBS, PREFABRICATED SHOWER SURROUNDS, REFRIGERATORS AND AT LAUNDRY WET WALLS
20. CEMENT BACKER BOARD SHALL BE USED IN BOTH TUB AND SHOWER COMPARTMENTS AT CLUBHOUSE BUILDINGS AND SPACES BEHIND TILE, UNLESS NOTED OTHERWISE. ALL WET WALLS SHALL HAVE MOISTURE RESISTANT BOARD PER CODE.

DIVISION 9 - FINISHES (CONTINUED)

21. PROVIDE CONTINUOUS METAL CORNER BEADS AT ALL GYPSUM BOARD EXTERIOR CORNERS FROM FLOOR TO CEILING.
22. CONTINUOUS METAL 'L' BEADS AT ALL EXPOSED GYPSUM BOARD EDGES FROM FLOOR TO CEILING.
23. WATER RESISTANT 1/2" CERAMIC TILE BACKER BOARD SHALL BE INSTALLED IN BOTH TUB AND SHOWER SURROUNDS THAT ARE NOT PREFABRICATED U.N.O.
24. PROVIDE ACOUSTIC SEALANT AT ALL PENETRATIONS IN GYPSUM BOARD U.N.O.
25. FILL ALL CONTROL & EXPANSION JOINTS IN FLOORS WITH TRAFFIC SEALANT
26. ALL FIBER CEMENT SIDING AND TRIM TO BE INSTALLED PER JAMES HARDIE INSTALLATION INSTRUCTIONS.
27. INSTALL WEATHER BARRIERS PER MANUFACTURER'S INSTRUCTIONS.
28. DO NOT FASTEN ANYTHING THROUGH THE WEATHER BARRIER WITH STAPLES.

DIVISION 10 - SPECIALTIES

1. THE INTENT IS TO LOCATE PORTABLE FIRE EXTINGUISHERS SO MAXIMUM COVERAGE DOES NOT EXCEED NFPA REQUIREMENTS FOR THE TYPES OF EXTINGUISHERS SPECIFIED. IF THE CONTRACTOR DETERMINES THE DRAWING LOCATIONS DO NOT COMPLY, SUBMIT ALTERNATE LAYOUT TO ARCHITECT FOR APPROVAL PRIOR TO ROUGH IN.
2. ALL EQUIPMENT DESIGNATED TO BE RECESSED IN RATED WALLS MUST CARRY AN EQUIVALENT RATING, WHETHER OR NOT IT IS SPECIFIED.

DIVISION 14 - CONVEYING SYSTEMS

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE DIMENSIONS, LAYOUTS AND FINAL REQUIREMENTS FOR ALL CONVEYING SYSTEMS WITH SUBMITTALS AND SHOP DRAWINGS.
2. UNLESS NOTED OTHERWISE IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL CERTIFY THAT THE HOIST WAY, ELEVATOR PIT, AND MACHINE ROOM LAYOUT, INCLUDING DOOR LOCATION, SIZE, AND SWING, LOCATIONS OF ALL WALL MOUNTED ELECTRICAL DEVICES, AND DIMENSIONS, AS SHOWN ON THE CONTRACT DOCUMENTS, AND ELECTRICAL SERVICES SHOWN AND SPECIFIED, ARE ADEQUATE FOR THE ELEVATOR SYSTEM BEING PROVIDED. IF ANY OF THE ABOVE REFERENCED ITEMS DO NOT COMPLY WITH THE ACTUAL ELEVATOR BEING SUPPLIED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO INSTALLATION. AFTER INSTALLATION HAS BEGUN, THE CONTRACTOR ASSUMES ALL ADDITIONAL COSTS FOR INADEQUATE SYSTEMS AND SERVICES.

DIVISION 21 - FIRE SUPPRESSION

1. WHERE REQUIRED, PROVIDE AN APPROVED AUTOMATIC SPRINKLER SYSTEM DESIGNED BY THE FIRE PROTECTION CONTRACTOR.
2. PROVIDE COMPLETE DESIGN AND SHOP DRAWINGS FOR FIRE SPRINKLER SYSTEM.
3. ALL SPRINKLER PIPING SUBJECT TO FREEZING SHALL BE DRY-TYPE SYSTEMS WHERE PERMITTED.
4. WHERE AN NFPA 13R SYSTEM IS USED, PROVIDE FULLY COMPLIANT NFPA 13R SPRINKLERS ON BALCONIES, PATIOS, AND BREEZEWAYS.

DIVISION 22 - PLUMBING

1. REFER TO PLUMBING DRAWING
2. WATER SERVICE SHALL NOT BE PLACED IN CONCEALED SPACES OUTSIDE OF THE CONDITIONED BUILDING ENVELOPE (BREEZEWAY OR PATIO FLOOR SPACES OR ATTICS).
3. PENETRATIONS AND FIXTURES TO ALIGN VERTICALLY FROM FLOOR TO FLOOR.

DIVISION 23 - HVAC

1. REFER TO MECHANICAL DRAWINGS.
2. MECHANICAL DRAWINGS ARE DIAGRAMMATIC. THE INTENT OF THE DESIGN IS THAT ALL REQUIRED CLEARANCES FOR EQUIPMENT, ESPECIALLY POWER PANELS, SHALL BE PROVIDED. IF THE CONTRACTOR DISCOVERS THAT ADEQUATE CLEARANCES WILL NOT BE POSSIBLE WITHIN THE MECHANICAL ROOMS FOR THE APPROVED EQUIPMENT, CONTACT THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
3. ALL EXHAUST HOODS SHALL BE MOUNTED ON EXT. WALLS AT CONSISTENT HEIGHTS WHERE POSSIBLE.
4. PROVIDE PREFINISHED EXHAUST AND FRESH AIR VENTS TO MATCH ADJACENT SURFACE COLORS. WHERE STANDARD COLORS ARE NOT AVAILABLE TO MATCH, PAINT ALL VENTS TO MATCH ADJACENT WALL SURFACES WITH APPROPRIATE PAINT DESIGNED TO BOND TO THE SPECIFIC MATERIAL UNLESS DIRECTED OTHERWISE BY THE ARCHITECT.
5. EXHAUST VENTS TO BE LOCATED 3' MINIMUM AWAY FROM OPENINGS INTO THE BUILDING INCLUDING THE EXTENTS OF ANY WINDOW IN THE OPEN POSTION AND ANY DOOR.

DIVISION 26 - ELECTRICAL

1. REFER TO ELECTRICAL DRAWINGS.
2. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. THE INTENT OF THE DESIGN IS THAT ALL REQUIRED CLEARANCES FOR EQUIPMENT, ESPECIALLY POWER PANELS, SHALL BE PROVIDED. IF THE CONTRACTOR DISCOVERS THAT ADEQUATE CLEARANCES WILL NOT BE POSSIBLE WITHIN THE ELECTRICAL ROOMS FOR THE APPROVED EQUIPMENT, CONTACT THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
3. PROVIDE FIRE RETARDANT PLYWOOD PANELS IN ALL TELECOMMUNICATIONS ROOMS FOR MOUNTING OF EQUIPMENT.
4. AT ANY BACK-TO-BACK DEMISING WALL PENETRATIONS THAT OCCUR LESS THAN 24" OF EACH OTHER (MEASURED HORIZONTALLY), PROVIDE FIRE RESISTANT ACOUSTICAL PUTTY PACKS BY QUIET PUTTY OR EQUAL.

DIVISION 28 - ELECTRONIC SAFETY & SECURITY

1. SMOKE DETECTORS SHALL NOT BE PLACED IN FRONT OF EXHAUST GRILLS.
2. SMOKE DETECTORS SHALL CONTINUOUSLY BE POWERED BY BUILDING ELECTRICAL SYSTEM AND INSTALLED IN ACCORDANCE WITH NFPA AND IBC W/ BATTERY BACK UP.
3. PROVIDE SMOKE DETECTORS IN EACH UNIT IN THE QUANTITY AND LOCATION REQUIRED BY CODE.
4. EVERY EXIT WAY OR CHANGE OF DIRECTION IN A EXIT CORRIDOR SHALL BE MARKED WITH WELL-LIGHTED EXIT SIGNS HAVING LETTERS OF AT LEAST 5 INCHES IN HEIGHT.

DIVISION 31 - EARTHWORK

1. PROVIDE TERMITE PREVENTION AT ALL STRUCTURES.
2. APPLICATION OF TERMITICIDES SHALL BE WITNESSED BY THE ARCHITECT OR THE OWNER'S REPRESENTATIVE, AND CERTIFIED IN WRITING BY THE CONTRACTOR

DIVISION 32 - EXTERIOR IMPROVEMENTS

1. UNLESS NOTED OTHERWISE IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING OF NEW GRASS, TREES, AND OTHER VEGETATION TO GET THROUGH PERIODS OF NO RAINFALL OR TAKE RESPONSIBILITY TO RE-ESTABLISH THOSE AREAS THAT PERISH.
2. ALL LANDSCAPING SHALL BE ESTABLISHED AND DESIGNED BY THE LANDSCAPE ARCHITECT.
3. REFER TO LANDSCAPING DRAWINGS FOR LOCATION OF SIDEWALKS AND DETAILS.

REGISTERED ARCHITECT
WALTER D. FRITTS
24489
STATE OF TEXAS

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ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
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REVISIONS

Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022
	CURRENT:

SHEET NAME:
PROJECT GENERAL INFORMATION

SHEET NO:
G0.20

ABBREVIATIONS

THESE ABBREVIATIONS ARE BASED ON STANDARD ABBREVIATIONS THAT ARE USED IN CONSTRUCTION. HOWEVER, ALL ABBREVIATIONS MUST BE REVIEWED IN CONTEXT AND FINAL INTERPRETATION IS BY THE ARCHITECT. NOT ALL ABBREVIATIONS THAT ARE LISTED ARE USED IN THE ATTACHED DOCUMENTS.

"	INCHES
#	POUND OR NUMBER
&	AND
'	FOOT (FEET)
(E)	EXISTING
356	
360	
<	ANGLE
@	AT
CL	CENTERLINE
A/C	AIR CONDITIONING
AAD	ATTIC ACCESS DOOR
AAP	ATTIC ACCESS PANEL
AB	ANCHOR BOLT
ABV	ABOVE
ACOUS	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN, ACOUSTIC DIMENSIONS
ADA	AMERICANS WITH DISABILITIES ACT
ADD	ADDENDUM, ADDITION
ADJ	ADJUSTABLE, ADJUSTMENT
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
AMSMV	ADHERED MANUFACTURED STONE MASONRY VENEER
AOR	AREA OF REFUGE
AP	ACCESS PANEL
APPROX	APPROXIMATE
APT	APARTMENT
ARCH	ARCHITECT, ARCHITECTURAL
ASB	ASBESTOS
ASPH	ASPHALT
BATH	BATHROOM
BD	BOARD
BEL	BELOW
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOH	BACK OF HOUSE
BOP	BOTTOM OF PLATE
BOT	BOTTOM
BOW	BOTTOM OF WALL
BPL	BEARING PLATE
BR	BEDROOM
BRG	BEARING
BRK	BRICK
BSMT	BASEMENT
BUR	BUILT-UP ROOFING
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CER	CERAMIC
CF	CUBIC FOOT
CFM	CUBIC FEET PER MINUTE
CG	CORNER GUARD
CH	COAT HOOK
CI	CAST IRON
CJ	CONTROL JOINT
CL	CENTERLINE, CLEARANCE
CLG	CEILING
CLKG	CAULKING
CLOS	CLOSET
CLR	CLEAR(ANCE)
CMT	CERAMIC MOSAIC TILE
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
CO	CASED OPENING, CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CORR	CORRIDOR, CORRUGATED
CPT	CARPET
CR	CHAIR RAIL
CRS	COLD ROLLED STEEL
CSMT	CASEMENT
CT	CERAMIC TILE
CTR	CENTER, COUNTER
CTSK	COUNTERSUNK
CW	CURTAIN WALL
CY	CUBIC YARD
D	DRYER, DISPOSAL
DB	DECIBEL
DBL	DOUBLE
DEMO	DEMOLISH
DEPT	DEPARTMENT
DET, DTL	DETAIL
DF	DRINKING FOUNTAIN
DH	DOUBLE HUNG
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFUSER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DL	DEAD LOAD
DN	DOWN
DO	DOOR OPENING
DR	DOOR
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DW	DISHWASHER
DWG	DRAWING
DWR	DRAWER
E	EAST
EA	EACH
EF	EXHAUST FAN
EHW	ENGINEERED HARDWOOD
EIFS	EXTERIOR INSULATED FINISHING SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENG	ENGINEER
ENT	ENTRANCE
EOC	EDGE OF CARPET
EOS	EDGE OF SLAB
EP	ELECTRICAL PANELBOARD
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION, EXPOSED
EXT	EXTERIOR
F	FARENHEIT
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FAS	FASTEN
FB	FLAT BAR
FCB	FIBER-CEMENT BOARD
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FF&E	FURNITURE, FIXTURES & EQUIPMENT
FFS	FACE OF FINISHED SURFACE
FGL	FIBERGLASS
FHC	FIRE HOSE CABINET
FIN	FINISH(ED)
FIXT	FIXTURE
FJ	FLOOR JOIST
FLASH	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FOB	FACE OF BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOH	FRONT OF HOUSE
FOS	FACE OF STUD
FP	FIREPLACE
FPRF	FIREPROOF
FR	FIRE RATED
FRIG	REFRIGERATOR
FRMG	FRAMING
FRT	FIRE RETARDANT TREATED
FS	FULL SIZE
FT	FOOT OR FEET
FTG	FOOTING
FURN	FURNISH(ING), FURNITURE
FURR	FURRING
FUT	FUTURE
FWC	FABRIC WALL COVERING
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GDR	GUARD RAIL
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GFI	GROUND FAULT INTERRUPT
GFRC	GLASS FIBER REINFORCED CONCRETE
GI	GALVANIZED IRON
GL	GLASS, GLAZED, GLAZING
GND	GROUND
GOVT	GOVERNMENT
GR	GRADE
GWB	GYPSUM WALLBOARD
GYP BD	GYPSUM BOARD
H	HIGH
HB	HOSE BIB
HC	HANDICAP, HOLLOW CORE
HCW	HOLLOW WOOD CORE
HD	HEAVY DUTY
HDR	HEADER
HDW	HARDWARE
HM	HOLLOW METAL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HR	HOUR, HANDRAIL
HT	HEIGHT
HTG	HEATING
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HW	HOT WATER
HWD	HARDWOOD
HWH	HOT WATER HEATER
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDE, INCLUDING
IND	INDUSTRIAL
INFO	INFORMATION
INSUL	INSULATION, INSULATE
INT	INTERIOR, INTERNAL
INV	INVERT
J	JOIST
JAN	JANITOR
JCT	JUNCTION
JST	JOIST
JT	JOINT
KDN	KNOCKDOWN
KIT	KITCHEN
KO	KNOCKOUT
KP	KICK PLATE
L	LENGTH, LONG
LA	LANDSCAPE ARCHITECT
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE(D)
LAV	LAVATORY
LBL	LABEL
LBR	LUMBER
LD	LINEAR DIFFUSER
LF	LINEAR FOOT
LH	LEFT HAND
LIN	LINEAR, LINEN
LKR	LOCKER
LL	LIVE LOAD
LNDG	LANDING
LNT	LINTEL
LOC	LOCATION
LR	LIVING ROOM
LT	LIGHT
LTWT	LIGHTWEIGHT
LUM	LUMINOUS
LV	LOW VOLTAGE
LVR	LOUVER
LVT	LUXURY VINYL TILE
M	METER
MACH	MACHINE
MAINT	MAINTENANCE
MAN	MANUAL
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MC	MEDICINE CABINET
MDF	MEDIUM DENISTY FIBER BOARD
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFD	MANUFACTURED
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MLD	MOLDING
MM	MILLIMETER
MO	MASONRY OPENING
MOD	MODULAR
MOV	MOVABLE
MR	MOISTURE RESISTANT
MRT	MOISTURE RESISTANCE TREATED
MTD	MOUNTED
MTL	METAL
MULL	MULLION
MULT	MULTIPLE
MWK	MILLWORK
N	NORTH
N/A	NOT APPLICABLE
NAT	NATURAL
NEC	NATIONAL ELECTRIC CODE
NEO	NEOPRENE
NIC	NOT IN CONTRACT
NO or #	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NS	NON-SLIP
NTS	NOT TO SCALE
O/A	OVERALL
O/H	OVERHEAD
O/O	OUT TO OUT
OBS	OBSCURE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER INSTALLED
OFF	OFFICE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PAN	PANTRY
PAR	PARALLEL
PAV	PAVEMENT
PB	PARTICLE BOARD
PCF	POUNDS PER CUBIC FOOT
PED	PEDESTAL, PEDESTRIAN
PERF	PERFORATE(D)
PERIM	PERIMETER
PERP	PERPENDICULAR
PKG	PARKING
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PRCST	PRE-CAST
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PREP	PREPARATION
PROD	PRODUCTION
PROJ	PROJECT(OR), PROJECTION
PS	PROJECTION SCREEN
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTD	PAINTED, PAPER TOWEL DISPENSER
PTD/R	COMBO. PAPER TOWEL DISPENSER & RECEPTACLE
PTN	PARTITION
PTR	PAPER TOWEL RECEPTACLE
PVC	POLYVINYL CHLORIDE
PWR	POWER
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
QUAD	QUADRANT
R	RISER, RISE
RA	RETURN AIR
RAD	RADIUS
RB	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING BAR
REC	RECESSED
RECPT	RECEPTION, RECEPTACLE
REF.	REFRIGERATOR
REF:	REFER TO, REFERENCE
REINF	REINFORCED
REPRO	REPRODUCE, REPRODUCTION
REQD	REQUIRED
RESIL	RESILIENT
RET	RETURN
REV	REVISE, REVISION
RGTR	REGISTER
RH	RIGHT HAND
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RS	ROD & SHELF
RT	RIGHT
RWD	REDWOOD
RWL	RAIN WATER LEADER
S	SOUTH
S/S	STAINLESS STEEL
SAFB	SOUND ATTENUATING FIRE BLANKET
SAM	SELF-ADHERED MEMBRANE
SAN	SANITARY
SC	SOLID CORE
SCD	SEAT COVER DISPENSER
SCHED	SCHEDULE(D)
SD	SMOKE DETECTOR
SECT	SECTION, SECTOR
SEP	SEPARATE, SEPARATION
SF	SQUARE FOOT (FEET), STOREFRONT
SGD	SLIDING GLASS DOOR
SGL	SINGLE
SH	SHELF, SINGLE HUNG
SHLVG	SHELVING
SHT	SHEET
SHWR	SHOWER
SIM	SIMILAR
SND	SANITARY NAPKIN DISPENSER
SNR	SANITARY NAPKIN RECEPTACLE
SPEC	SPECIFICATION
SQ	SQUARE
SR	SHOWER ROD
SSK	SERVICE SINK
SST	STAINLESS STEEL
ST	STUCCO
STA	STATION
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STK	OPEN STACKED SHELVING
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SURF	SURFACE
SUSP	SUSPEND(ED)
SV	SHEET VINYL
SVC	SERVICE
SW	SHEAR WALL
SYM	SYMETRICAL
SYS	SYSTEM
T	TREAD(S)
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
TB	TOWEL BAR, TACK BOARD, THROUGH BOLT
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPERED, TEMPERATURE
TER	TERRACE, TERRAZZO
THK	THICK
TLT	TOILET
TOC	TOP OF CONCRETE
TOP	TOP OF PLATE
TOW	TOP OF WALL
TP	TOP OF PAVEMENT
TPH	TOILET PAPER HOLDER
TRTD	TREATED
TS	TUBULAR STEEL
TV	TELEVISION
TYP	TYPICAL
UC	UNDER COUNTER
UL	UNDERWRITERS LABORATORIES, INC.
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UTIL	UTILITY
VAR	VARIES, VARIABLE, VARIOUS
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VOL	VOLUME
VP	VINYL PLANK
VWC	VINYL WALL COVERING
W	WEST, WIDE, WIDTH, WASHER
W/	WITH
W/D	WASHER / DRYER
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WGL	WIRED GLASS
WH	WATER HEATER
WI	WROUGHT IRON
WIC	WALK IN CLOSET
WP	WATERPROOF(ING)
WR	WATER RESISTANT, WASTE RECEPTACLE
WRB	WEATHER-RESISTANT BARRIER
WS	WEAHTERSTRIPPING
WSCT	WAINSCOT
WT	WEIGHT
YD	YARD

PROJECT SPECIFIC NOTES

MOCK-UP REQUIREMENTS

1. THE CONTRACTOR SHALL PROVIDE A FULL SCALE, MOCK-UP WITH ACCURATE DETAILS OF CONSTRUCTION. THE APPROXIMATE SIZE SHALL BE: 20' LONG X 10' HIGH.
2. THE LOCATION OF THE MOCK-UP ON THE SITE TO BE APPROVED BY OWNER AND CONTRACTOR.
3. MOCK-UP TO INCLUDE APPROPRIATE FLASHING FOR ALL PENETRATION TYPES.
4. INCLUDE ALL EXTERIOR MATERIALS, COMPLETE WALL SYSTEM SHALL INCLUDE: FRAMING, SHEATHING, BUILDING WRAP, FLASHING, AND SIDING. INSTALL SIDING ON ONE SIDE OF WINDOW AND ACROSS TOP TO ALLOW FOR REVIEW OF FLASHING SYSTEM. OWNER TO PROVIDE APPROVAL AND AUTHORIZATION TO PROCEED IN WRITING. INCLUDE COMPLETE MANUFACTURER'S INSTALLATION INSTRUCTIONS IN BOTH ENGLISH AND SPANISH IN WINDOW SUBMITTAL. OWNER REQUIRES 2 WEEKS NOTICE TO SCHEDULE MOCK-UP REVIEW. ENSURE WINDOW MANUFACTURER'S REPRESENTATIVE IS IN ATTENDANCE DURING REVIEW ALSO VERIFY INSTALLATION AND ANSWER ANY OWNER QUESTIONS.
5. MOCK-UP SHALL INCLUDE: 1 DOOR, 2 WINDOWS, FIBER CEMENT, BRICK, METAL RAILING, ROOF MATERIAL.
6. PAINTER TO PROVIDE EXTERIOR PAINT MOCK-UP. EACH AREA TO BE 15'X15'. PAINT SELECTION MAY USE EXTERIOR WALL MOCK-UP, BUT FINAL COLOR APPROVAL WILL REQUIRE FULL AREA TO REVIEW.
7. REFERENCE SHEET MK-UP FOR MOCK-UP DRAWING.

INSULATION AND ENERGY EFFICIENCY SCHEDULE CLIMATE ZONE 2A (COMMERCIAL ENERGY EFFICIENCY)

BUILDING TYPE - OFFICE BUILDING WITH PARKING GARAGE BELOW

INSULATION AND ENERGY EFFICIENCY LISTED BELOW IS BASED ON THE MINIMUM REQUIREMENTS OF THE 2021 IECC AND HAS PASSED A COMCHECK, RESCHECK OR EQUIVALENT TESTING STANDARD. SOUND ATTENUATING INSULATION IS BASED ON MINIMUM REQUIREMENTS TO ACHIEVE CODE REQUIRED STC AND IIC LEVELS

LOCATION	VALUE OR THICKNESS	MATERIAL	VAPOR BARRIER	VAPOR BARRIER LOCATION	COMMENTS
SLOPED ROOFS					
MAIN ROOF ABOVE OCCUPIED SPACE	R-38	VINYL FACED FIBERGLASS BATTS	NO	N/A	FULLY COVER ALL SPRINKLER AND WATER PIPES THAT PASS THROUGH ATTICS WITH INSULATION
ROOF AT STAIR/ELEVATOR TOWER	R-25 ci	RIGID	NO	N/A	
FOUNDATIONS					
UNHEATED SLABS	NONE	N/A	YES	UNDER SLAB	
WALLS					
EXTERIOR 6" WALLS	R-13 + R-5ci	VINYL FACED FIBERGLASS BATTS AND 1" RIGID	NO	N/A	
CORRIDOR WALLS	R-13	UNFACED FIBERGLASS BATTS	NO	N/A	
SUITE DEMISING WALLS	R-13	UNFACED FIBERGLASS BATTS	NO	N/A	
FLOOR / CEILING					
BETWEEN LEVEL 2 AND LEVEL 1	R-30	SPRAY ON INSULATION	NO	N/A	
OPAQUE DOORS					
SWINGING	U-0.61.	N/A	N/A	N/A	

LS = LINEAR SYSTEM
ci = CONTINUOUS INSULATION

FIFTH DIMENSION
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REGISTERED ARCHITECT
WALTER D. PAYNE
24499
STATE OF TEXAS

ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION

PROJ. NO. 21066 | ORIG. ISSUE 09/27/2022 | CURRENT:

SHEET NAME:
LEGENDS, INSULATION SCHEDULE

SHEET NO:
G0.21

Sheet List

Sheet Number	Sheet Name	Current Revision	Current Revision Description	Current Revision Issued By
G0.00	COVER SHEET	1	Addendum No.1 - CoA Comments	
G0.101	SHEET INDEX- PAGE 1	1	Addendum No.1 - CoA Comments	
G0.20	PROJECT GENERAL INFORMATION			
G0.21	LEGENDS, INSULATION SCHEDULE			
G1.00	LIFE SAFETY CODE SUMMARY	1	Addendum No.1 - CoA Comments	
G1.01	CODE ELEVATIONS	1	Addendum No.1 - CoA Comments	
G2.10	FIRE & LIFE SAFETY CODE PLAN - LEVEL 1 & 2	1	Addendum No.1 - CoA Comments	
G4.101	TEXAS ACCESSIBILITY STANDARD REQUIREMENTS			
G4.102	TEXAS ACCESSIBILITY STANDARD REQUIREMENTS			
G5.10	WALL TYPES	1	Addendum No.1 - CoA Comments	
G5.11	UL #U905	1	Addendum No.1 - CoA Comments	
G5.12	UL #U906	1	Addendum No.1 - CoA Comments	
G5.13	UL #U425	1	Addendum No.1 - CoA Comments	
G5.14	UL #U405	1	Addendum No.1 - CoA Comments	
G5.15	UL #U469	1	Addendum No.1 - CoA Comments	
AS1.100	ARCHITECTURAL SITE PLAN - OVERALL	1	Addendum No.1 - CoA Comments	
A2.01	FLOOR PLAN - LEVEL 1 & LEVEL 2	1	Addendum No.1 - CoA Comments	
A2.02	ROOF PLAN OVERALL & SLAB EDGE PLAN	1	Addendum No.1 - CoA Comments	
A3.01	EXTERIOR ELEVATIONS	1	Addendum No.1 - CoA Comments	
A4.01	REFLECTED CEILING PLANS - LEVEL 1 & LEVEL 2	1	Addendum No.1 - CoA Comments	
A5.01	ENLARGED PLANS AND INTERIOR ELEVATIONS			
A5.02	TYPICAL INTERIOR DETAILS - FLOOR TRANSITIONS & BASE			
A6.01	BUILDING SECTIONS	1	Addendum No.1 - CoA Comments	
A7.01	EXTERIOR WALL SECTIONS			
A9.01	TYPICAL PENETRATIONS			
A9.02	TYPICAL EXTERIOR DETAILS AT FIBER CEMENT (FLUID APPLIED)			
A9.03	TYPICAL WINDOW & DOOR FLASHING			
A9.04	TYPICAL EXTERIOR DOOR AND WINDOW DETAILS AT FIBER CEMENT			
A9.05	PLAN DETAILS			
A9.06	SECTION DETAILS			
A9.07	ROOF DETAILS - STANDING SEAM METAL			
A9.08	SUSPENDED CEILING DETAILS			
A10.01	VERTICAL CIRCULATION	1	Addendum No.1 - CoA Comments	
A10.02	STAIR DETAILS			
A10.03	TYPICAL ELEVATOR SECTIONS & DETAILS			
A11.01	DOOR SCHEDULES AND LEGENDS	1	Addendum No.1 - CoA Comments	
A11.02	WINDOW SCHEDULES	1	Addendum No.1 - CoA Comments	
A11.03	TYPICAL DOOR DETAILS NOT SHOWN ELSEWHERE			
S1.1	STRUCTRUAL NOTES AND SPECIFICATIONS			
S1.2	STRUCTRUAL NOTES AND SPECIFICATIONS			
S1.3	STRUCTRUAL NOTES AND SPECIFICATIONS			
S2.1	FOUNDATION PLAN			
S2.2	ENLARGED FOUNDATION PLANS			
S3.1	FRAMING PLANS			
S4.1	DRILLED PIER SCHEDULE & CMU TYPICAL DETAILS			
S4.2	FOUNDATION SECTIONS AND DETAILS			
S4.3	FOUNDATION SECTIONS AND DETAILS			
S5.1	BRACED FRAME ELEVATIONS AND DETAILS			
S6.1	STEEL BASE PLATE AND CONNECTION SCHEDULES			
S6.2	STEEL FRAMING TYP. SECTIONS AND DETAILS			
S6.3	STEEL FRAMING SECTIONS AND DETAILS			
S6.4	STEEL FRAMING SECTIONS AND DETAILS			
S6.5	STEEL FRAMING SECTIONS AND DETAILS			
M0.00	MECHANICAL COVER SHEET			
M0.001	MECHANICAL SPECIFICATIONS			
M0.002	MECHANICAL SPECIFICATIONS			
M2.001	MECHANICAL PLAN - LEVEL 1			
M2.002	MECHANICAL PLAN - LEVEL 2			
M2.003	MECHANICAL PLAN - ROOF			
M5.000	MECHANICAL DETAILS			
M5.001	MECHANICAL DETAILS			
M6.000	MECHANICAL SCHEDULES			
E0.000	ELECTRICAL SYMBOLS, ABBREVIATIONS, SCHEDULES			
E0.001	ELECTRICAL SPECIFICATIONS			
E1.000	ELECTRICAL - 1ST LEVEL - LIGHTINIG & POWER PLAN			
E2.000	ELECTRICAL - 2ND LEVEL LIGHTING & POWER PLAN			
E3.000	ELECTRICAL - RISER DIAGRAM AND PANEL SCHEDULES			
P0.000	PLUMBING COVER SHEET			
P0.001	PLUMBING SPECIFCIATIONS			
P0.002	PLUMBING SPECIFCIATIONS			
P2.000	PLUMBING PLAN - UNDER SLAB			
P2.001	PLUMBING PLAN - LEVEL 1			
P2.002	PLUMBING PLAN - LEVEL 2			
P5.000	PLUMBING DETAILS			
P5.001	PLUMBING DETAILS			
P6.000	PLUMBING SCHEDULES & RISER			
A15.01	ALTERNATE NO.1 - SUSPENDED CEILING IN GARAGE			

REGISTERED ARCHITECT
WALTER D. PAYNE
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ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT: 2022.12.13

SHEET NAME:
SHEET INDEX- PAGE 1

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G0.101

CODE STUDY

GENERAL INFORMATION

PROJECT LOCATION:	6707 Riverside 6707 Riverside Drive Austin, TX 78741	ARCHITECT:	FIFTH DIMENSION ARCHITECTURE 2226 1ST AVE. S, SUITE 101 BIRMINGHAM, AL 35233
STRUCTURAL ENGINEER:	PICKETT, KELM & ASSCOAITES, INC 4100 DUVAL ROAD, BLDG 4, SUITE 103 AUSTIN, TX 78759	MECHANICAL ENGINEER:	B2AEP, LLC 3510 EAGLE WAY ROUND ROCK, TX 78681
PLUMBING ENGINEER:	B2AEP, LLC 3510 EAGLE WAY ROUND ROCK, TX 78681	ELECTRICAL ENGINEER:	B2AEP, LLC 3510 EAGLE WAY ROUND ROCK, TX 78681
CIVIL ENGINEER:	CIVILITUDE LLC 5110 LANCASTER CT AUSTIN, TX 78723	LANDSCAPE ARCHITECT:	

PROJECT DESCRIPTION / CODE STRATEGY

PROJECT IS A TWO STORY BUILDING WITH A LEVEL OF PARKING ON THE GROUND LEVEL (LEVEL 1) AND TWO OFFICE SUITES ON LEVEL 2. THE OFFICE SHARE COMMON RESTROOMS AND MAINTENANCE/UTILITY CLOSET. THE BUILDING IS STRUCTRUAL STEEL FRAMING ON DRILL CONCRETE PIERS. ALL FRAMING SHALL BE LIGHT GUAGE METAL FRAMING. THE PROJECT WILL PROVIDE VERICAL CIRCULATION AND EGRESS THROUGH A ELEVATOR AND MONUMENTAL STAIR AT THE TWO STORY ENTRY VESTIBULE AND AN EXTERIOR EGRESS STAIR LOCATED AT THE END OF THE COMMON CORRIDOR. PARKING GARAGE ONT HE GROUND LEVEL WILL BE OPEN AND ALLOW EGRESS THRU OUT IN ANY DIRECTION. THE BUILDING CONSTRUCTION TYPE IS TYPE IIIA AND PROVIDE FOR A RATED FLOOR BETWEEN THE GARAGE (S2) AND THE BUSINESS (B) AREAS ON LEVEL 2 WITH A 1 HOUR SEPERATION PER TABLE 508.4. THE ENCLOSED MONUMENTAL STAIR AND ELEVATOR SHALL BE SEPERATED FROM THE PARKING WITH 1 HOUR FIRE SEPERATION.

APPLICABLE CODES - AUSTIN, TX

2021 - INTERNATIONAL BUILSING CODE
2021 - INTERNATIONAL ENERGY CODE
2021 - INTERNATIONAL FIRE CODE
2020 - NATIONAL ELECTRIC CODE
2021 - UNIFORM MECHANICAL CODE
2021 - UNIFORM PLUMBING CODE

OCCUPANCY TYPE (Chapter 3)

GROUP B - PROFESSIONAL SERVICES
GROUP M - MERCANTILE
Group S2 - PUBLIC PARKING GARAGE

BUILDING CONTAINS OCCUPANCIES B, M, AND S-1. BUILDING WILL BE DESIGN AS A NON-SEPERATED USE, USING S-1 OCCUPANCY AS THE BASIS OF DESIGN.

BUILDING HEIGHTS AND AREAS (Chapter 5)

TABLE 506.2

TOTAL BUILDING	1st Floor	2nd Floor	TOTAL GROSS AREA	TOTAL ALLOWABLE
LEVEL 1	6,678 sf		6,678 sf	92,000 sf
LEVEL 2		6,711 sf	6,711 sf	92,000 sf

TABLE 504.3 & 504.4

BUILDING TYPE	BUILDING HEIGHT (TABULAR)	ALLOWABLE STORIES (TABULAR)	BUILDING AREA (TABULAR) (A_t)	ALLOWABLE AREA (A_a)	ACTUAL AREA (LARGEST FLOOR)	ACTUAL NO. OF STORIES	ACTUAL HEIGHT
Business (B)	75'-0"	4	92,000 sf	92,000 sf	6,678 sf	2	32'-6"

ALLOWABLE AREA FORMULAS

$A_a = A_t + (NS \times I_f)$

$I_f = [F / P - 0.25]W / 30$

ALLOWABLE AREA FACTORS

BUILDING TYPE	FRONTAGE WIDTH (W)	FRONTAGE PERIMETER (F)	TOTAL PERIMETER (P)	FRONTAGE INCREASE FACTOR (I_f)	SPRINKLER SYSTEM	ALLOWABLE NO. OF STORIES	ALLOWABLE HEIGHT
Business (B)	Calculations Not Required to increase Allowable Building Area				NA	4 PER 504.2	75'-0" PER 504.3

TYPES OF CONSTRUCTION (Chapter 6)

TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

BUILDING TYPE	CONSTRUCTION TYPE	BEARING WALLS (EXTERIOR)	BEARING WALLS (INTERIOR)	NON BEARING WALLS (EXTERIOR)	NON BEARING WALLS (INTERIOR)	FLOOR CONSTRUCTION	ROOF CONSTRUCTION
Business (B)	IIB	0 HR	0 HR	SEE TABLE 705.5	0 HR	0 HR	0 HR

TABLE 705.5 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (HOURS)

FIRE SEPARATION DISTANCE	TYPE OF	OCCUPANCY GROUP H	OCCUPANCY GROUP F-1, M, S-1	OCCUPANCY GROUP A, B, E, F-2, I, R, S-2, U
X < 5	ALL	3	2	1
5 ≤ X ≤ 10	IA	3	2	1
	OTHERS	2	1	1
10 ≤ X ≤ 30	IA, IB	2	1	1
	IIB, VB	1	0	0
	OTHERS	1	1	1
X ≥ 30	ALL	0	0	0

FIRE AND SMOKE PROTECTION FEATURES (Chapter 7)

TABLE 705.8 MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION

FIRE SEPARATION DISTANCE (feet)	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA
0 to less than 3	Unprotected, NonSprinklered (UP, NS)	NOT PERMITTED
	Unprotected, Sprinklered (UP, S)	NOT PERMITTED
	Protected (P)	NOT PERMITTED
3 to less than 5	Unprotected, NonSprinklered (UP, NS)	NOT PERMITTED
	Unprotected, Sprinklered (UP, S)	15%
	Protected (P)	15%
5 to less than 10	Unprotected, NonSprinklered (UP, NS)	10%
	Unprotected, Sprinklered (UP, S)	25%
	Protected (P)	25%
10 to less than 15	Unprotected, NonSprinklered (UP, NS)	15%
	Unprotected, Sprinklered (UP, S)	45%
	Protected (P)	45%
15 to less than 20	Unprotected, NonSprinklered (UP, NS)	25%
	Unprotected, Sprinklered (UP, S)	75%
	Protected (P)	75%
20 to less than 25	Unprotected, NonSprinklered (UP, NS)	45%
	Unprotected, Sprinklered (UP, S)	NO LIMIT
	Protected (P)	NO LIMIT
25 to less than 30	Unprotected, NonSprinklered (UP, NS)	15%
	Unprotected, Sprinklered (UP, S)	NO LIMIT
	Protected (P)	NO LIMIT
30 or greater	Unprotected, NonSprinklered (UP, NS)	NO LIMIT
	Unprotected, Sprinklered (UP, S)	NO LIMIT
	Protected (P)	NO LIMIT

REQUIRED FIRE-RESISTANCE RATED ASSEMBLIES

FIRE BARRIERS (Chapter 707)

RATING	ASSEMBLY	OPENING PROTECTION	LOCATION	REASON FOR RATING
2 HR	UL U906	60	GARAGES	406.2 SEPERATION BETWEEN GARAGE AND STAIRWELLS
2 HR	UL U906	60	Elevator Shafts	707.3.1 SHAFT ENCLOSURES

FIRE PARTITIONS (Chapter 708)

RATING	ASSEMBLY	OPENING PROTECTION	LOCATION	REASON FOR RATING
1 HR	UL U405	20	CORRIDOR WALLS	TABLE 1020

FIRE RATED ASSEMBLIES

RATING	ASSEMBLY	OPENING PROTECTION	LOCATION	REASON FOR RATING
1HR	UL U423	-	EXTERIOR WALLS	TABLE 705.5 FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASE DON FIRE SEPERATION DISTANCE

FIRE RATED ASSEMBLIES

RATING	ASSEMBLY	OPENING PROTECTION	LOCATION	REASON FOR RATING
1HR	UL U469	-	MECHANICAL CHASE WALL	TABLE 705.5 FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR

DUCTS AND AIR TRANSFER OPENINGS (Chapter 717) - Fire Blocking & Draftstopping

FIRE AND SMOKE DAMPERS

Fire and smoke dampers are required at duct penetrations of shafts and 2-hour fire barriers. (717.5)
Ceiling radiation dampers are required at duct penetrations of 1-hour ceilings. (717.5)
Smoke dampers are required at duct penetrations of 1-hour corridors where the duct has an opening into the corridor. (717.5)

TABLE 717.3.2.1 FIRE DAMPER RATING

TYPE OF PENETRATION	FIRE-RESISTANCE RATING (hours)
Less than 3-hour fire-resistance-rated assemblies	1.5
3-hour or greater fire-resistance-rated assemblies	3

INTERIOR FINISHES (Chapter 8)

TABLE 803.11 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY

GROUP	SPRINKLERED			NONSPRINKLERED			INCLUDED IN PROJECT (Yes / No)
	Interior exit stairways, interior exit ramps and exit passageways	Corridors and enclosure for exit access stairways and exit access ramps	Rooms and enclosed spaces	Interior exit stairways, interior exit ramps and exit passageways	Corridors and enclosure for exit access stairways and exit access ramps	Rooms and enclosed spaces	
A-1 & A-2	B	B	C	A	A	B	No
A-3, A-4, A-5	B	B	C	A	A	C	Yes
B, E, M, R-1	B	C	C	A	B	C	Yes
R-4	B	C	C	A	B	B	No
F	C	C	C	B	C	C	No
H	B	B	C	A	A	B	No
I-1	B	C	C	A	B	B	No
I-2	B	B	B	A	A	B	No
I-3	A	A	C	A	A	B	No
I-4	B	B	B	A	A	B	No
R-2	C	C	C	B	B	C	Yes
R-3	C	C	C	C	C	C	No
S	C	C	C	B	C	C	No
U	No restrictions			No restrictions			No

TABLE 1004.5 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	AREA	OCCUPANTS
PARKING GARAGES	200	6,678 sf	33

1005.3.1 STAIRWAYS

	OCCUPANCY SERVED	REQUIRED WIDTH PER OCCUPANT	REQUIRED WIDTH (INCHES)	WIDTH PROVIDED
STAIR 1	17	0.2	3	38
STAIR 2	17	0.2	3	38

Exeption 1 - For other than Group H and I-2 occupancies, the capacity, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress factor of .2 inches per occupant in building s equiped throughout with automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and an emregency voice/alarm communication system in accordance with Section 907.5.2.2

1005.3.2 OTHER EGRESS COMPONENTS

	OCCUPANCY SERVED	REQUIRED WIDTH PER OCCUPANT	REQUIRED WIDTH (INCHES)	WIDTH PROVIDED
EGRESS COMPONENTS	34	0.15	5	60

Exeption 1 - For other than Group H and I-2 occupancies, the capacity, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress factor of .15 inches per occupant in building s equiped throughout with automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and an emregency voice/alarm communication system in accordance with Section 907.5.2.2

PLUMBING SYSTEMS (Chapter 29)

TABLE 2902.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

AREA / BUILDING DESCRIPTION	OCCUPANCY	OCCUPANT LOAD	WATER CLOSETS / URINALS	LAVATORIES	BATHTUBS OR SHOWERS	DRINKING FOUNTAINS	OTHER
PARKING (S-2)							
BUSINESS (B)	B	34	1 per 25 for the first 50 and 1 per 50 for the remainer exceeding 50	1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		1 per 100	

**** Two (2) single bathroom will be provided in common corridor and each suite will contain an additional single restroom for a totl of Four (4) Fixtures and and (4) Lavatories.***

1

REGISTERED ARCHITECT
WALTER D. PAYNE
24498
STATE OF TEXAS

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ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

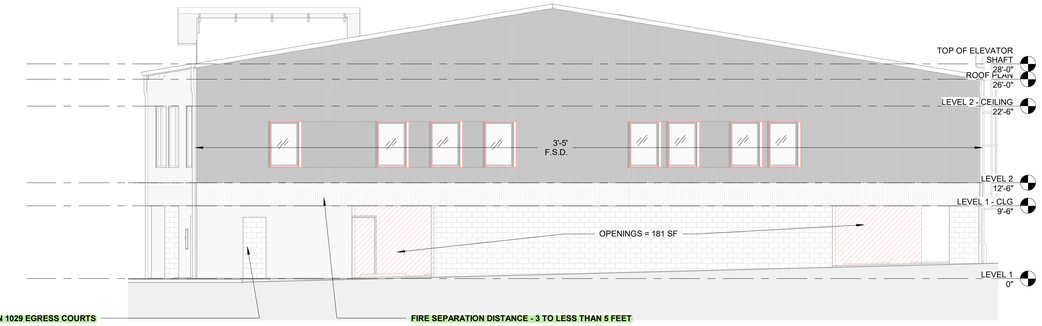
PROJ. NO. 21066
ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

SHEET NAME:
LIFE SAFETY CODE SUMMARY

SHEET NO:
G1.00

TABLE 705.8
MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION

FIRE SEPARATION DISTANCE (feet)	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA[a]
0 to less than 3[b, c, k]	Unprotected, Nonsprinklered (UP, NS)	Not Permitted[k]
	Unprotected, Sprinklered (UP, S)[i]	Not Permitted[k]
	Protected (P)	Not Permitted[k]
3 to less than 5[d, e]	Unprotected, Nonsprinklered (UP, NS)	Not Permitted
	Unprotected, Sprinklered (UP, S)[i]	15%
	Protected (P)	15%
5 to less than 10[e, f, j]	Unprotected, Nonsprinklered (UP, NS)	10%[h]
	Unprotected, Sprinklered (UP, S)[i]	25%
	Protected (P)	25%
10 to less than 15[e, f, g, j]	Unprotected, Nonsprinklered (UP, NS)	15%[h]
	Unprotected, Sprinklered (UP, S)[i]	45%
	Protected (P)	45%
15 to less than 20[f, g, j]	Unprotected, Nonsprinklered (UP, NS)	25%
	Unprotected, Sprinklered (UP, S)[i]	75%
	Protected (P)	75%
20 to less than 25[f, g, j]	Unprotected, Nonsprinklered (UP, NS)	45%
	Unprotected, Sprinklered (UP, S)[i]	No Limit
	Protected (P)	No Limit
25 to less than 30[f, g, j]	Unprotected, Nonsprinklered (UP, NS)	70%
	Unprotected, Sprinklered (UP, S)[i]	No Limit
	Protected (P)	No Limit
30 or greater	Unprotected, Nonsprinklered (UP, NS)	No Limit
	Unprotected, Sprinklered (UP, S)[i]	No Limit
	Protected (P)	No Limit



SECTION 1029 EGRESS COURTS

1029.3 CONSTRUCTION AND OPENINGS

WHERE AN EGRESS COURT SERVING A BUILDING OR PORTION THEREOF IS LESS THAN 10 FEET IN WIDTH, THE EGRESS COURT SHALL HAVE NOT LESS THAN 1-HOUR FIRE-RESISTANCE RATED CONSTRUCTION FOR A DISTANCE OF 10 FEET ABOVE THE FLOOR OF THE EGRESS COURT. OPENINGS WIHTIN WALLS SHALL BE PROTECTED BY OPENING PROTECTIVES HAVING A FIRE PROTECTION RATING OF NOT LESS THAN 3/4 HOUR.

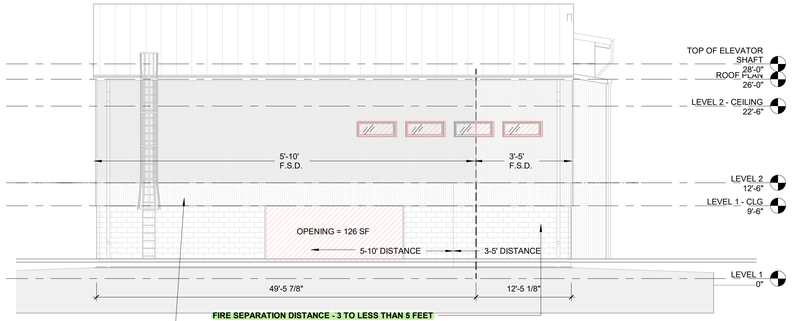
FIRE SEPARATION DISTANCE - 3 TO LESS THAN 5 FEET

TOTAL WALL SURFACE AREA 1ST FLOOR = 1,206 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 181 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 181 SF = 15%

TOTAL WALL SURFACE AREA 2ND FLOOR = 1,884 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 283 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 192 SF = 10%

GARAGE NOTE: PARKING GARAGE IS MECHANICALLY VENTILATED. OPENINGS ARE IN ACCORDANCE WITH TABLE 705.8 ALLOWABLE OPENINGS.

4 WEST ELEVATION - CODE
SCALE: 1/8" = 1'-0"



FIRE SEPARATION DISTANCE - 3 TO LESS THAN 5 FEET

TOTAL WALL SURFACE AREA 1ST FLOOR = 126 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 19 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 0 SF = 0%

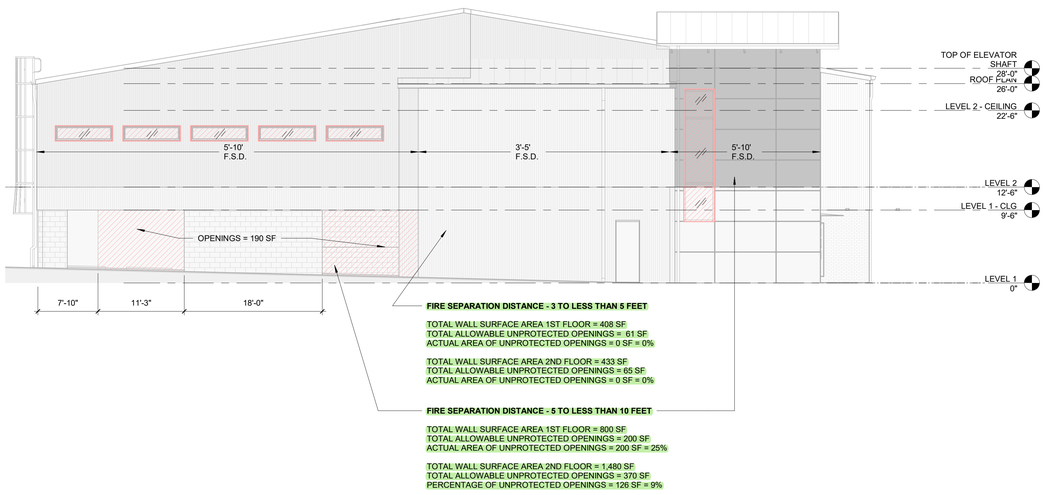
TOTAL WALL SURFACE AREA 2ND FLOOR = 170 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 26 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 15 SF = 9%

FIRE SEPARATION DISTANCE - 5 TO LESS THAN 10 FEET

TOTAL WALL SURFACE AREA 1ST FLOOR = 502 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 126 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 126 SF = 25%

TOTAL WALL SURFACE AREA 2ND FLOOR = 660 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 165 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 25 SF = 4%

3 SOUTH ELEVATION - CODE
SCALE: 1/8" = 1'-0"



FIRE SEPARATION DISTANCE - 3 TO LESS THAN 5 FEET

TOTAL WALL SURFACE AREA 1ST FLOOR = 408 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 61 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 0 SF = 0%

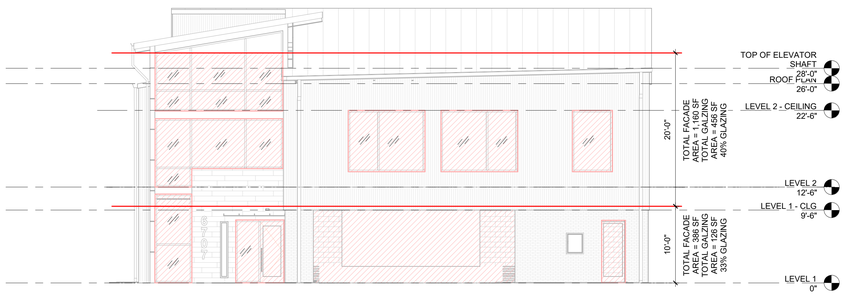
TOTAL WALL SURFACE AREA 2ND FLOOR = 433 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 65 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 0 SF = 0%

FIRE SEPARATION DISTANCE - 5 TO LESS THAN 10 FEET

TOTAL WALL SURFACE AREA 1ST FLOOR = 800 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 200 SF
ACTUAL AREA OF UNPROTECTED OPENINGS = 200 SF = 25%

TOTAL WALL SURFACE AREA 2ND FLOOR = 1,480 SF
TOTAL ALLOWABLE UNPROTECTED OPENINGS = 370 SF
PERCENTAGE OF UNPROTECTED OPENINGS = 126 SF = 9%

2 EAST ELEVATION - CODE
SCALE: 1/8" = 1'-0"



EAST RIVERSIDE CORRIDOR REGULATING PLAN

5.4.3.A.1 - AT LEAST 40 PERCENT OF THE WALL AREA ALONG THE PRINCIPAL STREET THAT IS BELOW TEN FEET ABOVE GRADE, AS MEASURED FROM THE FINISHED FLOOR LEVEL OF THIS FACADE'S ENTRY, SHALL CONSIST OF GLAZING.

5.4.3.A.2 - AT LEAST 25 PERCENT OF WALL AREA ALONG THE PRINCIPAL STREET BETWEEN 10 FEET AND 30 FEET, AS MEASURED FROM THE FINISHED LEVEL OF THIS FACADE'S ENTRY, SHALL CONSIST OF GLAZING.

1 NORTH ELEVATION - CODE
SCALE: 1/8" = 1'-0"

REGISTERED ARCHITECT
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AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO. 21066
ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

SHEET NAME:
CODE ELEVATIONS

SHEET NO:
G1.01

SUITE 202 - RETAIL

TYPE OF CONSTRUCTION:	IIB
OCCUPANCY:	M- MERCANTILE
FLOOR AREA:	1,900 SF
LOAD FACTOR:	1/ 60 SF
OCCUPANT LOAD:	32
SPRINKLER TYPE:	NFPA 13
REQUIRED EXITS:	1

MAX. TRAVEL DISTANCE PER IBC 2021
1017.2 = 250'
ACTUAL TRAVEL DISTANCE = 69'

LEVEL 2 - SUITE 202
RETAIL SPACE
1862.52 SF

PREP ROOM 1
EXAM 1
EXAM 2
RESTROOM
STORAGE
ADMIN
LAB
VISTING DOC'S
RESTROOM
waiting room
PREP ROOM 2
EXAM 3
EXAM 4

LEVEL 2 - SUITE 202
OFFICE
1618.20 SF

MAX. TRAVEL DISTANCE PER IBC 2021 1017.2
= 300'
ACTUAL TRAVEL DISTANCE = 112'
COMMON PATH OF TRAVEL DISTANCE = 97'

SUITE 202 - OFFICE

TYPE OF CONSTRUCTION:	IIB
OCCUPANCY:	B- BUSINESS
FLOOR AREA:	1,618 SF
LOAD FACTOR:	1/100 SF
OCCUPANT LOAD:	17
SPRINKLER TYPE:	NFPA 13
REQUIRED EXITS:	1

PROJECT IS FOR SHELL ONLY. TENANT SUITE FINISH OUT ARE SHOW FOR REFERENCE ONLY.

STAIR 02 EGRESS SIZING
HIGHEST OCCUPANT LOAD SERVED = LEVEL 2 (30 OCCUPANT LOAD)
STAIR = 17 x .3 = 5.1"; 42" PROVIDED
DOOR = 17 x .2 = 3.4"; 36" EXTERIOR EGRESS PROVIDED

LEVEL 2 - CIRCULATION/ ACCESSORY
1050.89 SF

LEVEL 2 - SUITE 201
OFFICE
2189.32 SF

MAX. TRAVEL DISTANCE PER IBC 2021 1017.2 =
300'
ACTUAL TRAVEL DISTANCE = 138'
COMMON PATH OF TRAVEL DISTANCE = 84'

DIAGONAL DISTANCE = 119'
1/3 DIAGONAL DISTANCE = 40'
DISTANCE BETWEEN EXITS = 51'

53'-0" DISTANCE BETWEEN EXITS

SUITE 201 - OFFICE

TYPE OF CONSTRUCTION:	IIB
OCCUPANCY:	B - BUSINESS
FLOOR AREA:	2,189 SF
LOAD FACTOR:	1/100 SF
OCCUPANT LOAD:	22
SPRINKLER TYPE:	NFPA 13
REQUIRED EXITS:	1

EGRESS COURT AND RATED WALL

STAIR 01 EGRESS SIZING
HIGHEST OCCUPANT LOAD SERVED = LEVEL 2 (31 OCCUPANT LOAD)
STAIR = 17 x .3 = 5.1"; 48" PROVIDED
DOOR = 17 x .2 = 3.4"; 36" EXTERIOR EGRESS PROVIDED

LEVEL 2 - CIRCULATION/ACCESSORY

TYPE OF CONSTRUCTION:	IIB
OCCUPANCY:	B- BUSINESS
FLOOR AREA:	856
LOAD FACTOR:	1/100 SF
OCCUPANT LOAD:	9
SPRINKLER TYPE:	NFPA 13
REQUIRED EXITS:	1

2 CODE COMPLIANCE - LEVEL 2
SCALE: 1/8" = 1'-0"

119'-0"/119"

DIAGONAL DISTANCE = 119'
1/3 DIAGONAL DISTANCE = 40'
DISTANCE BETWEEN EXITS = 50'

MAX. TRAVEL DISTANCE PER IBC 2021
1017.2 = 400'
ACTUAL TRAVEL DISTANCE = 150'

LEVEL 1 - OPEN PARKING

TYPE OF CONSTRUCTION:	IIB
OCCUPANCY:	S2 - STORAGE
FLOOR AREA:	6,018 SF
LOAD FACTOR:	1/200 SF
OCCUPANT LOAD:	31
SPRINKLER TYPE:	NFPA 13
REQUIRED EXITS:	2

49'-3" DISTANCE BETWEEN EXITS

ELEV
45.45 SF

TRASH
39.93 SF

FIRE RISER
39.10 SF

EGRESS COURT AND RATED WALL

MAX. TRAVEL DISTANCE PER IBC 2021
1017.2 = 400'
ACTUAL TRAVEL DISTANCE = 142'

1 CODE COMPLIANCE PLAN- LEVEL 1
SCALE: 1/8" = 1'-0"

TRUE NORTH
PROJECT NORTH

FIRE RATED PROTECTION OF STRUCTURAL STEEL MEMBERS

1. WHERE STEEL BEAMS AND COLUMNS ARE SUPPORTING A RATED ASSEMBLY AS REQUIRED BY ANY PORTION OF THESE DRAWINGS OR CODE, THE STEEL MEMBERS MUST BE PROTECTED IN ACCORDANCE WITH CHAPTER 7 OF THE BUILDING CODE AND AS OUTLINED BELOW:
2. ALL REQUIRED FIRE PROTECTION FOR THIS PROJECT TO CONSIST OF A UL LISTED INTUMESCENT COATING (PAINT).
3. COLUMNS
   - A. ALL STEEL COLUMNS TO BE INDIVIDUALLY ENCASED IN A UL LISTED ENCLOSURE EQUIVALENT TO THE RATING OF THE FLOOR OR ROOF THEY ARE SUPPORTING OR IN ACCORDANCE WITH THE MINIMUM RATING REQUIREMENTS OF THE CONSTRUCTION TYPE, WHICHEVER IS GREATER.
   - B. WHERE THE COLUMN EXTENDS THROUGH A CEILING, THE ENCASEMENT PROTECTION SHALL BE CONTINUOUS FROM THE TOP OF THE FOUNDATION OR FLOOR/CEILING ASSEMBLY BELOW THROUGH THE CEILING SPACE TO THE TOP OF THE COLUMN
   - C. BEAMS
   - D. WHERE STEEL BEAMS ARE SUPPORTING A RATED ASSEMBLY AND SUPPORT MORE THAN TWO FLOORS, OR ONE FLOOR AND ROOF, OR SUPPORT A LOAD-BEARING WALL OR A NONLOAD-BEARING WALL MORE THAN TWO STORIES HIGH, STEEL BEAMS SHALL BE INDIVIDUALLY ENCASED IN A UL LISTED ENCLOSURE EQUIVALENT TO THE RATING OF THE FLOOR OR ROOF THEY ARE SUPPORTING OR IN ACCORDANCE WITH THE MINIMUM RATING REQUIREMENTS OF THE CONSTRUCTION TYPE, WHICHEVER IS GREATER.

LIFE SAFETY NOTES

1. FIRE PROTECTION SYSTEMS TO BE IN COMPLIANCE WITH REQUIREMENTS OF THE LOCAL AHJ AND TO BE DESIGNED BY A LICENSED FIRE PROTECTION SYSTEMS ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

PORTABLE FIRE EXTINGUISHERS

1. PROVIDE A MINIMUM RATED 4A:80B:C FIRE EXTINGUISHER SHALL BE PROVIDED AT 75' MAX TRAVEL DISTANCE WITHIN A SEMI-RECESSED CABINET.

LIFE SAFETY SYMBOLS LEGEND

WALL TAG DESIGNATIONS

WALL TAG
PARTITION TYPE
(Wall)

WALL TAG WITH RATING DESIGNATION
PARTITION TYPE
PARTITION RATING

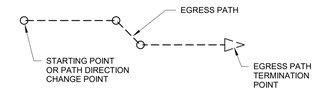
RATING DESIGNATIONS:	
1	1 HR. RATED WALL
1FP	1 HR. FIRE PARTITION
1FB	1 HR. FIRE BARRIER
2	2 HR. RATED WALL
2FW	2 HR. FIRE WALL
2FB	2 HR. FIRE BARRIER
3FW	3 HR. FIRE WALL

DOOR TAG DESIGNATIONS

DOOR NUMBER

LIFE SAFETY CODE EGRESS DESIGNATIONS

EGRESS PATH DESIGNATION



FIRE RATING WALL LEGEND

NOT ALL WALL TYPES ARE NECESSARILY USED IN THIS PROJECT

- NON - RATED WALL
- 1HR - RATED WALL
- 1HR - FIRE PARTITION
- 1HR - FIRE BARRIER
- 2HR - RATED WALL
- 2HR - RATED FIRE WALL
- 2HR - RATED FIRE BARRIER

FIRE RATING WALL LEGEND NOTES:

1. THIS SHEET WAS MEANT TO BE PRINTED IN COLOR. IF WALLS ON LEGEND ABOVE ARE NOT SHOWING IN COLOR, REQUEST A COLOR SET OF DOCUMENTS BEFORE PROCEEDING WITH WORK.
2. SEE STRUCTURAL DRAWINGS FOR ALL SHEAR WALL LOCATIONS. THE CONTRACTOR SHALL NOT REFERENCE THE ARCHITECTURAL DRAWINGS AS THE ONLY REFERENCE FOR SHEAR WALLS. STRUCTURAL DRAWINGS GOVERN. IF THE CONTRACTOR HAS ANY COORDINATION CONFLICTS, THEY ARE RESPONSIBLE FOR COORDINATING WITH THE ARCHITECT AND STRUCTURAL ENGINEER BEFORE PROCEEDING.
3. THE CONTRACTOR SHALL REFER TO THE WALL ASSEMBLY DETAILS FOR SPECIFIC WALL ASSEMBLY REQUIREMENTS.

REGISTERED ARCHITECT
WALTER D. PAYNE
24499
STATE OF TEXAS

5 FIFTH DIMENSION
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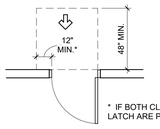
PROJ. NO. 21066
ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

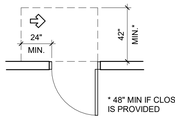
SHEET NAME:
FIRE & LIFE SAFETY CODE PLAN - LEVEL 1 & 2

SHEET NO:
G2.10

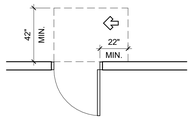
FRONT APPROACH - PUSH SIDE



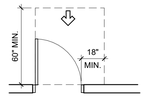
LATCH APPROACH - PUSH SIDE



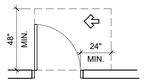
HINGE APPROACH - PUSH SIDE



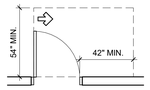
FRONT APPROACH - PULL SIDE



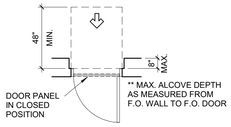
LATCH APPROACH - PULL SIDE



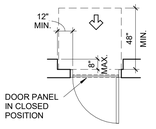
HINGE APPROACH - PULL SIDE



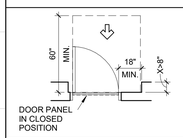
RECESSED DOOR - PUSH SIDE



RECESSED DOOR - PUSH SIDE



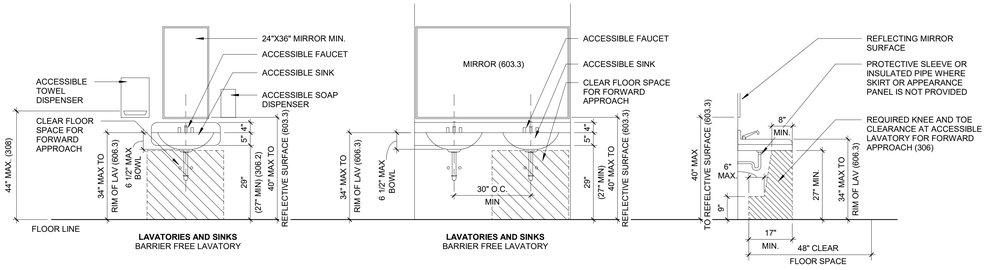
RECESSED DOOR - PULL SIDE



CLEARANCES ABOVE ARE BASED ON TEXAS ACCESSIBILITY STANDARD 2012.
PROVIDE CLEARANCES AS INDICATED AT ALL PUBLIC DOORS AND GATES

2 COMMON DOORS

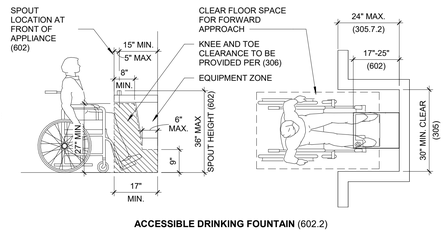
SCALE: NTS 2003/2009 ANSI A117.1



5 COMMON TOILET ROOM FIXTURES MOUNTING HEIGHTS

SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17

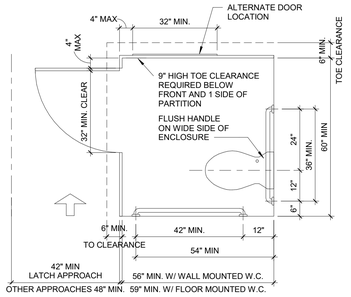
EDITORS NOTE: LIST THE SPECIFICS THAT ARE APPLICABLE HERE BASED ON YOUR PROJECT (IBC 2018, ANSI 2003, INDIANA ACCESSIBILITY CODE)



ACCESSIBLE DRINKING FOUNTAIN (602.2)

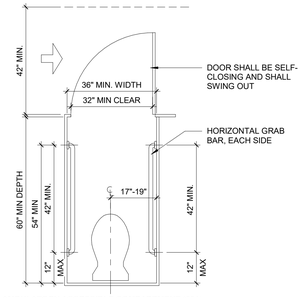
4 COMMON DRINKING FOUNTAIN

SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17

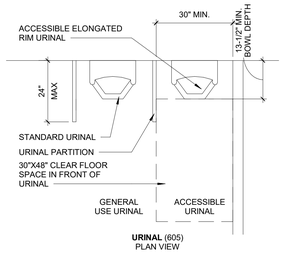


WATER CLOSET AND TOILET COMPARTMENT (604)
PLAN VIEW

NOTE: PLAN(S) MAY NOT BE APPLICABLE WHERE LAVATORY IS REQUIRED INSIDE THE STALL BY LOCAL CODES



AMBULATORY ACCESSIBLE COMPARTMENT (604)
PLAN VIEW

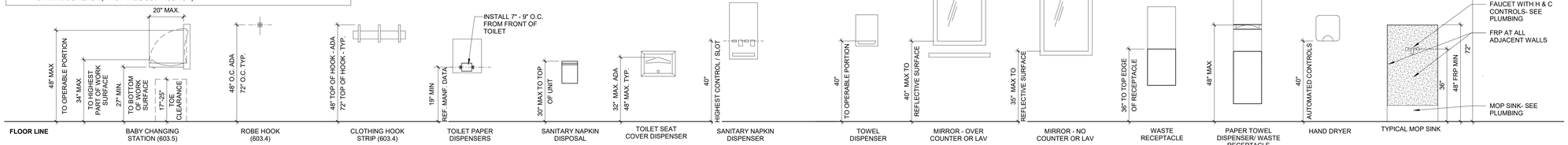


URINAL (605)
PLAN VIEW

3 ACCESSIBLE AND GENERAL USE TOILET STALLS

SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17

MOUNTING NOTES:
1. SEE SPECIFICATIONS FOR FURTHER DESCRIPTIONS OF FIXTURES AND ACCESSORIES INCLUDING THOSE NOT SHOWN.
2. SEE ROOM FINISH SCHEDULE AND ELEVATIONS FOR FLOOR AND WALL FINISH MATERIAL.
3. PROVIDE WALL REINFORCEMENT AND BACKPLATES AT ALL WALL MOUNTED FIXTURES.
4. OPERABLE PARTS OF FIXTURES AND ACCESSORIES SHALL BE PLACED WITHIN REACH RANGES 48" MAX, 15" MIN (UNOBSTRUCTED), 44" MAX FORWARD REACH (20"-25" WIDE OBSTRUCTION), AND 46" MAX SIDE REACH (11"-24" WIDE OBSTRUCTION)



OPERABLE PARTS (309), **REACH RANGES** (308)

OPERABLE PARTS (309), **REACH RANGES** (308)

1 COMMON TOILET ROOM ACCESSORIES MOUNTING HEIGHTS

V008 2022-03-17 SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17

ACCESSIBILITY COMPLIANCE NOTES

PROJECT ACCESIBILITY SHALL COMPLY WITH ALL OF THE FOLLOWING

- THE AMERICANS WITH DISABILITIES ACT 2010 ADA STANDARDS FOR ALL NEW CONSTRUCTION OF PUBLIC USE FACILITIES AND SPACES.
- THE TEXAS ACCESSIBILITY STANDARD (TAS) 2012.
- THE CURRENTLY ENFORCED BUILDING CODE
- ANY AND ALL OTHER LOCALLY ENFORCED AND ADOPTED ACCESSIBILITY STANDARDS.

NOTE WHERE CONFLICTING INFORMATION EXISTS BETWEEN STANDARDS, THE MORE RESTICTIVE SHALL BE FOLLOWED.

GENERAL

1. ALL DIMENSIONS ARE FROM FINISHED DRYWALL, ADJACENT FIXTURE OR EDGE OF COUNTERTOP UNLESS NOTED OTHERWISE.
2. ALL PUBLIC SPACES SHALL BE ADA ACCESSIBLE. UNLESS NOTED OTHERWISE.
3. ENSURE THAT ALL AREAS ON THE ACCESSIBLE ROUTE THROUGHOUT THE SITE MEET THE REQUIREMENTS OF THE APPLICABLE ACCESSIBILITY CODES. COORDINATE BETWEEN CIVIL AND ARCHITECTURAL PLANS.
4. WHERE REQUIRED BY CODE, PUBLIC SIGNAGE SHALL BE VISUAL CHARACTERS, RAISED CHARACTERS AND BRAILLE, IN ACCORDANCE WITH TAS 2012 SECTIONS 216 AND 703
5. AN ACCESSIBLE PATH MUST BE PROVIDED THROUGHOUT THE SITE TO ALL BUILDINGS.
6. FOR LOCATIONS OF ACCESSIBLE PARKING SPACES, LOADING ZONES AND CURB RAMPS, REFER TO CIVIL & LANDSCAPE PLANS

PUBLIC DOORS

1. PROVIDE 1/2" MAX. LOW PROFILE THRESHOLD. THRESHOLDS ABOVE 1/4" MUST BE BEVELED NO GREATER THAN 1:2.
2. PROVIDE A MINIMUM OF 32" CLEAR WIDTH OPENING AT ALL DOORS. (3'-0" DOOR). THE AREA 60" MIN. PERPENDICULAR TO THE DOOR AND 18" MIN. BEYOND THE LATCH OF THE DOOR MUST BE PAVED AND SLOPED AT 1:48 MAX.
3. ALL DOORS SHALL BE LOCATED SO THE EDGE OF DOOR OPENINGS FOR OUTSWING DOORS IS 18-INCHES MINIMUM FROM AN ADJACENT WALL, AND 12-INCHES MINIMUM FOR INSWING DOORS.
4. DOOR CLOSURE: MUST ALLOW FOR "LOW FORCE" TO BE APPLIED IN ORDER TO OPEN. OTHER THAN FIRE DOORS, INTERIOR DOOR OPENING FORCE SHALL NOT EXCEED 5 POUNDS.

PUBLIC RESTROOMS

1. ALL PUBLIC RESTROOMS TO MEET TO MEET THE REQUIREMENTS OF THE 2010 ADA.
2. INSTALL GRAB BARS AT H.C. ACCESSIBLE TOILET STALLS
3. ALL PLUMBING FIXTURES & TRIM UTILIZED IN H.C. ACCESSIBLE STALLS AND LAVATORIES SHOULD BE H.C. APPROVED FIXTURE TYPES.
4. PROVIDE A 60" DIAMETER CLEAR FLOOR SPACE TURNING RADIUS WITHIN ROOM EXCLUSIVE OF DOOR SWING.
5. ROLL-IN SHOWER TYPES TO PROVIDE CLEAR FLOOR SPACE, GRAB BARS AND ACCESSIBLE SEAT. SEE DETAILS.
6. WALL DIMENSIONS AND FIXTURE LOCATIONS MUST BE HELD SO THAT THE MINIMUM AND MAXIMUM CLEARANCES ARE PROVIDED AS SHOWN.
7. PROVIDE 2x MEMBER SIZE REQUIRED WOOD BLOCKING IN LINE OF STUD PLANE FOR WALLS NOTED AS REQUIRING REINFORCING FOR ALL GRAB BARS.
8. LAVATORIES ARE TO BE INSTALLED WITH THE CENTERLINE OF THE FIXTURE A MINIMUM OF 1'-6" HORIZONTALLY FROM FINISHED SURFACE OF AN ADJOINING WALL OR FIXTURE.

WALK SURFACES

1. PROVIDE "NON-SLIP" ABRASIVE SURFACE THROUGHOUT BUILDINGS ALONG ALL ACCESSIBLE ROUTES.
2. FLOOR TRANSITIONS BETWEEN DIFFERENT MATERIALS NEED TO BE FL OR MEET THE 1/2" MAX. THRESHOLD REQUIREMENTS.
3. ALL RAMPS SHALL BE BROOM FINISHED PERPENDICULAR TO SLOPE. CONTRACTOR MUST PROVIDE 0.8 SCOF ON ALL RAMPS. SLOPE RAMPS AT 1:12 (MAX.) REFER TO LANDSCAPE AND CIVIL DRAWINGS FOR DETAILS.
4. CORRIDORS TO HAVE A MINIMUM CLEAR WIDTH OF 4'-0" (48") AND A MIN. HEAD HEIGHT OF 6'-8" (80").

ENVIRONMENTAL CONTROLS

1. LIGHT SWITCHES, ELECTRICAL OUTLETS, THERMOSTATS, DATA, TELEPHONE AND FIRE ALARM DEVISCES AND OTHER ENVIRONMENTAL CONTROLS: ITEMS MUST BE POSITIONED SO THAT CONTROLS OR TOP OF UPPER RECEPTACLE ARE LOCATED NOT HIGHER THAN 48" A.F.F.
2. INSTALL ELECTRICAL PANELS SO THAT THE TOP OF THE HIGHEST BREAKER IS NO MORE THAN 48" AFF.
3. POSITION ELECTRICAL OUTLETS SO THAT THE MINIMUM HEIGHT IS 15" A.F.F. TO THE BOTTOM OF THE RECEPTACLE.
4. ALL SWITCHES AND OUTLETS OVER COUNTERS THAT REQUIRE A FORWARD OR SIDE REACH SHALL BE MOUNTED NOT HIGHER THAN 46" AFF AT BOTH UNITS AND COMMON SPACES
5. DO NOT INSTALL OUTLETS IN CORNERS OVER CABINETS WITHIN 36" OF A CORNER WHERE TWO COUNTERTOPS INTERSECT.
6. PROVIDE AUDIBLE FIRE ALARMS & STROBE LIGHTS AS REQUIRED BY LOCALLY ENFORCED CODES

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
BIRMINGHAM, AL AUSTIN, TX ORLANDO, FL ATLANTA, GA
www.5dai.com

ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

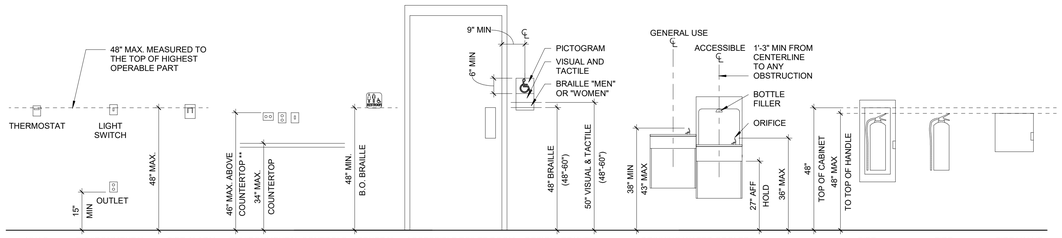
Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

SHEET NAME:
TEXAS ACCESSIBILITY STANDARD REQUIREMENTS

SHEET NO:
G4.101

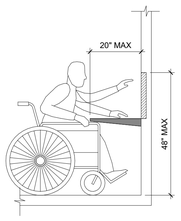


OPERABLE PARTS (309), **REACH RANGES** (308)

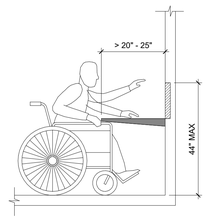
NOTE: PROVIDED FOR MOUNTING HEIGHT INFORMATION ONLY. FIXTURES SHOWN ARE NOT NECESSARILY INCLUDED IN THIS PROJECT.

15 TYPICAL MOUNTING HEIGHTS CORRIDOR AND AMENITY SPACES

SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



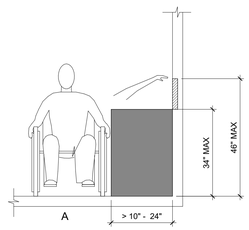
FORWARD REACH, OBSTRUCTED HIGH FORWARD REACH (FIG. 308.2.2(a))



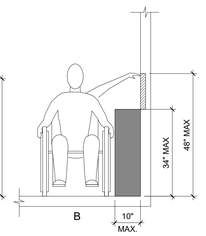
FORWARD REACH, OBSTRUCTED HIGH FORWARD REACH (FIG. 308.2.2(b))

12 OBSTRUCTED HIGH FORWARD REACH

SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



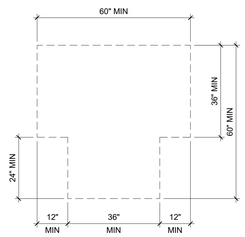
SIDE REACH, OBSTRUCTED HIGH REACH (FIG. 308.3.2(b))



SIDE REACH, OBSTRUCTED HIGH REACH (FIG. 308.3.2(a))

8 OBSTRUCTED HIGH SIDE REACH

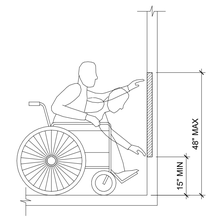
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



T-SHAPED TURNING SPACE (304.3.2)

4 CLEAR FLOOR SPACE TURNING CLEARANCES

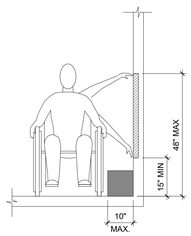
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



FORWARD REACH, UNOBSTRUCTED FORWARD REACH (FIG. 308.2.1)

11 UNOBSTRUCTED FRWD REACH

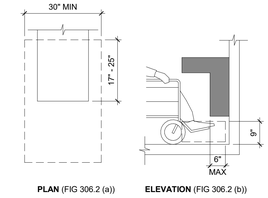
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



SIDE REACH, UNOBSTRUCTED (308.3.1)

7 UNOBSTRUCTED SIDE REACH

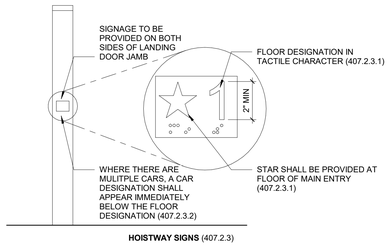
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



PLAN (FIG 306.2 (a)) **ELEVATION** (FIG. 306.2 (b))

14 TOE CLEARANCES

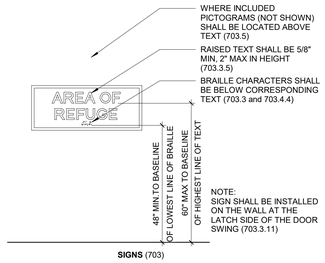
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



HOISTWAY SIGNS (407.2.3)

10 ELEVATOR FLR DESIGNATION

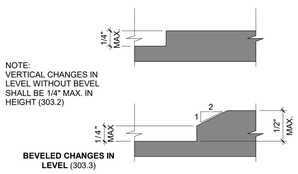
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



SIGNS (703)

6 SIGNS

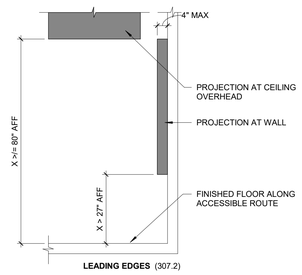
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



BEVELED CHANGES IN LEVEL (303.3)

3 CHANGE IN LEVEL

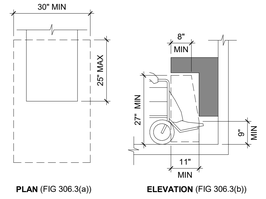
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



LEADING EDGES (307.2)

16 PROTRUDING OBJECTS

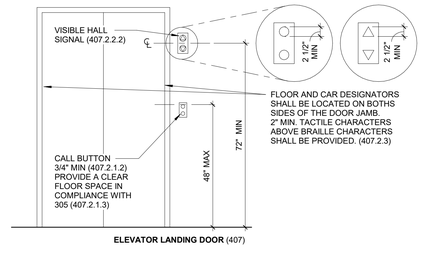
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



PLAN (FIG 306.3(a)) **ELEVATION** (FIG. 306.3(b))

13 KNEE CLEARANCES

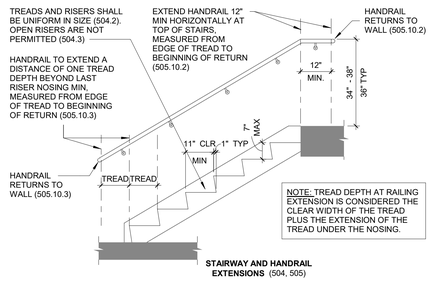
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



ELEVATOR LANDING DOOR (407)

9 ELEVATOR CALL & SIGNAL

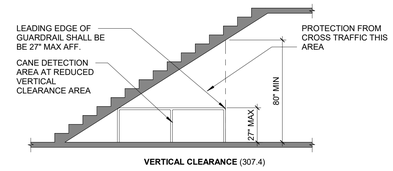
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



STAIRWAY AND HANDRAIL EXTENSIONS (504, 505)

5 HANDRAIL EXTENSION

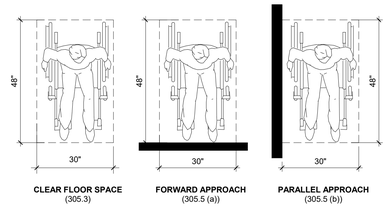
SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



VERTICAL CLEARANCE (307.4)

2 VERTICAL CLEARANCE

SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17



1 CLEAR FLOOR SPACE

SCALE: 1/2" = 1'-0" 2003/2009 ANSI A117.1 V008 2022-03-17

ACCESSIBILITY COMPLIANCE NOTES

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2. PROVIDE A MINIMUM OF 32" CLEAR WIDTH OPENING AT ALL DOORS. (3'-0" DOOR). THE AREA 60" MIN. PERPENDICULAR TO THE DOOR AND 18" MIN. BEYOND THE LATCH OF THE DOOR MUST BE PAVED AND SLOPED AT 1:48 MAX.
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AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

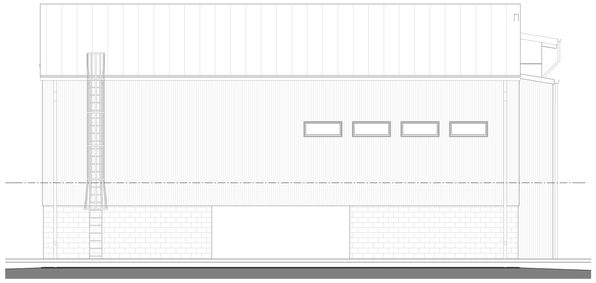
CURRENT:

SHEET NAME:
TEXAS ACCESSIBILITY STANDARD REQUIREMENTS

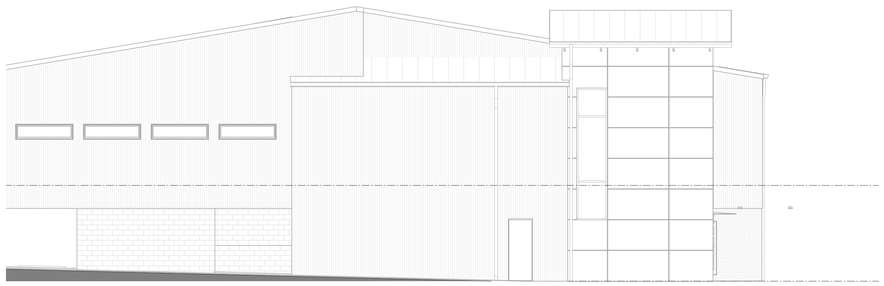
SHEET NO:
G4.102

DESIGN OPTION REQUIRED POINTS:	
3.3.2A.1 - BASE REQUIREMENT	1 POINT
3.3.2B.1.a.Three additional points from Table C if such features are located 12 feet or less above finished grade and there is no prototypical roof or parapet design	3 POINTS
TOTAL REQUIRED POINTS	4 POINTS
DESIGN OPTION POINTS ACHIEVED:	
1.Facade Articulation - b.Changes of color, texture, or material, either horizontally or vertically, at intervals of not less than 20 feet and not more than 100 feet 2.Primary Entrance Design - c.Enhanced exterior light fixtures such as wall sconces, light coves with concealed light sources, ground-mounted accent lights, or decorative pedestal lights. 3.Roof Design - a.For a minimum of 75 percent of the total roof surface, a Solar Reflectance Index (SRI) of 78 or higher for a roof with a slope of 2:12 or less 5.Building Materials. For purposes of satisfying the requirements in subsection 1, above, "building materials" are defined as limestone or brick. However, the brick color shall not be a trademarked design feature. TOTAL ACHIEVED POINTS	4 POINTS

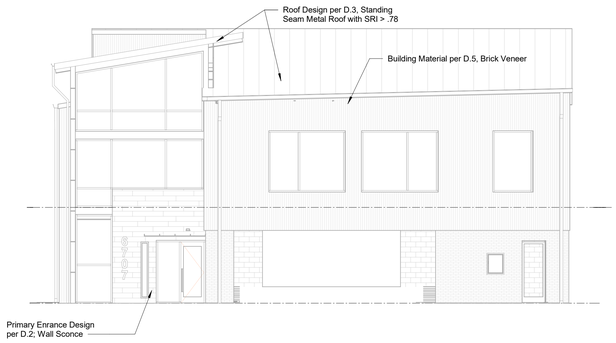
5 West Elevation - Subchapter E
SCALE: 1/8" = 1'-0"



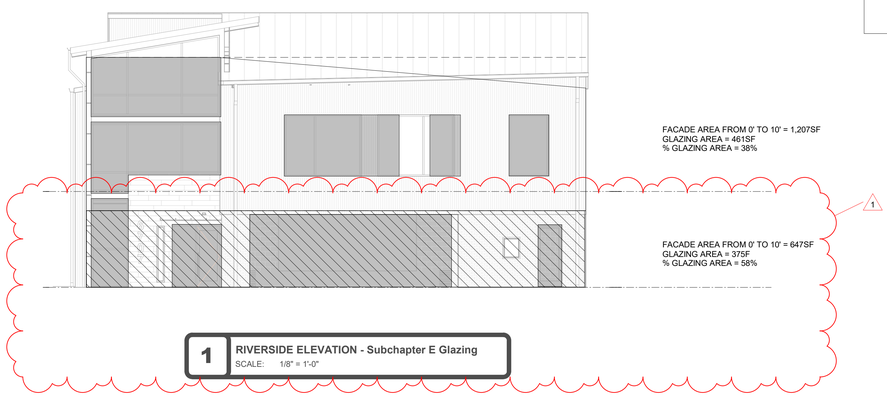
4 South Elevation - Subchapter E
SCALE: 1/8" = 1'-0"



3 East Elevation - Subchapter E
SCALE: 1/8" = 1'-0"



2 North Elevation - Subchapter E
SCALE: 1/8" = 1'-0"



1 RIVERSIDE ELEVATION - Subchapter E Glazing
SCALE: 1/8" = 1'-0"

CITY OF AUSTIN - SUB CHAPTER E REQUIREMENTS

3.2.2 GLAZING AND FACADE RELIEF ON BUILDING FACADES

Glazing provides interest for pedestrians, connects the building exterior and interior, puts eyes on the street, promotes reusability, and provides a human-scale element on building facades. Projects subject to this section shall meet the following minimum requirements, but may provide additional glazing and facade relief beyond what is required under this section. Refer to Article 5 for definitions of Glazing and Facade Relief.

A.On the facade facing the roadway or Internal Circulation Route where building frontage is provided under the requirements of this Subchapter:1.40 percent of the wall area below ten feet as measured from the finish floor level of this facade's entry shall consist of glazing unless topography, distance or other physical characteristics remove the facade from a close physical connection to the roadway or Internal Circulation Route (See Figure 39.); and
(See Figure 39 set forth in Exhibit A attached to Ord. 20130606-088; Glazing and facade relief requirements)

2.25 percent of the wall area between ten feet and thirty feet as measured from the finish floor level of this facade's entry shall consist of glazing. (See Figure 39.)B.One facade shall be exempt from glazing and facade relief requirements. The exempt facade cannot face a public street or Internal Circulation Route.C.On all other facades, at least 25 percent of the wall area between two and ten feet as measured from the finish floor level of this facade's entry must consist of glazing or facade relief unless vegetative screening, which must be evergreen, is allowed if approved by the Director, and may not be used as glazing option on front-facing facade.D.Any facade that is built up to an interior mid-block property line is not required to have glazing on that facade if no prohibitions and no contractual or legal impediments exist that would prevent a building being constructed on the adjacent property up to the wall of the facade.E.At least one-half of the total area of all glazing on facades that face the principal street shall have a Visible Transmittance (VT) of 0.6 or higher.F.The requirements in this section may be reduced to the extent that the required level or location of glazing conflicts with the standards of the Adopted Energy Code, Building Code, LEED, or the Green Building Program.

3.3 - OPTIONS TO IMPROVE BUILDING

3.3.1. Applicability.

The following table summarizes the applicability of this section:

Standard	Applies if the Principal Street Is:	Standard
3.3. Options to Improve Building Design	All roadway types	- Development of any commercial use of 10,000 square feet or more that requires a building permit - Development of any commercial use of less than 10,000 square feet that contains any exterior trademarked design feature - Any building zoned for industrial use or warehouse use at the point its use is converted to commercial - VMU buildings with external trademarked design features (not including signs) - Office development is exempt from this section

3.3.2. Building Design Options.

A. General Requirement.

1.Each building subject to this section must earn one base point from Table C below, and may be required to earn additional points if certain design features are present.

2.Developments with multiple buildings are required to earn the applicable number of points for each building. Points may be aggregated among buildings only if the development contains at least 100 lineal feet of VMU building frontage along the principal street.

B.Additional Requirements for Certain Types of Development. The following shall earn points as specified below, in addition to the base point required in this section. Points in this section shall be earned cumulatively.

1.A building with exterior trademarked design features shall earn additional points as follows:

a.Three additional points from Table C if such features are located 12 feet or less above finished grade and there is no prototypical roof or parapet design;

b.Five additional points from Table C, two of which must come from Group B, if such features are located more than 12 feet above finished grade.

2.If the building plan depicts any of the design features listed below, one additional point must be earned for each design feature (except as noted):

a.Building is one story and greater than 20 feet tall, floor to bottom of roof structure.

b.Building facade exceeds 200 feet in width without entrances every 75 feet.

c.Individual use is greater than 100,000 square feet.

d.False fronts or shaped parapets are created to increase the apparent size of the building or house corporate signage or logos. If used, building parapets must not be greater than 50 percent higher than the distance of the building from grade to roof. (For example, a building that is 20 feet tall from the grade to the roof cannot have a parapet greater than 10 feet tall from roof to top of parapet.) (See Figure 40.) (See Figure 40 set forth in Exhibit A attached to Ord. 20130606-088; Standards for height of false fronts or parapets.)

e.Concrete block (not including split-faced concrete block) is used on more than 25 percent of a facade visible to the public.

f.Concrete block (not including split-faced concrete block) is used on more than 75 percent of a facade visible to the public (must earn two additional points).

g.EIFS is used as a material on the ground floor (below 10 feet).h.Pad building with drive-in or drive-through (on a site with a Core Transit Corridor as the principal street).

Option	Description/Comments
Group A: Each option worth 1 point	
Achieve star rating under the City of Austin Green Building program.	Each star of the rating qualifies for one point. No double credit for Green Building points from Group B.
Provide for liner stores in building facade. (1 point for each liner store)	See Article 5, Definitions
Provide facade articulation.	See definition D.1. below.
Provide primary entrance design.	See definition D.2. below.
Provide roof design.	See definition D.3. below.
Provide building materials meeting the standards of this section.	See definition D.5. below.
Improve storefronts to new regulatory standard of Section 3.2.2. for glazing typesize and shading.	Applies only for buildings existing at the effective date of this Subchapter.
100% of glazing on ground-floor facades that face any street or parking lot have a Visible Transmittance (VT) of 0.6 or higher.	
Complies with neighborhood design guidelines	Group B: Each option worth 2 points
Design building so that at least 75% of the facade facing the principal street consists of storefronts with at least two separate entrances facing the principal street	
Provide sustainable roof.	See definition D.4. below.
Integrate solar power generation into building design.	The specific features and design shall be approved by the Director. Examples may include, but are not limited to, rooftop solar panels or Building Integrated Photovoltaics.
Achieve Green Building rating of 2 stars.	
Develop VMU building	While VMU buildings are exempted from the requirements of this section, points are assigned for the purpose of aggregating point values for the mixed use development bonuses described in Article 4. In addition to the three base points associated with the VMU development, one additional point is added if the gross square footage of the VMU building contains a combination of at least 25% residential and 25% office or retail uses. However, no points may be earned for a building that contains external trademarked design features (not including signs).

D.Definitions of Options.

1.Facade Articulation. For purposes of satisfying the requirements in subsections A. and B. above, "facade articulation" shall consist of one of the following design features, none of which can be trademarked design features.(See Figures 41 and 42.):

(See Figure 41 and Figure 42 set forth in Exhibit A attached to Ord. 20130606-088; Examples of facade articulation)

a.Changes in plane with a depth of at least 24 inches, either horizontally or vertically, at intervals of not less than 20 feet and not more than 100 feet; or

b.Changes of color, texture, or material, either horizontally or vertically, at intervals of not less than 20 feet and not more than 100 feet; or

c.A repeating pattern of wall recesses and projections, such as bays, offsets, reveals or projecting ribs, that has a relief of at least eight inches.

2.Primary Entrance Design. For purposes of satisfying the requirements in subsections A. and B. above, "primary entrance design" shall consist of at least three of the following design elements at the primary entrance (none of which can be trademarked design features), so that the primary entrance is architecturally prominent and clearly visible from the abutting street:

a.Architectural details such as arches, friezes, tilework, murals, or moldings.

b.Integral planters or wing walls that incorporate landscape or seating.

c.Enhanced exterior light fixtures such as wall sconces, light coves with concealed light sources, ground-mounted accent lights, or decorative pedestal lights.

d.Prominent three-dimensional features, such as belfries, chimneys, clock towers, domes, spires, steeples, towers, or turrets.

e.A repeating pattern of pilasters projecting from the facade wall by a minimum of eight inches or architectural or decorative columns.

3.Roof Design. For purposes of satisfying the requirements in subsections A. and B. above, "roof design" shall consist of at least one of the following design elements, none of which can be trademarked design features:

a.Parapets with horizontal tops having height changes of at least one foot occurring horizontally no less than every 100 feet. (See Figure 43.)

(See Figure 43 set forth in Exhibit A attached to Ord. 20130606-088; Examples of roof design)

(i)Parapets that do not have horizontal tops must have pitched or rounded tops with a pattern that repeats or varies no less than every 100 feet.

(ii)All parapets must have detailing such as cornices, moldings, trim, or variations in brick coursing.b.Sloping roofs with at least two of the following design elements:(i)Slope of at least 5:12.(ii)Two or more slope planes.

(iii)Overhanging eaves extending at least three feet beyond the supporting wall.4.Sustainable Roof. For purposes of satisfying the requirements in subsections A. and B. above, a "sustainable roof" is roofing that has one of the following:

a.For a minimum of 75 percent of the total roof surface, a Solar Reflectance Index (SRI) of 78 or higher for a roof with a slope of 2:12 or less, or 29 or higher for a roof with a slope greater than 2:12; or

b.For a minimum of 50 percent of the total roof surface, a vegetated roof;

c.For a minimum of 50 percent of the total roof surface, rainwater collection system; or

d.For a minimum of 75 percent of the total roof surface, a combination of a vegetated roof with rainwater collection system and SRI- compliant roof meeting the SRI standards in subsection 4.a. above. (See Figure 44.)

(See Figure 44 set forth in Exhibit A attached to Ord. 20130606-088; Example of a sustainable roof)

5.Building Materials. For purposes of satisfying the requirements in subsection 1, above, "building materials" are defined as limestone or brick. However, the brick color shall not be a trademarked design feature.

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
BIRMINGHAM, AL AUSTIN, TX ORLANDO, FL ATLANTA, GA
www.5dsi.com

REGISTERED ARCHITECT
WALTER D. PAYNE
24499
STATE OF TEXAS

ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE
6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

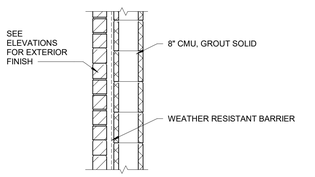
PROJ. NO. 21066
ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

SHEET NAME:
CITY OF AUSTIN - SUBCHAPTER E REQUIREMENTS

SHEET NO:
G4.201

TYPICAL EXTERIOR WALL ASSEMBLIES

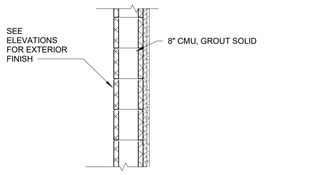
BUILDING TYPE	CONSTRUCTION TYPE	FRAMING SIZE	RATING	INSULATION	COMMENTS
TYPE I	IIB	6"	1 HR *	YES	



EW1A	FIRE RATING	DESIGN NO.	STC RATING	SOUND TEST
	2 HR	UL# U906		

DESCRIPTION: EXTERIOR BRICK VENEER - 2 HR

- 4" NOM. BRICK VENEER
- 1-1/2" AIR CAVITY
- WEATHER BARRIER
- 8" CMU GROUT SOLID

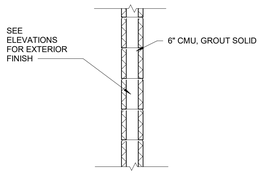


EW1B	FIRE RATING	DESIGN NO.	STC RATING	SOUND TEST
	2 HR	UL# U906		

DESCRIPTION: EXTERIOR CMU - 2 HR

- 8" CMU GROUT SOLID
- CONTINUOUS RIGID INSULATION R-5 ON Z FURRING
- 5/8" TYPE "X" GYP. BOARD

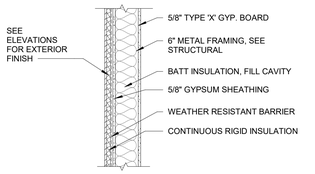
1



EW1C	FIRE RATING	DESIGN NO.	STC RATING	SOUND TEST
	1 HR	UL# U905		

DESCRIPTION: EXTERIOR CMU - 1 HR

- 6" CMU GROUT SOLID

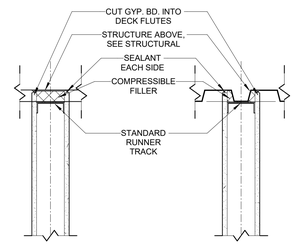


EW2	FIRE RATING	DESIGN NO.	STC RATING	SOUND TEST
	1 HR	UL# U425		

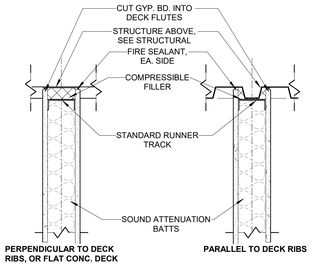
DESCRIPTION: EXTERIOR F.C. SIDING WALL ASSEMBLY - 1 HR

- EXTERIOR CLADDING
- CONTINUOUS RIGID INSULATION R-5
- WEATHER RESISTANT BARRIER
- EXTERIOR GYPSUM SHEATHING
- 6" METAL FRAMING
- BATT INSULATION
- 5/8" TYPE 'X' GYP. BOARD

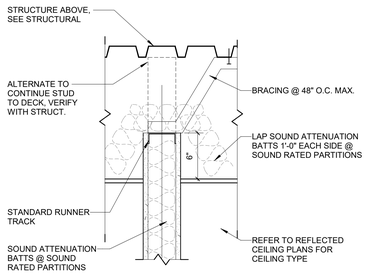
PARTITION TERMINATION



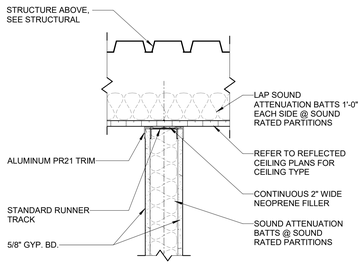
PD - (PARTITION TO DECK)



PDF - (PARTITION TO DECK - ACOUSTIC AND FIRE RATED)

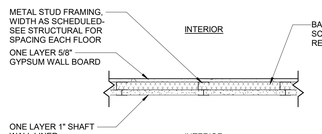


P+6 (PARTITION TERMINATED ABOVE CEILING - ACOUSTIC AND NON-ACOUSTIC SHOWN)



PG - (PARTITION TERMINATED @ CEILING - ACOUSTIC AND NON-ACOUSTIC SHOWN)

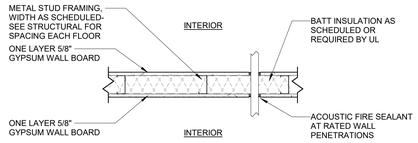
TYPICAL METAL FRAME



TAG	STUD SIZE	OVERALL THICKNESS	FIRE RATING	ASSEMBLY DESIGN
Wa3	2-1/2"	3 - 1/8"	1 HR	UL U469

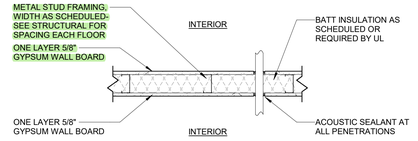
6 RATED PARTITION
SCALE: NTS

TYPICAL METAL FRAME



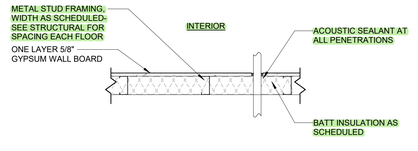
TAG	STUD SIZE	OVERALL THICKNESS	FIRE RATING	ASSEMBLY DESIGN
Waa4	3 - 5/8"	4 - 7/8"	1 HR	UL U 405
Waa6	6"	7 - 1/4"	1 HR	UL U 405

5 RATED PARTITION
SCALE: NTS



TAG	STUD SIZE	OVERALL THICKNESS	FIRE RATING	ASSEMBLY DESIGN
Waa4	3 - 5/8"	4 - 7/8"	-	-
Waa6	6"	7 - 1/4"	-	-

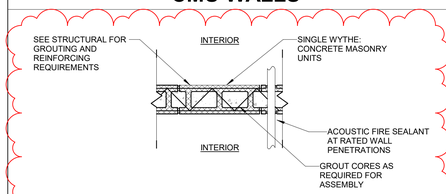
4 NON RATED PARTITION
SCALE: NTS



TAG	STUD SIZE	OVERALL THICKNESS	FIRE RATING	ASSEMBLY DESIGN
Ma4	3 - 5/8"	4 1/4"	-	-
Ma6	6"	6 5/8"	-	-

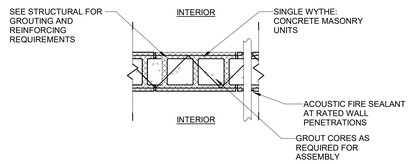
3 NON RATED PARTITION
SCALE: NTS

CMU WALLS



TAG	BLOCK SIZE	OVERALL THICKNESS	FIRE RATING	ASSEMBLY DESIGN
G6	5-5/8"	5 5/8"	1	UL U905

2 2 HOUR RATED PARTITION TYPE - G_
SCALE: 1" = 1'-0"



TAG	BLOCK SIZE	OVERALL THICKNESS	FIRE RATING	ASSEMBLY DESIGN
G8	7-5/8"	7 5/8"	2	UL U906

1 2 HOUR RATED PARTITION TYPE - G_
SCALE: NTS

GENERAL NOTES - PARTITIONS

GENERAL:

1. SEE A800 SERIES SHEETS FOR ADDITIONAL INFORMATION REGARDING THE CONSTRUCTION OF FIRE RATED ASSEMBLIES.
2. SEE SHEET G SERIES SHEETS FOR FIRE RATED CONSTRUCTION NOTES AND ADDITIONAL INFORMATION.
3. WALL TYPES ARE SHOWN ON SMALL SCALE PLANS AND ENLARGED PLANS WHERE APPLICABLE.
4. DETAILED PARTITION TYPES ARE PROVIDED FOR GENERAL REFERENCE. ALL TYPES SHOWN ARE NOT NECESSARILY USED ON THIS PROJECT. REFER TO FLOOR PLANS FOR ACTUAL PARTITION TYPES USED ON THIS PROJECT.
5. PARTITION TYPES DO NOT INCLUDE MATERIAL FINISHES. REFER TO ROOM FINISH SCHEDULE AND ELEVATIONS FOR MATERIAL FINISHES.
6. WHERE ROOMS ARE SCHEDULED WITHOUT CEILINGS, PARTITIONS SHALL EXTEND TO STRUCTURE ABOVE UNLESS NOTED OTHERWISE.
7. CORRIDOR WALLS SHALL BE SEALED AIRTIGHT FOR FULL HEIGHT TO PREVENT PASSAGE OF AIRBORNE SOUND. TAPE AND FINISH ALL GYP. BOARD JOINTS AND FASTENERS. INSTALL ACOUSTIC SEALANT AT PERIMETER OF NON RATED PARTITIONS AND ACOUSTIC FIRE SEALANT AT RATED PARTITIONS.
8. PENETRATIONS THROUGH PARTITIONS BY PIPES, CONDUIT, OR OTHER RIGID MEMBERS ARE TO BE THROUGH HOLES WHICH ARE AT LEAST 1" LARGER THAN THE PENETRATING MEMBER. THE HOLES ARE TO BE FILLED WITH FIBERGLASS AROUND THE MEMBER SO THAT THE MEMBER DOES NOT TOUCH THE WALL AND THEN THE FILLER IS TO BE SEALED OVER FULLY ON EACH SIDE OF THE WALL.
9. SEE INSULATION SCHEDULE FOR INSULATION REQUIREMENTS.
10. PROVIDE QUIET PUTTY PADS OR EQUAL AT ALL ELECTRICAL BOXES IN UNIT DEMISING AND CORRIDOR WALLS.
11. DRYWALL AND FIRE RATED PARITION GYPSUM WALL BOARD AND EXTERIOR GYP. SHEATHING TO BE TYPE X UNLESS NOTED OTHERWISE.

DRYWALL PARTITIONS

1. PROVIDE VERTICAL WALL CONTROL JOINTS (ON EACH SIDE OF THE PARTITION) IN THE CONSTRUCTION OF ALL GYP. BD PARTITIONS WHEN THE SURFACE EXCEEDS 30 FT. OF UNINTERRUPTED LENGTH. REFER TO DETAILS FOR CONTROL JOINT CONSTRUCTION.
2. COORDINATE LOCATIONS OF ALL CONTROL JOINTS WITH DRAWINGS AND ARCHITECT PRIOR TO INSTALLATION.
3. FURRING AT COLUMNS (FOR DECORATIVE PURPOSES) MUST BE FIREBLOCKED AT CEILING INTERSECTIONS.
4. CEMENTITIOUS BACKER UNITS AT ALL WET AREAS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:- ALL WALLS OF PUBLIC RESTROOMS, JANITOR ROOMS, BATHING ROOMS -BEHIND SINKS (I.E. AT COUNTERS) EXTENDING 3'-0" BEYOND THE EDGE OF SINK IN ANY DIRECTION.
5. IF NO OTHER SURFACE IS INDICATED PROVIDE 48" FRP PANELS AT JANITOR CLOSET

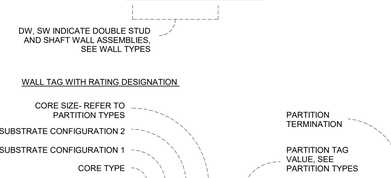
FIRE RATED PARTITIONS

1. SEE FLOOR PLANS AND FIRE & LIFE SAFETY SHEETS FOR LOCATIONS OF ALL FIRE-RATED PARTITIONS.
2. MAINTAIN CONTINUITY OF FIRE-RATED PARTITIONS AT INTERSECTIONS WITH NON-FIRE-RATED OR LESSER RATED PARTITIONS.
3. CONSTRUCTION OF FIRE-RATED PARTITIONS, INCLUDING TAPING AND FINISHING OF GWB FOR FULL HEIGHT TO STRUCTURE ABOVE, SHALL BE IN ACCORDANCE WITH SPECIFIC CURRENT UL ASSEMBLY REQUIREMENTS TO ACHIEVE FIRE RATING INDICATED ON PARTITION TYPE.
4. TYPE OF GWB TO BE IN ACCORDANCE WITH UL ASSEMBLY.
5. SEE FIRE RATED CONSTRUCTION NOTES FOR MORE DETAILED INFORMATION.
6. FURRING REQUIRED FOR FIRE RATED ASSEMBLIES AT COLUMNS TO BE CONTINUOUS THROUGH INTERSTITIAL SPACE TO STRUCTURE ABOVE.

PARTITION LEGEND

WALL TAG DESIGNATIONS

WALL TAG WITHOUT RATING DESIGNATION



WALL TAG WITH RATING DESIGNATION

FIRE RATED CONSTRUCTION DESIGNATIONS:

1	1 HR. RATED WALL	2	2 HR. RATED WALL	3FW	3 HR. FIRE WALL
1FP	1 HR. FIRE PARTITION	2FW	2 HR. FIRE WALL		
1FB	1 HR. FIRE BARRIER	2FB	2 HR. FIRE BARRIER		

CORE TYPES

G.	CONCRETE MASONRY UNIT
S.	METAL SHAFT WALL CH STUD
T.	TILT-UP CONCRETE PANEL
W, DW, SW	WOOD STUD FRAMING / WOOD FURRING DOUBLE WOOD STUD FRAMING / WOOD FURRING

SUBSTRATE CONFIGURATIONS

a.	5/8" GWB (1 LAYER)
b.	5/8" GWB (2 LAYER)
c.	5/8" GWB (3 LAYER)
d.	5/8" GWB (4 LAYER)
e.	1/2" GWB (1 LAYER)
f.	1/2" GWB (2 LAYER)
g.	WOOD SHEATHING*
h.	GYP. SHEATHING*
j.	5/8" GWB, SHEATHING*
k.	1/2" GWB, SHEATHING*
l.	5/8" GWB, 1/2" RESILIENT CHANNEL
m.	5/8" GWB, 1/2" RESILIENT CHANNEL, 5/8" GWB
n.	5/8" GWB, 1/2" RESILIENT CHANNEL, SHEATHING*
o.	5/8" GWB (2 LAYERS), 1/2" RESILIENT CHANNEL
p.	5/8" GWB (2 LAYERS), 1/2" RESILIENT CHANNEL, 5/8" GWB
q.	5/8" GWB (2 LAYERS), 1/2" RESILIENT CHANNEL, SHEATHING*
s.	1" SHAFT LINER
t.	1" SHAFT LINER (2 LAYERS)
u.	FC SIDING, WRB, 5/8" GWB, 1/2" RESILIENT CHANNEL, SHEATHING @ SHEAR WALLS*
v.	5/8" GWB, 1/2" RESILIENT CHANNEL, WRB, SHEATHING*

* REFER TO STRUCTURAL FOR SHEATHING TYPE, SIZE
(None) CORE ONLY

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
BIRMINGHAM, AL AUSTIN, TX ORLANDO, FL ATLANTA, GA
www.5dsi.com

ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO. 21066
ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

SHEET NAME:
WALL TYPES

SHEET NO:
G5.10

UL Product iQ™

BXUV.U905 - 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, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

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

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

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

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

Design No. U905

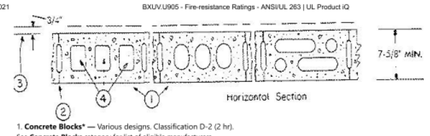
November 09, 2020

Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR

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

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



1. **Concrete Blocks* —** Various designs. Classification D-2 (2 hr).
See **Concrete Blocks** category for list of eligible manufacturers.

2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. **Loose Masonry Fill —** If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. **Foamed Plastic* —** (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE

DUPONT DE NEMOURS, INC. — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci-Class A", "Xci Foil (Class A)", "Xci 286"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"

5A. **Building Units* —** As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — "Xci NB", "Xci Ply"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-SI", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

*** 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 2020-11-09

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6707 RIVERSIDE

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AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	12/05/22

CURRENT: 2022.12.13

SHEET NAME:
UL #U905

SHEET NO:
G5.11

UL Product iQ®

BXUV.U906 - 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, system, devices, and materials.
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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.

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

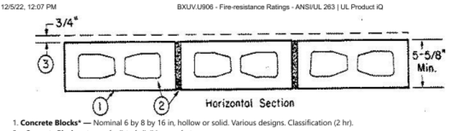
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U906

June 6, 2022

Bearing Wall Rating — 2 HR.
Nonbearing Wall Rating — 2 HR.
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

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



1. **Concrete Blocks* —** Nominal 6 by 8 by 16 in, hollow or solid. Various designs. Classification (2 hr).
See **Concrete Blocks** category for list of eligible manufacturers.

ANCHOR CONCRETE PRODUCTS INC

GAGNE & SON CONCRETE BLOCK INC

GLENWOOD MASONRY PRODUCTS

Allowable compressive stress of 57% of max allowable compressive stress in accordance with the empirical design method.

OLDCASTLE APG SOUTH INC, DBA ADAMS PRODUCTS

WESTBROOK CONCRETE BLOCK CO INC

Allowable compressive stress of 75.6% of max allowable compressive stress in accordance with the empirical design method.

2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to Classification if used. Attached to concrete blocks (Item 1).

4. **Foamed Plastic* —** (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

DUPONT DE NEMOURS, INC. — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci-Class A", "Xci 286", "Xci Foil (Class A)"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"

4A. **Building Units* —** As an alternate to Item 4, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.
RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-5I", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply"

*** 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 2022-06-06

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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	12/05/22

CURRENT: 2022.12.13

SHEET NAME:
UL #U906

SHEET NO:
G5.12

UL Product iQ®

BXUV.U425 - Fire-resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

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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. The published information cannot always address every construction nuance encountered in the field.
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- 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

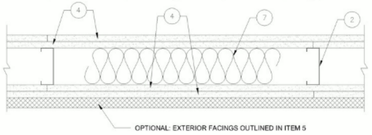
Design No. U425

December 01, 2022

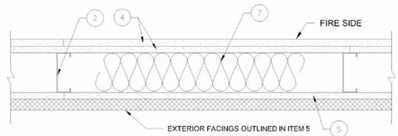
Bearing Wall Rating — 3/4 Hr., 1, 1-1/2 or 2 Hr.
(See Items 2, 4 and 5)
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

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

INTERIOR OR EXTERIOR WALL (FIRE FROM EITHER SIDE), SEE TABLE I



EXTERIOR WALL (FIRE FROM INTERIOR SIDE ONLY), SEE TABLE II



1. **Steel Floor and Ceiling Tracks —** (Not Shown) — Top and bottom tracks of wall assemblies shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 MSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C.

2. **Steel Studs —** Min 3-1/2 in. wide, No. 20 MSG (0.0329 in., min bare metal thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC (or 16 in. OC when Item 5b is used). Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.

2A. **Steel Studs — Framing Members* —** In lieu of Item 2 — Min 3-1/2 in. wide, No. 20 MSG (0.0329 in., min bare metal thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC (or 16 in. OC when Item 5b is used). Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.
EB METAL INC — NITROSTUD

2B. **Steel Studs — Framing Members* —** In lieu of Item 2 — Min 3-5/8 in. wide, No. 20 MSG (0.036 in. min. thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed

Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC (or 16 in. OC when Item 5b is used). Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.
BAILEY METAL PRODUCTS LTD

3. **Lateral Support Members —** (Not Shown) — Where required for lateral support of studs, support may be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

4. **Gypsum Board* — Any 1/2 in. thick UL Classified Gypsum Board that is eligible for use in Design No. X515. Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305.** Gypsum board bearing the UL Classification Marking as to Fire Resistance. Applied vertically with joints between layers staggered. Outer layer of 3 layer construction may be applied horizontally unless specified below. The thickness and number of layers and percent of design load for the 45 min, 1 hr, 1-1/2 hr and 2 hr ratings are as follows:

TABLE I
Interior or Exterior Walls (Fire From Either Side)

Rating	Wallboard Protection Both Sides of Wall - No. of Layers & Thkns of Board In. Each Layers	% of Design Load
45 min	1 layer, 1/2 in. thick	100
1 hr	1 layer, 5/8 in. thick	100
1-1/2 hr	2 layers, 1/2 in. thick	100
2 hr	2 layers, 5/8 in. thick or	80
2 hr	3 layers, 1/2 in. thick	100
2 hr	2 layers, 3/4 in. thick	100

Note: Exterior facings allowed for use with Item 5 are also allowed to be installed on one side of the above walls.

TABLE II
Exterior Walls (Fire from Interior Side Only)

Rating	Wallboard Protection on Interior Side of Wall - No. of Layers & Thkns of Board In. Each Layers	% of Design Load
45 min	1 layer, 5/8 in. thick	100
1 hr	2 layers, 1/2 in. thick	100
1-1/2 hr	2 layers, 5/8 in. thick	100
2 hr	3 layers, 1/2 in. thick	100
2 hr	2 layers, 3/4 in. thick	100

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNX.R19374

CABOT MANUFACTURING ULC (View Classification) — CKNX.R25370

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R3660

CGC INC (View Classification) — CKNX.R19751

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R18482

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717

LOADMASTER SYSTEMS INC (View Classification) — CKNX.R11809

NATIONAL GYPSUM CO (View Classification) — Riyadh, Saudi Arabia — CKNX.15208

NATIONAL GYPSUM CO (View Classification) — CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

PANEL REY S A (View Classification) — CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNX.R19262

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO (View Classification) — CKNX.R40305

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNX.R38438

USG MEXICO S A DE C V (View Classification) — CKNX.R16089

4A. **Gypsum Board —** Nom. 3/4 in. gypsum board applied vertically with joints between layers staggered. The thickness and number of layers and percent of design load for the 2 hr ratings are shown in the table above.
CGC INC — Types AR, IP-AR, IP-X3, or ULTRACODE

UNITED STATES GYPSUM CO — Types AR, IP-AR, IP-X3, or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types AR, IP-AR, IP-X3, or ULTRACODE

4B. **Gypsum Board* —** (As an alternate to Item 4) — Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers on interior walls (multilayer systems) staggered a min of 12 in.
GEORGIA-PACIFIC GYPSUM L L C — GreenGlass Type X, Type DGG

NATIONAL GYPSUM CO — Type FSW-6.

CERTAINTEED GYPSUM INC — GlasRoc

4C. **Gypsum Board* —** (As an alternate to Item 4) — 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically only and secured as described in Item 6.
GEORGIA-PACIFIC GYPSUM L L C — Type X ComfortGuard Sound Deadening Gypsum Board.

NATIONAL GYPSUM CO — Type SBWB

4D. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES.

4E. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527.

4F. **Gypsum Board* —** (As an alternate to 5/8 in. Type FSW in Item 4) — Nom. 5/16 in. thick gypsum panels applied vertically. Two layers of 5/16 in. for every single layer of 5/8 in. gypsum board described in Item 4. Horizontal joints on the same side need not be staggered. Inner layer of each double 5/16 in. layer attached with fasteners, as described in item 4, spaced 24 in. OC. Outer layer of each double 5/16 in. layer attached per Item 4.
NATIONAL GYPSUM CO — Type FSW.

4G. **Wall and Partition Facings and Accessories* —** (As an alternate to 5/8 in. thick board as outlined in Item 4) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened to studs as described in item 6.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

5. **Gypsum Boards —** For exterior walls, Rating from Interior Side Only - 1/2 or 5/8 in. thick Classified or unclassified gypsum boards applied vertically and attached to studs and runner tracks with 1 in. long Type S-12 bugle head screws spaced 12 in. OC. along studs and tracks. One of the following exterior facings are to be applied over the gypsum board.
a. **Siding, Brick, or Stucco —** Aluminum siding, steel siding, brick veneer, or stucco attached to studs over gypsum sheathing and meeting the requirements of local code agencies. When a min 3-3/4 in. thick brick veneer facing is used, the Exterior Wall Rating is applicable with exposure on either face. Brick veneer wall attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick. When a min 3-3/4 in. thick brick veneer facing is used, Foamed Plastic (Item 10) may be used.

b. **Cementitious Backer Units* —** 1/2 or 5/8 in. thick, attached vertically or horizontally to steel studs over gypsum sheathing with 1-5/8 in. long, Type S-12, corrosion resistant, wafer head steel screws, spaced 8 in. OC. Studs spaced a max of 16 in. OC. Joints covered with glass fiber mesh tape.
UNITED STATES GYPSUM CO — Type DCB

NATIONAL GYPSUM CO — Type PermBase, or DuraBacker

c. **Fiber-Cement Siding —** Fiber-cement exterior sidings including smooth and patterned panel or lap siding.

d. **Molded Plastic* —** Solid vinyl siding mechanically secured to framing members in accordance with manufacturer's recommended installation details.
ALSIDE, DIV OF ASSOCIATED MATERIALS INC

e. **Wood Structural Panel or Lap Siding —** APA Rated Siding, Exterior, plywood, OSB or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlay, brushed, grooved and lap siding.

f. **Building Units* —** (Not Shown) — 3 in. thick 18 x 24 in. cellular glass blocks, applied to the gypsum board (Item 5) with PC 88 adhesive or fastened with F anchors spaced a maximum 24 in. OC. F anchors fastened to framing members with 1-1/4 in. long #6 drywall screws.
PITTSBURGH CORNING LLC — FOAMGLAS® T3+ Block, FOAMGLAS® T4+ Block, FOAMGLAS® S3 Block, FOAMGLAS® F Block

6. **Fasteners —** (Not Shown) — Screws used to attach wallboard to studs: self-tapping bugle head sheet steel type, spaced 12 in. O.C. First layer Type S-12 by 1 in. long for 1/2 and 5/8 in. thick wallboards and 1-1/4 in. long for 3/4 in. thick wallboard. Second layer Type S-12 by 1-5/8 in. long for 1/2 and 5/8 in. thick wallboards and 2-1/4 in. long for 3/4 in. thick wallboard. Third layer Type S-12 by 1-7/8 in. long. Fasteners when Item 4G is used: First layer #6 x 2 in. long drywall screw spaced 8 in. OC along the perimeter and 12 in. OC in the field. Second layer #6 x 4 in. long drywall screw spaced 8 in. OC along the perimeter and 12 in. OC in the field. Horizontal joints to be staggered 12 in. between layers.

7. **Batts and Blankets* —** Placed in stud cavities of all exterior walls. May or may not be used in interior walls. Any glass fiber or mineral wool batt material bearing the UL Classification Marking as to Fire Resistance, of a thickness to completely fill stud cavity. See **Batts and Blankets*** (BZJZ) Category for names of Classified companies.

7A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 7) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
Applegate Greenfiber Acquisition LLC — INS735, INS745, INS750LD, and Insulmax for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

7B. **Fiber, Sprayed* —** As an alternate to Item 7 — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.58 lb/ft^3.
NU-WOOL CO INC — Cellulose Insulation

7C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 7) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

7D. **Fiber, Sprayed* —** (Optional) — As an alternate to Batts and Blankets (Item 7) — Spray applied mineral wool insulation. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

8. **Joint Tape and Compound —** (Not Shown) — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layer. Perforated paper tape, 2 in. wide, embedded in first layer of compound over all joints of outer layer.

9. **Furring Channels —** (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws.

10. **Foamed Plastic* —** (Optional, Not Shown) For use with brick veneer as outlined in Item 5a - Maximum 2 in. thick rigid polystyrene insulation attached to studs with fasteners of sufficient length to penetrate the foam and 3/16 in. into the stud. A minimum 1 in. air space is to be maintained between the outer surface of the foamed plastic and the inner surface of the brick veneer.
ATLAS MOLDED PRODUCTS, A DIVISION OF ATLAS ROOFING CORPORATION — Type ThermalStar

OWENS CORNING SCIENCE AND TECHNOLOGY, LLC

10A. **Foamed Plastic* —** (Optional, Not shown) — For use with brick veneer as outlined in Item 5a - Mortar drop protection - Foamed plastic with mortar control device attached, continuous, by drainage holes at bottom of air space behind brick veneer.
OWENS CORNING SCIENCE AND TECHNOLOGY, LLC — WeepGuard

10B. **Foamed Plastic* —** Polyisocyanurate foamed plastic insulation boards, any thickness, Classified in accordance with BRYX and / or CCVW. May be used with any exterior facing shown under items 5a, 5c, 5d and 5e.
ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

DUPONT DE NEMOURS, INC. — Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Type "Xci-Class A*," Xci 286", "Xci Foil (Class A)", "Xci CG", "Xci FoilI", "Xci CG NH", "Xci Foil NH"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"

10C. **Building Unit* —** Polyisocyanurate foamed plastic composite insulation boards, any thickness, Classified in accordance with BZXX. May be used with any exterior facing shown under items 5a, 5c, 5d and 5e.
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Type "Xci N8" and "Xci Ply"

LAMINATORS INC — Type "Omega ci"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types Thermasheath-SI, ECOBASEci, ECOMAXci FR Ply, ThermaBase-CI, "ECOMAXci Ply", attached to studs with Type S screws long enough to penetrate the studs a minimum of three threads.

10D. **Foamed Plastic* —** (As an alternate to Item 10 - Not Shown) — Expanded polystyrene insulation installed to a maximum nominal density of 2.0 lb/ft^3.

BASF CORP STYRENIC FOAMS DIV — — Type Neopor "F" Series, Neopor® F 2200 BMB, Neopor® F 2300 BMB, Neopor® F 2400 BMB, Neopor® F 5 Pro BMB, Neopor® F 5200 Plus BMB, Neopor® F 5300 Plus BMB

10E. **Foamed Plastic* —** (Optional, As an alternate to Item 10 - Not Shown) — Spray applied, foamed plastic insulation, at any thickness, Classified in accordance with CCVW. May be used with any exterior facing shown under items 5a, 5c, 5d and 5e.
CARLISLE SPRAY FOAM INSULATION — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

11. **Cementitious Backer Units* —** (Optional, Not Shown - For Use as an additional layer over required gypsum boards) - 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide.- Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum of 3/8 in. spaced a max of 8 in. OC. When 4 ft. wide boards are used, horizontal joints need not be backed by framing.
NATIONAL GYPSUM CO — Type DuraBacker, PermaBase, DuraBacker Plus, or PermaBase Plus

11A. **Building Units –** (Optional Item Not Shown – For use over Gypsum Board, Item 4 or Item 5) 1 in., 2 in. or 3 in. thick, 4 ft. wide – Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with wafer head screws of adequate length to penetrate framing by a minimum of of ¼ in., spaced a max 8 in. o.c.

NATIONAL GYPSUM CO – Type PBCI

12. **Wall and Partition Facings and Accessories* —** (CLBV) (Optional, Not Shown) — For use with Item 1, Items 2 and 2A, Item 3, Item 4 to 4B, Item 6, Item 7, Item 8 and Item 9. For maximum fire rating of 1 hour. On one side of the wall, over the first layer of

Gypsum Board (Item 4 to 4B), install ReflexXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When ReflexXor membrane is used an additional layer of Gypsum Board that is identical to the one used in the first layer and as specified in Item 4 to 4B shall be installed over the membrane. The additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 4 to 4B except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 7.

On the other side of the wall prior to the installation of the Gypsum Board install Resilient Channels , 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with min. 1-1/4 in. long drywall screws and washers spaced at 16 in. OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 4 (or 4 alternates) with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

Alternately, on the other side of the wall prior to the installation of the Gypsum Board (Item 4), install 3/4 in. thick SONOpan panels, secured to one side of studs either horizontally or vertically. Panels secured to each stud with min. 1-1/4 in. long drywall screws spaced 12 in. OC. Over the SONOpan, install 25 MSG galv steel, Resilient Channels, spaced vertically 24 in. OC. Resilient Channels fastened through panels to each stud with min. 2 in. long drywall screws or self-tapping screws. Over the Resilient Channels install Gypsum Board as specified in Item 4 (or 4 alternates) with drywall screws as specified in Item 6. Panels not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

MSL — ReflexXor membrane, SONOpan panel.

13. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) - **When the Wall Assembly is used as an External Wall, on the External side of the wall one of the following Wall and Partition and Facing Accessories may be used, refer to items (A) to (C) below.**
A. **Non Insulated System with Metal Channels —** Install moisture barrier over the Gypsum Board Item 4 and Install Acry Metal Channels vertically at a horizontal spacing not greater than 24 inches OC over the moisture barrier. Acry Metal Channels attached through the moisture barrier and the Gypsum Board to the Steel Studs Item 2 using fasteners specified by the manufacturer and fasteners spaced max., 24 in. OC. Install Acrytec Panels on Acry Metal Channels using 1-1/4" long corrosion coated stainless steel screws spaced at a max spacing of 24 inches OC, along with manufacturer's approved adhesive (3M 540 or Tremco Vulcum 116). Adhesive to be applied in a zigzag pattern along every channel. Joint treatment in between panels shall be Tremco illmod 600 pre compressed polyurethane foam sealant.

B. **Insulated System with Metal Channels —** Install moisture barrier over the Gypsum Board Item 4. Install galvanized Z girt channels specified by the manufacturer over the moisture barrier and the Gypsum Board Item 4. Z girt channels to be installed horizontally at a max. spacing of 24" OC. Z girt channels attached through the Gypsum Board and the moisture barrier to the Steel Studs Item 2, with screws provided by the manufacturer at a max spacing of 24 inches OC. Install mineral wool insulation between the Z girts. Maximum thickness of mineral wool insulation not to exceed 6 in. As per manufacturer's instructions install Acry Metal Channels vertically over the Z girts at a max horizontal spacing of 24 in. OC. Acrytec Panels installed on Acry channel with 1-1/4" long corrosion coated stainless steel screws at a max spacing of 24 in. OC, along with manufacturers approved adhesive (3M 540 or Tremco Vulcum 116). Adhesive to be applied in a zigzag pattern along every channel. Joint treatment in between panels to be Tremco illmod 600 pre compressed polyurethane foam sealant.

C. **Non Insulated Wood Strapping System —** Install moisture barrier over the Gypsum Board Item 4 and Install 1" x 3" wood strapping vertically at a horizontal spacing not greater than 24 inches OC., over the moisture barrier. 1" x 3" wood strapping attached through the moisture barrier and the Gypsum Board to the Steel Studs Item 2, using fasteners specified by the manufacturer and fasteners spaced max., 24 in. OC. Acrytec Panels to be installed on the 1" x 3" wood strapping using manufacturers approved stainless steel fasteners spaced at maximum 24 inches OC along with Tremco Vulcum 116 adhesive applied in a zigzag pattern along every wood strap. Joint treatment in between panels to be Tremco illmod 600 pre compressed polyurethane foam sealant.

D. **Insulated Wood Strapping System —** Install moisture barrier over the Gypsum Board Item 4. Install Extruded Polystyrene Insulation over moisture barrier, max thickness of insulation not to exceed 4 inches. Install 1" x 3" wood strapping vertically at a horizontal spacing not greater than 24 inches OC. Wood strapping attached through the Insulation, the Gypsum Board and moisture barrier to the Steel Studs Item 2 using fasteners specified by the manufacturer and fasteners spaced max. 24 in. OC. Acrytec Panels to be installed over the wood strapping using manufacturers approved stainless steel fasteners at a max spacing of 24 in. OC and Tremco Vulcum 116 adhesive applied in a zigzag pattern along every wood strap. Joint treatment in between panels to be Tremco illmod 600 pre compressed polyurethane foam sealant.

ACRYTEC PANEL INDUSTRIES — Nominal 5/8 inch thick Acrytec Panel.

*** 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 2022-12-02

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ISSUED FOR PERMITTING AND CONSTRUCTION

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AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO. 21066
ORIG. ISSUE 12/05/22
CURRENT: 2022.12.13

SHEET NAME:
UL #U425

SHEET NO:
G5.13

UL Product iQ®

BXUV.U405 - 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, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

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

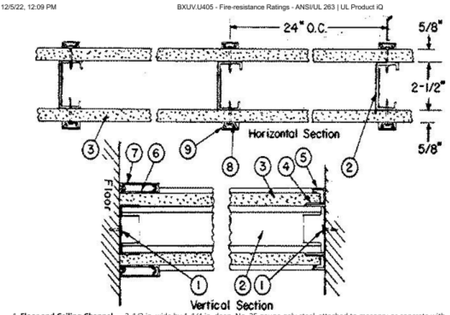
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

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

Design No. U405

May 25, 2022

Nonbearing Wall Rating — 1 HR.
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Channel —** 2-1/2 in. wide by 1-1/4 in. deep, No. 25 gauge galv steel, attached to masonry or concrete with fasteners 24 in. OC.

2. **Steel Stud —** 2-1/2 in. wide with 1-3/8 in. legs, 1/4 in. folded back return flange in legs, No. 25 gauge galv steel with 1-9/16 in. square conduit cutouts spaced not less than 8 in. OC, studs 3/8 in. less in length than assembly height.

3. **Gypsum Board* —** 5/8 in. thick, applied vertically with joints located over studs, joints on opposite sides staggered 24 in. OC, attached to studs with steel tracks and self-tapping screws.
AMERICAN GYPSUM CO — Type AGX-1, M-Glass, AG-C, LightRoc.

CABOT MANUFACTURING ULC — Type X

CERTAINTEED GYPSUM INC — Type X-1, Easi-Lite Type X-2, Type C, Type EGRG, Type GlasRoc, GlasRoc-2.

CERTAINTEED GYPSUM INC — Type LGFC6A, LGFC-C/A.

GEORGIA-PACIFIC GYPSUM L L C — Types DAPC, TG-C

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

PANEL REY S A — Types GREX, GRIX, PRX, RHX, MDX, ETX.

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type X, Type C

4. **Ceiling Clip —** 1/2 in. wide by 7/8 in. high, 0.025 in. spring steel, clipped to ceiling channel on 24 in. centers.

5. **Ceiling Trim —** Channel shape, 1 in. wide with legs 1-3/16 and 3/4 in. deep, 0.044 in. thick extruded aluminum, attached to ceiling channel with ceiling clips.

6. **Base Clip —** 1-3/4 in. wide by 2-3/8 in. high, No. 19 gauge steel, attached to floor channel over wallboard with 0.140 in. diam by 1-1/8 in. long flat Phillips head self-tapping screws, spaced 24 in. OC.

7. **Base Trim —** 2-1/2 in. wide by 1/2 in. deep, 0.044 in. thick extruded aluminum, snap-on type.

8. **Steel Track —** 7/8 in. wide by 1/8 in. deep, No. 25 gauge steel, placed at studs over wallboard, attached to studs with 0.140 in. diam, 3/8 in. diam flat Phillips head self-tapping screws spaced vertically 9 in. O.C.

9. **Aluminum Battens —** 1 in. wide by 5/32 in. deep, 1/16 in. thick extruded aluminum, snap-on type, placed over steel tracks.

*** 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 2022-05-25

REGISTERED ARCHITECT
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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	12/05/22

CURRENT: 2022.12.13

SHEET NAME:
UL #U405

SHEET NO:
G5.14

SHAFT WALLS

GA FILE NO. WP 7008	PROPRIETARY†	1 HOUR FIRE	35 to 39 STC SOUND

GYPSUM WALLBOARD, STEEL C-H STUDS

One layer 1" x 24" proprietary type X gypsum panels inserted between 2 1/2" floor and ceiling J runners with H section of 2 1/2" proprietary vented C-H steel studs between panels.

OPPOSITE SIDE: One layer 5/8" proprietary type X gypsum wallboard or gypsum veneer base applied parallel to studs with 1" Type S drywall screws 12" o.c.

STC estimate based on 1" mineral fiber insulation in stud space. **(NLB)**

PROPRIETARY GYPSUM BOARD

CertainTeed Gypsum, Inc.
Lafarge North America Inc.
PABCO Gypsum
United States Gypsum Company

5/8" ProRoc™ Type C Gypsum Panels
5/8" Firecheck® Type C
5/8" FLAME CURB® Super 'C'™
5/8" SHEETROCK® Brand gypsum Panels, FIRECODE® C Core
1" SHEETROCK® Brand Gypsum Liner panels

Thickness: 3 1/8"
Limiting Height: Refer to manufacturer
Approx. Weight: 8 psf
Fire Test: UL R1319, 88NK2747, 2-8-88, UL Design U469
Sound Test: Estimated

†Contact the manufacturer for more detailed information on proprietary products.

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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	12/08/22

CURRENT: 2022.12.13

SHEET NAME:
UL #U469

SHEET NO:
G5.15

Design No. D739
BXUV.D739
Fire-resistance Ratings - ANSI/UL 263

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

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

BXUV - Fire Resistance Ratings - ANSI/UL 263

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

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

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

Design No. D739

November 24, 2015

Restrained Assembly Ratings — 1, 1-1/2, 2, 3 and 4 Hr

(See Items 2B, 3, 3A, 6 and 8)

Unrestrained Assembly Ratings — 0, 1, 1-1/2, 2, 3 and 4 Hr.

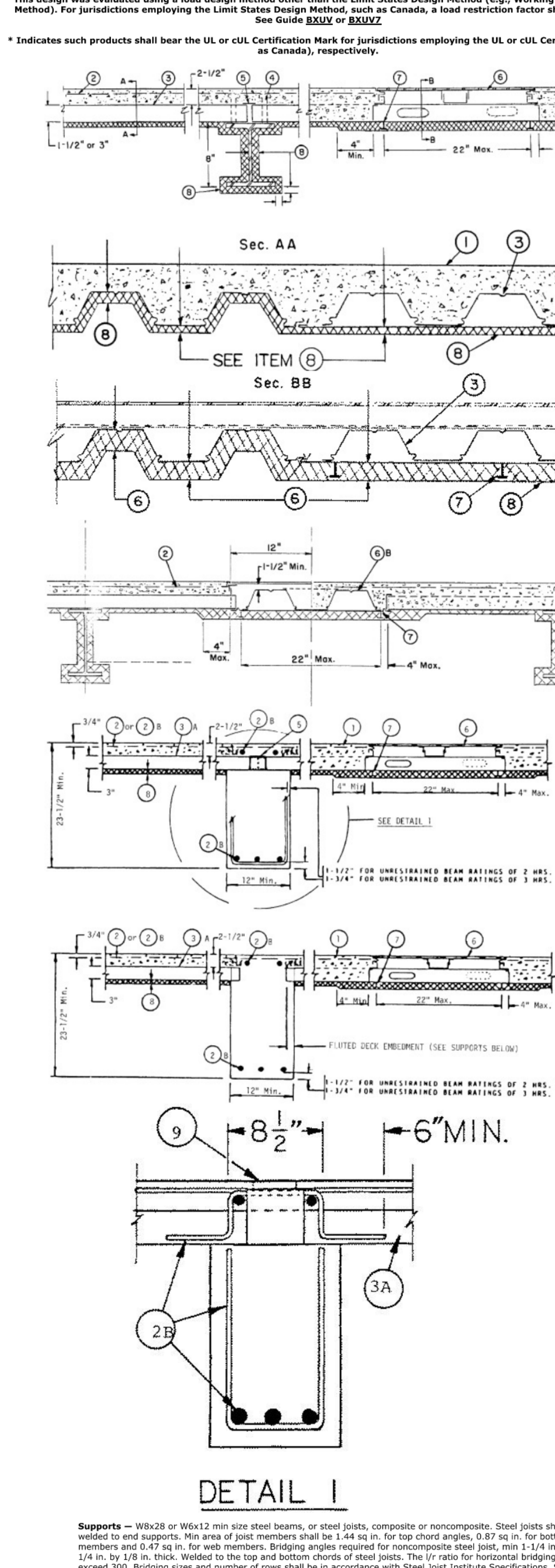
(See Items 2B, 3, 3A and 8)

Unrestrained Beam Ratings — 1, 1-1/2, 2, 3 and 4 Hr.

(See Items 2B, 3, 3A and 8)

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

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



DETAIL I

Supports — W8x28 or W6x12 min size steel beams, or steel joists, composite or noncomposite. Steel joists shall be welded to end supports. Min area of joist members shall be 1.44 sq in. for top chord angles, 0.87 sq in. for bottom chord members and 0.47 sq in. for web members. Bridging angles required for noncomposite steel joist, min 1-1/4 in. by 1-1/4 in. by 1/8 in. thick. Welded to the top and bottom chords of steel joists. The l/r ratio for horizontal bridging shall not exceed 300. Bridging sizes and number of rows shall be in accordance with Steel Joist Institute Specifications. See Item 8.

For 3 Hr or less Restrained and Unrestrained Assembly and Unrestrained Beam Ratings, as alternate to steel beams or steel joists, cast in place reinforced concrete beams or girders designed in accordance with the provisions of the Building Code Requirements for Reinforced Concrete (ACI 318-89), may be used as supports for the 3 in. deep floor units. See Item 3A. Min width and depth of concrete beams shall be 12 and 23-1/2 in. respectively.

Fluted steel floor units shall be embedded in the concrete beams a min of 0.0139 times the clear span or 1-1/2 in., whichever is greater. The cellular units may be continuous or with a butted end joint centered over the concrete beam. For continuous floor spans, negative moment reinforcement for the slabs is required over the supporting beams.

1. **Normal Weight or Lightweight Concrete —** Normal weight concrete, carbonate or siliceous aggregate, 145 pcf plus or minus 3 pcf unit weight, 3000 psi compressive strength, vibrated. Lightweight concrete, expanded shale, clay or slate aggregate by rotary-kiln method, 102-120 pcf unit weight (110 pcf unit weight for use with steel joists), 3000 psi compressive strength, vibrated, 4 to 7 percent entrained air.

2. **Welded Wire Fabric —** 6x6 — W1.4xW1.4. When using steel joists, the min welded wire fabric shall be 6x6 — W2.9xW2.9.

2A. **Fiber Reinforcement* —** As an alternate to Item 2, engineered synthetic fibers added to concrete mix to control shrinkage cracks in concrete. Fibers added to concrete mix at a rate of 1.0 lb of fiber for each cu yard of concrete.

GCP APPLIED TECHNOLOGIES INC

2B. **Reinforcement —** Deformed bars of grade 60 steel, for use in floors supported by reinforced concrete beams or girders. Min size No. 3 bars for use as negative reinforcement or vertical stirrups for beams, girders or slabs. Min No. 5 bars for use as positive reinforcement for beams or girders.

Min net concrete cover on the beam or girder bottom reinforcements, shall be 1-1/2 in. for Restrained Assembly Ratings up to 3 Hr and Unrestrained Assembly and Beam Ratings up to 2 Hr. For 3 Hr Unrestrained Assembly and Beam Ratings, 1-3/4 in. cover is required. When continuous cellular units intersect the supporting concrete beams (interrupting the beam stirrups), short pieces of additional stirrups shall be placed in the top part of the beam above the units.

3. **Steel Floor and Form Units* —** Composite 1-1/2, 2, or 3 in. deep galv units. Fluted units may be uncoated. Min gauges are 22 MSG for fluted and 20/20 MSG for cellular. Any combination of fluted and cellular units may be used.

ASC STEEL DECK, DIV OF ASC PROFILES L L C — 32 in. wide Types NH-32, NHN-32, NHF-32; 36 in. wide Types BH-36, BHN-36, BHN-35-1/4, BHF-36, BHF-36A, 2WH-36, 2WHS-36, 2WHF-36, 2WHF-36A, 3WxH-36, 3WxHF-36, 3WxHF-36A, 3WH-36, 3WHF-36, 3WHF-36A, 3W-36, 3WF-36, DG3W-36, DG3WF-36. All units may be galvanized or Prime Shield. Non-cellular decks may be vented designated with a "V" suffix to the product name.

CANAM STEEL CORP — 36 in. wide Type P-3623 composite.

KAM INDUSTRIES LTD, DBA CORDECK — QL Types 24 in. wide 2 in. QL-99, AKX, AKD; 24 in. wide 3, NKX, UKX; 24 or 36 in. wide 2 or 3 in. 99, AKD, AKX, WKD, WKX, TKX, 3 in. QL-WKD, -WKX, 24 or 30 in. wide, 3 in. QL-GKX, -GKXH, -GKX-A 24 in. wide QL-3, QL-UKX; units may be welded or fastened together with No. 10 self-drilling, self-tapping screws 60 in. OC. The length of the screws shall be sufficient to fully penetrate adjacent floor units.

CANAM STEEL CORP — 24, 30 or 36 in. wide Types BL, BLC; 12, 24 or 36 in. wide Type LF1.5, LF2, LF3, LFC1.5, LFC2 or LFC3; 32 in. wide Type LFC3+; 24 in. wide Types N-Lok, NLC for max 2 hr Restrained Assembly Rating, 12 or 24 in. wide Types AWC2 or AWC3+++ may be used. Types 24, 36 in. wide LF2, LF3, LFC2, LFC3 may be welded or fastened together with min 1 in. long No. 10 self-drilling, self-tapping steel screws 36 in. OC. Type AWC units may be button-punched, welded or screw fastened together with min 1 in. long No. 12 self-drilling, self-tapping steel screws spaced a max 42 in. OC. Types BL, LF2, LF3, NL units may be phos/ptd.

CHIA TEH CONSTRUCTION MATERIAL CO LTD — 24 or 36 in. wide Mac-Lok 3; 24 in. wide CFD-3.

NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 in. wide Types CFD-2, -3; 24, 30 or 36 in. wide Type CFD-1.5; 12, 24 or 36 in. wide Types Mac-Lok 2, Mac-Lok 3; 12 in. wide Mac-Way Cellular Types 2-633MTWA, 3-633MTWA, 2-633MTWV, 3-633MTWV. For the 1, 1-1/2, 2h Restrained Assembly Ratings and the 1h Unrestrained Assembly and Beam Rating, 12 in. wide, Type 1.5-633 MTWA may be used. Types CFD-1.5, CFD-2, CFD-3, Mac-Lok 2, Mac-Lok 3 may be phos/ptd. Two rows of steel studs with discs (Item 7) shall be welded along the sides of the Types 2-633MTWV, 3-633MTWV cellular units a max of 22 in. OC.

DECK WEST INC — 36 in. wide Type 2-DW, 3-DW, B-DW or BA-DW, units may be welded or fastened together with No. 10 self-drilling, self-tapping screws 60 in. OC. The length of the screws shall be sufficient to fully penetrate adjacent floors units.

DESIGN ASSISTANCE CONSTRUCTION SYSTEMS INC — 24 in. wide Type DACS2.0CD, or DACS3.0CD.

EPIC METALS CORP — 24 in. wide Type EC366; 24 or 30 in. wide, Types EPC2, EPC3; 36 in. wide Type EC266.

KAM INDUSTRIES LTD, DBA CORDECK — 3KA1F24, 3KF30 or 3P30. Type 3P30 unit may be phos/painted and24 in. wide Type WDR2, WDR2-2, WDR3 or WDR3-2 cellular units ++++.

MARLYN STEEL DECKS INC — Type 1.5 CF, 2.0 CF or 3.0 CF.

NEW MILLENNIUM BUILDING SYSTEMS L L C — Type 1.5CD, 1.25CDI, 1.5CDR, 2.0CD, or 3.0CD. Units may be phos/painted or galvanized.

MORIN CORP — 24, 30 or 36 in. wide, Type LXR-B; 24 or 36 in. wide Type LXR-3W; 36 in wide LXR-2W.

VERCO DECKING INC - A NUCOR CO — 24, 30 or 36 in. wide Types PLB , B, BR; 24 or 36 in. wide Types PLW2 , W2, PLW3 , W3; 24 in. wide Types PLN , N; or Types, N3, PLN3. Units may be phos/ptd.

VULCRAFT, DIV OF NUCOR CORP — 24, 30 or 36 in. wide Types 1.5VL, 1.5VLI, 1.5PLVLI, 1.5VLP, 1.5PLVLP; 24 or 36 in. wide Types 2VLI, 2.0PLVLI, 2VLJ, 3VLI, 3.0PLVLI, 3VLJ, 2VLP, 2.0PLVLP, 3VLP, 3.0PLVLP. Types 1.5VL, 1.5VLI, 1.5PLVLI, 2VLI, 2.0PLVLI, 2VLJ, 3VLI, 2.0PLVLI, 3VLJ units may be phos/ptd; 24 or 36 in. wide Types 2VLJ, 3VLJ units+++++ may be used for max 2 hr Restrained Assembly Rating. 36 in. wide Types 1.5 SB, 1.5 SBR; 24 or 36 in wide Types 2.0 SB, 3.0 SB, 36 in. wide Type High Strength 1.5 SBI, 36 in. wide Type High Strength 1.5 SBN. Units may be phos/ptd.

Spacing of welds attaching units to supports shall be 12 in. OC max. unless specified otherwise, adjacent units button-punched or welded together at side joints and, unless specified otherwise for specific unit types, spacing of all side joint fastening systems shall not exceed 36 in. OC.

+ 32 in. wide, 20/20 min ga Lok-Floor Cell is limited to a blend of one cellular to one or more fluted units. Spans incorporating trench headers may use a blend of one 32 in. wide, 20/20 min ga Lok-Floor cellular unit to one 24 in. wide cellular unit or one or more fluted units, with stud pins and discs (see item 7) required below the cellular units.

+++ Assembly may consist of all Type AWC cellular units or any blend of AWC2 or AWC3 cellular units and Types LF2 or LF3 fluted units. Allowable loading for the floor shall be based upon published loading tables for the fluted units.

++++ Types WDR2, WDR3 cellular units shall be blended one cellular to one or more 24 in. wide fluted units. Adjacent units to be welded together at side joints max 36 in. OC. Allowable loading for the floor shall be based upon published loading tables for the fluted units.

+++++ Side joints of Types 2VLJ or 3VLJ units may be fastened together with No. 8-3/4 in. long self-drilling Tek screws driven diagonally from the top side through the joint of the units at 36 in. O. C. max.

3A. **Steel Floor and Form Units* —** (for alternate cast in place concrete beams) — Composite 3 in. deep galv units. Fluted units may be uncoated. Min gauges are 20 MSG for fluted and 20/20 MSG for cellular. The ratio of blended units shall not exceed one 24 in. wide cellular unit to 36 in. wide fluted unit for the cast in place concrete frame buildings.

KAM INDUSTRIES LTD, DBA CORDECK — QL Types 24 or 36 in. wide 3 in. 99, 24 or 30 in. wide 3 in. QL-GKX, -GKXH, QL-GKX-A; units may be welded or fastened together with No. 10 self-drilling, self-tapping steel screws 60 in. OC. The length of the screws shall be sufficient to fully penetrate adjacent floor unit.

CHIA TEH CONSTRUCTION MATERIAL CO LTD — 24 or 36 in. wide Mac-Lok 3; 24 in. wide CFD-3.

4. **Shear Connectors —** (Optional)-Studs, 3/4 in. diam (min 1/2 diam for use with steel joists) by 4-1/2 in. long, headed type or equivalent per AISC specification. Welded to the top flange of the beam, or top chord of the steel joist, through the deck.

5. **Joint Cover —** 2 in. wide pressure sensitive cloth tape.

6. **Trench Header —** Trench header (Bearing the UL Listing Mark), without the bottom pan. The allowable superimposed load for spans with bottomless trench shall be based on noncomposite design. This trench header, ranging in width from min 12 in. to max 36 in., consists of two cell closers which conform to the contour of the floor units, placed along the sides of the desired trench location and welded to the floor units. The side rails, consisting of extruded aluminum screens secured to galv steel channels (min 18 MSG) are positioned over the cell closers, aligned and welded or riveted to the closers and floor units. A separate U shaped channel (min 18 ga) serving as the power compartment, is welded or riveted to the floor units. Steel cover plates, 1/4 in. thick shall be secured to the side rails. In bottomless trench headers wider than 18 in., each steel cover plates, 1/4 in. thick shall be secured to the side rails. In bottomless trench headers wider than 18 in., each side joint of the steel floor units shall be welded together with a 1 in. long weld near the trench header centerline. For QL-GKX-24 or -30 cellular floor units only, a separate KED-PTS (UL Listed) power transition sleeve is secured to power compartment with one rivet or screw.

The use of this trench requires the use of steel studs with discs (Item 7) and additional protection underneath the trench. Fireproofing thickness shall be increased as shown in the following table:

Restrained Assembly Rating Hr	Spray Applied Fire Resistive Mtl Thk In		
	Crests	Valley	Flat Plate
1 hr	1-3/16	1	1+
1-1/2 hr	1-1/2	1-1/4	1-1/4
2 hr	1-3/4*	1-5/8*	1-5/8*
3 hr	2-1/4	2-1/8	2-1/8

These thicknesses shall extend a min of 4 in. beyond the edges of the trench header.

+ When Spatterkote is used, for the **1 Hr Restrained Assembly Rating,** the thickness of the Spray-Applied Fire Resistive Materials on the flat plate shall be increased to 1-3/4 in. and the steel studs with discs (Item 7) may be omitted.

* When Type AWC units are used, Spray-Applied Fire Resistive Materials thickness shall be 2 in. in the crests and 1-3/4 in on valleys and flat plates for 2 Hr Restrained Assembly Rating.

6A. **Trench Header —** (Not shown) — With bottom pan. (Bearing the UL Listing Mark). Optional and as an alternate to trench header without the bottom pan (Item No. 6), for 2 Hr or less assembly ratings. Housing constructed of steel with metal edge screeds. The thickness of Spray-Applied Fire Resistive Materials on floor units below this trench header is dependent on concrete unit weight as follows: (1) For concrete unit weight range of 105 to 112 pcf the required thickness of Spray-Applied Fire Resistive Materials is 1-1/8in. below the bottom plane of the units with flutes completely filled, except for 2 in. and 3 in. deep floor units, where thickness in flutes shall be 1-1/8 in. (2) For concrete unit weight of 112 pcf or higher and normal weight concrete the required thickness of Spray-Applied Fire Resistive Materials is 7/8 in. below the bottom plane of the units with flutes completely filled, except for 2 in. and 3 in. deep floor units, where thickness in flutes shall be 1-1/8 in. Types AWC, WDR2, WDR2-2, WDR3, WDR3-2 cellular units require the use of steel studs with discs (Item 7). The greater thickness of Spray-Applied Fire Resistive Materials below the trench header shall extend a min of 5 in. beyond the edges of the trench header.

6B. **Feeder Duct System —** (As an alternate to Items 6 or 6A). Consists of 3 in. deep, nom 24 in. wide, 20/18 MSG Type QL-WKM or QL-WKM-E cellular steel floor unit (feeder duct) and nom 24 by 24 in. junction boxes. The valley between the two cells of the feeder duct may or may not be covered by a steel plate to form a third cell. Feeder duct installed at the same elevation and perpendicular to 2 or 3 in. deep fluted and/or cellular steel floor units which are cantilevered from support beams on one or both sides of the feeder duct. The junction boxes consisting of extruded aluminum screeds, 18 galv steel outside flute closures, 16 galv steel compartment divider, and 0.21 in. thick steel cover plate are used at intersections of 2 or 3 in. cellular units and the feeder duct, where desired. Bottom tabs of the flute closures are fastened to the valleys of the 2 or 3 in. units and to the feeder duct with self-drilling tek fasteners, while the cover plate is retained in position by four latch clips, one near each corner of the plate. The height and the level of the aluminum screed are adjusted by four adjustment screws, two each on opposite sides. In between the junction boxes the ends of the 2 or 3 in. fluted and/or cellular units are covered with steel end closure angles tack-welded to the top of the units.

Welded wire fabric (Item 2) extends over the feeder duct between junction boxes. The allowable superimposed load for spans with the feeder duct system shall be based on noncomposite design. Steel studs with discs (Item 7) shall be welded to the underside of the feeder duct in two rows. The spacing between rows shall not exceed 22 in. OC and the spacing of studs in each row shall not exceed 24 in. OC. The use of this feeder duct system requires additional protection underneath the feeder duct. Fireproofing thickness shall be increased to 1-3/4 in. for 2 Hr Restrained Assembly Rating and 1-1/2 in. for 1-1/2 Hr Restrained Assembly Rating. These thicknesses shall extend a min of 4 in. beyond the edge of the feeder duct.

KAM INDUSTRIES LTD, DBA CORDECK — 24 in. wide Type QL-WKM or WL-WKM-E.

6C. **Trench Header —** (Bearing the UL Listing Mark) with an intermittent bottom. The allowable superimposed load for spans with an intermittent bottom trench header shall be based on noncomposite design. The intermittent bottom trench header, with a max width of 36 in., consists of a horizontal closure plate (min 22 MSG) over the fluted deck sections at the desired trench header location and affixed to the floor units by welding or screws (No. 14 by 3/4 in. long self-tapping, self-drilling). The side rails consist of extruded aluminum screeds secured to galv steel channels (min 18 MSG), positioned over the edge of the horizontal closure plates, aligned, and welded to the cells and fluted floor units. A separate U-shaped galv steel channel (min 18 MSG), serving as the power compartment, is welded to the horizontal closure plates and floor units. Steel cover plates, 1/4 in. thick, shall be screw-attached to the side rails. For intermittent bottom trench headers wider than 24 in., each side joint of the steel floor units inside the trench header, shall be screwed together with No. 14 by 3/4 in. long, self-tapping, self-drilling steel screw or welded together with 1 in. long weld near the trench header centerline. This trench header requires the use of steel studs with discs (See Item 7) and additional protection underneath the trench. Fireproofing thickness for 24 in. wide intermittent bottom trench headers shall be increased to 1-1/8 in. in the crests and on the valleys and flat plates for the 1, 1-1/2 or 2 Hr **Restrained Assembly Ratings** with normal weight or light weight concrete. Fireproofing thickness for 36 in. wide intermittent bottom trench headers shall be increased to 2 in. in the crest; 1-3/4 in. on valleys and flat plates for 2 Hr Restrained Assembly rating; 1-3/4 in. in the crest, 1-1/2 in. on valleys and flat plates for 1-1/2 H Restrained Assembly rating; 1-1/2 in. in the crest, 1 in. on valleys and flat plates for 1 Hr Restrained Assembly rating with normal weight or lightweight concrete. These thicknesses shall extend a min of 4 in. beyond the edge of the trench header.

6D. **Trench Header —** (Bearing the UL Listing Mark) with an Intermittent Bottom Storage, max 36 in. width, for use with Mac-Way Cellular Units. A 16 in. length of the top hat-shaped cover of the Mac-Way Cellular Unit is cut away in the center of the trench header and each end of unit at the cut out is reinforced with 4 by 11 in., 16 ga. galv steel plate spot-welded to the top of each side compartment. The center 16 in. length of the center channel compartment is covered by a 16 ga. galv steel channel placed over and welded to the center channel compartment forming a box. The cover channel is also welded with a full length fillet weld to the top 4 X 11 in. reinforcing plates on the top cut ends of the unit.

A power compartment channel of 18 MSG galv steel is placed on top and perpendicular to the floor units and centered along the longitudinal centerline of the trench header. The channel is attached to the closure plates over the fluted units with tek screws and is tack-welded to the center compartment Cover channel of the cellular unit. The end closures over the fluted units are made from a min 22 ga. galv steel. The power compartment channel made from 18 MSG galv steel with adjustable sides, is centered along the longitudinal centerline of the trench header. The sides are adjusted to support the cover plate. The side-rail assemblies consist of aluminum extrusion, and 14 MSG min galv steel support. The parts of the side-rails are secured together by leveling screws at 36 in. OC max. The cover plates are 1/4 in. thick enameled steel secured to side-rails with No. 10-24 screws located 3 in. from ends and at 12 in. OC max along the length of the plates.

The trench header requires the use of steel studs with discs (See item 7) and additional protection underneath the trench. The spacing of the steel studs with discs shall be as specified in item 3 for Mac-Way cells. Fireproofing thicknesses under the intermittent bottom storage trench header for the various Restrained Assembly Ratings shall be as follows: 2 in. in the crest; 1-3/4 in. on valleys and flat plates for 2H Restrained Assembly rating; 1-3/4 in. in the crest; 1-1/2 in. on valleys and flat plates for 1-1/2 H Restrained Assembly rating; 1-1/2 in. in the crest; 1 in. on valleys and flat plates for 1H Restrained Assembly rating with normal weight or lightweight concrete. These thicknesses shall extend a min of 4 in. beyond the side edges of the trench header.

7. **Steel Studs With Discs —** The stud consists of No. 12 SWG steel wire, 1-3/8 in. long (2-1/8 in. long in 3 or 4 HR Restrained Assembly Rating) with one end welded to 1-3/16 in. diam, No. 28 MSG galv steel disc. The total number of studs shall avg at least one stud per 236 sq in. of cellular floor units beneath the trench header. The ends of the studs opposite the discs shall be welded to the cellular floor units in rows running parallel with the trench header. The distance between the outer rows of the studs and the edge of the trench header shall not exceed 4 in. The spacing between the rows shall not exceed 22 in. The spacing between studs in each row shall not exceed 24 in. When Type AWC cellular units are used, the total number of studs shall avg. at least one stud per 132 sq. in. of cellular floor units beneath the trench header. The ends of the studs opposite the discs shall be welded to the cellular floor units in rows running parallel with the trench header. The distance between the outer rows of the studs and the edge of the trench header shall not exceed 2 in. The spacing between the rows shall not exceed 8-1/2 in. The spacing between studs in each row shall not exceed 16-3/4 in.

When 24 in. wide Type WDR2, WDR2-2, WDR3 or WDR3-2 cellular units are used, the total number of studs shall avg. at least one stud per 172 sq. in. of cellular floor units beneath the trench header. The ends of the studs opposite the discs shall be welded to the floor units in rows running parallel with the trench header. The distance between the outer rows of the studs and the edge of the trench header shall not exceed 4 in. The spacing between studs in each row shall not exceed 18 in.

8. **Spray-Applied Fire Resistive Materials* —** Applied by mixing with water and spraying to steel surfaces which must be clean and free of dirt, loose scale and oil. When steel deck is used, the area between the steel deck and the beams top flange shall be filled. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 22/19 pcf respectively for Types Z-106, Z-106/G, and Z-106/HY. Min avg and min ind density of 40/36 pcf respectively for Z-146. Min avg and min ind density of 19/18 pcf respectively for Types 7GP and 7HD. Application to steel deck with Z-146 requires the installation of expanded metal lath. See Item 11B. For method of density determination, refer to Design Information Section. Types 4, 5GP, 5AR, 5GP/AR, 5EF/AR, 5MD/AR, 7GP, 7HD, 8GP, 9GP may be used only in general floor areas without concrete penetrations with all fluted steel floor units or blends consisting of one or more fluted units to one 24 in. wide max cellular unit, 1-1/2 or 3 in. deep, with cells spaced approx 6 and 8 in. respectively. Type Z-106 may be used only in general floor areas without concrete penetrations with all fluted steel floor units. Use of a spatter coat Types DK, DK2, DK3, SK-1 or SK-III is required on all cellular units with flat plate on the bottom, optional on other steel surfaces. When Type WDR2, WDR2-2, WDR3 or WDR3-2 cellular units are blended with fluted units under a trench header, Types DK, DK2, DK3, SK-1 or SK-III is also required on fluted units. Thickness of the spatter coat is included in the total thickness of the protection material.

The thicknesses of material required on the steel beam for the various Unrestrained Beam Ratings and Restrained Assembly Ratings are shown in the following table:

Min Beam Size	Concrete Type	Min Thk In.	Unrestrained Beam Rating Hr	Restrained Assembly Rating Hr
W8X28	LW or NW	1/2(a)	1*	1, 1-1/2 or 2
W6X12	LW or NW	3/4(a)	1*	1, 1-1/2 or 2
W8X28	NW	3/4	1-1/2*	1, 1-1/2, 2 or 3
W8X28	LW	7/8	1-1/2*	1, 1-1/2, 2 or 3
W8X28	NW	7/8	2*	1, 1-1/2, 2, 3 or 4
W8X28	LW	1	2*	1, 1-1/2, 2, 3 or 4
W8X28	NW	1-1/4	3*	1, 1-1/2, 2, 3 or 4
W8X28	LW	1-9/16	3*	1, 1-1/2, 2, 3 or 4
W8X28	LW or NW	2	4	1, 1-1/2, 2, 3 or 4

*When Type AWC cellular units are used, max. 1 hr. Unrestrained Beam Rating.

(a)Type AWC units for use only with NW concrete with 3/4 in. protection on W8x28 beam and 1 in. protection on W6x12 beam.

The thickness of material required on the steel joist for the various ratings are shown in the following table:

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Type of Concrete Slab	Spray Applied Fire Resistive Mtl Thkns In. Joist & Bridging
1	1	NW or LW	1-1/8
1-1/2	1-1/2	NW or LW	1-1/2
2	2+	NW+	1-1/2
2	2	NW or LW	2-1/4
3	3	NW or LW	2-7/8

\+ Maximum joist spacing is limited to 3 ft-6 in..

For the general floor area without trench headers or electrical inserts, the following thicknesses of material are required on the steel floor units for the various Restrained and Unrestrained Assembly Ratings when steel beams are used:

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr (a)	Min Required Unrestrained Beam Rating Hr	Min Thk in		
			Crests	Valley	Flat Plate
1(b)	0	1	0	0	0
1, 1-1/2 or 2	1, 1-1/2 or 2(e)	1, 1-1/2 or 2	3/8(c)	3/8	3/8
3	1-1/2, 2 or 3(e)	1-1/2, 2 or 3	11/16	1/2	1/2
4	2, 3 or 4(b)	2, 3 or 4	1-1/2	1-1/8	—
4	2, 3 or 4(f)	2, 3 or 4	1-7/16	13/16	—
4	2, 3 or 4(g)(h)	2, 3 or 4	—	—	1-1/8(j)
4	2, 3 or 4(g)(i)	2, 3 or 4	—	—	13/16(j)

(a)See above beam thicknesses for applicable Unrestrained Assembly and Unrestrained Beam Ratings.

(b)Floor constructed of lightweight concrete only.

(c)Min thickness of 1/2 in. is required in crests of 1-1/2 in. deep fluted units for the **2 Hr. Restrained Assembly Rating.**

(e)When Type AWC units are used the max **Unrestrained Assembly Rating** is 1 hr.

(f)Floor constructed of normal weight concrete only.

(g)Floor constructed of normal or light weight concrete.

(h)Steel floor unit depth of 2 in.

(i)Steel floor unit depth of 3 in.

(j)Steel studs with discs, as specified in Item 7, are required.

+For 2 Hr. Restrained Assembly Rating, the required thickness of protection material on Type AWC units is 1/2 in.

For the general floor area under a trench header, the following thickness of materials are required on the steel floor units for the various Restrained and Unrestrained Assembly Ratings when steel beams are used:

Restrained Assembly Rating, Hr	Unrestrained Assembly Rating, Hr (a)	Steel Floor Unit Depth, In.	Type of Concrete Slab	Min Thk, in		
				Crests	Valley	Flat Plate
4	2, 3 or 4	2	NW	—	—	1-9/16 (a)
4	2, 3 or 4	3	NW	—	—	1-1/2 (a)

(a)Steel studs with discs, as specified in Item 7, are required.

ARABIAN VERMICULITE INDUSTRIES — Types MK-6/CBF, -6/ED, -6/HY, -6/HB, -6s, MK-10 HB, MK-10 HB Extended Set, SK-3, Sonophone-1, Sonophone-5, Sonophone-35 , Z-106, Z-106/G, Z-146 investigated for exterior use.

GRACE KOREA INC — Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6/HB, MK-6s, MK-10 HB, MK-10 HB Extended Set, SK-3, Z-106, Z106/HY, Z-106/G, Z-146 investigated for exterior use.

PYROK INC — Type LD.

SOUTHWEST FIREPROOFING PRODUCTS CO — Types 4, 5, 5EF, 5GP, 5AR, 5GP/AR, 5EF/AR, 5MD/AR, 5MD, 7GP, 7HD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD, DK, DK2, DK3.

GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY, MK-10 HB, MK-10 HB Extended Set, MK-6/HB, MK-6s, RG, SK-3, Z-106, Z106/HY, Z-106/G, Z-146 investigated for exterior use.

9. **Electrical Inserts —** (Not shown) — Preset and after set electrical inserts Classified as **Outlet Boxes and Fittings Classified for Fire Resistance** *. Unless specified otherwise for a particular preset electrical insert type, the spacing of the preset electrical inserts shall be not less than 24 in. on center along cellular steel floor units with not more than one preset electrical insert in each 4 sq ft of floor area. The required thickness of Spray-Applied Fire Resistive Materials on the steel floor units with inserts shall be sprayed the entire length and width of the units between supports and shall extend beyond the edge of inserts onto adjacent floor units for a minimum horizontal width of 12 in. In floor spans (between supports) containing electrical inserts, the entire floor span (fluted and cellular steel floor units) must be sprayed with a minimum 3/8 in. thickness of Spray-Applied Fire Resistive Materials.

(1) **KAM INDUSTRIES LTD, DBA CORDECK** Inserts. (Tapmate III-FN, III-EAFN, III-EAFN-FC1; Series KEC).

Installed per accompanying installation instructions over factory-punched holes in QL-AKD or QL-WKD floor units. Inserts are used in the pre-active, active, or abandoned condition. Required spray-applied resistive material thicknesses on floor units with inserts are:

Floor Unit Type	Concrete Type	Min Spray Applied Fire Resistive Mtl Thk In.	Restrained Assembly Rating Hr
(Tapmate III-FN, III-EAFN)			
QL-AKD, -WKD	NW	3/8	1
QL-AKD, -WKD	LW	5/8	1
QL-AKD, -WKD	NW	1/2	1-1/2, 2
QL-WKD	LW	13/16	1-1/2,2
QL-AKD, -WKD	NW	3/4	3
(Tamate III-EAFN-FC1)			
QL-WKD	NW	1/2	2

The hole cut in insert cover for passage of wires shall be no more than 1/8 in. larger diam than the wire. For abandonment of Tapmate inserts, see installation instructions. Abandonment of Tapmate III-FN requires use of KEC-PC insert cover with no holes in it. Abandonment of Tapmate III— EAFN requires use of KEC-PC5 insert cover with no holes in it and use of KEC-PC6 insert cover in lieu of either KEC-PC12 or -PC13 insert cover.

The Tapmate III insert may use KEB-HP-1; Series KEC outlet box fittings with the same hourly rating and fireproofing thicknesses as specified for the Tapmate III-EAFN electrical inserts.

(Tapmate II, II-EA, II-FN, II-EAFN)

Installed per accompanying installation instructions over factory-punched holes in QL-AKX or QL-WKX floor units. Inserts are used in the pre-active, active or abandoned condition. Required Spray-Applied Fire Resistive Materials thicknesses on floor units with inserts are:

Floor Unit Type	Concrete Type	Min Spray Applied Fire Resistive Mtl Thk In.	Restrained Assembly Rating Hr
(Tapmate II or II-EA)			
QL-AKX	NW	9/16	1
QL-AKX	LW	5/8	1
QL-AKX, -WKX	LW or NW	1/2	1
QL-AKX, -WKX	NW	11/16	11/2
QL-AKX, -WKX	NW	7/8	2
QL-AKX	LW	7/8	1-1/2 or 2
QL-WKX	LW	3/4	1-1/2 or 2
QL-AKX	NW	1-1/4	3
QL-AKX	LW	1-1/2	3
QL-WKX	NW	1-13/16	3
QL-WKX	LW	1-3/8	3
(Tapmate II-FN or II-EAFN)			
QL-AKX, -WKX	NW	3/8	1
QL-AKX, -WKX	LW	1/2	1
QL-AKX, -WKX	NW	1/2	1-1/2 or2
QL-WKX	LW	3/4	1-1/2 or 2
QL-AKX, -WKX	NW	3/4	3

The hole cut in insert cover for passage of wires shall be no more than 1/8 in. larger diam than the wire. For abandonment of Tapmate inserts, see installation instructions.

(Tapmate II-EAFN-FC1)

The Tapmate II-FN insert may use KEB-HP-1 outlet box fittings in lieu of the KEB-PC flush cover fittings.

Installed per accompanying installation instructions over factory-punched holes in QL-WKX floor units. Inserts are used in the pre-active, active, or abandoned condition. Required cementitious material thicknesses on floor units with inserts are:

Floor Unit Type	Concrete Type	Min Spray Applied Fire Resistive Mtl Thk In.	Restrained Assembly Rating Hr
QL-WKX	NW	3/8	1
QL-WKX	NW	1/2	1-1/2 or 2

For abandonment see installation instructions. Abandonment requires use of KEB-PC or -PCL insert cover with no holes in it (for all Tapmate inserts), or an abandonment plate for Tapmate II only, or a KEB-PC2 or -PC2-A1 abandonment cover for Tapmate II-EA and II-EAFN only.

(Tapmate IV, IV-EA, IV-H, IV-H-M, IV-S)

Installed per accompanying installation instructions over factory-punched holes in QL-GKX-24 or -30 floor units. Inserts are used in the preactive, active or abandoned condition. Required spray-applied resistive material thicknesses on floor units with inserts are:

Restrained Assembly Rating, Hr	Floor Unit Type	Concrete Type	Min Spray Applied Fire Resistive Mtl Thk In.
(Tapmate IV, IV-H, IV-H-M, IV-S)			
1	QL-GKX	NW, LW	3/8
1-1/2	QL-GKX	NW	1/2
1-1/2	QL-GKX	LW	9/16
2	QL-GKX	NW	5/8
2	QL-GKX	LW	3/4
3	QL-GKX	NW	1-1/4
3	QL-GKX	LW	1-1/2
(Tapmate V)			
1	QL-GKX	NW, LW	3/8
1-1/2	QL-GKX	NW, LW	1/2
2	QL-GKX	NW, LW	5/8
3	QL-GKX	NW, LW	1
(Tapmate IV-EA)			
1	QL-GKX	NW, LW	1/2
1-1/2	QL-GKX	NW	9/16
1-1/2	QL-GKX	LW	5/8
2	QL-GKX	NW	3/4
2	QL-GKX	LW	7/8

The holes cut in insert cover for passage of wires shall be no more than 1/8 in. larger diameter than the wire. For abandonment of inserts see installation instructions.

Type KED-HP-1 outlet box fittings may be used with Tapmate IV box assemblies or in lieu of Tapmate IV or IV-EA fittings with the same hourly ratings, insert spacings and protection material thicknesses as specified for the above electrical inserts.

(Tapmate IV, IV-FN-S, IV-FN-H, IV-EAFN)

Installed per accompanying installation instructions over factory-punched holes in QL-GKX-24 or -30 floor units. Inserts are used in the preactive, active or abandoned condition. Required spray-applied resistive material thicknesses on floor units with inserts are:

Restrained Assembly Rating, Hr	Floor Unit Type	Concrete Type	Min Spray Applied Fire Resistive Mtl Thk In.
(Tapmate IV-FN-S, IV-FN-H, IV-EAFN)			
1	QL-GKX	LW or NW	3/8
1-1/2	QL-GKX	NW	1/2
1-1/2	QL-GKX	LW	5/8
2	QL-GKX	NW	1/2
2	QL-GKX	LW	13/16
3	QL-GKX	NW	3/4

Type KED-HP-1 outlet box fittings may be used with Tapmate IV box assemblies or in lieu of Tapmate IV-FN-S, -IV-FN-H -IV-EAFN fittings with the same hourly ratings and protection material thicknesses as specified for the above electrical inserts.

The hole cut in insert cover for passage of wires shall be no more than 1/8 in. larger diameter than the wire. For abandonment see installation instructions.

(Tapmate KED-MSA Multi-Service After set Inserts)

Installed per accompanying installation instructions in core-drilled holes over QL-GKX-24 or 30 steel floor units. Spacing of after set inserts shall be not more than one insert per each 7-1/2 sq ft of floor area with not less than 25-1/2 in. between edges of adjacent after set inserts. After set inserts may be installed with either the flip lid plastic cover (KEC-PC3, PC4 & PC5 components) or the Deluxe Cover (KED-NAC type). Required Spray-Applied Fire Resistive Materials thicknesses of steel floor units with inserts are tabulated below:

Restrained Assembly Rating Hr	Floor Unit Type	Concrete Type	Min Spray Applied Fire Resistive Mtl Thkns In.
1	QL-GKX	NW, LW	3/8
1-1/2	QL-GKX	NW	1/2
1-1/2	QL-GKX	LW	9/16
2	QL-GKX	NW	5/8
2	QL-GKX	LW	3/4
3	QL-GKX	NW	1-1/4
3	QL-GKX	LW	1-1/2

KAM INDUSTRIES LTD, DBA CORDECK — Tapmate II, II-EA, II-FN, II-EAFN, II-EAFN-FC1; Series KEB. Tapmate III-FN, III-EAFN, III-EAFN-FC1; Series KEC. Tapmate IV, IV-EA, IV-EAFN, IV-FN-S, IV-FN-H, IV-H, IV-H-M, IV-S; Series KED. Tapmate KED-MSA

The following activated versions of Tapmate IV inserts may be installed with either the flip lip plastic cover (KEC-PC3, PC4 and PC5 components) or the Deluxe Cover (KED-NAC): Tapmates IV-S, IV-H, IV-H-M, IV-FN-S, IV-FN-H.

Only those Tapmate II, III or IV inserts having an FN suffix are required to contain the neoprene pad and then only in the activated stage.

(2) **United Steel Deck, Inc.** Inserts.

(Type 325 Preset Insert with Activation Fittings Types I, III, V, VI, or VII).
(Type 325-M1 and Type 325-M2 Preset Inserts with Activation Fitting Type X).

Installed per accompanying installation instructions over factory punched holes in Type AWC2 or AWC3 floor units. May be used for max 2 hr Restrained Assembly Rating only. For use with 12 or 24 in. wide AWC2 or AWC3 units. The holes cut in the insert cover for passage of wires shall be no more than 1/8 in. larger diam than the wire. For abandonment of insert see installation instructions.

Required Spray-Applied Fire Resistive Materials thickness on AWC2 or AWC3 units depends on the type of activation fitting and the hourly ratings, as follows:

Type of Activation Fitting	Restrained Assembly Rating Hr	Min Spray Applied Fire Resistive Mtl Thk In.
I, VI, VII or X	1, 1-1/2 or 2	1/2
III or V	1 or 1-1/2	1/2
V	2	5/8
III	2	11/16

(Type 325 preset insert with Activation Fittings Types I, III, V, VI or VII)

Required Spray-Applied Fire Resistive Materials thickness on AWC2 or AWC3 units for the 3 hour rating depends on the type of activation fitting as follows:

Type of Activation Fitting	Restrained Assembly Rating Hr	Min Spray Applied Fire Resistive Mtl Thk In.
I, III	3	15/16
V	3	7/8
VI	3	11/16
VII	3	13/16

Metal lath squares provided in 2 in. by 2 in. C-shaped sections attached to cellular floor unit flat plates by means of self-drilling, self-tapping steel screws and washers. The lath squares are to be located across and along the length of the cellular units, 6 in. OC apart in staggered rows.

(Types 350, 351- After set Inserts)

Installed per accompanying installation instructions in 4 or 4-1/4 in. diam hole, for Types 350 and 351 inserts, respectively, core-drilled through concrete topping, centered over top of cell of Type AWC2 or AWC3 cellular floor unit. Type 350 After set Inserts may be used for max 2 hr Restrained Assembly Rating in normal weight concrete floors. Type 351 After set Inserts may be used for max 2 hr. Restrained Assembly Rating in normal weight or lightweight concrete floors. Spacing of inserts shall be not more than one insert in each 4 sq. ft. of floor area with not less than 2 ft. on center between adjacent inserts. Required Spray-Applied Fire Resistive Materials thickness of 1/2 in. on cellular floor units with inserts.

CANAM STEEL CORP — After set insert Types 350, 351. Type 350DG or -DK fittings used for abandonment of Type 350 after set insert.

(3) **Wiremold Co.** and **Kam Industries Ltd d/b/a Cordeck** Inserts.

(PK Series Preset Inserts; FAKM-II, FPF, RAKM, RAKM-II, S36BB, S36CC, S37BB, S37CC, S36PB, S36PP, S38BB, S38CC, S39BB, S39CC, S38PP, FPCT, FPBT, FPCTC, FPBTC, FPFFTC Service Fittings or Type S3AXBP abandonment plate)

Installed per accompanying installation instructions over factory pre-punched knockouts or factory installed over pre-punched knockouts in Type WDR2 or WDR3 cellular steel floor units. When Type FPF, S36PB, S36PP S38PP or FPFFTC Service fittings are used, furniture whip for power feed from service fitting cover to be liquid-tight steel conduit with cast steel 90 degree elbow connector. Refer to installation instructions for Classified Assemblies. Required Spray-Applied Fire Resistive Materials thicknesses on floor units with inserts are:

Restrained Assembly Rating Hr	Concrete Type	Min Spray Applied Fire Resistive Mtl Thkns In.
(Type FAKM-II)		
1	LW or NW	3/8
1-1/2	LW or NW	1/2
2	LW or NW	11/16
3	LW or NW	15/16
(Type RAKM, S37BB, S37CC, S39BB, S39CC, FPBT, FPCT)		
1	LW or NW	7/16
1-1/2	LW or NW	5/8
2	LW or NW	7/8
(Type RAKM-II, S36BB, S36CC,S38BB, S38CC, FPCTC, FPBTC, S3AXBP)		
1	LW or NW	3/8
1-1/2	LW or NW	7/16
2	LW or NW	5/8
3	LW or NW	1
(Type FPF, S36PB, S36PP, S38PP, FPFFTC)		
1	LW or NW	3/8
1-1/2	LW or NW	1/2
2	LW or NW	11/16
3	LW or NW	15/16

(NRG Bloc IV Preset Inserts: FAKM-II, FPF, RAKM, RAKM-II, RPF, S36BB, S36CC, S37BB, S37CC, S36PB, S36PP, S37PB, S37PP, S38CC, S38BB, S38PP, S39CC, S39BB, S38PP, S39PP, FPCTC, FPBTC, FPFFTC, FPCT, FPBT, FPFFTC, FPFFT Service Fittings or Type S3AXBP abandonment plate)

The NRG Bloc IV preset insert is furnished by **KAM INDUSTRIES LTD d/b/a CORDECK.** The service fitting components are furnished by **WIREMOLD CO.** Installed per accompanying installation instructions over factory-punched holes in 3 in. deep K-Type cellular steel floor units (furnished by KAM INDUSTRIES LTD d/b/a CORDECK). When type FPF, RPF, S36PB, S36PP, S37PB, S37PP, S36PB, S36PP, S37PB, S37PP, S38PP, S39PP, FPFFTC, FPFFT Service fittings are used, furniture whip for power feed from service fitting cover to be liquid-tight steel conduit with cast steel 90 degree elbow connector. The required Spray-Applied Fire Resistive Materials thicknesses on steel floor units with inserts are tabulated below:

Restrained Assembly Rating Hr	Concrete Type	Min Spray Applied Fire Resistive Mtl Thkns In.
(Type RAKM-II, S36BB, S36CC, S38BB, S38CC, FPCTC, FPBTC, S3AXBP)		
1, 1-1/2	LW or NW	3/8
2	LW or NW	1/2
3	LW or NW	13/16
(Type FAKM-II)		
1	LW or NW	3/8
1-1/2	LW or NW	7/16
2	LW or NW	9/16
3	LW or NW	3/4
(Type FPF, S36PB,S36PP, S38PP, S39PP, FPFFTC, FPFFT)		
1	LW or NW	3/8
1-1/2	LW or NW	1/2
2	LW or NW	9/16
3	LW or NW	3/4

Restrained Assembly Rating Hr	Concrete Type	Min Spray Applied Fire Resistive Mtl Thkns In.
(Type RAKM, S37BB, S37CC, S39CC, S39BB, FPCT, FPBT)		
1	LW or NW	3/8
1-1/2	LW or NW	7/16
2	LW or NW	11/16
(Type RPF, S37PB, S37PP, S38PP, S39PP, FPFFTC, FPFFT)		
1	LW or NW	3/8
1-1/2	NW	7/16
1-1/2	LW	9/16
2	NW	5/8
2	LW	3/4

(437 Series Preset/After set Inserts; S125R, S126R, S165B, S166B Fittings)

Single-service preset or after set inserts installed per accompanying installation instructions over Types WDR2, WDR2-2, WDR3 or WDR3-2 cellular steel floor units. When used as a preset insert, attaching ring with mud cap installed over 2-1/2 in. diam factory-punched or field-drilled hole in top of cell prior to concrete placement. When used as an after set insert, a 4 in. diam hole is core-drilled to, but not through, top of cell and attaching ring is installed over 2-1/2 in. diam hole drilled in top of cell concentric with core-drilled hole. Inserts may be installed individually or in clusters of two or three inserts at each location. When installed in clusters of two or three inserts, min center to center spacing of inserts in cluster is 7-3/4 in. Spacing of inserts (or cluster of inserts) shall be not less than 4 ft transverse to steel floor unit direction and not less than 5 ft along length of steel floor unit. Required Spray-Applied Fire Resistive Materials thicknesses on floor units with inserts are:

Restrained Assembly Rating Hr	Concrete Type	Min Spray Applied Fire Resistive Mtl Thkns In.
(Type S125 R)		
1	LW or NW	3/8
1-1/2	LW or NW	1/2
2	LW or NW	5/8
3	LW or NW	1-1/4
(Type S126 R)		
1	LW or NW	1/2
1-1/2	LW or NW	11/16
2	LW or NW	13/16
3	LW or NW	1-1/4
(Type S165 B)		
1	LW or NW	3/8
1-1/2	LW or NW	3/8
2	LW or NW	1/2
3	LW or NW	1-1/8
(Type S166 B)		
1	LW or NW	1/2
1-1/2	LW or NW	11/16
2	LW or NW	13/16
3	LW or NW	1-3/8

When inserts are installed in clusters of two or three, the required thickness of Spray-Applied Fire Resistive Materials on the cellular floor unit beneath the cluster shall be the greater of the thicknesses specified for the individual fittings in the cluster.

Installed per accompanying installation instructions in 7 in. diameter hole core-drilled through concrete topping into center of top of cell of Type WDR2 or WDR3 cellular steel floor units. Spacing shall be not more than one insert in each 8 sq ft of floor area with not less than 2 ft center to center of adjacent inserts. Required Spray-Applied Fire Resistive Materials thicknesses on floor units with inserts are:

Restrained Assembly Rating Hr	Concrete Type	Min Spray Applied Fire Resistive Mtl Thkns In.
(Types TSACR, TSAR)		
1	NW	3/8
1	LW	1/2
1-1/2	NW	3/8
1-1/2	LW	3/4
2	NW	1/2
2	LW	1-1/4
3	NW	3/4

WIREMOLD CO — Type PK-Series inserts; Type FAKM-II, RAKM, RAKM-II, FPF, S36BB, S36CC, S37BB, S37CC, S36PB, S36PP, S39BB, S39CC, S38BB, S38CC, S38PP, S39PP, FPBT, FPCT, FPBTC, FPCTC, FPFFTC, FPFFT Service fittings or Type S3AXBP abandonment plate. Type NRG Bloc IV inserts; Type RAKM-II, FAKM-II, FPF, RAKM, RPF, S36BB, S36CC, S37BB, S37CC, S36PB, S36PP, S37PB, S37PP, S38CC, S39BB, S38PP, S39CC, S39BB, S38PP, S39PP, FPCTC, FPBTC, FPFFTC, FPCT, FPBT, FPFFTC, FPFFT Service fittings or Type S3AXBP abandonment plate. Type 437-Series inserts; Type S125R, S126R, S165B or S166B service fittings. After set insert Types TSACR, TSAR.

10. **Access Openings —** As required, with grommets.

11. **Metal Lath —** (Optional, not shown) — Metal lath may be used to facilitate the spray application of spray-applied resistive materials on steel bar joists and trusses. The diamond mesh 3/8 in. expanded steel lath, 1.7 to 3.4 lb per sq yd is secured to one side of each steel joist with No. 18 SWG galv steel wire at joist web and bottom chord members. Spaced 15 in. O.C. max when used. The metal lath is to be fully covered with spray-applied resistive materials with no min thickness requirements.

11A. **Non-Metallic Fabric Mesh —** (Optional, not shown) — As an alternate to metal lath, glass fiber fabric mesh, weighing approximately 2.5 oz/sq yd. Polypropylene fabric mesh, weighing approximately 1.25 oz/sq yd or equivalent, may be used to facilitate the spray application. The mesh is secured to one side of each joist web member. The method of attaching the mesh must be sufficient to hold the mesh and the spray-applied resistive materials material in place during application until it has cured. An acceptable method to attach the mesh is by embedding the mesh in minimum 1/4 in. long beads of hot melted glue. The beads of glue shall be spaced a maximum of 12 in. O.C. along the top chord of the bar joist. Another method to secure the mesh is by 1-1/4 in. long by 1/2 in. wide hairpin clips formed from No. 18 SWG or heavier steel wire.

11B. **Metal Lath —** (Not Shown) — (Required with Z-146 and Sonophone 35, otherwise optional)—Metal lath shall be 3/8 in. expanded diamond mesh, weighing 2.5 lb per sq yd. Secured to underside of steel deck with No. 12 by 3/8 in. pan head self-drilling, self-tapping screws and steel washers with an outside diam of 1/2 in. screws spaced 12 in. OC in both directions with lath edges overlapped approx 3 in.

12. **Metal Lath —** (Not Shown) — Where Type 7HD is applied to steel deck, 3/8 in. metal ribbed lath weighing 3.4 lb/yd² shall be secured to the underside of the steel deck (ribs upward) with S-12 by 3/8 in. long pan head, self-tapping steel screws spaced 12 in. OC in all directions. Steel screws shall be fitted with 1/2 in. diameter steel washers. Adjacent pieces of lath shall be overlapped 1 in. min.

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

REGISTERED ARCHITECT
WALTER D. FRITTS
24489
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ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE
6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

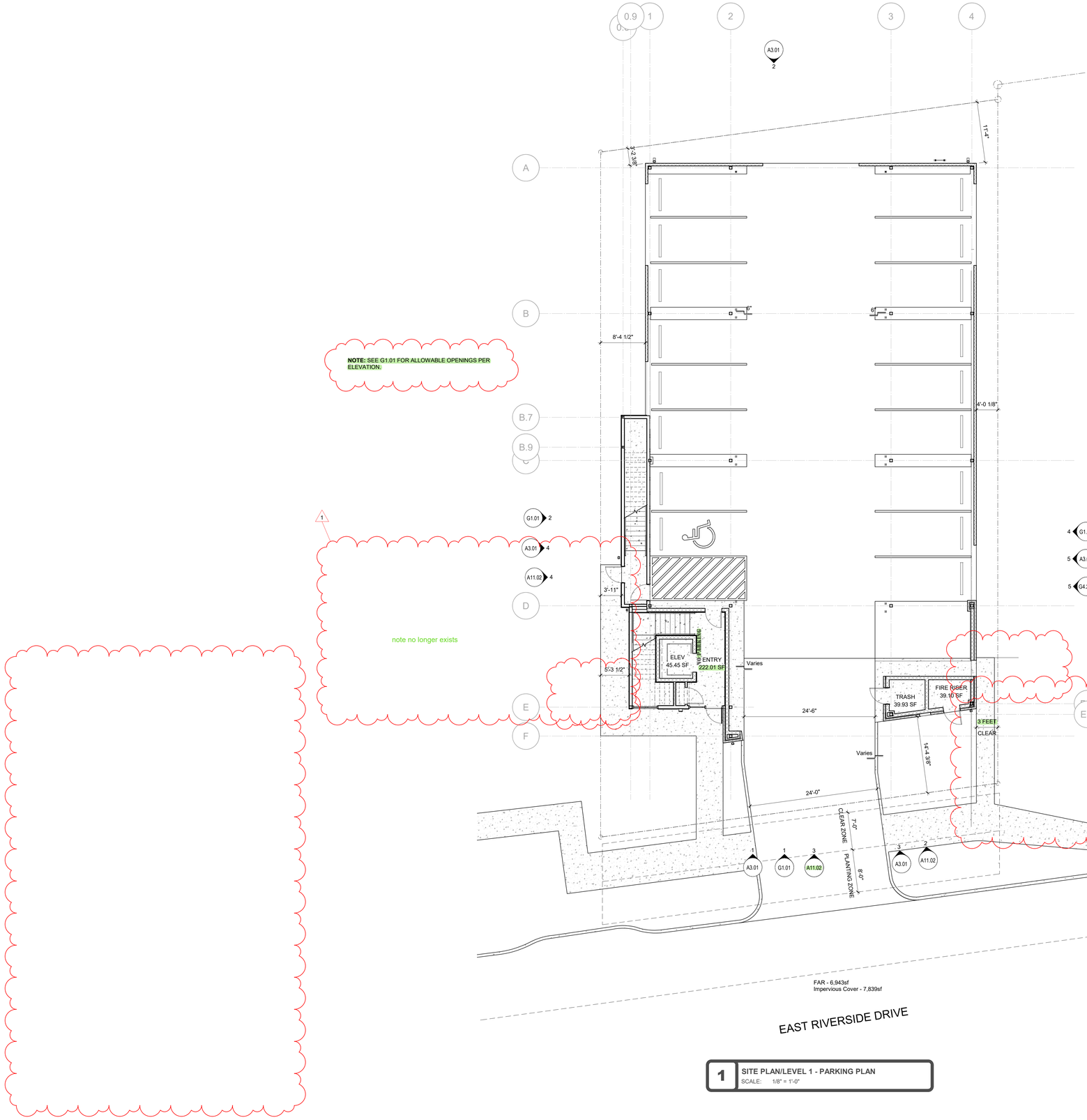
Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/21

CURRENT:

SHEET NAME:
HORIZONTAL ASSEMBLIES

SHEET NO:
G5.30



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

TRUE NORTH

REGISTERED ARCHITECT
WALTER D. PAYNE
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REVISIONS

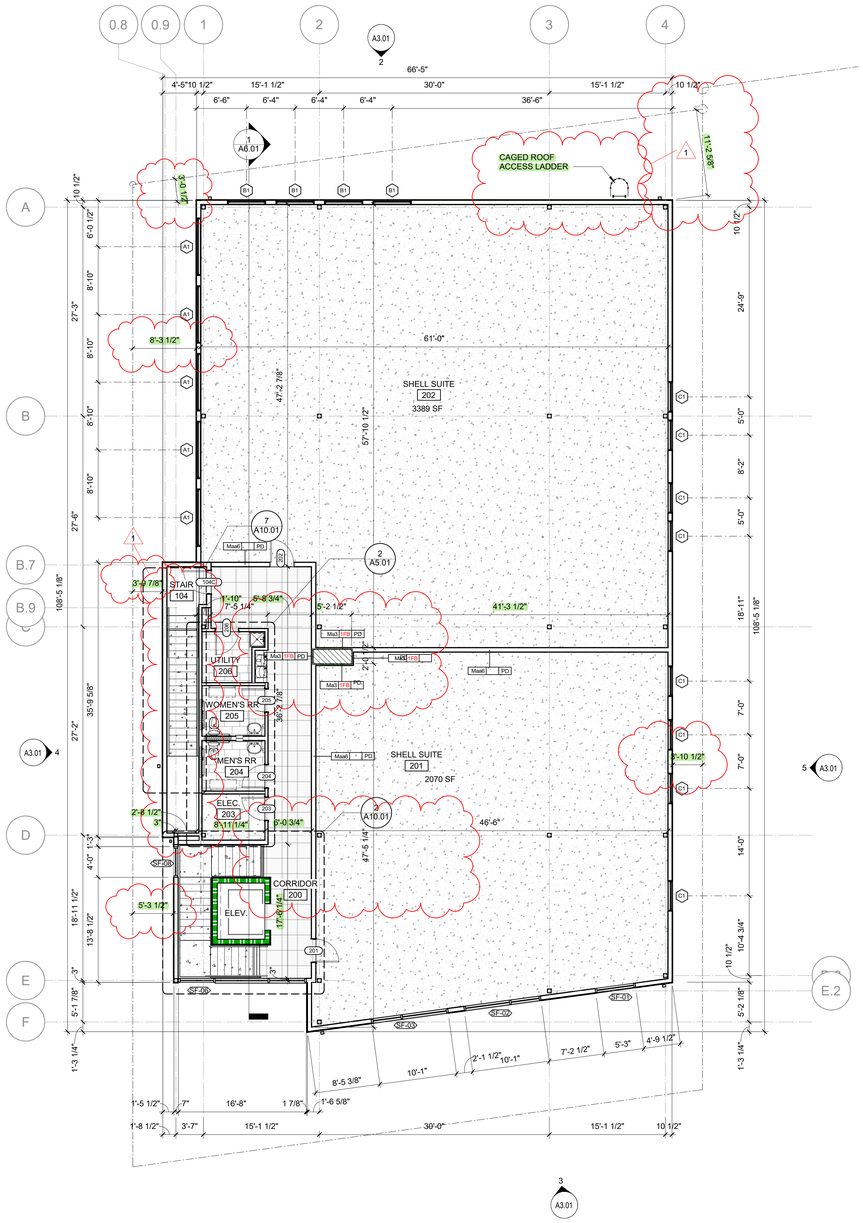
Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

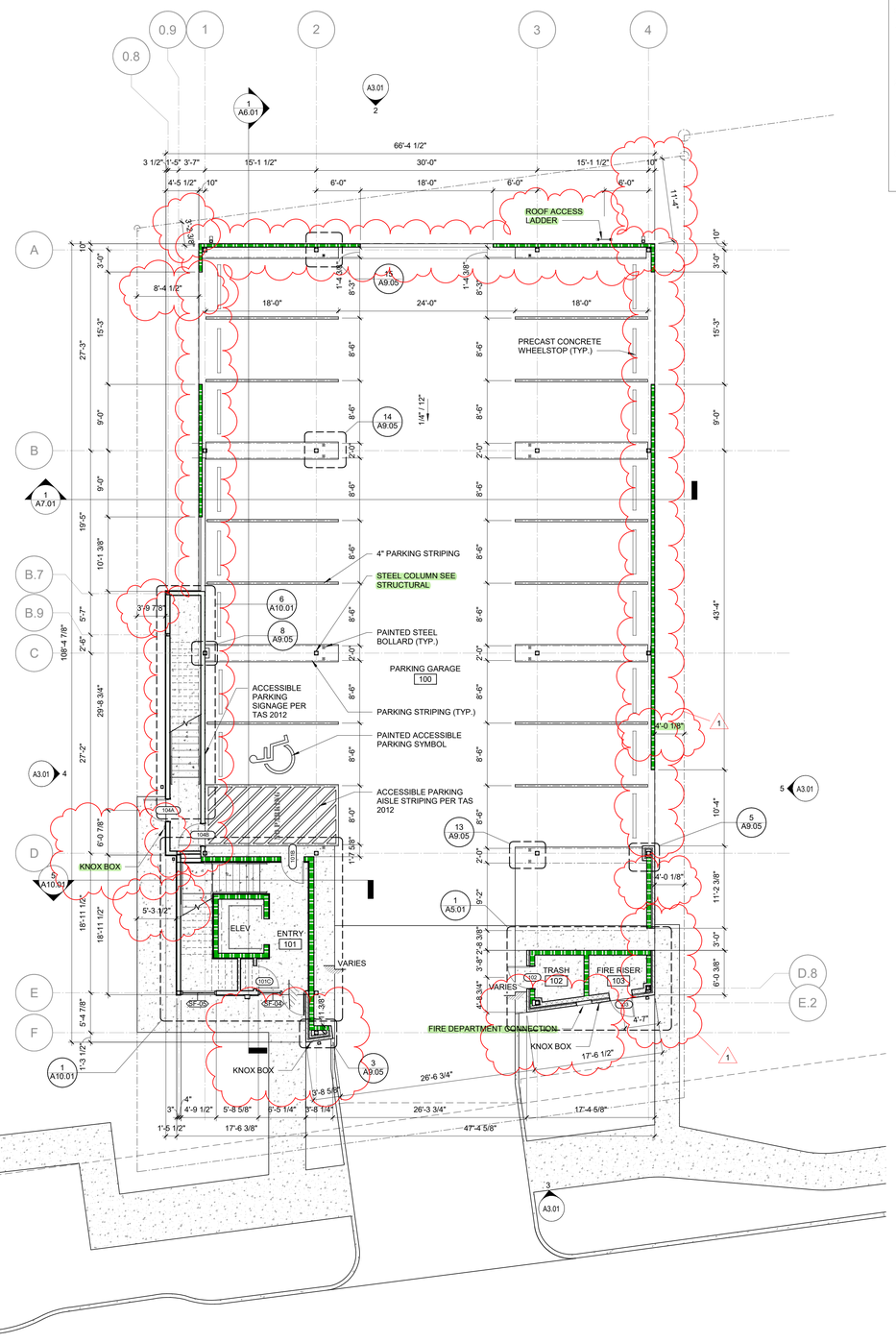
CURRENT: 2022.12.13

SHEET NAME:
ARCHITECTURAL SITE PLAN - OVERALL

SHEET NO:
AS1.100



2 OVERALL FLOOR PLAN - LEVEL 2
SCALE: 1/8" = 1'-0"



1 OVERALL FLOOR PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

GENERAL FRAMING INFORMATION

1. ALL STUD WALLS ARE DIMENSIONED TO F.O. STUD U.N.O.
2. METAL STUD WALLS ARE DIMENSIONED 3-5/8" OR 6" U.N.O.
3. REFER TO STRUCTURAL FRAMING PLANS FOR ALL LOAD BEARING STUD SIZING AND SPACING OR AS CODE MINIMUM REQUIRES.
4. DETAILED FLOOR AND ROOF FRAMING AND DIAGRAMS ARE TO BE FURNISHED BY A STRUCTURAL ENGINEER LICENSED IN THE AHJ.
5. FRAME ALL WALLS IN AREAS WITHOUT CEILINGS TO THE UNDERSIDE OF STRUCTURE ABOVE, SO THAT THERE ARE NO GAPS THAT ALLOW NOISE OR LIGHT THRU.
6. ALL METAL STUD FRAMING THAT DOES NOT EXTEND TO THE CEILING SHALL BE BRACED AT 4'-0" O.C. TO STRUCTURE ABOVE SUCH THAT THE BRACING IS NOT VISIBLE IN AREAS WHERE THERE ARE OPEN CEILINGS.
7. SEE LIFE SAFETY PLANS FOR WALL RATINGS AND GENERAL NOTES.
8. SEE SHEET SERIES G4 FOR ACCESSIBILITY REQUIREMENTS, MINIMUM CLEARANCES, AND ACCESIBLE REQUIRED MOUNTING HEIGHTS.
9. ALL SHAFT WALLS CONNECTING 3 STORIES OR LESS TO BE 1 HOUR RATED MINIMUM.
10. ALL SHAFT WALLS CONNECTING 4 STORIES OR GREATER TO BE 2 HOUR RATED MINIMUM.
11. PROVIDE SURFACES WITH A MAXIMUM SLOPE OF 1:48 WITHIN THE MANEAUVARING CLEARANCES OF ALL PUBLIC.
12. WOOD BLOCKING SHALL BE PROVIDED IN METAL STUD WALLS FOR TOILET ROOM ACCESSORIES, MILWORK, CASEWORK, OR ANY OTHER ITEMS THAT MUST BE ATTACHED TO THE WALLS.

STC AND IIC MINIMUM REQUIREMENTS

1. THE NOTES LISTED BELOW RELATED TO STC AND IIC MINIMUM REQUIREMENTS ARE CODE MINIMUMS THAT MUST BE APPLIED AS A MINIMUM STANDARD. WHERE THE DRAWINGS AND SPECIFICATIONS SPECIFICALLY INDICATE ENHANCEMENTS TO THESE ITEMS THAT ARE ABOVE AND BEYOND THE CODE MINIMUMS, THE DRAWINGS AND SPECIFICATIONS WILL ALWAYS GOVERN.
2. WALLS, PARTITIONS, AND FLOOR CEILING ASSEMBLIES SEPARATING DWELLING UNITS AND SLEEPING UNITS FROM EACH OTHER OR FROM PUBLIC OR SERVICE AREAS SHALL MEET OR EXCEED A SOUND TRANSMISSION CLASS OF 50. PENETRATIONS OR OPENINGS IN CONSTRUCTION ASSEMBLIES FOR PIPING, ELECTRICAL DEVICES, RECESSED CABINETS, SOFFITS, OR HEATING, VENTILATION, OR EXHAUST DUCTS SHALL BE SEALED, LINED, INSULATED OR OTHERWISE TREATED TO MAINTAIN THE REQUIRED RATINGS.
3. ALL UNIT ENTRANCE DOORS TO BE TIGHT FITTING AND SEALED TO THE FRAME AND SILL.

REGISTERED ARCHITECT
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REVISIONS

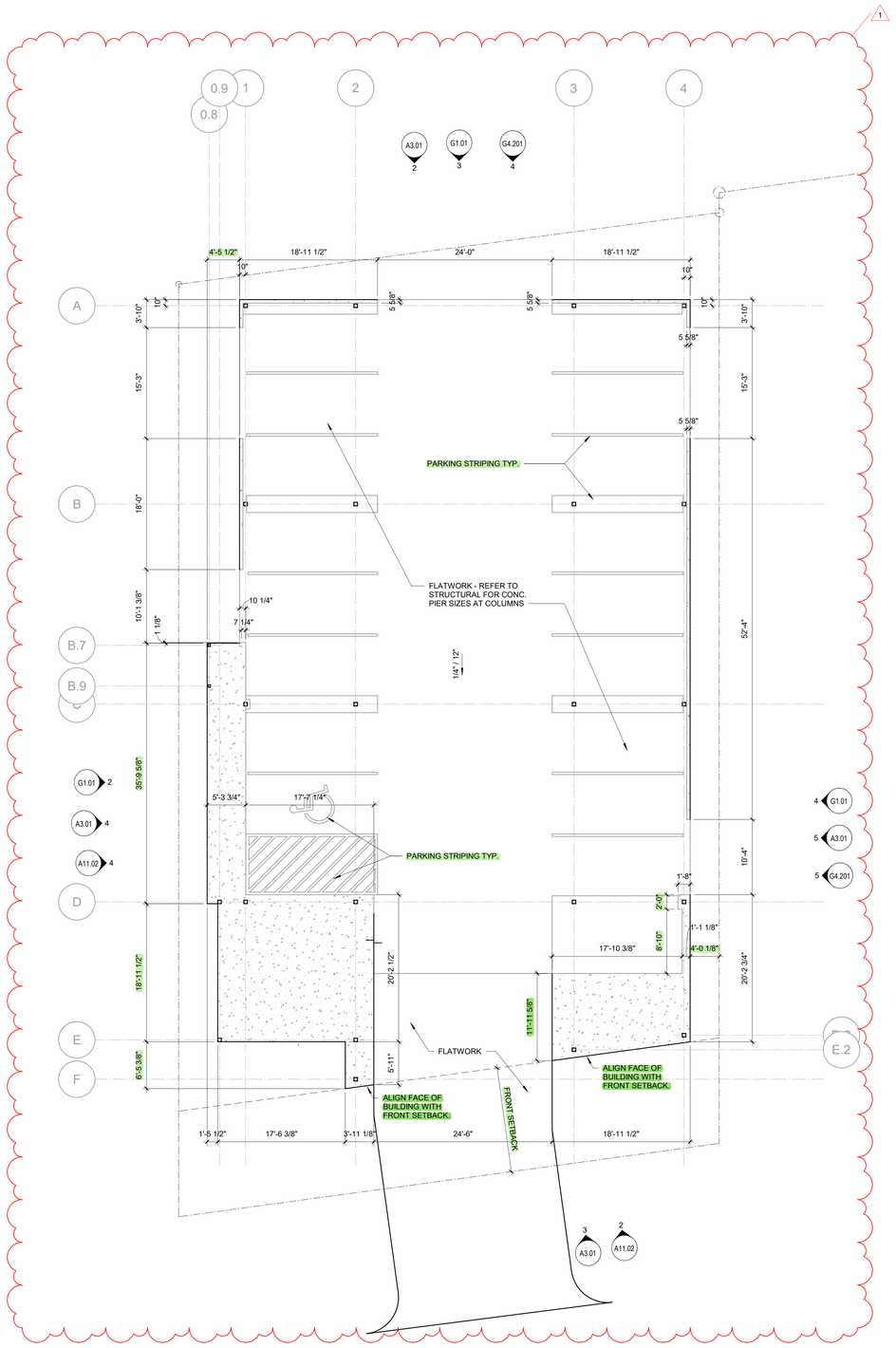
Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO. 21066 | ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

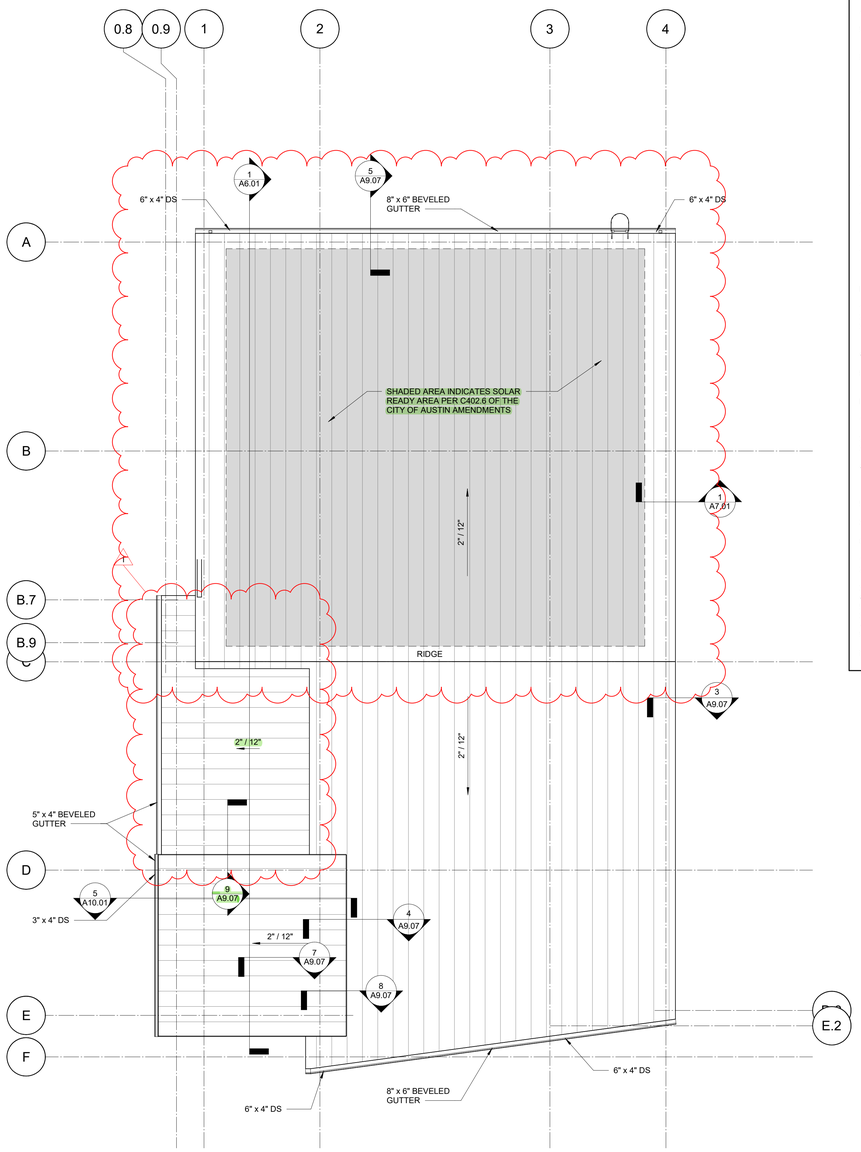
SHEET NAME:
FLOOR PLAN - LEVEL 1 & LEVEL 2

TRUE NORTH PROJECT NORTH

SHEET NO:
A2.01



2 SLAB EDGE PLAN- LEVEL 1
SCALE: 1/8" = 1'-0"



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

ROOF PLAN NOTES

GENERAL ROOF NOTES

1. SEE TYPICAL ROOF DETAIL SHEETS FOR CONDITIONS THAT MAY NOT BE KEYED ON THESE PLANS BUT STILL OCCUR AND ARE APPLICABLE TO THIS PROJECT.
2. ARROWS ON THE ROOF PLAN INDICATE WATER DRAINAGE DIRECTION.
3. "DS" INDICATES DOWN SPOUT. "RD" INDICATES ROOF DRAIN. "OD" INDICATES OVERFLOW DRAIN.
4. DETAILED ROOF TRUSS FRAMING DIAGRAMS ARE TO BE FURNISHED BY A STRUCTURAL ENGINEER LICENSED IN THE AHJ
5. FRAMING SUB-CONTRACTOR OR PANEL MANUFACTURER AND ROOF TRUSS SUPPLIER TO REVIEW CONSTRUCTION DOCUMENTS IN THEIR ENTIRETY TO ACCOMMODATE ALL FIRE RATED WALLS, PARTITIONS AND BARRIERS AS APPROPRIATE IN THEIR DESIGN. PROVIDE BLOCK OUTS FOR ROOF ACCESS HATCHES, ROOF ACCESS SPACES AND ELEVATOR SHAFTS AS INDICATED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS.
6. PROVIDE POSITIVE DRAINAGE ON ALL ROOFS WHETHER OR NOT SHOWN ON THE DRAWINGS SO NO STANDING WATER REMAINS AFTER 48 HOURS
7. PRIMARY SLOPES AT ROOFS AND BALCONIES TO BE INCLUDED IN TRUSS FABRICATION. REFERENCE DETAILS FOR MORE INFORMATION.
8. IN THE ABSENCE OF A DETAIL OF ANY CONDITION ON THE ROOF, THE ROOF MANUFACTURER'S STANDARD DETAIL OR THE MOST STRINGENT NRCA/SMACNA DETAIL SHALL APPLY AS IF INCORPORATED INTO THE DRAWINGS.
9. ROOFING SUPPLIERS, MANUFACTURERS AND INSTALLERS SHALL REVIEW ALL ROOFING DETAILS AND ADVISE ARCHITECT ON ANY RECOMMENDED CHANGES. UNLESS NOTED OTHERWISE, ROOFING SUPPLIERS, MANUFACTURERS AND INSTALLERS WILL BE ASSUMED TO HAVE REVIEWED AND APPROVED THE DETAILS SHOWN.
10. PROVIDE ARCHITECT WITH ROOF DETAILS IN ACCORDANCE WITH SELECTED MANUFACTURER FOR APPROVAL IN SHOP DRAWINGS/SUBMITTALS.
11. CONTRACTOR AND ALL SUB-TRADES SHALL BE AWARE AND EXERCISE THE NECESSARY CARE TO PREVENT DAMAGE TO, OR PUNCTURE OF, THE ROOF. THIS SHALL INCLUDE ALL SHARP MATERIALS, TOOLS, MATERIAL SCRAPS OR MATERIALS HAVING A DELETERIOUS AFFECT ON THE ROOFING MATERIAL.
12. PROVIDE A 22 1/2" X 36" MIN. OPENING TO ALL ROOF ATTIC CAVITIES TO CONNECT TO THE MAIN VOLUME OF SPACE FOR ATTIC ACCESS.
13. SEPARATE DISSIMILAR METALS AS THEY OCCUR PER MANUFACTURER'S RECOMMENDATIONS. REVIEW MATERIALS AND METHODS WITH ARCHITECT.
14. UNDERLAYMENT AND INSULATION SHALL BE FASTENED W/ CORROSION RESISTANT FASTENERS PER MANUFACTURERS RECOMMENDATIONS FOR A PROJECTS GIVEN CLIMATE.
15. PRIME ALL METAL TO BE IN CONTACT WITH ROOFING MATERIALS U.N.O.
16. THE ENTIRE BUILDING ENVELOPE INCLUDING ROOF, WALLS, & FLOORS TO BE DRIED IN PRIOR TO THE STORAGE AND INSTALLATION OF INTERIOR FINISH MATERIALS.
17. OMISSION OF ANY ACCESSORY FROM THE ROOF PLAN SHALL NOT RELIEVE THE GC FROM THE RESPONSIBILITIES FOR SUCH ITEMS.
18. ROOFING SHALL BE CLASS - B OR BETTER, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

EQUIPMENT AND PENETRATION NOTES

1. NO ROOFTOP MECHANICAL EQUIPMENT TO BE LOCATED ON THIS ROOF.
2. PROVIDE CRICKETS AT ALL ROOF CURBS AND EQUIPMENT RAILS WIDER THAN 24-INCHES.
3. LOCATIONS OF ROOF ACCESSORIES AND MATERIALS ARE SCHEMATIC IN NATURE. EXACT LOCATIONS SHALL BE DETERMINED BY INFORMATION ELSEWHERE IN THE DRAWINGS AND IN CONJUNCTION WITH CONDITIONS IN THE FIELD.
4. PROVIDE FLASHING PER MANUFACTURERS STANDARD DETAILS AT ALL PLUMBING, CONDUIT AND HVAC LINES PENETRATING THE ROOF.
5. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR EQUIPMENT, PIPING, CONDUITS, ETC.

METAL ROOF NOTES

1. THE ROOF MEMBRANE UNDERLAYMENT BENEATH ALL METAL ROOFS WILL BE GRACE ULTRA OR EQUAL ANY ALTERNATE WILL BE A HEAT RESISTANT MATERIAL.
2. ALL METAL ROOFS TO BE STANDING SEAM PREFINISHED ALUMINUM U.N.O
3. ALL METAL ROOFING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND STANDARD DETAILS.
4. AT LOCATIONS WITH EXPOSED DECKING UNDERNEATH PROVIDE FURRING STRIPS OR LAYER DECKING TO KEEP FASTENERS FROM PENETRATING EXPOSED T1-11 SMOOTH FINISH PLYWOOD WITH 4" O.C. PATTERN. ORIENT PATTERN FOR REVEALS TO RUN PERPENDICULAR TO EXPOSED FRAMING MEMBERS.
5. ALL TRIM AND METAL ROOF ACCESSORIES SHALL BE PROVIDED BY SAME MANUFACTURER AS THE METAL ROOFING PANELS. WITH COLOR TO MATCH U.N.O.
6. ENSURE DRIP EDGES EXTEND BELOW EXPOSED DECKING BY ½" MIN.

GUTTER AND DOWNSPOUT NOTES

1. ALL GUTTERS AND DOWNSPOUTS TO BE PREFINISHED SEAMLESS ALUMINUM.
2. WHERE GUTTERS ARE REQUIRED, LOCATE HIGH-POINT OF GUTTER AT MID-SPAN IN BETWEEN DOWNSPOUTS UNLESS INDICATED OTHERWISE ON THE ROOF PLAN.
3. SLOPE ALL GUTTERS 1/16" PER 1'-0" MIN.
4. ALL GUTTERS AT MAIN ROOF TO BE 8" X 6" BEVELED.
5. ALL DOWNSPOUTS AT MAIN ROOF TO BE 3 3/4" X 4 3/4" RECTANGULAR
6. GUTTER AT HIGH ROOF TO BE 5" X 4" BEVELED.
7. ALL DOWNSPOUTS AT HIGH ROOF TO BE 3" X 4" RECTANGULAR.
8. ALL DOWNSPOUTS TO BE PIPED TO STORM DRAINS OR PIPED TO DAYLIGHT WITH CONCRETE SPLASH BLOCKS. COORDINATE WITH CIVIL AND LANDSCAPE DRAWINGS.
9. PROVIDE BIRD SCREEN AT ALL DOWNSPOUT NOZZLE LOCATIONS ANNOTATED ON ELEVATIONS.

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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT: 2022.12.13

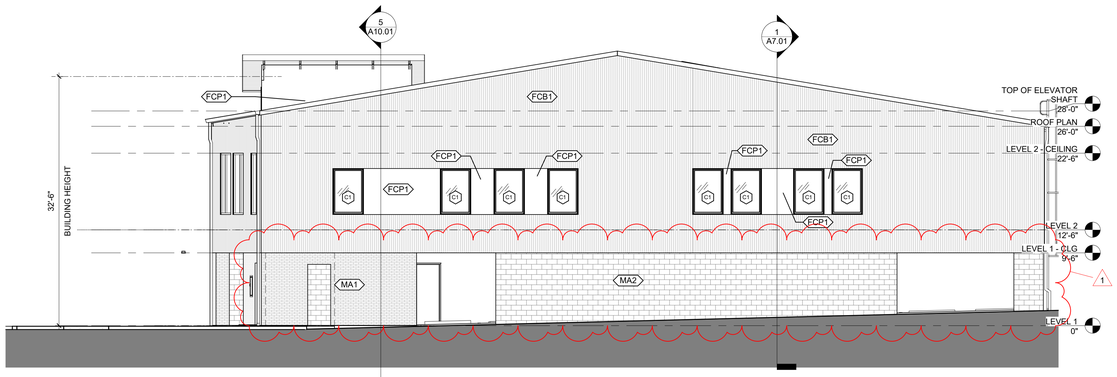
SHEET NAME:
ROOF PLAN OVERALL & SLAB EDGE PLAN

SHEET NO:
A2.02

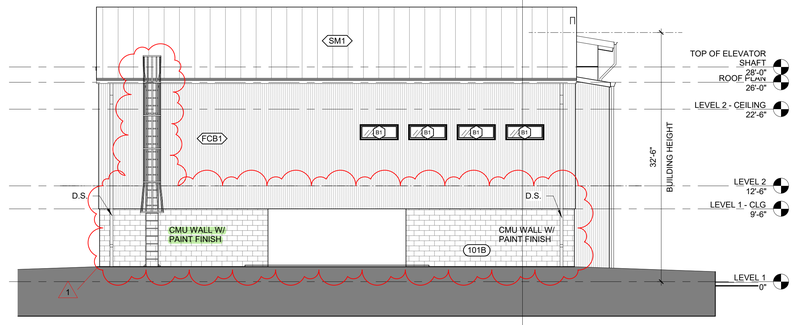
EXTERIOR FINISH MATERIAL SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	SIZE	COLOR	MOUNTING	ACCESSORIES	COMMENTS
FCB1	FIBER CEMENT VERTICAL SIDING	NICHIHA	VINTAGE WOOD SERIES	18X72X5/8	BARK			
FCP1	FIBER CEMENT PANEL	JAMES HARDIE	ARCHITETCURAL PANEL - FINE SAND	48X96	PEARL GREY		TAMLYN XTREME TRIM REVEALS	
MA1	BRICK VENEER	ACME	DTP912	4" MODULAR	OLD DENTON			
MA2	THIN STONE	ARRISCRAFT	BISCAYNE - MIDTOWN 2-1/8" SAWN					
SM1	INSULATED STANDING SEAM METAL ROOFING	AWIP	STANDING SEAM (SR2)	40" WIDTH - 4" THICKNESS				

3 NORTH PARTIAL ELEVATION
SCALE: 1/8" = 1'-0"

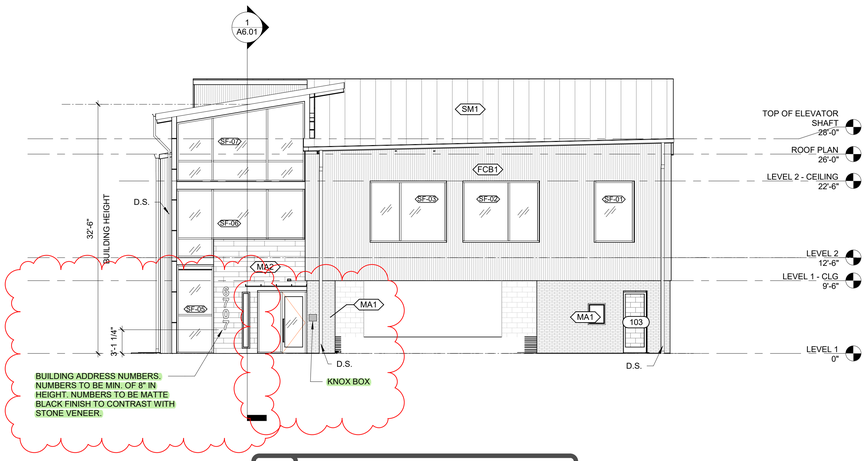


5 WEST ELEVATION
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

4 EAST ELEVATION
SCALE: 1/8" = 1'-0"



1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

EXTERIOR ELEVATION NOTES:

ELEVATION GENERAL NOTES

1. FOUNDATION AND GRADES ARE APPROXIMATE AND SHOWN FOR REFERENCES ONLY, SEE STRUCTURAL AND CIVIL DRAWINGS FOR MORE INFORMATION.
2. SEAL ALL PENETRATION WITH SEALANT TO MATCH ADJACENT MATERIALS.
3. SEE ROOF PLANS FOR ROOF SLOPE, DOWNSPOUT, GUTTER AND ROOF VENT INFORMATION.
4. PROVIDE QUICK FLASH BOOTS AT ALL EXTERIOR WALL PENETRATIONS.
5. PAINT ALL EXPOSED METAL THAT IS NOT SPECIFIED OR INDICATED TO RECEIVE A FACTORY FINISH.
6. REFER TO PLANS AND SCHEDULES FOR DOOR AND WINDOW TYPES AND SIZES.
7. SEE GENERAL NOTES DIVISION 9 FOR CONTROL JOINT REQUIREMENTS.
8. WHERE A COLOR IS NOT PROVIDED BY THE ARCHITECT, ALL EXPOSED FLASHING, PENETRATING ELEMENTS, AND OTHER MISCELLANEOUS EXPOSED EXTERIOR ITEMS SHALL MATCH OR BE PAINTED TO MATCH THE ADJACENT EXTERIOR SURFACES U.N.O. CONTACT ARCHITECT WITH ANY QUESTIONS OR CONCERNS.
9. AT BUILDING EXPANSION JOINTS, ALL MATERIALS MUST HAVE A START AND STOP AND A FINISHED WATERPROOF CONTROL JOINT MATERIAL IS TO BE PROVIDED.
10. PROVIDE SUBMITTAL SHOWING ALL CONTROL, EXPANSION AND DECORATIVE JOINT LOCATIONS REQUIRED BY DRAWINGS, CODE, MANUFACTURER'S RECOMMENDATIONS, SPECIFIC SPECIFICATIONS AND STANDARDS
11. PROVIDE SUBMITTAL WITH PROPOSED CONTROL, EXPANSION AND DECORATIVE JOINT DETAILS PRIOR TO PROCEEDING WITH WORK.
12. ALL EXPOSED FLASHING TO BE STAINLESS STEEL OR PREFINISHED.

BRICK

1. PROVIDE FLASHING CUT INTO BRICK WHERE ROOF, CANOPIES OR BALCONY FLASHING TERMINATES INTO BRICK WITH 4" MINIMUM COVERAGE.
2. PAINT ALL LOOSE LINTELS TO MATCH BRICK. COORDINATE PAINT COLOR WITH ARCH.

EXPOSED CMU

1. ALL EXPOSED CMU ON THE EXTERIOR THAT DOES NOT RECEIVE A CLADDING TO RECEIVE ELASTOMERIC PAINT.

EXTERIOR MATERIAL LEGEND

- MA1 — KING SIZE BRICK
- MA2 — BURNISHED CONCRETE MASONRY UNITS
- MT1 — VERTICAL STANDING SEAM METAL SIDING
- MT2 — 1/2" STEEL PLATE WINDOW FRAME
- WD1 — COMPOSITE WOOD SIDING

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PROJ. NO. 21066 | ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

SHEET NAME:
EXTERIOR ELEVATIONS

SHEET NO:
A3.01

RCP FINISH SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	SIZE	COLOR	MOUNTING	ACCESSORIES	COMMENTS
ACT1	ACCOUSTICAL CEILING TILE	ARMSTRONG	CORTEGA	2X2	WHITE	REF. RCP	CEILING GRID - ARMSTRONG PRELUDE XL 15/16" - COLOR - WHITE	
ACT2	ACCOUSTICAL CEILING TILE	ARMSTRONG	ARMATUFF	2X2	WHITE	REF. RCP	CEILING GRID - ARMSTRONG PRELUDE XL 15/16" - COLOR - WHITE	
ASP	ALUMINUM SOFFIT PANEL	KNOTWOOD	KEC150	6" SOFFIT/CLADDING PANEL (ST)	EASTERN MAHOGANY			
PT10	PAINTED GYP. BD.	SHERWIN WILLIAMS			SW 7005 PURE WHITE			SEMI-GLOSS

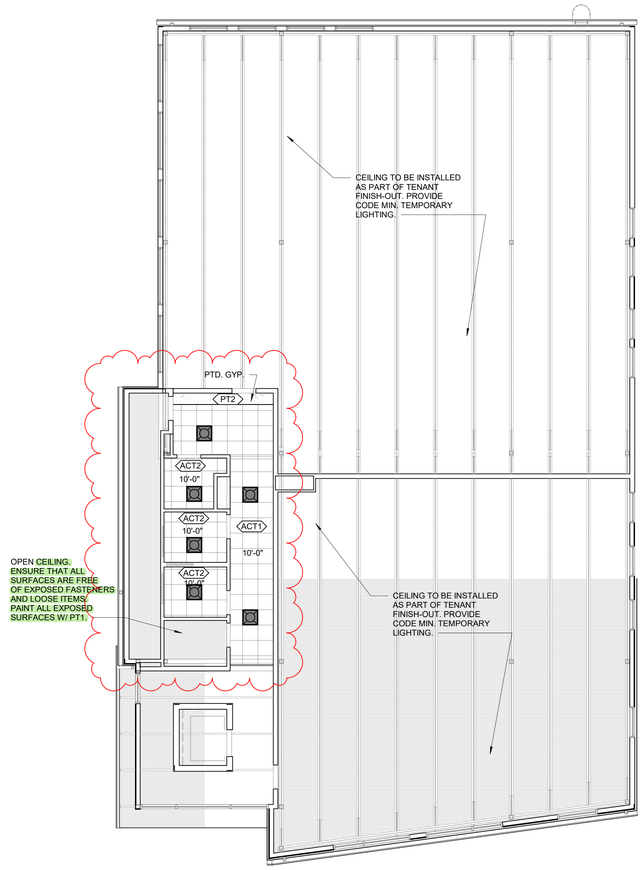
REFLECTED CEILING PLAN NOTES:

GENERAL RCP NOTES

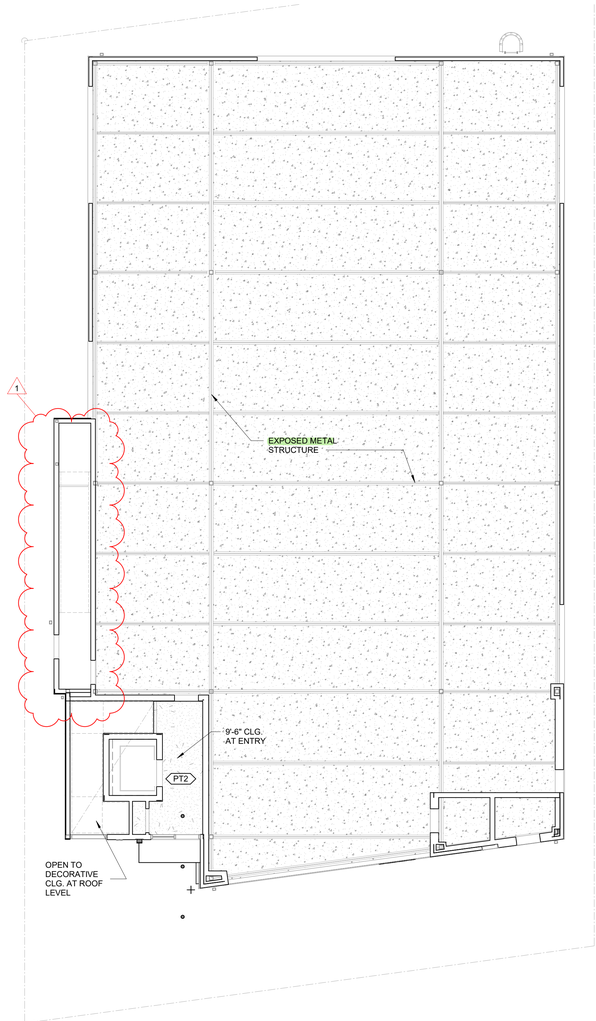
1. NOTIFY ARCHITECT IMMEDIATELY OF CONFLICTS DISCOVERED ON SITE BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS. OBTAIN CLARIFICATION OR RESOLUTION OF CONFLICTS PRIOR TO PROCEEDING WITH WORK IN QUESTION.
2. REFER TO LIGHTING, POWER AND COMMUNICATIONS GENERAL NOTES FOR INFORMATION PERTAINING TO LIGHTING.
3. REFER TO MECHANICAL GENERAL NOTES FOR INFORMATION PERTAINING TO HVAC DEVICES IN THE CEILING.
4. REFER TO PLUMBING AND FIRE PROTECTION GENERAL NOTES FOR INFORMATION PERTAINING TO FIRE SPRINKLER SYSTEMS. CENTER SPRINKLER HEADS IN CEILING TILES U.N.O.
5. LOCATIONS OF LIGHT FIXTURES, HVAC DEVICES AND OTHER CEILING-MOUNTED ELEMENTS ON ARCHITECTURAL REFLECTED CEILING PLANS TAKE PRECEDENCE OVER LOCATIONS SHOWN ON M.E.P. DRAWINGS.
6. CEILING AND SOFFIT HEIGHTS ARE NOTED ON THE REFLECTED CEILING PLANS. ALL SOFFITS WITHIN A SINGLE ROOM ARE THE SAME HEIGHT, TYP., UNLESS NOTED OTHERWISE.
7. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES, IF APPLICABLE.
8. ALL VERTICAL FACES AND UNDERSIDE OF BULKHEADS TO BE PAINTED TO MATCH CEILING, U.N.O.
9. DIMENSIONS OF FIXTURES, DEVICES, ETC. ARE TO CENTERLINE OF FIXTURE, U.N.O. WHERE ITEMS ARE IN LINE, CENTERLINE OF ITEMS OR GROUP OF ITEMS TO ALIGN, U.N.O.
10. CONTRACTOR TO LOCATE SPRINKLERS AS REQUIRED FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL BUILDING/FIRE CODES.
11. AT ARCHITECTURALLY EXPOSED OPEN STRUCTURE CEILINGS, ALL MECHANICAL DUCTWORK, SPRINKLER PIPES, ETC. TO BE PAINTED A SINGLE COLOR U.N.O.

GYPSUM CEILING NOTES

1. PAINT ALL GYPSUM BOARD CEILINGS AND SOFFITS AS SCHEDULED WITH FLAT FINISH. REFER TO FINISH PLANS FOR ADDITIONAL INFORMATION.
2. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, PROVIDE CONTROL JOINTS IN GYPSUM BOARD SURFACES IN ACCORDANCE WITH ASTM C 840
3. IF ACCESS PANELS ARE REQUIRED, PROVIDE FLUSH DRYWALL TYPE ACCESS PANELS WITH CONCEALED FRAME AT ALL NON-RATED LOCATIONS. PAINT TO MATCH THE SURFACES ON WHICH THEY OCCUR.



2 RCP - LEVEL 2
SCALE: 1/8" = 1'-0"



1 RCP - LEVEL 1
SCALE: 1/8" = 1'-0"

TRUE NORTH PROJECT NORTH

REGISTERED ARCHITECT WALTER D. PAYNE 24499 STATE OF TEXAS

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PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT: 2022.12.13

SHEET NAME:
REFLECTED CEILING PLANS - LEVEL 1 & LEVEL 2

SHEET NO:
A4.01

INTERIOR FINISH METARIAL SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	FINSIH	SIZE	COLOR	ACCESSORIES	COMMENTS
T-1	WALL TILE	DALTILE	WANDERWISE		6X24	SWAN PLANK WW01	SCHLUTER BRUSH ALUMINUM TRIMS AT ALL INTERSECTIONS AND EDGES.	
T-2	FLOOR TILE	DALTILE	WANDERWISE		12X24	ROAM WW03	SCHLUTER BRUSH ALUMINUM TRIMS AT ALL INTERSECTIONS AND EDGES.	
CPT-1	CARPET TILE	INTERFACE	AERIAL COLLECTION AE310			104627 SMOKE		
PT-1	PAINT	SHERWIN WILLIAMS		EGG SHELL		PURE WHITE SW 7005		ALL FINISHED WALLS TO BE PAIINTED PT-1 UNLESS NOTED OTHERWISE
PT-2	PAINT	SHERWIN WILLIAMS		SEMI-GLOSS		PURE WHITE SW 7005		
RT-1	RUBBER STAIR TREAD	ROPPE	#93 TEXTURED DESIGN			123 CHARCOAL		INSTALL AT INTERIOR STAIR
VB-1	VINYL BASE	ROPPE	STANDARD TOE BASE 5/8"			123 CHARCOAL		INSTALL VB-1 AT ALL WALLS WIHTOUT WALL TILE.

GENERAL NOTES - ELEVATIONS

1. ALL WALLS TO BE PC-1 U.N.O.
2. ALL CEILINGS TO BE PC-2 U.N.O
3. ALL WALL BASES TO BE WB-1 U.N.O.
4. SEE APPLIANCE, EQUIPMENT & PLUMBING ON SHEET ID8.20
5. SEE FINISH & LIGHTING SCHEDULE ON SHEET ID8.21
6. SEE ALL TYPICAL MOUNTING HEIGHTS & DIMENSIONS FOR EQUIPMENT ON ID0.31 & ID0.32

LEGEND - ELEVATIONS

- PT-2 — FINISH TAG
- SP — FINISH STARTING POINT
- A-1 — APPLIANCE TAG
- E-1 — EQUIPMENT TAG
- P-1 — PLUMBING TAG
- L-1 — LIGHTING FIXTURE TAG

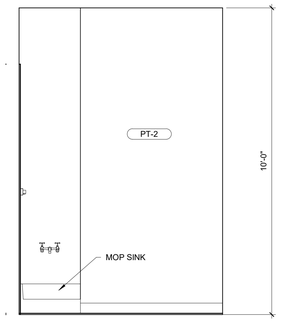
TYPICAL FINISH ABBREVIATIONS

CG	CORNER GUARD
CON	CONCRETE
CPT	CARPET
GF	GLASS FILM
GL	GLASS
GM	GLASS MARKERBOARD
LVT	LUXURY VINYL TILE
MR	MIRROR
MTL	METAL
MWK	MILLWORK
PL	PLASTIC LAMINATE
RF	RESILIENT FLOOR
SS	SOLID SURFACE
ST	STONE
T	TILE
TB	TILE BASE
UPH	UPHOLSTERY
VCT	VINYL COMPOSITION TILE
WB	WALL BASE
WC	WALL COVERING
WD	WOOD
WF	WOOD FLOOR
WIN	WINDOW FILM
WT	WALL TREATMENT

EQUIPMENT LEGEND

- E-1 TOILET TISSUE HOLDER
- E-2 SANITARY NAPKIN DISP.
- E-3 GRAB BAR - 36"
- E-4 GRAB BAR - 42"
- E-5 MIRROR
- E-6 TOWEL / WASTE DISP.
- E-7 SOAP DISPENSER
- E-8 DIAPER CHANGING

1. ALL ACCESSORIES TO BE INSTALLED WITHIN REACH RANGES.
2. ALL ACCESSORIES TO BE MOUNTED INTO DRYWALL SHEATHING WITH DRYWALL ANCHORS. U.N.O.
3. SEE ELEVATIONS FOR LOCATIONS.
4. SEE EQUIPMENT SCHEDULE & SPECIFICATIONS FOR MORE INFO.



12 206 UTILITY SINK
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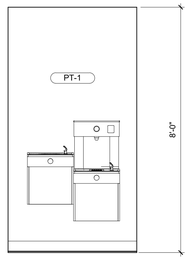

11 200 DRINKING FOUNTAINS
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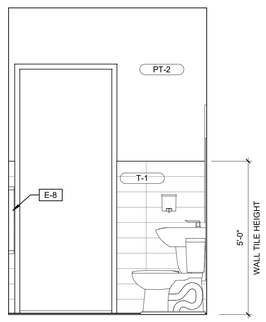

10 205 WOMEN'S RR WEST
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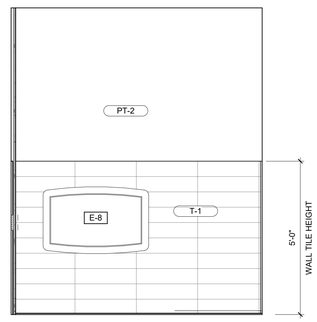

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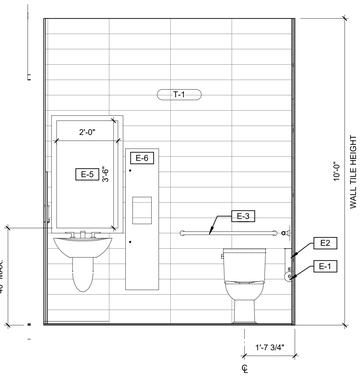

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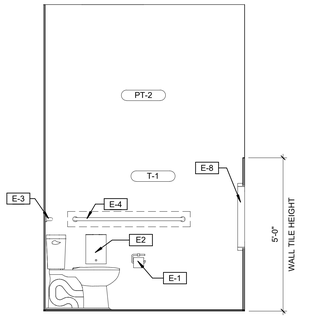

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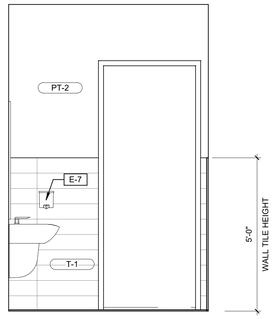

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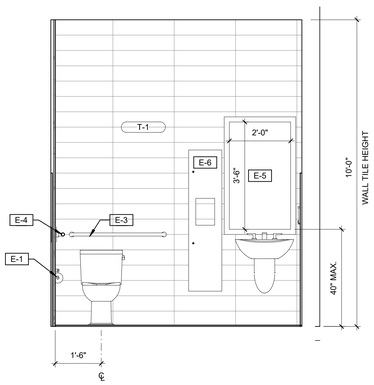

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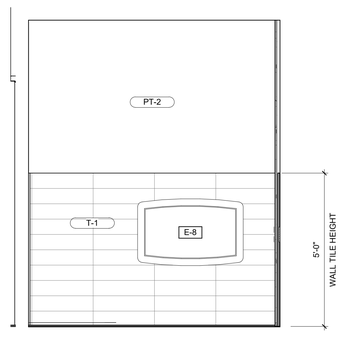

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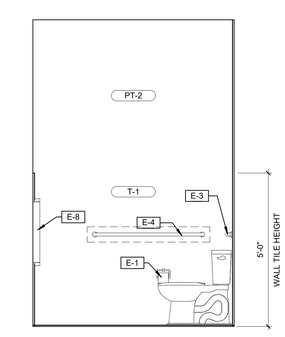
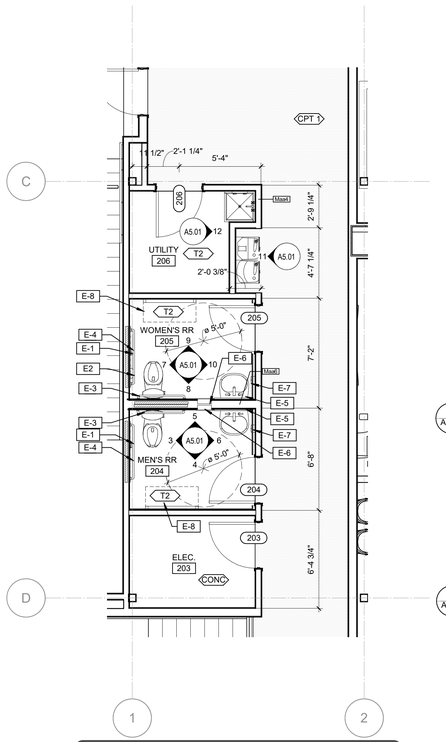
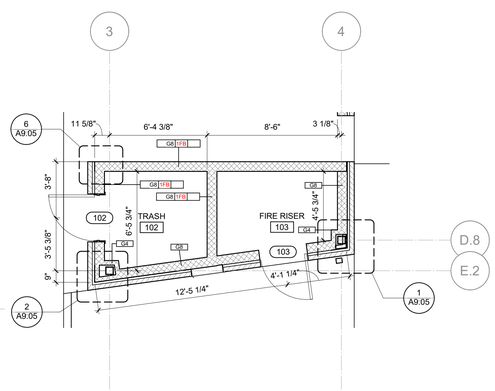


3 204 MEN'S RR EAST
SCALE: 1/2" = 1'-0"



2 LEVEL 2 - ENLARGED RESTROOM PLANS
SCALE: 1/4" = 1'-0"



1 LEVEL 1 - ENLARGED FIRE RISER ROOM
SCALE: 1/4" = 1'-0"

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REVISIONS

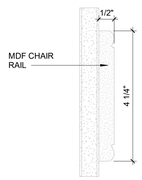
Δ	DATE	DESCRIPTION

PROJ. NO. 21066 | ORIG. ISSUE 09/27/2022 | CURRENT:

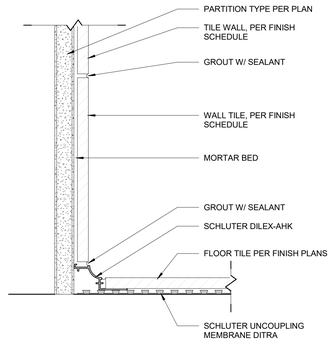
SHEET NAME:
ENLARGED PLANS AND INTERIOR ELEVATIONS

SHEET NO:
A5.01

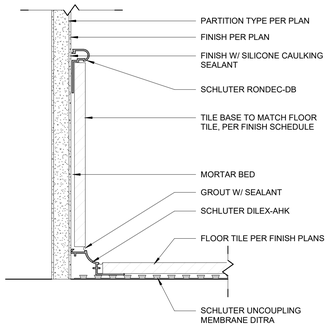
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...



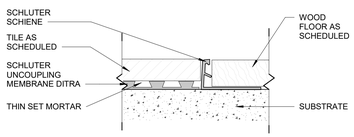
23 MOLDING - SECTION DETAIL - TYPE 1
SCALE: 6" = 1'-0"



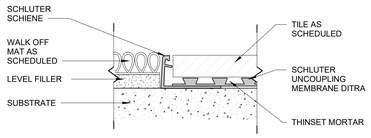
22 TILE BASE @ TILE WALL - SECTION DETAIL
SCALE: 6" = 1'-0"



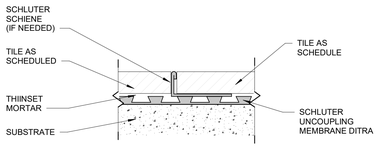
21 TILE BASE - SECTION DETAIL
SCALE: 6" = 1'-0"



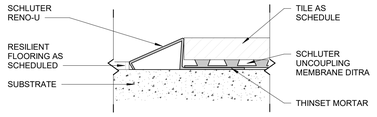
19 FLOOR TRANSITION - TILE TO WOOD - SECTION DETAIL
SCALE: 12" = 1'-0"



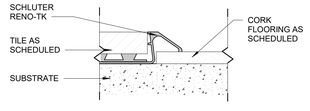
18 FLOOR TRANSITION - TILE TO WALK-OFF MAT - SECTION DETAIL
SCALE: 12" = 1'-0"



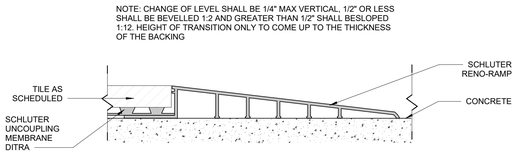
17 FLOOR TRANSITION - TILE TO TILE - SECTION DETAIL
SCALE: 12" = 1'-0"



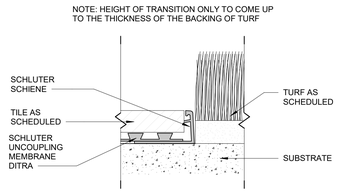
16 FLOOR TRANSITION - TILE TO RESILIENT FLOORING - SECTION DETAIL
SCALE: 12" = 1'-0"



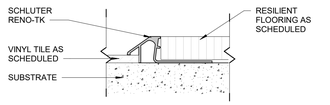
15 FLOOR TRANSITION - TILE TO CORK FLOORING - SECTION DETAIL
SCALE: 12" = 1'-0"



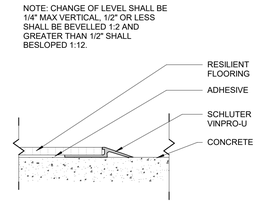
14 FLOOR TRANSITION - TILE TO CONCRETE - SECTION DETAIL
SCALE: 12" = 1'-0"



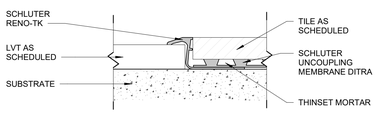
13 FLOOR TRANSITION - TILE TO ASTRO TURF - SECTION DETAIL
SCALE: 12" = 1'-0"



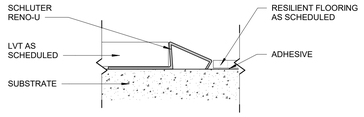
12 FLOOR TRANSITION - RESILIENT FLOORING TO VCT- SECTION DETAIL
SCALE: 12" = 1'-0"



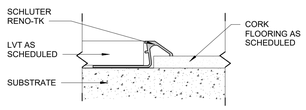
11 FLOOR TRANSITION - RESILIENT FLOORING TO CONCRETE - SECTION DETAIL
SCALE: 1" = 1"



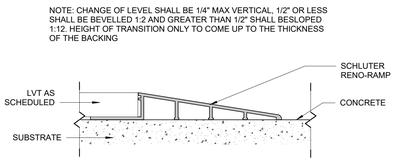
10 FLOOR TRANSITION - LVT TO TILE - SECTION DETAIL
SCALE: 12" = 1'-0"



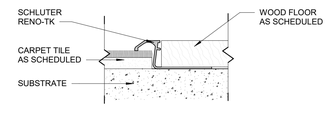
9 FLOOR TRANSITION - LVT TO RESILIENT FLOORING - SECTION DETAIL
SCALE: 12" = 1'-0"



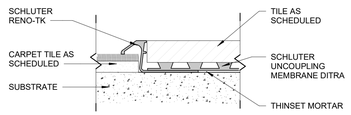
8 FLOOR TRANSITION - LVT TO CORK FLOORING - SECTION DETAIL
SCALE: 12" = 1'-0"



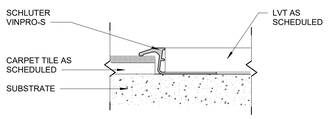
7 FLOOR TRANSITION - LVT TO CONCRETE - SECTION DETAIL
SCALE: 12" = 1'-0"



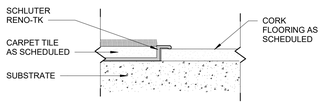
6 FLOOR TRANSITION - CARPET TILE TO WOOD - SECTION DETAIL
SCALE: 12" = 1'-0"



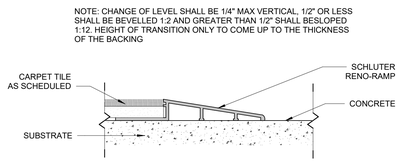
5 FLOOR TRANSITION - CARPET TILE TO TILE - SECTION DETAIL
SCALE: 12" = 1'-0"



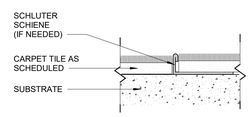
4 FLOOR TRANSITION - CARPET TILE TO LVT - SECTION DETAIL
SCALE: 12" = 1'-0"



3 FLOOR TRANSITION - CARPET TILE TO CORK FLOORING - SECTION DETAIL
SCALE: 12" = 1'-0"



2 FLOOR TRANSITION - CARPET TILE TO CONCRETE - SECTION DETAIL
SCALE: 12" = 1'-0"



1 FLOOR TRANSITION - CARPET TILE TO CARPET TILE - SECTION DETAIL
SCALE: 12" = 1'-0"

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
BIRMINGHAM, AL AUSTIN, TX ORLANDO, FL ATLANTA, GA
www.5dsi.com

ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

SHEET NAME:
TYPICAL INTERIOR DETAILS - FLOOR TRANSITIONS & BASE

SHEET NO:
A5.02

PAINT ALL STEEL STRUCTURE SUPPORTING THE ROOF INCLUDING BEAMS, COLUMNS, AND DECKING, WITH INTUMESCENT PAINT SUFFICEINT TO OBTAIN A 1 HR FIRE RATING.

PER IBC 2021 SECTION 705.11

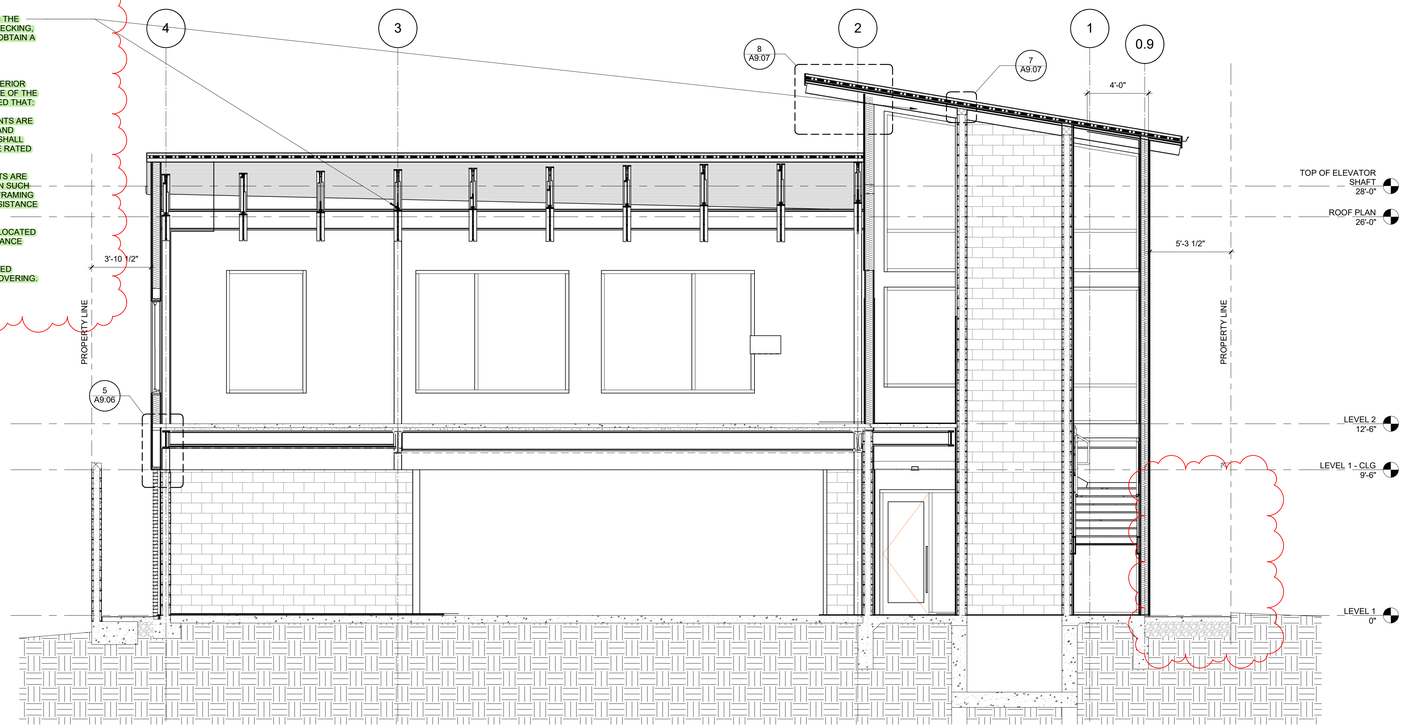
4. ONE HOUR FIRE-RESISTANCE RATED EXTERIOR WALLS THAT TERMINATE AT THE UNDERSIDE OF THE ROOF SHEATHING, DECK OR SLAB, PROVIDED THAT:

4.1 WHERE ROOF/CEILING FRAMING ELEMENTS ARE PARALLEL TO THE WALLS, SUCH FRAMING AND ELEMENTS SUPPORTING SUCH ELEMENTS SHALL NOT BE OF LESS THAT 1-HOUR RESISTANCE RATED CONSTRUCITON WITHIN 4 FEET.

4.2 WHERE ROOF/CEILING FAMING ELEMENTS ARE PARALLEL TO THE WALLS, THE ENTIRE SPAN SUCH FRAMING AND ELEMENTS SUPPORT SUCH FRAMING SHALL NOT BE LESS THAN 1 HOUR-FIRE RESISTANCE RATED CONSTRUCTION.

4.3 OPENINGS IN THE ROOF SHALL NOT BE LOCATED WITHIN 5 FEET OF THE 1 HOUR FIRE RESISTANCE RATED EXTERIOR WALL.

4.4 THE ENTIRE BUILDING SHALL BE PROVIDED WITHIN NOT LESS THAN A CLASS B ROOF COVERING.



2 SUITE 201 SECTION
SCALE: 1/4" = 1'-0"

PAINT ALL STEEL STRUCTURE SUPPORTING THE ROOF INCLUDING BEAMS, COLUMNS, AND DECKING, WITH INTUMESCENT PAINT SUFFICEINT TO OBTAIN A 1 HR FIRE RATING.

PER IBC 2021 SECTION 705.11

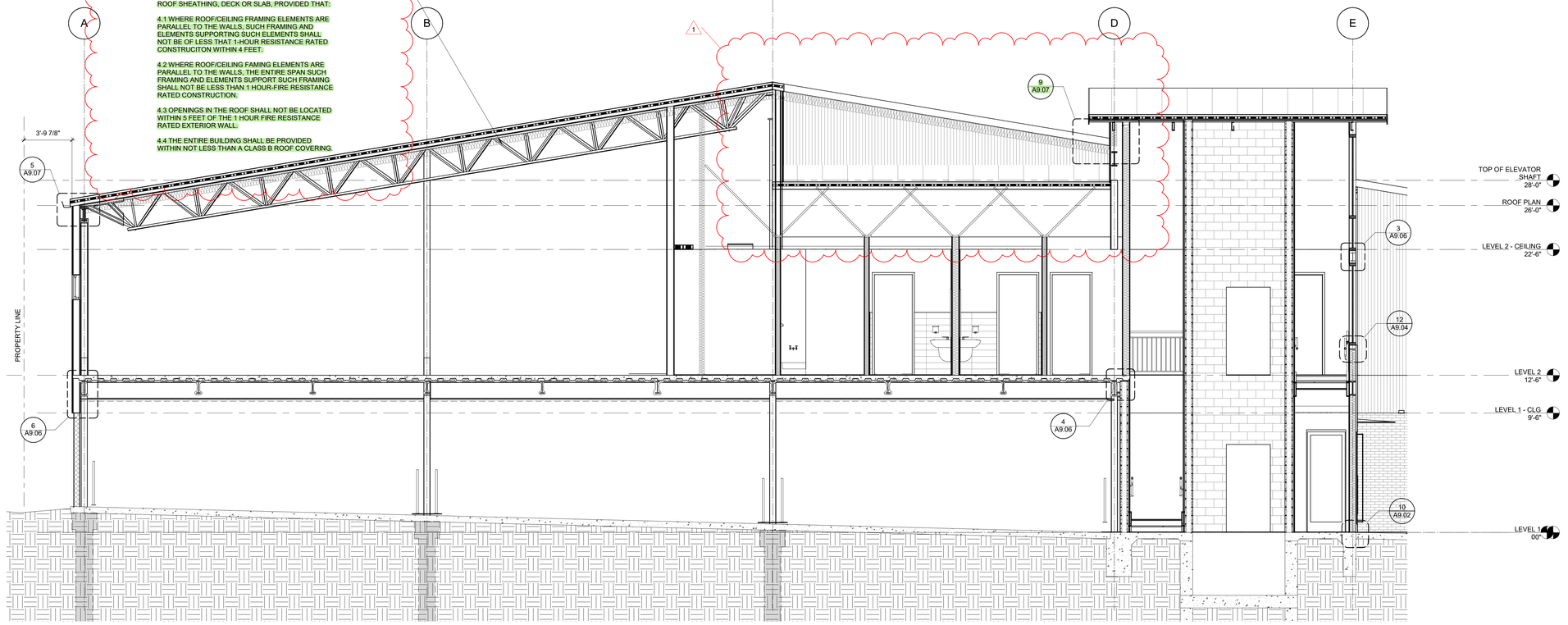
4. ONE HOUR FIRE-RESISTANCE RATED EXTERIOR WALLS THAT TERMINATE AT THE UNDERSIDE OF THE ROOF SHEATHING, DECK OR SLAB, PROVIDED THAT:

4.1 WHERE ROOF/CEILING FRAMING ELEMENTS ARE PARALLEL TO THE WALLS, SUCH FRAMING AND ELEMENTS SUPPORTING SUCH ELEMENTS SHALL NOT BE OF LESS THAT 1-HOUR RESISTANCE RATED CONSTRUCITON WITHIN 4 FEET.

4.2 WHERE ROOF/CEILING FAMING ELEMENTS ARE PARALLEL TO THE WALLS, THE ENTIRE SPAN SUCH FRAMING AND ELEMENTS SUPPORT SUCH FRAMING SHALL NOT BE LESS THAN 1 HOUR-FIRE RESISTANCE RATED CONSTRUCTION.

4.3 OPENINGS IN THE ROOF SHALL NOT BE LOCATED WITHIN 5 FEET OF THE 1 HOUR FIRE RESISTANCE RATED EXTERIOR WALL.

4.4 THE ENTIRE BUILDING SHALL BE PROVIDED WITHIN NOT LESS THAN A CLASS B ROOF COVERING



1 NORTH/SOUTH SECTION1
SCALE: 1/4" = 1'-0"

REGISTERED ARCHITECT
WALTER D. PAYNE
24499
STATE OF TEXAS

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
BIRMINGHAM, AL AUSTIN, TX ORLANDO, FL ATLANTA, GA
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AUSTIN, TX 78741

REVISIONS

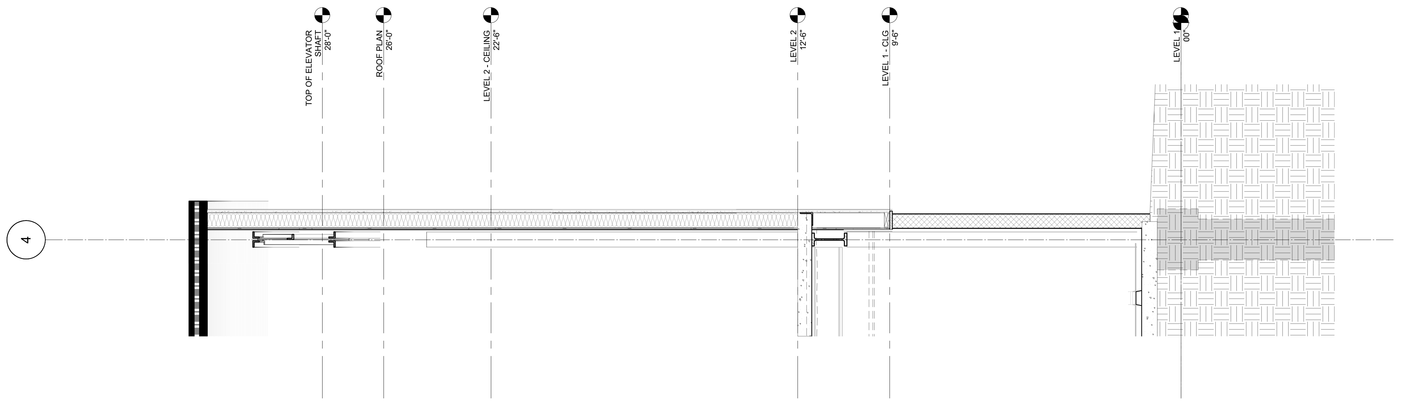
Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT: 2022.12.13

SHEET NAME:
BUILDING SECTIONS

SHEET NO:
A6.01



ARCHITECTURE & INTERIORS, LLC

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6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

△	DATE	DESCRIPTION

PROJ. NO. 21066 | ORIG. ISSUE 09/27/2022 | CURRENT:

SHEET NAME: EXTERIOR WALL SECTIONS

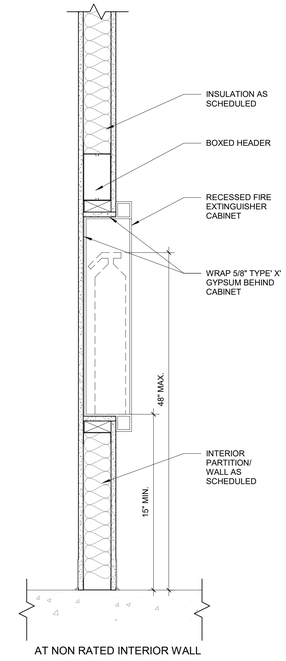
SHEET NO: A7.01

PENETRATION NOTES

1. THROUGH WALL PENETRATIONS DETAILED BELOW ARE CONSIDERED TYPICAL AND ARE ACCEPTABLE OPTOINS.
2. CONDITIONS BELOW DO NOT NECESSARILY REPRESENT ALL CONDITIONS ON THE PROJECT.
3. WHERE PENETRATIONS ARE REQUIRED BUT NO DETAIL IS PROVIDED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL PENETRATIONS ARE IN ACCORDANCE WITH THE BUILDING CODE AND UL ASSEMBLY REQUIREMENTS
4. ALTERNATIVE DESIGNS ARE ACCEPTABLE AS LONG AS THEY MEET THE REQUIREMENTS OF THE BUILDING CODE.
5. SUBMIT PRODUCT INFORMATION AND UL ASSEMBLY DATA FOR ALL RATED PENETRATIONS TO BOTH THE ARCHITECT AND AHJ.
6. REFERENCE CURRENT UL JOINT SYSTEMS DIRECTORY FOR ALL GENERAL INFORMATION, MATERIAL DESIGNATIONS, THICKNESS AND FIRE RATINGS.

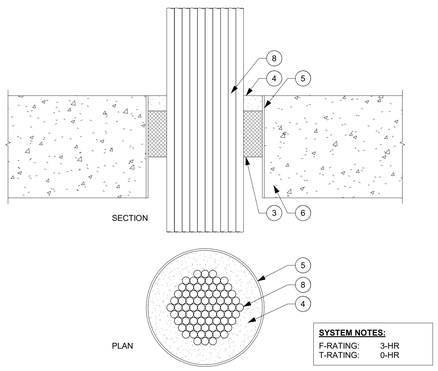
DETAIL NOTES - THROUGH SLAB PENETRATIONS - J2134 R1

1	5/8" THICK USG SHEETROCK® BRAND FIRECODE® X PANELS
2	Z-CLIPS
3	MINERAL WOOL
4	USG SHEETROCK® BRAND FIRECODE® COMPOUND, 1" [25] MIN. THICKNESS
5	OPTIONAL METALLIC SLEEVE
6	FLOOR ASSEMBLY
7	USG SHEETROCK® BRAND ACOUSTICAL OR SMOKE-SOUND SEALANT, MIN. THICKNESS PER UL C-AJ-1020
8	THROUGH PENETRATION
9	2" THICK MINERAL WOOL, COVERING CURTAIN WALL CONNECTIONS
10	EXTERIOR WALL SPANDREL PANEL (HEAT STENGHTENED GLASS CW-S-2001 OR ALUMINUM PANELS CW-S-2002)
11	SPANDREL PANEL SUPPORT
12	2" THICK FOIL-FACED OR UNFACED MINERAL WOOL, PINNED TO SPANDREL ANGLES
13	5/8" USG SHEETROCK® BRAND GLASS-MAT OR USG DUROCK® BRAND CEMENT BOARD PANELS
14	EXTERIOR WALL SYSTEM
15	3" THICK FOIL-FACED THERMAFIBER FIRESPAN INSULATION. FRICTION FIT
16	STEEL STRUT
17	MIN. 3 5/8" 20-GAUGE STEEL STUDS



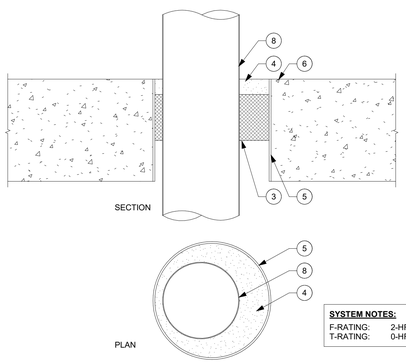
AT NON RATED INTERIOR WALL

5 FIRE EXTINGUISHER CABINET SECTIONS
SCALE: NTS



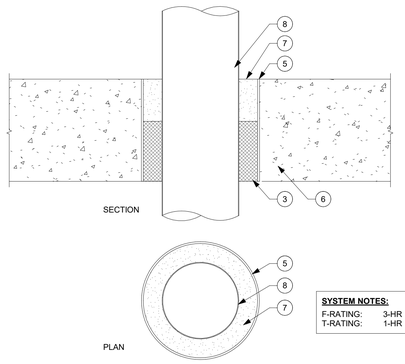
SYSTEM NOTES:
F-RATING: 3-HR
T-RATING: 0-HR

4 TSP-04 - SYSTEM NO. C-A-J-3045
SCALE: 3" = 1'-0"



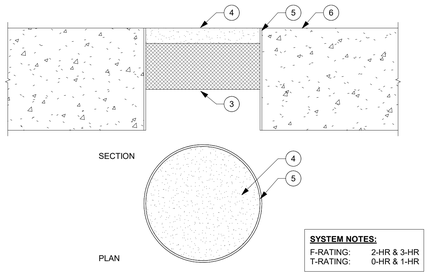
SYSTEM NOTES:
F-RATING: 2-HR & 3-HR
T-RATING: 0-HR

3 TSP-03 - SYSTEM NO. C-A-J-1081
SCALE: 3" = 1'-0"



SYSTEM NOTES:
F-RATING: 3-HR
T-RATING: 1-HR

2 TSP-02 - SYSTEM NO. C-A-J-1020
SCALE: 3" = 1'-0"



SYSTEM NOTES:
F-RATING: 2-HR & 3-HR
T-RATING: 0-HR & 1-HR

1 TSP-01 - SYSTEM NO. C-A-J-0032
SCALE: 3" = 1'-0"

REGISTERED ARCHITECT
WALTER D. PAYNE
24499
STATE OF TEXAS

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REVISIONS

Δ	DATE	DESCRIPTION

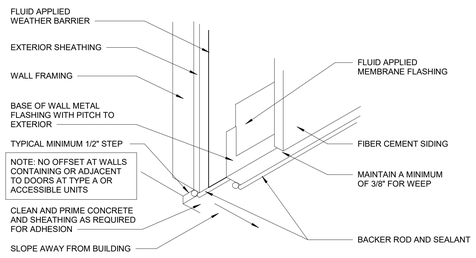
PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

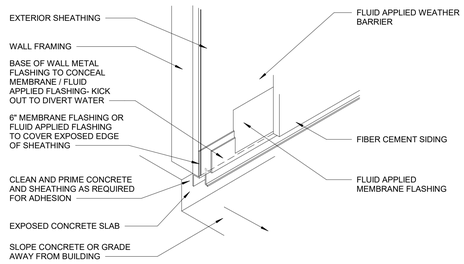
SHEET NAME:
TYPICAL PENETRATIONS

SHEET NO:
A9.01

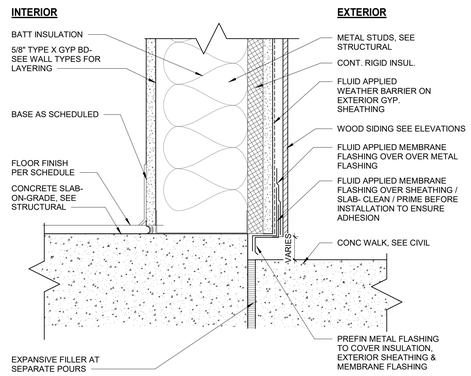
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...



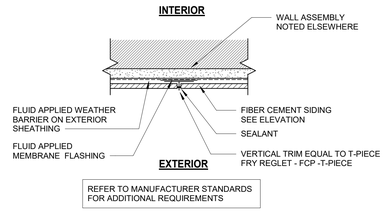
12 TYPICAL FC FLASHING AT EXTERIOR WALL AT SIDEWALK
SCALE: NTS



11 TYPICAL FC FLASHING AT BASE OF EXTERIOR WALLS
SCALE: NTS



10 TYPCIAL FC B&B / PANEL @ SIDEWALK NO BASE
SCALE: 3" = 1'-0"



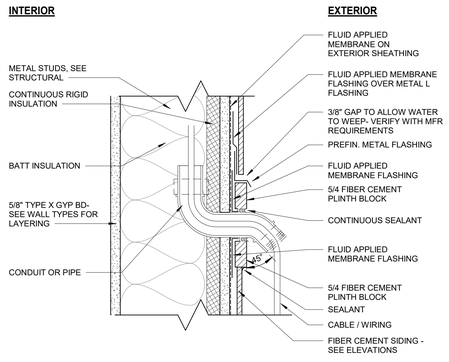
REFER TO MANUFACTURER STANDARDS FOR ADDITIONAL REQUIREMENTS

9 TYPICAL VERTICAL REVEAL AT FC PANEL SIDING
SCALE: 3" = 1'-0"

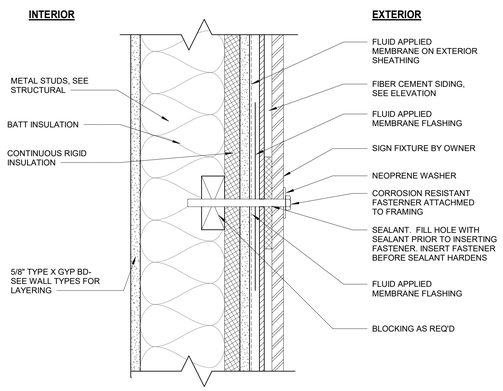
8 TYPICAL HORIZ PANEL JOINT AT FC PANELS
SCALE: NTS

6 TYPICAL OUTSIDE CORNER FIBER CEMENT
SCALE: 3" = 1'-0"

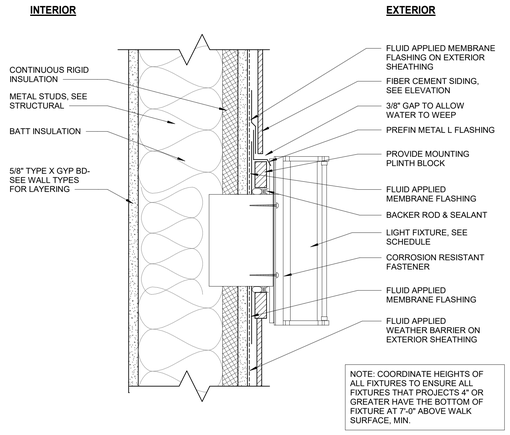
5 TYPICAL INSIDE CORNER FIBER CEMENT
SCALE: 3" = 1'-0"



4 TYPICAL SLEEVE PENETRATION @ EXT FC WALL
SCALE: NTS

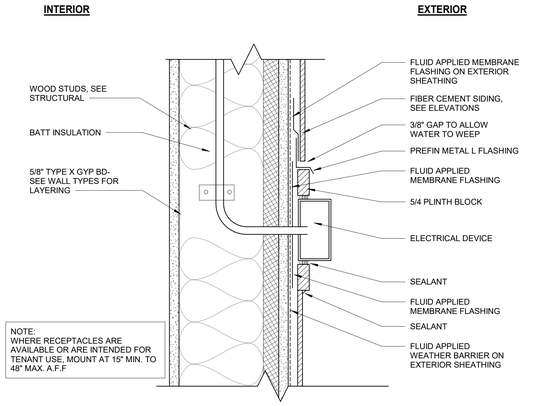


3 TYPICAL SIGN ATTACHMENT @ FC SIDING
SCALE: NTS



NOTE: COORDINATE HEIGHTS OF ALL FIXTURES TO ENSURE ALL FIXTURES THAT PROJECTS 4" OR GREATER HAVE THE BOTTOM OF FIXTURE AT 7'-0" ABOVE WALK SURFACE, MIN.

2 TYPICAL ELEC FIXTURE @ EXT FC WALL
SCALE: NTS



NOTE:
WHERE RECEPTACLES ARE AVAILABLE OR ARE INTENDED FOR TENANT USE, MOUNT AT 15" MIN. TO 48" MAX. A.F.F

1 TYPICAL ELEC PENETRATION @ EXT FC WALL
SCALE: NTS

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ARCHITECTURE & INTERIORS, LLC
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REGISTERED ARCHITECT WALTER D. PAYNE 24499 STATE OF TEXAS

ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE
6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

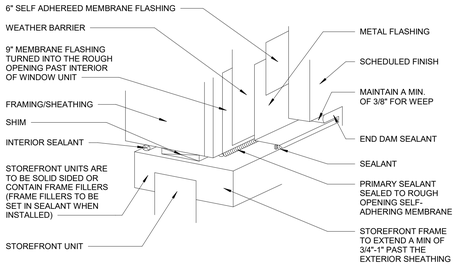
REVISIONS

Δ	DATE	DESCRIPTION

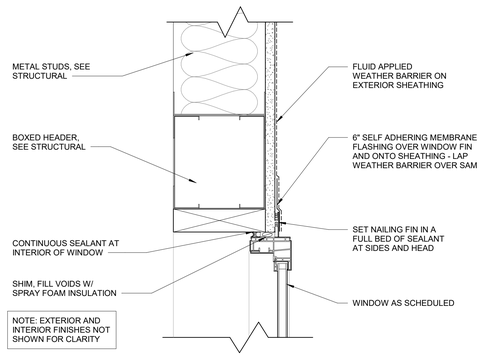
PROJ. NO. 21066 | ORIG. ISSUE 09/27/2022 | CURRENT:

SHEET NAME:
TYPICAL EXTERIOR DETAILS AT FIBER CEMENT (FLUID APPLIED)

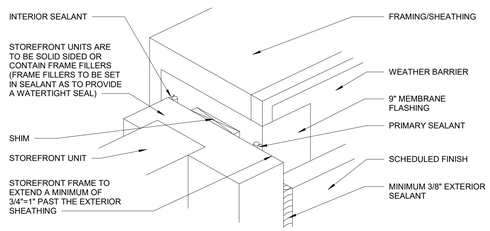
SHEET NO:
A9.02



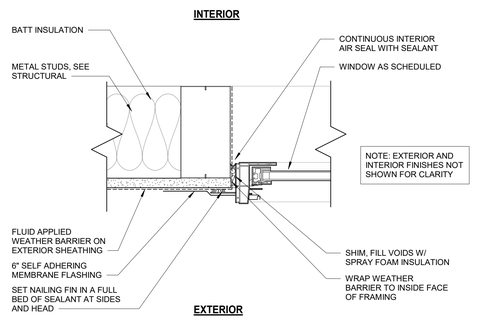
9 TYPICAL STOREFRONT HEAD FLASHING
SCALE: NTS



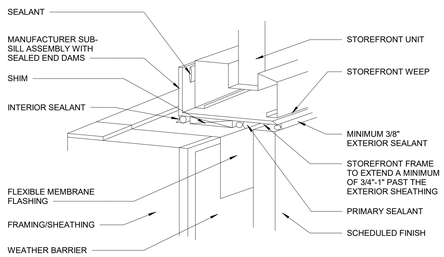
5 TYPICAL FLANGED WINDOW HEAD FLASHING
SCALE: NTS



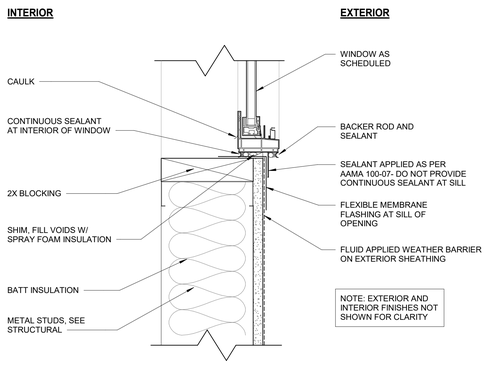
8 TYPICAL STOREFRONT JAMB FLASHING
SCALE: NTS



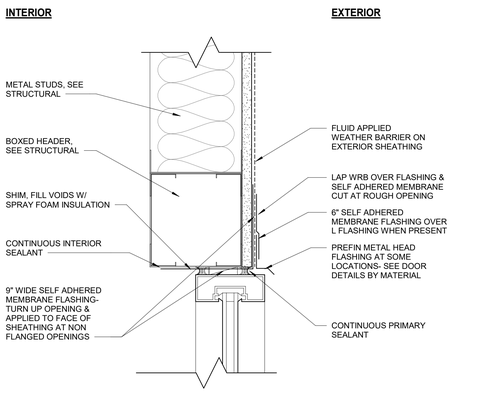
4 TYPICAL WINDOW JAMB FLASHING
SCALE: NTS



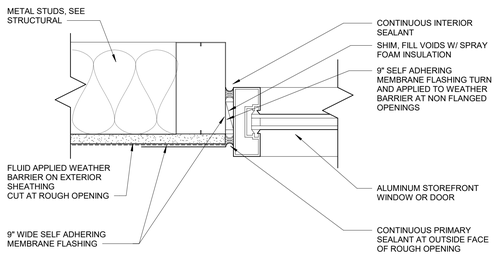
7 TYPICAL STOREFRONT SILL FLASHING
SCALE: NTS



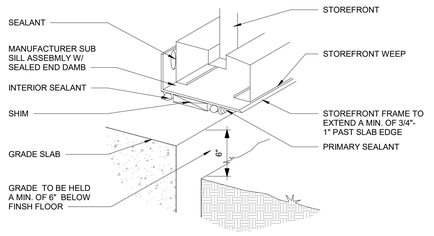
3 TYPICAL FLANGED WINDOW SILL FLASHING
SCALE: NTS



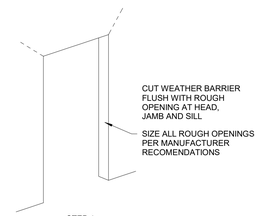
11 TYPICAL NON FLANGED DOOR HEAD FLASHING
SCALE: NTS



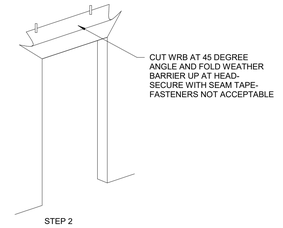
10 TYPICAL NON FLANGED DOOR JAMB FLASHING
SCALE: NTS



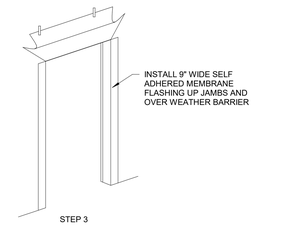
6 TYPICAL STOREFRONT SILL FLASHING AT SLAB ON GRADE
SCALE: NTS



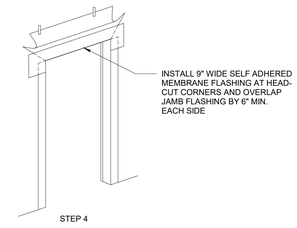
STEP 1



STEP 2



STEP 3



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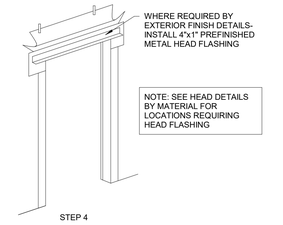

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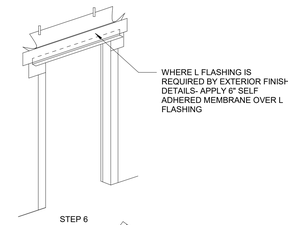
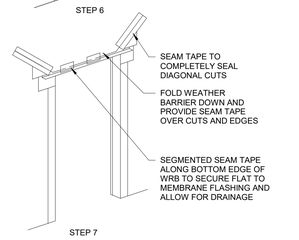
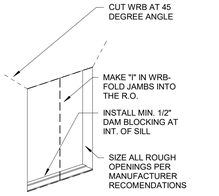


STEP 6

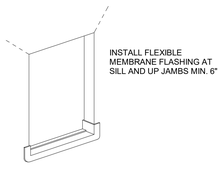


STEP 7

2 TYPICAL NON FLANGED DOOR FLASHING SEQUENCE
SCALE: NTS



STEP 1



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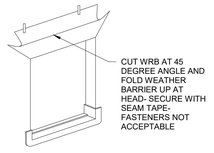

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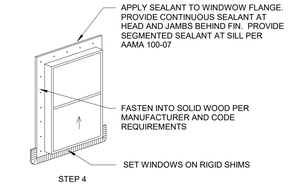
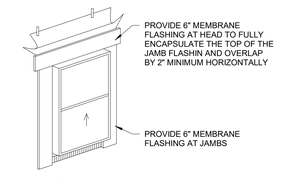
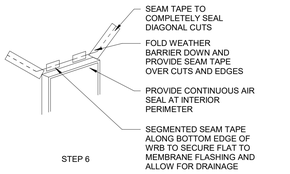


STEP 4



STEP 5



STEP 6

1 TYPICAL FLANGED WINDOW INSTALLATION AND FLASHING SEQUENCE
SCALE: NTS

NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...

REGISTERED ARCHITECT
WALTER D. PAYNE
24499
STATE OF TEXAS

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AUSTIN, TX 78741

REVISIONS

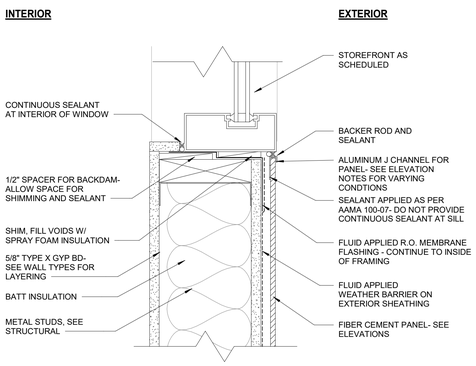
Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022
	CURRENT:

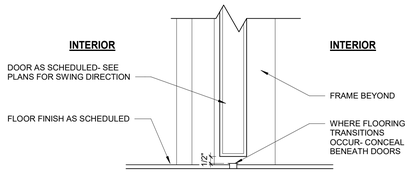
SHEET NAME:
TYPICAL WINDOW & DOOR FLASHING

SHEET NO:
A9.03

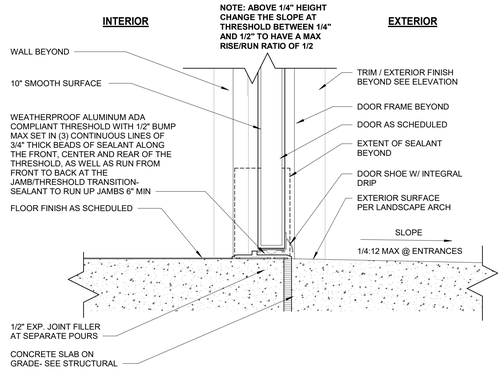
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...



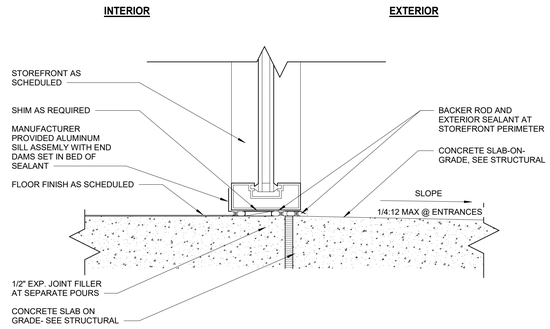
12 TYPICAL STOREFRONT SILL
SCALE: 3" = 1'-0"



11 DOOR SILL @ TYPICAL NON RATED DOORS
SCALE: NTS



10 DOOR SILL AT PUBLIC ACCESS HOLLOW METAL DOORS
SCALE: NTS



9 TYPICAL ALUMINUM STOREFRONT SILL AT SLAB ON GRADE AND FIBER CEMENT
SCALE: NTS

8 DOOR HEAD AT INTERIOR H.M. FRAME
SCALE: NTS

7 EXT HM FRAME HEAD AT FIBER CEMENT
SCALE: NTS

6 TYPICAL H.M. DOOR HEAD AT CMU WITH FC SIDING
SCALE: NTS

NOTE: THIS DETAIL IS ALSO APPLICABLE AT FIXED ALUMINUM STOREFRONT LOCATIONS

5 EXT ALUM FRAME AT FIBER CEMENT
SCALE: NTS

4 DOOR JAMB AT INTERIOR H.M. FRAME
SCALE: NTS

3 EXT HM FRAME JAMB AT FIBER CEMENT
SCALE: NTS

2 TYPICAL H.M. DOOR JAMB AT CMU WITH FC SIDING
SCALE: NTS

NOTE: THIS DETAIL IS ALSO APPLICABLE AT FIXED ALUMINUM STOREFRONT LOCATIONS

1 EXT ALUM FRAME AT FIBER CEMENT
SCALE: NTS

REGISTERED ARCHITECT
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AUSTIN, TX 78741

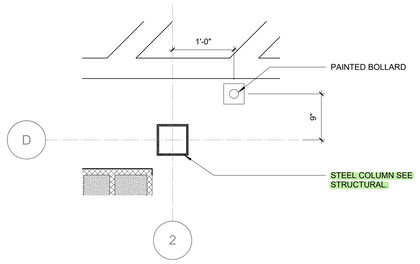
REVISIONS

Δ	DATE	DESCRIPTION

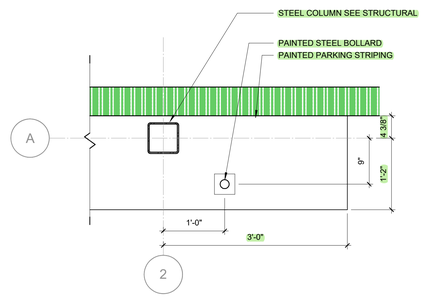
PROJ. NO.	ORIG. ISSUE
21066	09/27/2022
	CURRENT:

SHEET NAME:
TYPICAL EXTERIOR DOOR AND WINDOW DETAILS AT FIBER CEMENT

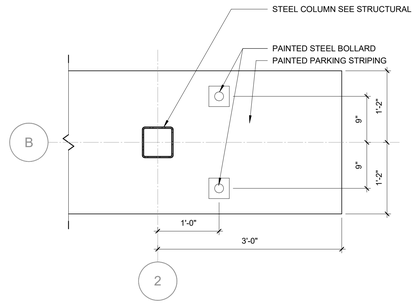
SHEET NO:
A9.04



16 LEVEL 1 - ENLARGED STAIR PLAN - COLUMN D2
SCALE: 1" = 1'-0"



15 LEVEL 1 - ENLARGED GARAGE - COLUMN A2
SCALE: 1" = 1'-0"



14 LEVEL 1 - ENLARGED GARAGE - COLUMN B2
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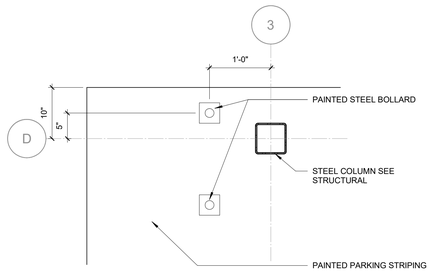

13 LEVEL 1 - ENLARGED GARAGE - COLUMN D3
SCALE: 1" = 1'-0"

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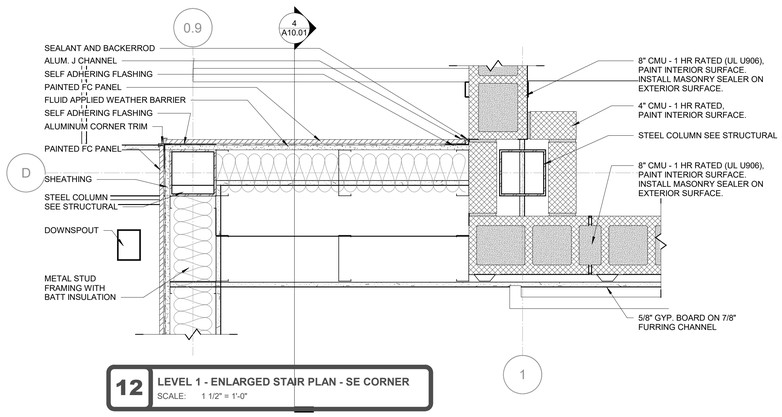
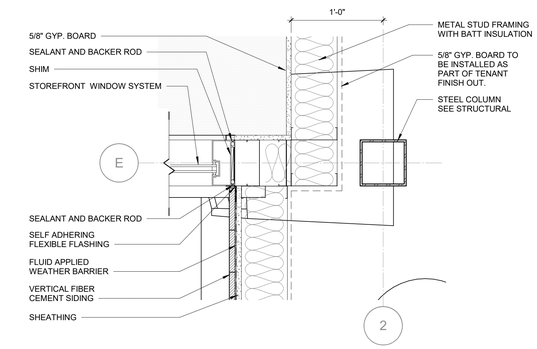
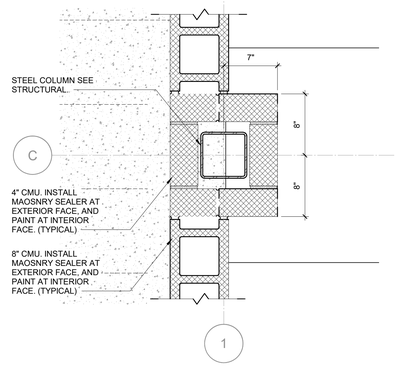


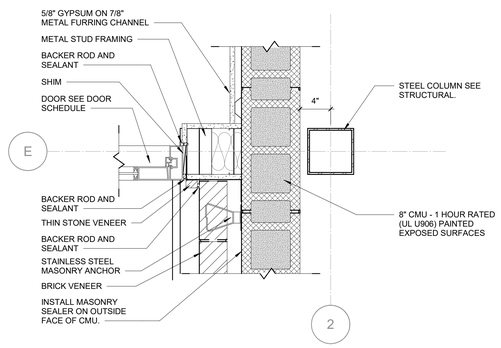
12 LEVEL 1 - ENLARGED STAIR PLAN - SE CORNER
SCALE: 1 1/2" = 1'-0"



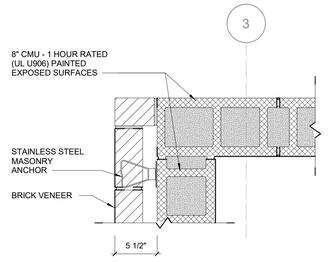
9 LEVEL 2 - ENLARGED STAIR PLAN - NW CORNER
SCALE: 1 1/2" = 1'-0"



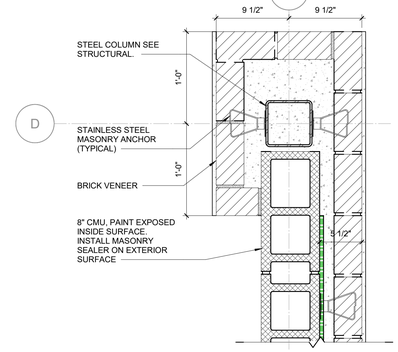
8 LEVEL 1 - ENLARGED GARAGE - COLUMN C1
SCALE: 1 1/2" = 1'-0"



7 LEVEL 1 - ENLARGED STAIR PLAN - NW CORNER
SCALE: 1 1/2" = 1'-0"



6 LEVEL 1 - ENLARGED TRASH ROOM - SE CORNER
SCALE: 1 1/2" = 1'-0"



5 LEVEL 1 - ENLARGED GARAGE AT WEST SIDE
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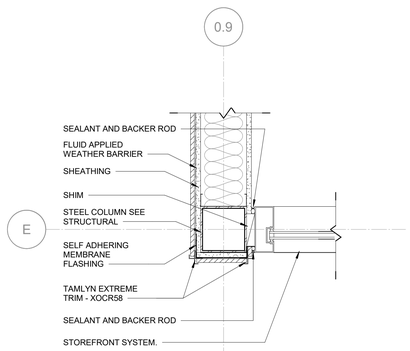
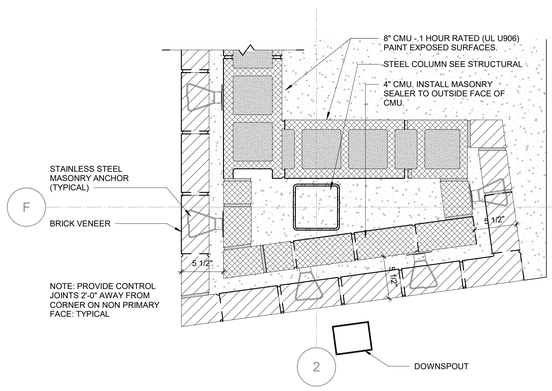
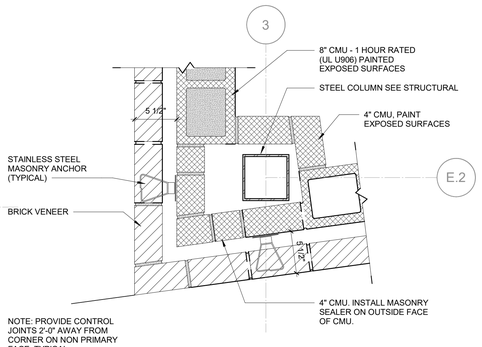


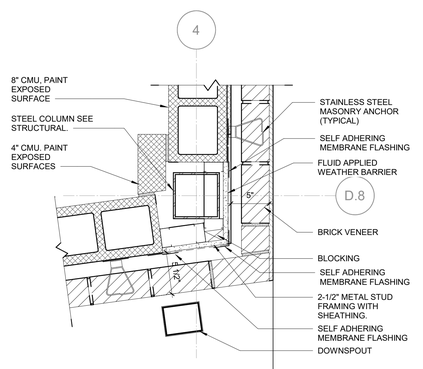
4 LEVEL 1 - ENLARGED STAIR PLAN - NE CORNER
SCALE: 1 1/2" = 1'-0"



3 LEVEL 1 - ENLARGED GARAGE NE CORNER
SCALE: 1 1/2" = 1'-0"



2 LEVEL 1 - ENLARGED TRASH ROOM - NE CORNER
SCALE: 1 1/2" = 1'-0"



1 LEVEL 1 - ENLARGED FIRE RISER ROOM - NW CORNER
SCALE: 1 1/2" = 1'-0"

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AUSTIN, TX 78741

REVISIONS

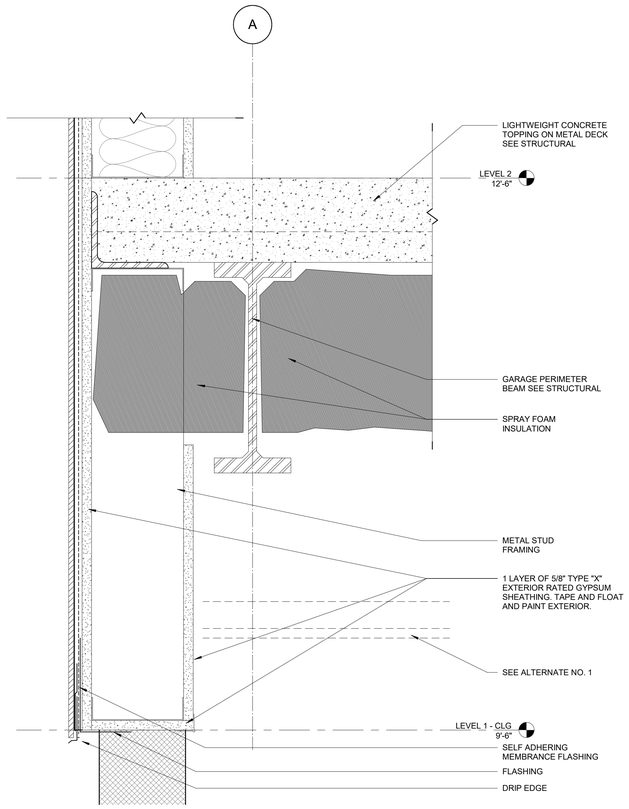
Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022
	CURRENT:

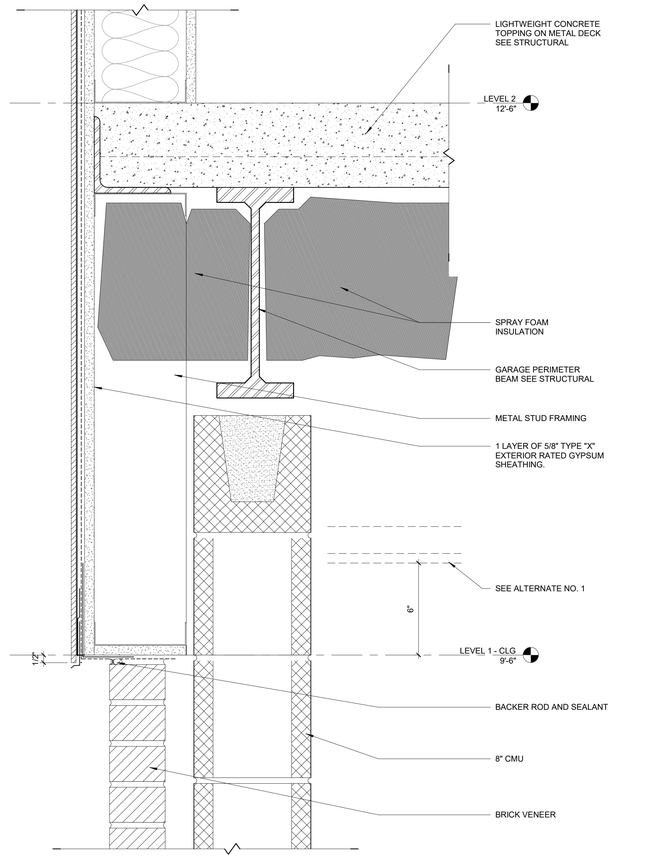
SHEET NAME:
PLAN DETAILS

SHEET NO:
A9.05

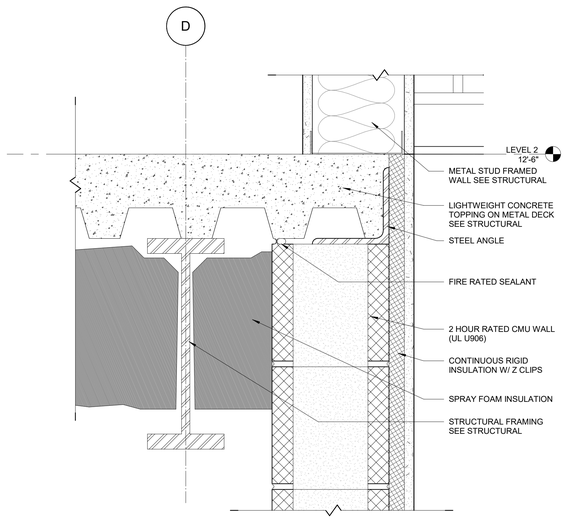
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...



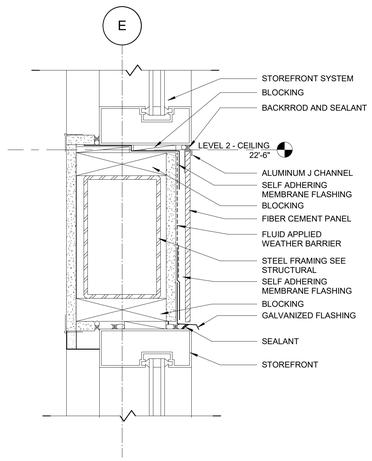
6 SECTION DETAIL AT LEVEL 2 FLOOR
SCALE: 3" = 1'-0"



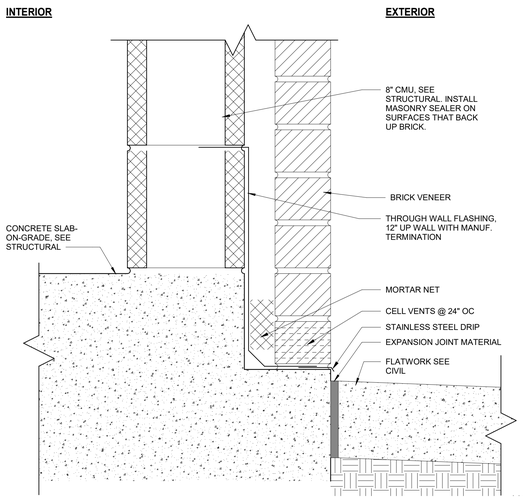
5 SECTION DETAIL AT SUITE 201 LEVEL 2 FLOOR
SCALE: 3" = 1'-0"



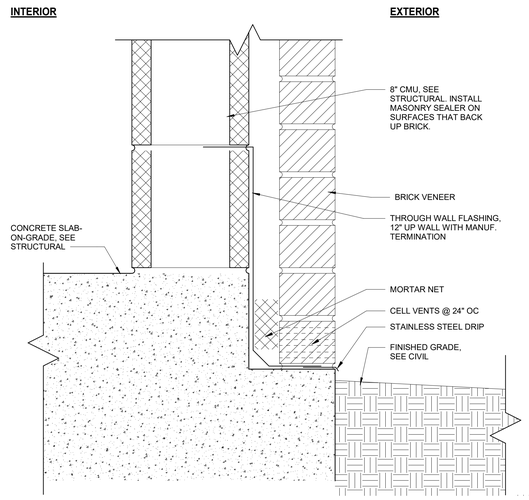
4 SECTION DETAIL AT GARAGE/STAIR WALL
SCALE: 3" = 1'-0"



3 SECTION DETAIL AT STOREFRONT
SCALE: 3" = 1'-0"



2 TYPICAL BRICK @ SLAB ON GRADE/SIDEWALK
SCALE: 3" = 1'-0"



1 TYPICAL BRICK @ SLAB ON GRADE
SCALE: 3" = 1'-0"

REGISTERED ARCHITECT
WALTER D. PAYNE
24499
STATE OF TEXAS

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
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REVISIONS

Δ	DATE	DESCRIPTION

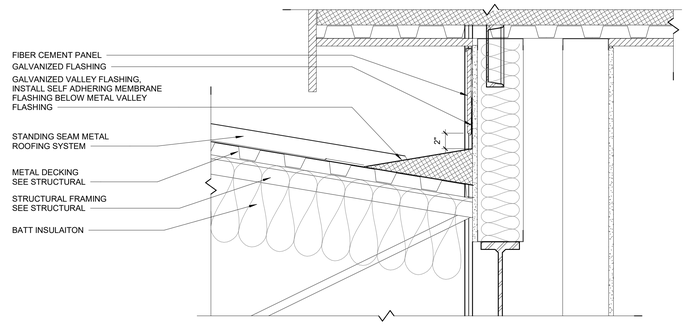
PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

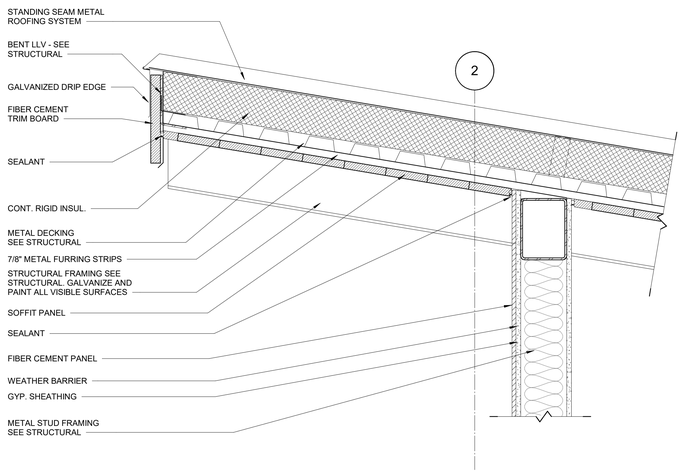
SHEET NAME:
SECTION DETAILS

SHEET NO:
A9.06

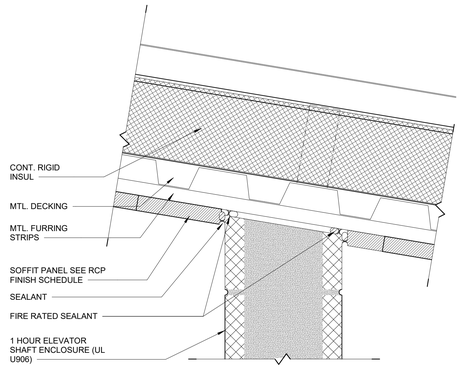
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...



9 SECTION DETAIL AT MAIN/UPPER ROOF CONNECTION
SCALE: 1 1/2" = 1'-0"



8 SECTION DETAIL - STAIR TOWER UPPER EAVE
SCALE: 1 1/2" = 1'-0"



7 SECTION DETAIL - STAIR TOWER MID-ROOF
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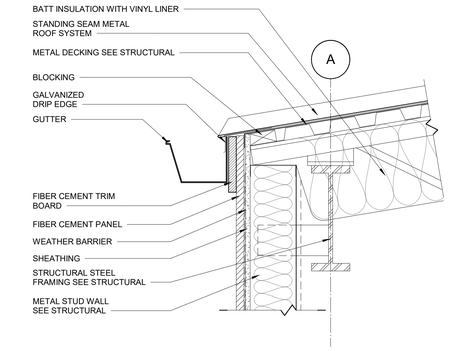
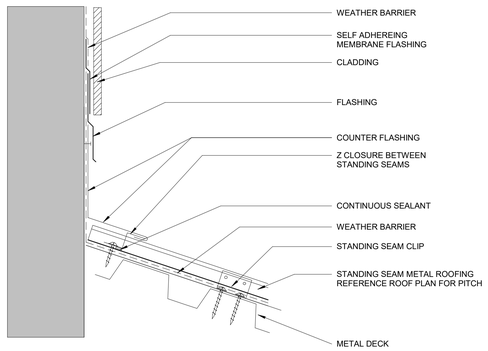
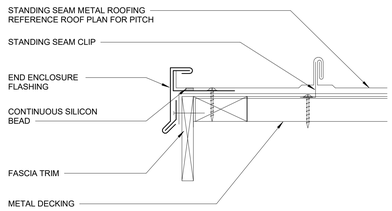


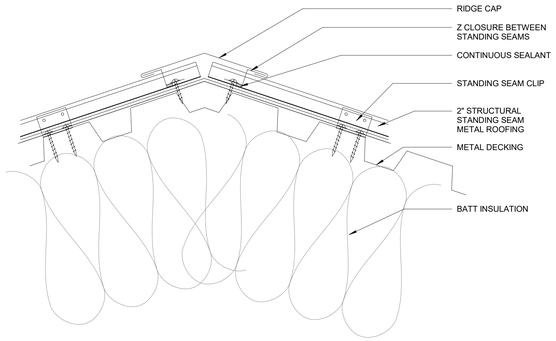
5 SECTION DETAIL AT MAIN ROOF SOUTH FASCIA
SCALE: 1 1/2" = 1'-0"



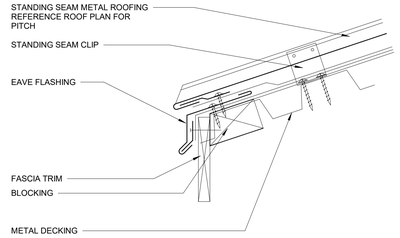
4 TYPICAL STANDING SEAM HEAD WALL FLASHING
SCALE: 3" = 1'-0"



3 TYPICAL STANDING SEAM RAKE
SCALE: 3" = 1'-0"



2 TYPICAL SANDING SEAM RIDGE
SCALE: 3" = 1'-0"



1 TYPICAL STANDING SEAM EAVE
SCALE: NTS

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PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

SHEET NAME:
ROOF DETAILS - STANDING SEAM METAL

SHEET NO:
A9.07

STANDARD SUSPENDED CEILINGS

Assembly and Installation Instructions

1. GENERAL

1.1 This installation document is intended as a general application overview, covering essential steps of a suspended ceiling installation. This document represents standard methods as supported by the manufacturer and are in addition to following the standards outlined in ASTM C636. These standards represent the manufacturers recommendations; however, all installations are subject to requirements set forth by the authority having jurisdiction.

1.2 These instructions should be supplemented with Armstrong's "*The 20 Minute Ceiling Installer*" video for examples of the installation steps, as well as the product specific installation instructions of the product being installed.

2. TOOLS REQUIRED

2.1 Here is a list of the most common tools needed for installing a suspended ceiling. Required tools and materials may vary based on job-specific conditions.

- PPE: Cut resistant gloves, safety glasses, hard hat, steel-toe boots
- Ladder(s), rolling scaffold
- Lasers: horizontal line leveling, vertical alignment, point
- String line: control/dry line
- Chalk line
- Tape measure
- Carpenter pencil
- Cordless drill with screw tips and drill bits
- Snips: metal cutting tin snips
- Rout hole punch
- Pop riveter, aluminum white pop rivets
- Lineman pliers with wire cutter
- Hammer
- Screwdrivers: slotted, Phillips
- Spring clamps: 5 to 7 (small)
- Utility knife
- Tool belt
- Hole saw
- Fasteners: wall molding attachment

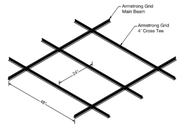
3. INSTALLATION LAYOUT

3.1 Grid Layout

3.1.1 There are many different grid layouts used for different products, panel sizes, or fixture integration. Below are guidelines for some of the more typical layouts.

3.1.1.1 Standard 2' x 4' *(Fig 1)*

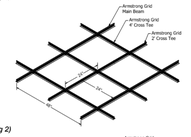
- Main beams spaced 48" O.C.
- 4' cross tees shall intersect the main beams at 90° every 24" O.C.



(Fig 1)

3.1.1.2 Standard 2' x 2' *(Fig 2)*

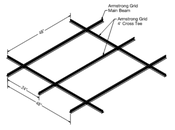
- Main beams spaced 48" O.C.
- 4' cross tees shall intersect the main beams at 90° every 24" O.C.
- 2' cross tees shall be installed at the midpoints of the 4' cross tees, creating 24" x 24" modules.



(Fig 2)

3.1.1.3 H-Layout / Cross-Hatch *(Fig 3)*

- Cross-hatched layouts differ from standard layouts by increasing the spacing of the cross tees that span the mains (typically 24" O.C.) to a distance equal to or greater than the hanger spacing along the mains (typically 48" O.C.).
- When using cross-hatched layouts, cross tees should be equivalent to mains in load carrying capacity (Lbs/LF) since they are now carrying the same load as the mains based on spacing. Refer to grid product data pages for load test data of grid components.



(Fig 3)

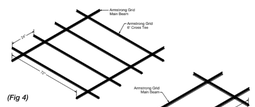
3.1.1.4 Plank Sizes

Grid layouts for plank sizes can be constructed in three different ways. The end solution may be chosen based on the desired panel orientation in relation to the mains and load on the grid components:

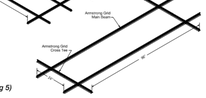
1. Main spacing equal to panel length (panel length perpendicular to mains), cross tees spanning the mains at spacing equal to panel width *(Fig 4)*.

   Refer to the grid product data pages for load test data specific to the length of cross tee being used. Supplemental wires may be required based on the span of the grid and weight of the ceiling product being installed.
2. Main spacing equal to panel width (mains parallel to panel length), cross tees spanning the mains at spacing equal to panel length *(Fig 5)*.
3. Cross-hatching of the grid components, allowing panel length to run parallel with mains without main spacing being equal to panel width *(Fig 6)*.

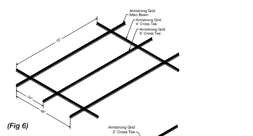
   When cross-hatching, consider the increased load on the cross tees, especially the cross tees spanning the mains. Refer to the grid product data pages for load test data specific to the length of cross tee being used. Supplemental wires may be required based on the span of the grid and weight of the ceiling product being installed.



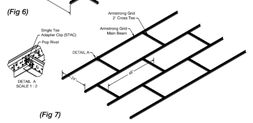
(Fig 4)



(Fig 5)



(Fig 6)



(Fig 7)

3.1.1.5 Running Bond / Staggered

Running bond or staggered layouts differ from standard layouts by alternating the grid openings between different rows of mains. This results in single cross tees occupying rout holes. These single cross tee connections must be reinforced to meet code requirements for connection strength. Armstrong's recommended solution is the Single Tee Adapter Clip (STAC) *(Fig 7)*.

3.2 Room Layout

Proper layout within a space is crucial for a good installation. Some layouts may have a starting point established by the architect noted on the prints. Examples of starting points may be for a specific border dimension, full size borders, or referenced from lights or columns. It is important to check the project plans before installation.

3.2.1 Calculating Equal Borders

The most pleasing visual is achieved when the border panels are no less than 10" wide, and the opposite wall has the exact same size border panel achieving proper room balance. For installations that require equal borders, the following steps will help you layout an installation with equal borders on opposite sides of the space.

- Determine the direction of the main beams and panel length.
- Divide each dimension of the space (length and width) by the panel length in that direction.

  Ex: 28' 9" (room width) / 2' (panel width) = 14 full size panels and a 9" remainder
- Divide the remainder to get even opposite border panels. If this results in border panels less than 10" you will need to add a full panel to the remainder so that the border panels are greater than 10".

  Ex: 9" (remainder) / 2 (borders) = 4-1/2" border (too small)

  24" (full panel width) + 9" = 33" (new remainder)

  33" / 2 (borders) = 16-1/2" borders with 13 full size panels

3.3 Plenum

Allow at least 3" below the old ceiling, duct work, pipes, or wiring as clearance to maneuver a ceiling panel into the opening of the grid.

4. WALL MOLDING

4.1 Wall molding is not considered a load bearing component of most suspended ceiling systems, but it must be securely attached to the wall every 16" - 24" O.C.

4.2 Mitered Corners

4.2.1 Inside Corners

When you get to your inside corners, a finished 45° miter is a much more pleasing visual than simply overlaying butt cuts. All you have to do is mark and cut 45° on the lower angle then overlay the butt cut upper angle for a perfect mitered visual from below *(Fig 8)*.

4.2.2 Outside Corners

The outside corners require a little more attention, but are still easy to achieve a clean mitered visual. Simply let the angle override past the corner, then square butt cut to length.

Next, cut away the vertical flange, leaving an exposed horizontal tab. Do this to both angles that approach the outside corner. After overlaying them at the corner, mark where the 45° miter cut will occur on the lower angle. Raise your upper angle and make the 45° cut on the lower angle only. Square cut the upper angle to length and you're finished with a corner that looks perfectly mitered, but is structurally sound. A spring clamp will hold the corner into place while you do the final attachment to the wall *(Fig 9)*.

(Fig 9)

4.3 Some systems may require the use of a Structural Wall Molding, with additional instructions on installation requirements for this component.

5. SUSPENSION POINTS

5.1 The suspension system must be supported with hanger wire attached to the structure.

5.2 Holding power tests certified by the manufacturer of the fasteners must be available upon request.

5.3 Hanger wires should be a minimum 12-gauge galvanized, soft-annealed, mild steel wire.

5.4 The minimum drop for hanger wire is 4", which is from the bulb of the grid to the structure. This will allow enough room to wrap your wire as well as remove ceiling panels. There is not a maximum length for suspending acoustical ceilings with 12 gauge hanger wire, unless restrictions are in place by your local code authority. Hanger wire splices are available when wire extension is necessary.

5.5 Hanger wires are typically spaced no more than 4' O.C. along the main beams, but may be spaced further if allowed by local code officials and if it is in compliance with load carrying capabilities.

5.6 Each hanger wire must not be more than one in six out of plumb, which means there should be at least 6" of vertical drop for every 1" of lateral movement *(Fig 10)*. For example, if you move a wire 2" out of plumb, you must have at least 12" of vertical drop. When this standard is not met, an equally sloped counter splay wire must be added in the opposing direction to maintain symmetry (ASTM C636) *(Fig 11)*.

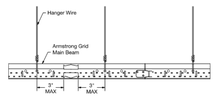
5.7 Hanger wire must be wrapped around itself a minimum of three full turns within 3" (ASTM C636 – subject to additional codes) *(Fig 12)*.

5.8 When installing fire rated main beams, all fire expansion relief cut outs must have a hanger wire within three inches (ASTM C636) *(Fig 13)*.

(Fig 10)

(Fig 11)

(Fig 12)



(Fig 13)

6. SUSPENSION SYSTEM INSTALLATION STANDARDS

6.1 Suspension systems, whether 9/16" or 15/16", shall be installed to meet the minimum requirements established in the ASTM C636 standard, and any other requirements established by local code.

6.2 All grid components used must be rated to carry the appropriate load per ASTM C635 and E3090. Consult the grid product data page for load carrying capabilities.

6.3 Main beams must be level to within 1/4" in 10', determined by measurements taken below the hanger points with the hanging wires tied tight. This process can be aided with the use of a level laser.

6.4 Certain products may call out a specific squareness requirement to ensure a satisfactory installation. Ensuring the grid installation is square can be done with perpendicular dry lines (control lines) or a 90° alignment laser to install the grid off of. Squareness of individual modules can also be verified by measuring opposite diagonals within an opening. The measurements of the opposite diagonals will be the same if they are square. If the grid is not square, push the module's cross tees to the right and clamp to remove slack and measure again.

7. CEILING PANEL INSTALLATION

7.1 Edge Detail Types

There are several different types of edge details for panels. Refer to the product data page for edge profile type and Suspension Drawing number that can be referenced in the back of the Specifier's Reference. Some common edge details are:

7.1.1 Square Lay-in

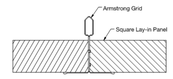
Square lay-in panels do not have any cuts on the edges. Each edge will provide a 90° corner. They install above the grid and should generally be installed in 15/16" grid *(Fig 14)*.

7.1.2 Tegular

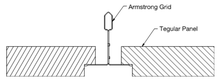
Tegular panels will have a step cut out around the edge. They will also install above the grid. Tegular edge details can vary in several characteristics, such as square or beveled, or for 9/16" or 15/16". Refer to the product data page for details regarding a specific product *(Fig 15)*.

7.1.3 Vector/Concealed

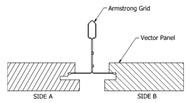
Vector and Concealed panels install from below the grid. Each panel will have an A/B side and a C/D side. Only the A/B sides will engage with the grid *(Fig 16)*. The C/D sides will act as a reverse tegular edge and will butt up next to the grid flange, but not engage with it. Refer to product specific installation instructions for information on Vector and Concealed panel edge details.



(Fig 14)



(Fig 15)



(Fig 16)

7.2 Perimeter Treatment

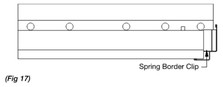
7.2.1 Perimeter panels less than full size shall be installed either by concealing the cut edge on the horizontal flange of a perimeter molding (option A), or by re-cutting the Tegular edge detail (option B).

7.2.2 Option A: Panel Face Resting on Molding

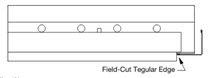
For option A, when the face of the panel rests on the molding, Spring Border Clips (item 7870) should be used for proper panel alignment and to prevent the possibility of the panel shifting toward the wall far enough to permit the opposite edge to drop off the grid flange *(Fig 17)*.

7.2.3 Option B: Re-cut the Edge Detail

For option B, the suspension system rests directly on the horizontal flange of the molding. Tegular edges will have to be field-cut to allow the panel face to drop 1/4" below the grid. All field-cut edges "exposed to view" should be colored to match the factory finish. Armstrong SuperCoat Ceiling Panel Touch-up Paint is recommended *(Fig 18)*.



(Fig 17)



(Fig 18)

7.3 Cleaning

7.3.1 Remove dust or loose dirt with a brush or vacuum with an attachment used for upholstery. Always clean in one direction to avoid rubbing dirt or debris into the tile.

7.3.2 Remove pencil marks, smudges, and stubborn dirt with an ordinary art gum eraser.

7.3.3 Most mineral fiber and fiberglass ceilings may be cleaned with a damp cloth or sponge and mild soap. Use as little water as possible and wipe the soapy film off with a clean, damp cloth or sponge.

7.3.4 Some ceilings can withstand scrubbing, moisture, and germicidal cleaners. Be sure to reference the product specific data page to read the performance features of the ceiling panel.

7.4 Touch-up Paint

7.4.1 Armstrong cannot guarantee the printed performance of a ceiling panel after it has been repainted. Repainting can impact performance features such as light reflectance, fire resistance, acoustical performance, anti-sag, and any mold-inhibiting or retarding treatment.

7.4.2 All warranties will be voided by field painting.

7.4.3 Armstrong SuperCoat Ceiling Panel Touch-up Paint is recommended to cover any blemishes or deeper gouges.

8. LIGHTING LAYOUT CONSIDERATIONS

8.1 Lighting may impact the grid layout by either requiring an H-layout/ cross-hatching or by creating single cross tee connections (unopposed cross tees). These conditions must be addressed by following the instructions in sections 3.1.1.3 (H-Layout / Cross-Hatch) and 3.1.1.5 (Running Bond / Staggered).

8.2 All light fixtures must be independently supported unless noted otherwise in the product specific installation instructions.

8.3 Follow the lighting manufacturer installation instructions and contact your local lighting manufacturer representative with any questions.

9. HELPFUL ACCESSORIES AND CLIPS

9.1 BERC2 – 2° Beam End Retaining Clip

Joins main beam or cross tee to wall molding via locking barbs without pop rivets or screws *(Fig 19)*.

9.2 XTAC – Cross Tee Adapter Clip

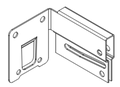
Used to attach field cut cross tees to main beams *(Fig 20)*.

9.3 GC3W – Grip Clip 3-Way

Joins main beams to cross tee via locking barbs without pop rivets or screws *(Fig 21)*.

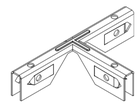
9.4 GCWA – Grip Clip Wall Attachment

Joins main beam or cross tee to wall molding via locking barbs without pop rivets or screws *(Fig 22)*.

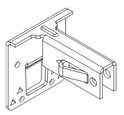


(Fig 19)

(Fig 20)



(Fig 21)



(Fig 22)

9.5 STAC – Single Tee Adapter Clip

Used to create code compliant non-seismic and seismic C, D, E, and F off-module main beam to cross tee connections. Refer to Single Tee Adapter Clip (STAC) installation guide for full instructions *(Fig 23)*.

9.6 Stabilizer Bars

Used to maintain uniform spacing of suspension system components (main beams and cross tees) *(Fig 24)*.

9.7 Stabilizer Clips

Used to maintain uniform spacing of grid components when Stabilizer Bars cannot be used due to lay-in panels. Refer to Large Format Ceiling Panels instructions for details *(Fig 25)*.

9.8 WS12 – Wire Splice

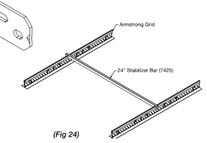
Used to splice a new hanger wire to an existing hanger wire, or if an extra-long hanger wire is needed *(Fig 26)*.

10. SEISMIC

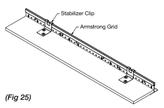
10.1 Installations occurring in seismic design categories C, D, E, or F must be in compliance with the methods described in the Seismic Design: What You Need to Know document. This document outlines the Armstrong Seismic Rx methods for installing suspended ceilings in compliance with the International Building Code (IBC) requirements for seismic design categories C, D, E, and F.

10.2 Reference the product specific installation instructions of the product being installed for any seismic installation requirements.

(Fig 23)



(Fig 24)



(Fig 25)

(Fig 26)

NOTE: INSTALLED SUSPENDED CEILINGS PER ARMSTRONG INSTALLATION INSTRUCUTIONS. ARMSTRONG INSTALLATION INSTRUCTIONS PROVIDED ON THIS SHEET FOR YOUR CONVIENCE.

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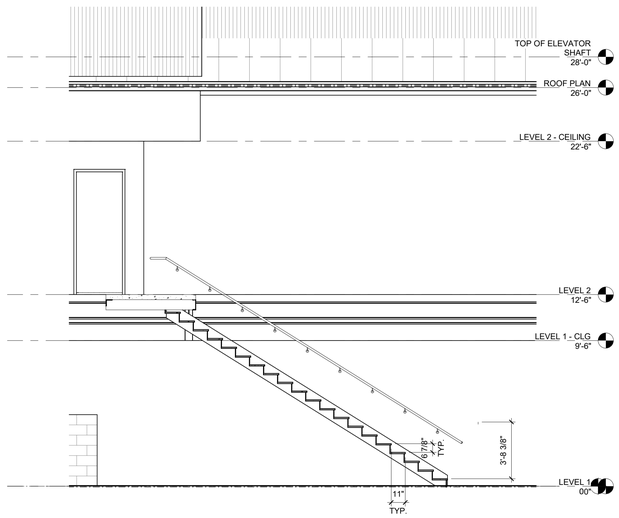
PROJ. NO. 21066 | ORIG. ISSUE 09/27/2022 | CURRENT:

SHEET NAME:

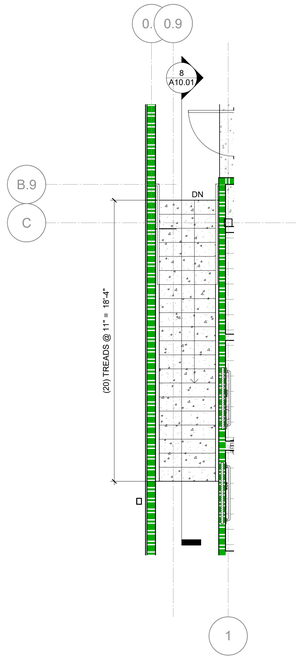
SUSPENDED CEILING DETAILS

SHEET NO:

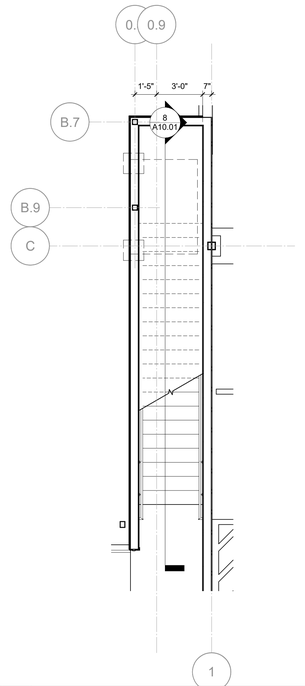
A9.08



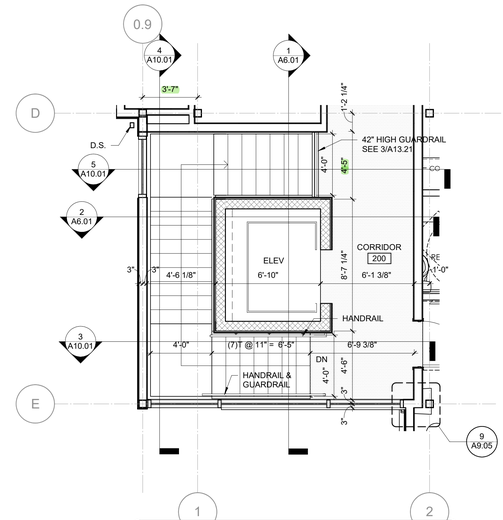
8 EXIT STAIR SECTION
SCALE: 1/4" = 1'-0"



7 LEVEL 2 - ENLARGED EXIT STAIR
SCALE: 1/4" = 1'-0"



6 LEVEL 1 - ENLARGED EXIT STAIR
SCALE: 1/4" = 1'-0"



2 LEVEL 2 - ENLARGED STAIR PLAN
SCALE: 1/4" = 1'-0"

PAINT ALL STEEL STRUCTURE SUPPORTING THE ROOF INCLUDING BEAMS, COLUMNS, AND DECKING, WITH INTUMESCENT PAINT SUFFICEINT TO OBTAIN A 1 HR FIRE RATING.

PER IBC 2021 SECTION 705.11

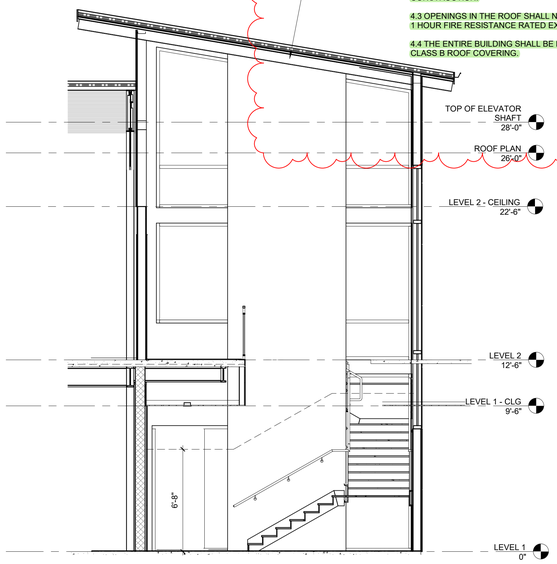
4: ONE HOUR FIRE-RESISTANCE RATED EXTERIOR WALLS THAT TERMINATE AT THE UNDERSIDE OF THE ROOF SHEATHING, DECK OR SLAB, PROVIDED THAT:

4.1 WHERE ROOF/CEILING FRAMING ELEMENTS ARE PARALLEL TO THE WALLS, SUCH FRAMING AND ELEMENTS SUPPORTING SUCH ELEMENTS SHALL NOT BE OF LESS THAT 1-HOUR RESISTANCE RATED CONSTRUCITON WITHIN 4 FEET.

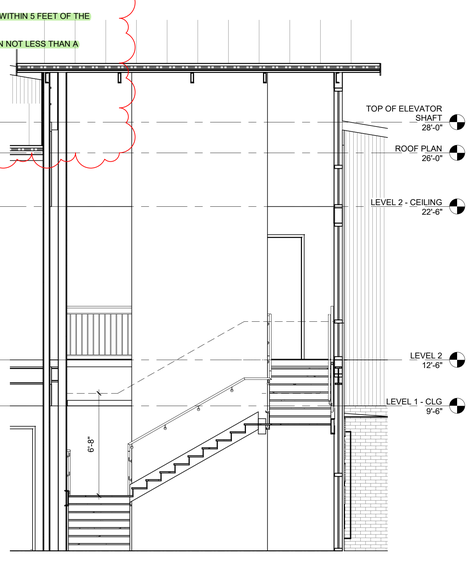
4.2 WHERE ROOF/CEILING FAMING ELEMENTS ARE PARALLEL TO THE WALLS, THE ENTIRE SPAN SUCH FRAMING AND ELEMENTS SUPPORT SUCH FRAMING SHALL NOT BE LESS THAN 1 HOUR-FIRE RESISTANCE RATED CONSTRUCTION.

4.3 OPENINGS IN THE ROOF SHALL NOT BE LOCATED WITHIN 5 FEET OF THE 1 HOUR FIRE RESISTANCE RATED EXTERIOR WALL.

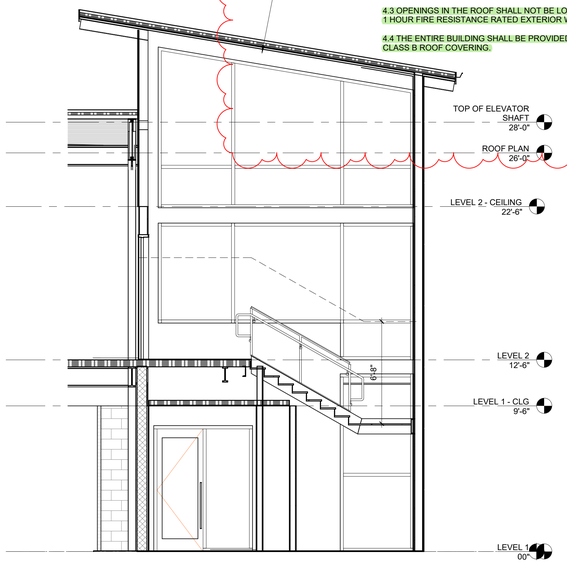
4.4 THE ENTIRE BUILDING SHALL BE PROVIDED WITHIN NOT LESS THAN A CLASS B ROOF COVERING.



5 STAIR TOWER SECTION1
SCALE: 1/4" = 1'-0"

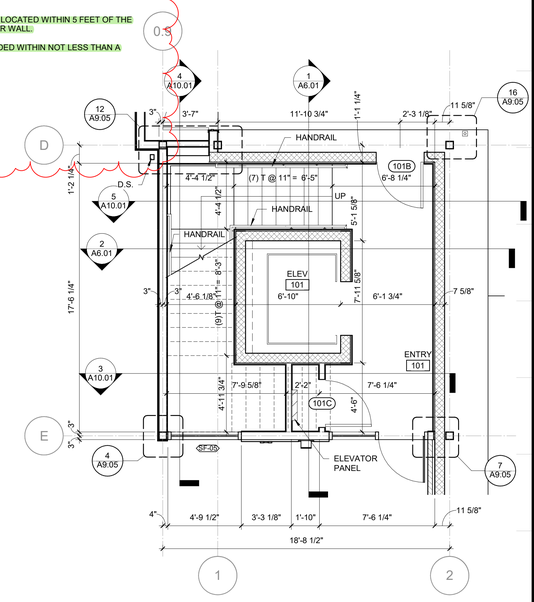


4 MONUMENTAL STAIR SECTION 2
SCALE: 1/4" = 1'-0"



3 MONUMENTAL STAIR SECTION 1
SCALE: 1/4" = 1'-0"

NOTE: BASIS FOR DESIGN OF ELEVATOR IS A KNOE MONOSPACE 2000LB



1 LEVEL 1 - ENLARGED STAIR PLAN
SCALE: 1/4" = 1'-0"

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REVISIONS

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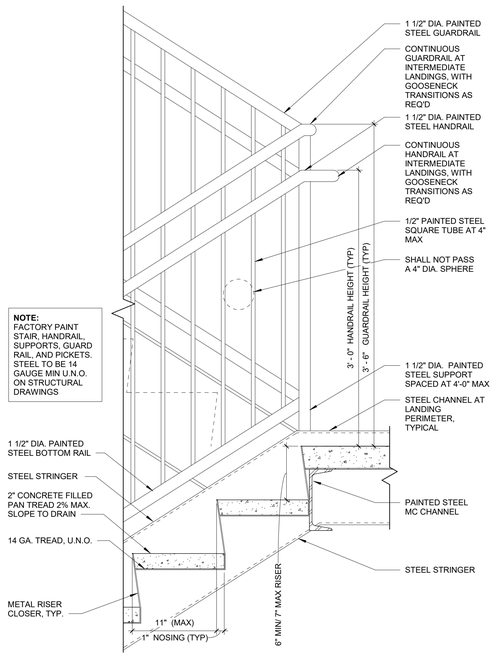
1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO. 21066
ORIG. ISSUE 09/27/2022
CURRENT: 2022.12.13

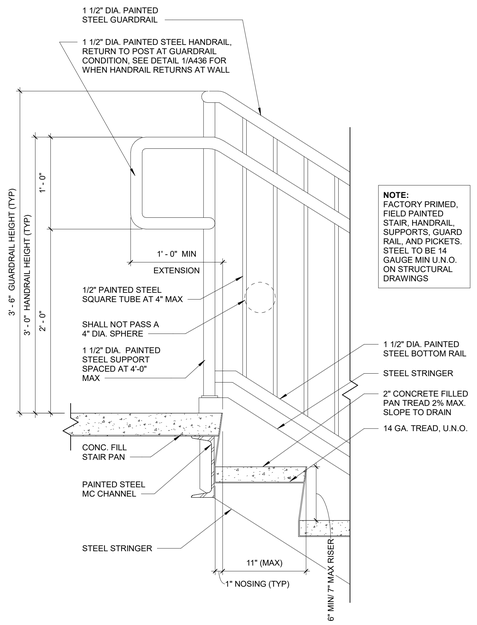
SHEET NAME:
VERTICAL CIRCULATION

SHEET NO:
A10.01

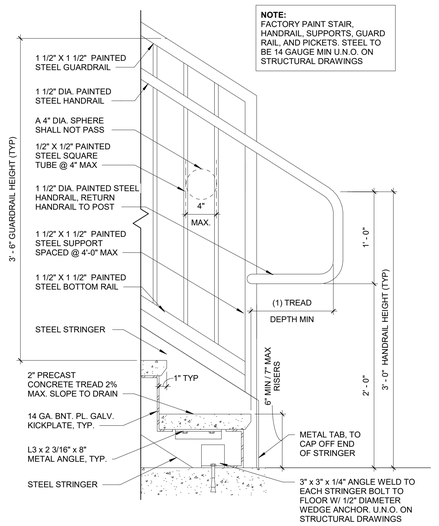
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...



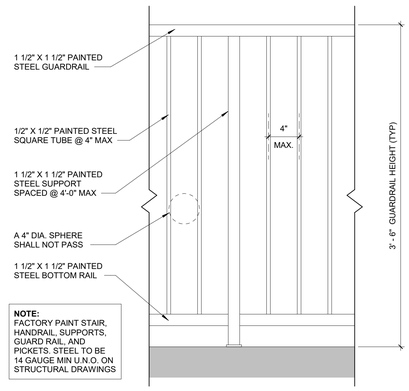
10 STEEL PAN STAIR INTERMEDIATE LANDING
SCALE: 1 1/2" = 1'-0"



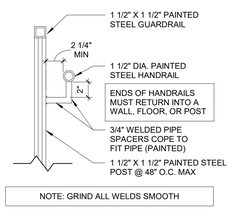
9 STEEL PAN STAIR TOP RUN
SCALE: 1 1/2" = 1'-0"



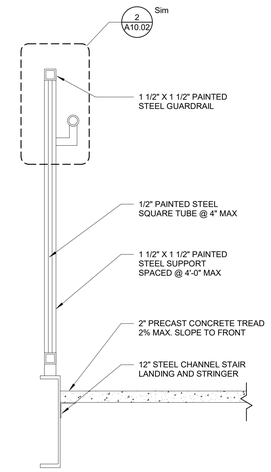
8 STEEL PAN STAIR BOTTOM RUN
SCALE: 1 1/2" = 1'-0"



3 TYP GUARDRAIL DETAIL
SCALE: 1 1/2" = 1'-0"



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



1 HANDRAIL/GUARDRAIL @ STRINGER
SCALE: 1 1/2" = 1'-0"

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PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

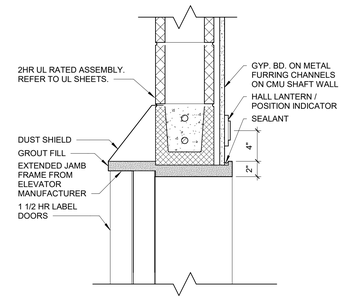
SHEET NAME:
STAIR DETAILS

SHEET NO:
A10.02

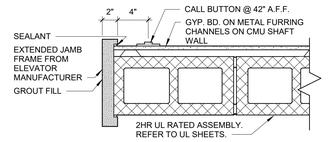
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO

GENE

1. ELEV BUILDING GEOMETRY, ETC...)ATE A 24" X 84" STRETCHER IN THE HORIZONTAL OPEN POSITION, WITH NO LESS THAN 5" RADIUS CORNERS, PER APPLICABLE BUILDING AND ACCESSIBILITY CODES.
2. ELEVATOR TO BE IDENTIFIED BY THE INTERNATIONAL SYMBOL FOR EMERGENCY MEDICAL SERVICES (STAR OF LIFE). THE SYMBOL SHALL NOT BE LESS THAN 3 INCHES HIGH AND SHALL BE PLACED INSIDE ON BOTH SIDES OF THE HOISTWAY DOOR FRAME.
3. ELEVATOR WALLS COMPOSED OF 2-HR CONCRETE BLOCK IN ACCORDANCE WITH U.L. ASSEMBLY U905. SEE UL SHEET.



13 HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



9 JAMB DETAIL
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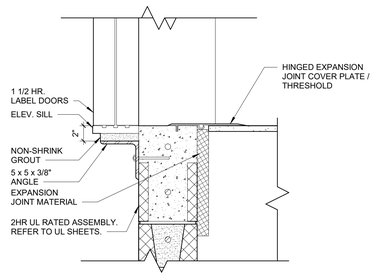

5 SILL DETAIL
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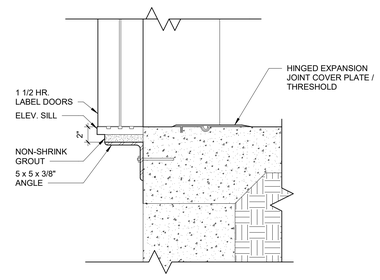

1 SILL DETAIL
SCALE: 1 1/2" = 1'-0"

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PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

SHEET NAME:
TYPICAL ELEVATOR SECTIONS & DETAILS

SHEET NO:
A10.03

DOOR SCHEDULE

DOOR NO.	DOOR SLAB							DOOR FRAME		BLDG DOOR HARDWARE SET	DOOR FIRE RATING MINUTES	COMMENTS
	SLAB	LEAF QTY	WIDTH	HEIGHT	THK.	MTL	FINISH	TYPE	FINISH			
101B	F	1	3'-0"	8'-0"	1 3/4"	HM	Fin-PT10	~HM	Fin-PT10	No.2	60	Keyed Entry
101C	F	1	3'-0"	8'-0"	1 3/4"	HM	Fin-PT10	~HM	Fin-PT10	No.3	0	Storage Door
102	F	1	3'-0"	8'-0"	1 3/4"	HM	Fin-PT10	~HM	Fin-PT10	No.3	60	Storage Door
103	SF	1	3'-0"	8'-0"	1 3/4"	AL	Fin-PT10	SF	Fin-PT10	No.4	0	Knox Box Access
104A	F	1	3'-0"	8'-0"	1 3/4"	HM	Fin-PT10	~HM	Fin-PT10	No.8	0	Panic Hardware on interior; no hardware at exterior.
104B	F	1	3'-0"	8'-0"	1 3/4"	HM	Slab Finish	~HM	Frame Finish	Hardware Set	0	
104C	F	1	3'-0"	8'-0"	1 3/4"	HM	Fin-PT10	~HM	Fin-PT10	No.9	0	Panic Hardware
201	F	1	3'-0"	8'-0"	1 3/4"	WD	Fin-PT12	~HM	Fin-PT12	No.5	0	Keyed Entry
202	F	1	3'-0"	8'-0"	1 3/4"	WD	Fin-PT12	~HM	Fin-PT12	No.5	0	Keyed Entry
203	F	1	3'-0"	8'-0"	1 3/4"	HM	Fin-PT12	~HM	Fin-PT12	No.6	0	Storage Door
204	F	1	3'-0"	8'-0"	1 3/4"	WD	Fin-PT12	~HM	Fin-PT12	No.7	0	Restroom with Occupied Indicator
205	F	1	3'-0"	8'-0"	1 3/4"	WD	Fin-PT12	~HM	Fin-PT12	No.7	0	Restroom with Occupied Indicator
206	F	1	3'-0"	8'-0"	1 3/4"	WD	Fin-PT12	~HM	Fin-PT12	No.3	0	Storage Door
SF-04	SF	1	3'-0"	8'-0"	1 3/4"	AL	Black	~SF	Black	No.10	0	Panic Hardware

1

GENERAL NOTES - DOORS

GENERAL DOOR NOTES

1. WHERE DOORS ARE NOT DIMENSIONED IN METAL OR WOOD STUD WALLS, THEY SHALL BE EITHER CENTERED AT THE MIDPOINT OF THE WALL OR OFFSET TO PROVIDE 5" CLEAR FROM THE ADJACENT WALL CORNER IF CLEARANCE ALLOWS.
2. WHERE NO DIMENSION IS GIVEN AT INTERIOR DOOR LOCATIONS IN CMU, LOCATE EDGE OF FRAME WITHIN 8" OF ADJACENT WALL. REFER UNCERTAINTIES TO ARCHITECT FOR APPROVAL.
3. ALL DOOR HARDWARE IS TO BE COORDINATED WITH THE CODE REQUIRED EGRESS COMPONENTS, ACCESSIBILITY REQUIREMENTS, AND ACCESS CONTROL REQUIREMENTS PER THE LOW VOLTAGE DRAWINGS.
4. ACCESS CONTROL FOR ALL DOORS AND FRAMES TO BE COORDINATED WITH THE LOW VOLTAGE CONSULTANT, ARCHITECT AND THE CLIENT.
5. ALL GAPS BETWEEN DOOR FRAME AND ROUGH OPENING TO BE FILLED WITH FOAM SEALANT.
6. PROVIDE ALUMINUM THRESHOLD WITH VINYL SEAL AT ALL EXTERIOR DOORS.
7. ALL EXTERIOR DOORS TO HAVE STC RATING 28 MINIMUM.
8. PROVIDE WEATHER STRIPPING AT ALL EXTERIOR DOORS.

DOOR ACCESSIBILITY NOTES

1. SEE ACCESSIBILITY SHEETS AND NOTES ON G4.0 SERIES FOR MORE INFORMATION ON ACCESSIBILITY REQUIREMENTS OF DOORS.
2. THE BOTTOM 10 INCHES OF ALL PUBLIC DOORS AND UNIT ENTRY DOORS SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
3. THRESHOLDS AT USER PASSAGE DOORS SHALL HAVE A 1/2" MAXIMUM OVERALL CHANGE IN LEVEL WITH A 1:2 BEVEL AND A 1/4" MAXIMUM VERTICAL CHANGE IN LEVEL. NOTE THIS REQUIREMENT IS NOT APPLICABLE AT UNITS ON FLOORS NOT SERVED BY AN ELEVATOR.
WHERE PEEP HOLES ARE PROVIDED, PROVIDE AN ADDITIONAL PEEP HOLE AT 42" AFF AT TYPE A AND FULLY ACCESSIBLE UNIT ENTRY DOORS.

CLEARANCE UNDER BOTTOM OF DOORS

1. CONTRACTOR SHALL UNDERCUT DOORS AS REQUIRED FOR FLOOR FINISHES, BUT NOT GREATER THAN CODE ALLOWS FOR RATED DOOR REQUIREMENTS.
2. THE CLEARANCE BETWEEN THE BOTTOM OF THE DOOR AND A RAISED NON-COMBUSTIBLE SILL SHALL NOT EXCEED 3/8".
3. WHERE THERE IS NO SILL, THE CLEARANCE BETWEEN THE BOTTOM OF THE DOOR AND THE FLOOR SHALL NOT EXCEED 3/4".
4. THE CLEARANCE BETWEEN BOTTOM OF DOOR AND RIGID FLOOR TILE: 5/8" MAX.
5. THE CLEARANCE BETWEEN THE BOTTOM OF 3/4 HR, 1 HR, & 1-1/2 HR RATED DOORS SHALL NOT EXCEED 3/8" FOR SINGLE LEAF DOORS & 1/4" FOR DOUBLE DOORS.

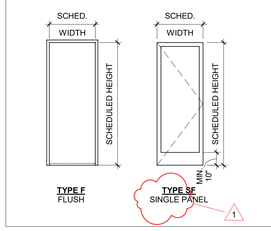
FIRE AND SMOKE RATED DOORS

1. FULLY GROUT ALL H.M. FRAMES AT RATED CMU WALLS.
2. PROVIDE SOUND AND SMOKE SEALS AT ALL INTERIOR UNIT ENTRY DOORS.
3. TRANSOMS IN RATED FRAMES SHALL HAVE SAME FIRE RATING AS DOORS IN SAME FRAME.
4. REFER TO FLOOR PLANS FOR DESIGNATION OF RATED PARTITIONS AND DOORS.

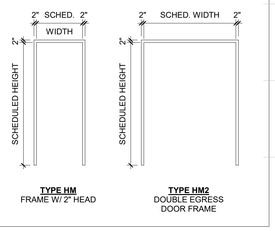
GLAZING IN DOORS

1. GLAZING IN NON-RATED DOORS SHALL BE TEMPERED SAFETY GLASS.
2. GLAZING IN RATED DOORS SHALL BE WIRE GLASS PANELS LIMITED IN SIZE PER THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
3. GLAZING OTHER THAN WIRED GLASS IN FIRE WINDOW ASSEMBLIES SHALL BE FIRE PROTECTION-RATED GLAZING IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.

DOOR TYPES LEGEND



FRAME TYPES LEGEND



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REVISIONS

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1	2022.12.13	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT: 2022.12.13

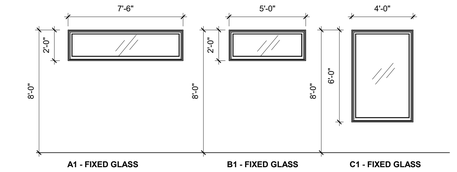
SHEET NAME:
DOOR SCHEDULES AND LEGENDS

SHEET NO:
A11.01

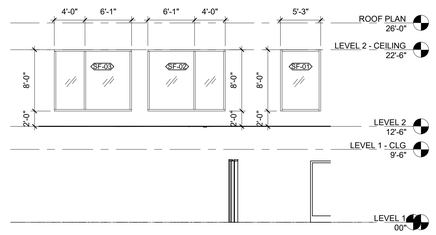
WINDOW SCHEDULE

MARK	WIDTH	HEIGHT	COMMENTS
A1	7'-6"	2'-0"	
B1	5'-0"	2'-0"	
C1	4'-0"	6'-0"	

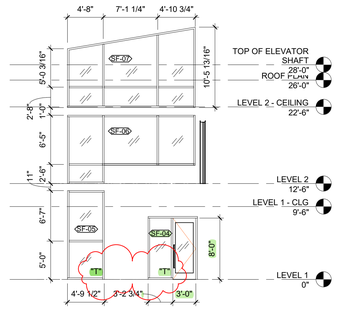
"1" - NOTES PANES OF GLASS TO BE TEMPRED GLAZING



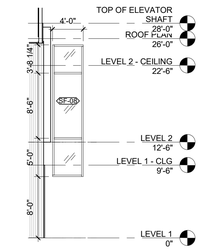
1 WINDOW TYPES
SCALE: NTS



2 STOREFRONT - NORTH ELEVATION PARTIAL
SCALE: NTS



3 STOREFRONT - NORTH ELEVATION
SCALE: NTS



4 STOREFRONT - EAST ELEVATION
SCALE: NTS

GENERAL NOTES - WINDOWS

WINDOW BASIS OF DESIGN

MANUFACTURER & SERIES: QUAKER, CITYVU
GLAZING INFORMATION: ENERGY NORTH LoE2-180 W/ARGON
STRUCTURAL RATING: 80 PSF
STC RATING:
SHGC: .55
U FACTOR: .25
COLOR: BLACK

SEE FULL SPECIFICATIONS FOR MORE INFORMATION.

1. SEE STRUCTURAL DRAWINGS FOR HEADER AND LINTEL SCHEDULES.
2. CONTRACTOR TO COORDINATE ROUGH OPENING REQUIREMENTS WITH WINDOW SUBMITTALS.
3. CONTRACTOR TO COORDINATE EXTERIOR SEALANT JOINTS TO ACCOUNT FOR FUTURE BUILDING SHRINKAGE.
4. SHIM ALL WINDOWS LEVEL AND FILL ALL GAPS AT ROUGH OPENING WITH LOW EXPANSION FOAM SEALANT. INTERIOR OF WINDOWS SHOULD BE SEALED 360 DEGRESS WITH SEALANT AT WINDOW TO R.O.

ALUMINUM STOREFRONT NOTES

1. PROVIDED BACKER PLATE OR CLOSED STOREFRONT SYSTEM AT ALL LOCATIONS.
2. COORDINATE ALL STOREFRONT OPENINGS IN FIELD (FIELD VERIFY) PRIOR TO INSTALLATION.
3. REFERENCE SHRINKAGE INFORMATION AND MANUFACTURER'S REQUIREMENTS FOR ALL SEALANT JOINT SIZES.

REFER TO **IBC 2021 2406.4 GLAZING/HAZARDOUS LOCATIONS**
THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS REQUIRING SAFETY GLAZING MATERIALS:

1. GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING, AND BIFOLD DOORS SHALL BE CONSIDERED A HAZARDOUS LOCATION.
   EXCEPTIONS:
   1. GLAZED OPENING OF A SIZE THROUGH WHICH A 3-INCH-DIAMETER SPHERE IS UNABLE TO PASS.
   2. DECORATIVE GLAZING.
   3. GLAZING MATERIALS USED AS CURVED GLAZED PANELS IN REVOLVING DOORS.
   4. COMMERCIAL REFRIGERATED CABINET GLAZED DOORS.
2. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE OF THE GLAZING IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE SHALL BE CONSIDERED A HAZARDOUS LOCATION.
   EXCEPTIONS:
   1. DECORATIVE GLAZING.
   2. WHERE THERE IS AN INTERVENING WALL OR OTHER PERMANENT BARRIER BETWEEN THE DOOR AND GLAZING.
   3. WHERE ACCESS THROUGH THE DOOR IS TO A CLOSET OR STORAGE AREA 3 FEET OR LESS IN DEPTH.
   4. GLAZING IN WALLS ON THE LATCH SIDE OF AND PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION IN ONE AND TWO-FAMILY DWELLINGS OR WITHIN DWELLING UNITS IN GROUP R-2.
3. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS SHALL BE CONSIDERED A HAZARDOUS LOCATION:
   1. THE EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQUARE FEET.
   2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR.
   3. THE TOP EDGE OF THE GLAZING IS GREATER THAN 36 INCHES ABOVE THE FLOOR.
   4. ONE OR MORE WALKING SURFACES ARE WITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE PLANE OF THE GLAZING.

   EXCEPTIONS:
   1. DECORATIVE GLAZING.
   2. WHERE A HORIZONTAL RAIL IS INSTALLED ON THE ACCESSIBLE SIDE(S) OF THE GLAZING 34 TO 38 INCHES ABOVE THE WALKING SURFACE. THE RAIL SHALL BE CAPABLE OF WITHSTANDING A HORIZONTAL LOAD OF 50 POUNDS PER LINEAR FOOT WITHOUT CONTACTING THE GLASS AND BE A MINIMUM OF 1 1/2 INCHES IN CROSS-SECTIONAL HEIGHT.
   3. OUTBOARD PANES IN INSULATION GLASS UNITS OR MULTIPLE GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLASS IS 25 FEET OR MORE ABOVE ANY GRADE, ROOF, WALKING SURFACE OR OTHER HORIZONTAL OR SLOPED (WITHIN 45 DEGREES OF HORIZONTAL) SURFACE ADJACENT TO THE GLASS EXTERIOR.
1. GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE SHALL BE CONSIDERED A HAZARDOUS LOCATION.
2. GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE SHALL BE CONSIDERED A HAZARDOUS LOCATION. THIS SHALL APPLY TO SINGLE GLAZING AND ALL PANES IN MULTIPLE GLAZING.
   EXCEPTION: GLAZING THAT IS MORE THAN 60 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, FROM THE WATER'S EDGE OF A BATHTUB, HOT TUB, SPA, WHIRLPOOL, OR SWIMMING POOL.
6. GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS, AND RAMPS SHALL BE CONSIDERED A HAZARDOUS LOCATION.
   EXCEPTIONS:
   1. THE SIDE OF A STAIRWAY, LANDING, OR RAMP THAT HAS A GUARD COMPLYING WITH THE PROVISIONS OF SECTIONS 1015 AND 1607.8, AND THE PLACE OF THE GLASS IS GREATER THAN 18 INCHES FROM THE RAILING.
   2. GLAZING 36 INCHES OR MORE MEASURED HORIZONTALLY FROM THE WMVALKING SURFACE.
7. GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 60 INCHES ABOVE THE LANDING AND WITHIN A 60-INCH HORIZONTAL ARC THAT IS LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING SHALL BE CONSIDERED A HAZARDOUS LOCATION.
   EXCEPTION: GLAZING THAT IS PROTECTED BY A GUARD COMPLYING WITH SECTIONS 1015 AND 1607.8 WHERE THE PLANE OF THE GLASS IS GREATER THAN 18 INCHES FROM THE GUARD.
8. FIRE DEPARTMENT GLASS ACCESS PANELS SHALL BE OF TEMPERED GLASS. FOR INSULATION GLASS UNITS, ALL PANES SHALL BE TEMPERED GLASS.

1. WINDOW WALL SYSTEM IS TO BE DESIGNED AND ENGINEERED SPECIFIC PER STRUCTURAL WIND LOADS.
2. WINDOW WALL SYSTEM TO BE DESIGNED PER WIND-BORNE DEBRIS REQUIREMENTS. (EDITORS NOTE TO CONFIRM IF APPLICABLE)
3. PROVIDE MISSILE IMPACT RATED GLAZING IN WINDOW WALL SYSTEM AS INDICATED ON ELEVATIONS. (EDITORS NOTE TO CONFIRM IF APPLICABLE)
4. SEE SPECIFICATIONS AND PERFORMANCE CRITERIA FOR ADDITIONAL INFORMATION.
5. ALL WINDOW WALLS AND DOORS TO INCLUDE CONTINUOUS INTERIOR AIR SEAL UTILIZING SEALANT.
6. WINDOW WALL TO BE CONSTRUCTED OF EXTRUDED ALUMINUM FRAMING, COLOR TO BE SELECTED FROM MANUFACTURER'S FULL RANGE OF COLORS.

no alternate and basis of design note

1

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REGISTERED ARCHITECT WALTER D. PAYNE 24499 STATE OF TEXAS

ISSUED FOR PERMITTING AND CONSTRUCTION

6707 RIVERSIDE

6707 RIVERSIDELAND LLC
6707 RIVERSIDE DRIVE
AUSTIN, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.13	Addendum No.1 - CoA Comments

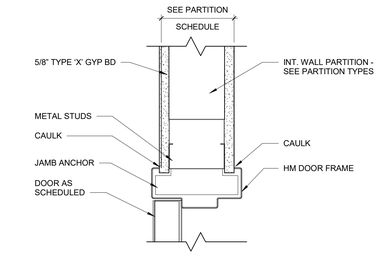
PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT: 2022.12.13

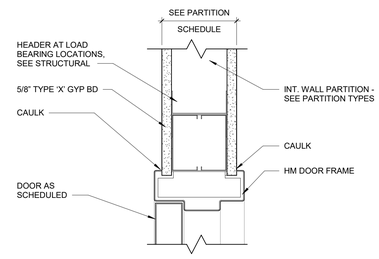
SHEET NAME:
WINDOW SCHEDULES

SHEET NO:
A11.02

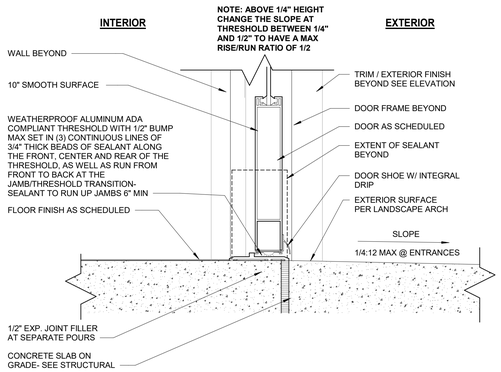
NOTE: THE DETAILS REPRESENTED ON THIS SHEET REPRESENT THE PROJECT STANDARD AND EXPECTATIONS FOR THE ASSEMBLY OF SYSTEMS, WATERPROOFING, FLASHING, SEALANTS, AND INSTALLATION REQUIREMENTS FOR THE VARIOUS EXTERIOR ENVELOPE OF THE BUILDING, SUBJECT TO MANUFACTURER INSTRUCTIONS AND COMPATIBILITY OF PRODUCTS. ISOLATED CONDITIONS NOT DETAILED WILL BE REQUIRED TO BE TREATED TO THE SAME STANDARD AS THESE PRECEDENTS, INCLUDING ANY THRU WALL FLASHING SYSTEMS NECESSARY FOR DRAINAGE, PRIMARY AND SECONDARY SEALANTS, LIQUID FLASHINGS TO CONFORM TO BUILDING GEOMETRY, ETC...



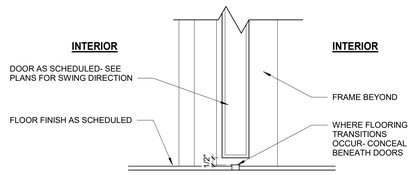
9 DOOR JAMB AT INTERIOR H.M. FRAME
SCALE: 3" = 1'-0"



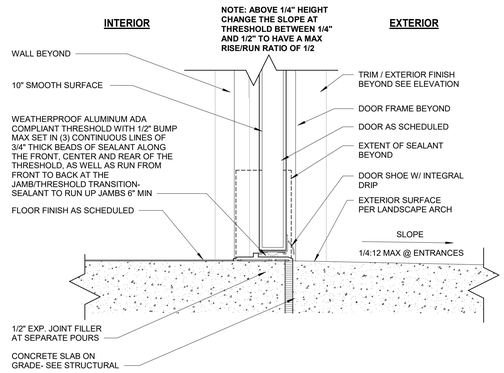
5 DOOR HEAD AT INTERIOR H.M. FRAME
SCALE: 3" = 1'-0"



3 DOOR SILL AT PUBLIC ACCESS ALUMINUM STOREFRONT DOORS
SCALE: 3" = 1'-0"



2 DOOR SILL @ TYPICAL NON RATED DOORS
SCALE: 3" = 1'-0"



1 DOOR SILL AT PUBLIC ACCESS HOLLOW METAL DOORS
SCALE: 3" = 1'-0"

REGISTERED ARCHITECT
WALTER D. PAYNE
24499
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REVISIONS

Δ	DATE	DESCRIPTION

PROJ. NO.	ORIG. ISSUE
21066	09/27/2022

CURRENT:

SHEET NAME:
TYPICAL DOOR DETAILS NOT SHOWN ELSEWHERE

SHEET NO:
A11.03

STRUCTURAL GENERAL NOTES & SPECIFICATIONS

GENERAL REQUIREMENTS

1 APPLICABLE CODES AND STANDARDS - UNLESS OTHERWISE NOTED, ALL CODES AND STANDARDS REFERENCED SHALL BE THE LATEST EDITION.

2 PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR REQUIRED OPENINGS TO BE PROVIDED, WHETHER SHOWN ON THESE DRAWINGS OR NOT. VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH THE MECHANICAL AND ELECTRICAL CONTRACTORS. OPENINGS REQUIRING HEADERS OR FRAMING SHALL BE REFERRED TO THE STRUCTURAL ENGINEER. NOMINAL PIPE SLEEVES THROUGH THE METAL ROOF DECK WILL NOT REQUIRE REINFORCEMENT OR FRAMING UNLESS THE OPENING EXCEEDS 6 INCHES IN DIAMETER.

3 INDIVIDUAL FLOOR OPENINGS LESS THAN OR EQUAL TO 10 INCHES IN DIAMETER CAN BE CORE DRILLED THROUGH THE FLOOR SLABS PROVIDED THAT THE CORED HOLES DO NOT CONFLICT OR INTERFERE WITH THE SUPPORTING STRUCTURAL FRAMING OR EDGE ANGLES. MULTIPLE CLOSELY SPACED OPENINGS PLACED PERPENDICULAR TO THE SPAN OF THE SLAB SHALL BE REFERRED TO THE STRUCTURAL ENGINEER FOR APPROVAL AND/OR ADDITIONAL FRAMING PRIOR TO CORE DRILLING. SEE 5/S6.2.

4 ANY REQUIRED CHANGES TO THE STRUCTURAL DRAWINGS DUE TO THE ACCEPTANCE OF ALTERNATES AND/OR SUBSTITUTES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

5 REFER TO THE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPES, LOCATION OF DEPRESSED FLOOR AREAS, FLOOR FINISHES, WALKS, CURBS, TOPPING SLABS, ETC. ALL SLAB RECESSES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR NOT.

6 THE CONTRACTOR SHALL COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND CIVIL DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEERS AND ARCHITECT PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS. CONFLICTS THAT ARISE OR OCCUR DUE TO A LACK OF FIELD COORDINATION SHALL BE CORRECTED OR REMEDIED BY THE CONTRACTOR AT NO ADDITIONAL COST.

7 REPRODUCTION NOTE - THE USE OF REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS IS PROHIBITED. REVIT MODELS AND/OR CAD FILES OF STRUCTURAL DRAWINGS WILL BE MADE AVAILABLE TO THE CONTRACTOR, SUBCONTRACTORS AND/OR FABRICATORS/SUPPLIERS UPON REQUEST. THE CONTRACTOR, SUBCONTRACTORS, FABRICATORS AND/OR SUPPLIERS MAY REQUEST THE REVIT MODEL OR CAD DRAWING FILES WITH THE UNDERSTANDING THAT SUCH FILES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR, SUBCONTRACTOR, FABRICATOR OR SUPPLIER AND THAT PROVIDING THESE FILES DOES NOT IN ANY WAY RELIEVE THESE PARTIES OF THE RESPONSIBILITY FOR COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, COORDINATION OF THE WORK, OR FOR VERIFICATION OF MEASUREMENTS AND DIMENSIONS FOR PROPER FIT. ANY SUCH REQUIRED CHANGES SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

8 JOB SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL ADHERE TO OCCUPATIONAL SAFETY AND HEALTH (OSHA) REGULATIONS, AS A MINIMUM, TO PROTECT PERSONNEL AT EXCAVATION SITES AND AT THE PROJECT SITE.

APPLICABLE BUILDING CODE

THE APPLICABLE BUILDING CODE FOR THIS PROJECT IS THE INTERNATIONAL BUILDING CODE (IBC), 2021 EDITION.

DESIGN LOADS

1 LIVE LOADS

ROOF	20 PSF IN ACCORDANCE WITH IBC, SECTION 1607.14 ROOF LOADS
FLOORS	
LOBBIES (FIRST FLOOR)	100 PSF
OFFICES	50 PSF
CORRIDORS (UPPER FLOOR)	80 PSF
PARTITIONS	15 PSF
STAIRS	100 PSF OR 300 LBS ANYWHERE ON TREAD

2 DEAD LOADS

ROOF	
INTRINSIC	10 PSF
SUPERIMPOSED	10 PSF
UPPER FLOOR	
INTRINSIC	56 PSF
SUPERIMPOSED	15 PSF
FIRST FLOOR	
INTRINSIC	75 PSF
SUPERIMPOSED	5 PSF

3 WIND LOADS - WIND LOADS ARE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.

RISK CATEGORY =II
EXPOSURE = B
ULTIMATE BASIC DESIGN WIND SPEED = 108 MPH
NOMINAL BASIC DESIGN WIND SPEED = 83.7 MPH
INTERNAL PRESSURE COEFFICIENT, GCpi = +/- 0.18

4 COMPONENTS AND CLADDING LOADS (UNFACTORED)

ROOF

EDGE ZONES	MAXIMUM INWARD PRESSURE =	10.0 PSF
	MAXIMUM OUTWARD PRESSURE =	24.3 PSF
	WIDTH OF EDGE ZONES = 7'-0"	
CORNER ZONES	MAXIMUM INWARD PRESSURE =	10.0 PSF
	MAXIMUM OUTWARD PRESSURE =	28.1 PSF
	WIDTH OF CORNER ZONES = 7'-0"	
INTERIOR ZONES	MAXIMUM INWARD PRESSURE =	10.0 PSF
	MAXIMUM OUTWARD PRESSURE =	14.8 PSF

WALLS

INTERIOR ZONES	MAXIMUM INWARD PRESSURE =	10.8 PSF
	MAXIMUM OUTWARD PRESSURE =	11.8 PSF
END ZONES	MAXIMUM INWARD PRESSURE =	10.8 PSF
	MAXIMUM OUTWARD PRESSURE =	13.6 PSF
	END ZONES EXTEND 7'-0" FROM EACH CORNER.	

5 SEISMIC LOADS

PER SITE GEOTECHNICAL INVESTIGATION:

SITE CLASS =	E
S(s) =	0.064
S(1) =	0.037
Fa =	2.5
Fv =	3.5
S(ms) =	0.094
S(m1) =	0.086
S(ds) =	0.063
S(d1) =	0.057

BUILDING OCCUPANCY CATEGORY = II
SEISMIC DESIGN CATEGORY = A
IMPORTANCE FACTOR = 1.0
BASIC SEISMIC FORCE RESISTIVE SYSTEM - ORDINARY STEEL CONCENTRICALLY BRACED FRAMES
RESPONSE MODIFICATION COEFFICIENT = 3.25
SEISMIC RESPONSE COEFFICIENT = 0.01

DESIGN BASE SHEAR, V = 5.90 KIPS

6 GROUND SNOW LOAD

GROUND SNOW LOAD = 5 PSF

7 INTERIOR PARTITION WALLS

LATERAL LOAD 5 PSF

FOUNDATION NOTES

1 DESIGN VALUES ARE AS FOLLOWS:

DRILLED SHAFT FOUNDATIONS

ALLOWABLE END BEARING FOR SHAFTS BEARING IN CLAY BEARING STRATA	4,000 PSF
ALLOWABLE SKIN FRICTION FOR SHAFTS 12 FEET BELOW EXISTING GROUND SURFACE	1,500 PSF
ALLOWABLE SKIN FRICTION FOR SHAFTS 12 FEET BELOW EXISTING GROUND SURFACE (UPLIFT)	1,500 PSF

SKIN FRICTION AND END BEARING MAY BE COMBINED WITH A .70 REDUCTION IN ALLOWABLE END BEARING.

2 THE SITE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS PREPARED BY MLA GEOTECHNICAL, 2800 LONGHORN BOULEVARD, SUITE 104, AUSTIN, TX 78758, TELEPHONE (512) 873-8899, FAX (512) 651-8486, ENGINEER'S JOB NO. 22106100.056, DATED JUNE 8, 2022. THE CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT AND REVIEW THE REPORT TO BECOME THOROUGHLY FAMILIAR WITH THE GEOTECHNICAL CONDITIONS THAT EXIST AT THIS SITE AND THE RECOMMENDATIONS PRESENTED THEREIN.

THE SITE GEOTECHNICAL REPORT AND THE RECOMMENDATIONS PRESENTED THEREIN ARE REFERENCED FOR INFORMATIONAL PURPOSES ONLY. THE GEOTECHNICAL REPORT FOR THE PROJECT SITE IS NOT A PART OF THE CONSTRUCTION OR CONTRACT DOCUMENTS.

3 THE SOILS AT THE SITE ARE ANTICIPATED TO CONSIST OF APPROXIMATELY 10 FEET OF DARK BROWN HIGH PLASTICITY CLAY WITH GRAVEL OVER TAN MODERATE PLASTICITY CLAY WITH GRAVEL. THE FIRST FLOOR ENTRY STAIR/VESTIBULE, ENCLOSED EXIT STAIR, AND TRASH/FIRE RISER AREA AND FOUNDATION SYSTEM IS TO CONSIST OF A STRUCTURALLY SUSPENDED BEAM AND SLAB SYSTEM OVER VOID FORMS SUPPORTED BY DRILLED SHAFTS. THE LEVEL 1 PARKING AREA CONSISTS OF CONCRETE PAVEMENT AND IS NOT PART OF THE BUILDING FOUNDATION SYSTEM. (△1)

4 THE CONTRACTOR SHALL PROVIDE AND ENSURE PROPER DRAINAGE OF THE SITE PRIOR TO BEGINNING CONSTRUCTION OF THE FOUNDATION AND FLOOR SYSTEMS. DRAINAGE SHALL BE SUCH THAT SURFACE RUNOFF IS ROUTED AROUND OR AWAY FROM THE BUILDING SITES. MEASURES SHALL BE TAKEN TO PREVENT THE PONDING OF WATER WITHIN THE BUILDING AREAS.

5 THE PROJECT CONSTRUCTION AREA SHALL BE CLEARED AND GRUBBED TO REMOVE ALL TOP SOIL, VEGETATION AND TREES WITHIN THE CONSTRUCTION AREA. MINIMUM DEPTH OF REMOVAL SHALL NOT BE LESS THAN 8 INCHES BELOW THE EXISTING GROUND SURFACE. TREE ROOTS SHALL BE GRUBBED AND REMOVED FOR THEIR FULL DEPTHS. TREES THAT ARE TO REMAIN SHALL CLEARLY MARKED AND PROTECTED FROM DAMAGE. WITH THE OWNER'S PERMISSION, TOP SOIL MAY STOCKPILED ON-SITE IN A LOCATION DETERMINED BY THE OWNER FOR LATER GRADING AROUND THE SITE. ALL EXCESS MATERIAL NOT USED FOR FINAL GRADING AND ALL MATERIAL THAT IS NOT PERMITTED TO BE STOCKPILED ON SITE SHALL BE LOADED, HAULED OFF AND DISPOSED OF OFF-SITE. CLEAR AND GRUB THE PROJECT TO A MINIMUM DISTANCE OF 5 FEET OUTSIDE THE LIMITS OF THE FOUNDATION AS SHOWN IN THE STRUCTURAL FOUNDATION PLANS.

6 IF NECESSARY TO BUILD-UP THE SITE, PLACE SELECT STRUCTURAL FILL MATERIAL CONSISTING OF A CRUSHED LIMESTONE FLEXIBLE BASE MATERIAL MEETING THE REQUIREMENTS OF 2014 TxDOT STANDARD SPECIFICATIONS, ITEM 247, TYPE A, GRADE 3 OR BETTER, OR AN ALTERNATE SELECT FILL CONSISTING OF A COMPACTABLE LEAN CLAY, CLAYEY SAND, SANDY CLAY, CLAYEY GRAVEL OR GRAVELLY CLAY WITH A MAXIMUM PARTICLE SIZE OF 2 INCHES IN THE MAXIMUM DIMENSION; A MINIMUM OF 35 PERCENT PASSING THE NO. 200 SIEVE; A MAXIMUM LIQUID LIMIT OF 35 AND MAXIMUM PI OF 25. IF ALTERNATE SELECT FILL MATERIAL IS PROPOSED AND APPROVED, THE UPPER 6" OF THE FILL PAD SHALL CONSIST OF CRUSHED LIMESTONE BASE AS SPECIFIED ABOVE.

7 CRUSHED LIMESTONE BASE AND ALTERNATE SELECT FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS OF 8 INCHES MAXIMUM THICKNESS AND COMPACTED TO A MINIMUM OF 90 PERCENT, BUT NOT GREATER THAN 96 PERCENT, OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557 (MODIFIED PROCTOR).

8 PROPOSED ALTERNATE SELECT FILL MATERIAL SHALL BE SUBMITTED TO THE STRUCTURAL AND GEOTECHNICAL ENGINEERS A MINIMUM OF 10 DAYS PRIOR TO THE BID DATE. SUBMITTAL SHALL INCLUDE A SOIL ANALYSIS, SOIL CLASSIFICATION, GRADATION ANALYSIS, LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX (PI) AND MOISTURE-DENSITY (COMPACTION) CURVE.

9 NO SELECT OR ALTERNATE SELECT STRUCTURAL FILL MATERIAL SHALL BE PLACED UNTIL THE PROPOSED MATERIAL HAS BEEN SUBMITTED, REVIEWED BY THE STRUCTURAL ENGINEER AND THE SUBMITTAL RETURNED TO THE CONTRACTOR AS APPROVED.

10 MATERIAL USED FOR FINE GRADING SHALL CONSIST OF COMPACTIBLE CRUSHED LIMESTONE FINES OR SELECT STRUCTURAL FILL. THE USE OF SAND FOR FINE GRADING WILL NOT BE PERMITTED.

11 UNLESS OTHERWISE NOTED, VAPOR BARRIER SHALL BE CONTINUOUS UNDER INTERIOR GRADE BEAMS AND SHALL EXTEND DOWN THE INTERIOR SIDE AND ACROSS THE BOTTOM OF EXTERIOR GRADE BEAMS. CONTRACTOR SHALL TAKE CARE TO ENSURE THAT VAPOR BARRIER SHEETING IS SMOOTH AND LEVEL UNDER BEAMS AND SLABS. BUNCHING OF SHEETING WILL NOT BE PERMISSIBLE AND SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE. TORN, DAMAGED AND PUNCTURED AREAS SHALL BE REPAIRED PRIOR TO PLACEMENT OF CONCRETE.

12 FOOTING AND GRADE BEAM EXCAVATIONS SHALL BE MADE USING A SMOOTH MOUTHED BUCKET. THE USE OF A TOOTHED BUCKET IS PROHIBITED AND WILL NOT BE PERMITTED.

13 PERIMETER GRADE BEAMS MAY BE EARTH FORMED. EXCAVATIONS FOR GRADE BEAMS SHALL BE NEAT AND FREE FROM DEBRIS, TRASH, MUD, MUCK AND ALL LOOSE MATERIALS. CONTRACTOR SHALL USE CARE TO AVOID CAVE-INS AND SLOUGHING DUE TO TRAFFIC FROM WORKMEN OR EQUIPMENT. IF NECESSARY TO CONTROL SLOUGHING, HAUNCHES SHALL BE PROVIDED. WATER ACCUMULATIONS IN EXCESS OF 1 INCH SHALL BE PUMPED OUT PRIOR TO PLACEMENT OF CONCRETE. TOPS OF PIERS SHALL BE CLEAN AND FREE OF DIRT, MUD, LOOSE ROCK, DEBRIS AND VAPOR BARRIER. PLACE VAPOR BARRIER, REINFORCEMENT AND CONCRETE AS SOON AS POSSIBLE FOLLOWING INSPECTION AND APPROVAL OF THE GRADE BEAM EXCAVATIONS BY THE TESTING LABORATORY REPRESENTATIVE. DURING PERIODS OF INCLEMENT WEATHER, ANY WATER PONDING IN THE EXCAVATIONS SHALL BE PROMPTLY PUMPED OUT AND THE EXCAVATION ALLOWED TO DRY. PLACEMENT OF CONCRETE ON SOFT OR MUDDY EXCAVATIONS WILL NOT BE PERMITTED. TO THE EXTENT POSSIBLE AND PRACTICAL, DO NOT MAKE BEAM EXCAVATIONS UNTIL READY TO PLACE REINFORCEMENT AND CONCRETE.

14 THE BOTTOMS OF THE FOOTING EXCAVATIONS SHALL BE INSPECTED BY A TESTING LABORATORY REPRESENTATIVE PRIOR TO PLACEMENT OF REINFORCEMENT AND CONCRETE. THE BOTTOMS OF THE EXCAVATIONS SHALL BE SMOOTH, FIRM AND FREE OF LOOSE MATERIAL, MUD, MUCK, TRASH, DEBRIS AND OTHER DELETERIOUS MATERIAL THAT MAY PREVENT SOLID BEARING. WATER ACCUMULATIONS IN EXCESS OF 1 INCH SHALL BE PUMPED OUT PRIOR TO PLACEMENT OF CONCRETE. PLACE REINFORCEMEN AND CONCRETE AS SOON AS POSSIBLE FOLLOWING INSPECTION AND APPROVAL OF THE FOOTING EXCAVATION BY THE TESTING LABORATORY REPRESENTATIVE. DURING PERIODS OF INCLEMENT WEATHER, ANY WATER PONDING IN THE FOOTING EXCAVATIONS SHALL BE PROMPTLY PUMPED OUT AND THE EXCAVATIONS ALLOWED TO DRY. PLACEMENT OF CONCRETE ON SOFT OR MUDDY EXCAVATIONS WILL NOT BE PERMITTED. TO THE EXTENT POSSIBLE AND PRACTICAL, DO NOT MAKE FOOTING EXCAVATIONS UNTIL READY TO PLACE REINFORCEMENT AND CONCRETE.

15 SCREEN WALL FOOTINGS SHALL BE CAST DIRECTLY AGAINST THE SIDES OF THE FOOTING EXCAVATION. DO NOT FORM SCREEN WALL FOOTINGS.

VAPOR BARRIER

1 VAPOR BARRIER SHALL CONSIST OF A POLYOLEFIN GEOMEMBRANE THAT MEETS THE FOLLOWING REQUIREMENTS:

A MEET OR EXCEED THE CLASS A REQUIREMENTS OF ASTM E1745;

B FOR NEW MATERIAL, PROVIDE A PERMEANCE RATING OF 0.027 PERMS (GRAINS/HR-SF-IN HG), OR LESS, IN ACCORDANCE WITH ASTM F1249 OR ASTM E154 AND ASTM E96 TEST METHODS.

C AFTER CONDITIONING PER ASTM E1745, PERMEANCE MUST REMAIN BELOW 0.027 PERMS AFTER TESTING PER ASTM E154 AND ASTM F1249, OR ASTM E154 AND ASTM E96 TEST METHODS.

D PROVIDE A MINIMUM PUNCTURE RESISTANCE OF 2250 GRAMS IN ACCORDANCE WITH ASTM D1709;

E PROVIDE A MINIMUM TENSILE STRENGTH OF 45 POUNDS PER INCH IN ACCORDANCE WITH ASTM E154 AND D882;

F A MINIMUM THICKNESS OF 10 MILS.

2 ACCEPTABLE PRODUCTS ARE STEGO WRAP 10 CLASS A (10 MIL THICKNESS) AS MANUFACTURED BY STEGO INDUSTRIES, LLC, SAN JUAN CAPISTRANO, CALIFORNIA; GRIFFOLYN 10 (10 MIL THICKNESS) VAPOR BARRIER BY REEF INDUSTRIES, HOUSTON, TEXAS; MOISTOP ULTRA 10 (10 MIL THICKNESS), BY FORTIFIBER BUILDING SYSTEMS GROUP, FERNLEY, NEVADA; VAPORFLEX 15 (15 MIL THICKNESS) BY LAYFIELD CONSTRUCTION PRODUCTS OF RENTON, WASHINGTON; BARRIER-BAC VB-250 (11 MIL THICKNESS), BY INTEPLAST GROUP, LTD., LIVINGSTON, NEW JERSEY; OR AN APPROVED ALTERNATE.

3 VAPOR BARRIER SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ASTM E1643 AND THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. SPECIAL ATTENTION SHALL BE PAID TO THE INSTALLATION OF VAPOR BARRIER AT PIPE, CONDUIT AND PLUMBING PENETRATIONS. VAPOR BARRIER SHALL BE SEALED TIGHTLY TO ALL PENETRATIONS USING PIPE BOOTS CONSTRUCTED USING VAPOR BARRIER MATERIAL, PRESSURE SENSITIVE TAPE AND MASTIC PER THE MANUFACTURER'S INSTRUCTIONS.

4 LAP JOINTS IN VAPOR BARRIER A MINIMUM OF 6 INCHES AND SEAL CONTINUOUSLY WITH A PRESSURE SENSITIVE, HIGH DENSITY POLYETHYLENE TAPE MANUFACTURED SPECIFICALLY FOR USE IN SEALING THE VAPOR BARRIER LAPS AND AS APPROVED BY THE VAPOR BARRIER MANUFACTURER. THE TAPE SHALL HAVE A WATER VAPOR TRANSMISSION RATE OF 0.3 PERMS OR LESS IN ACCORDANCE WITH ASTM E96. THE MINIMUM TAPE WIDTH SHALL BE 4 INCHES. ACCEPTABLE PRODUCTS ARE STEGO TAPE AS MANUFACTURED BY STEGO INDUSTRIES, LLC OF SAN JUAN CAPISTRANO, CALIFORNIA; GRIFFOLYN PRESSURE SENSITIVE TAPE, BY REEF INDUSTRIES OF HOUSTON, TEXAS; MOISTOP TAPE BY FORTIFIBER BUILDING SYSTEMS GROUP, OF FERNLEY, NEVADA; VAPORFLEX TAPE BY LAYFIELD CONSTRUCTION PRODUCTS OF RENTON, WASHINGTON; BARRIER-BAC SEAM TAPE BY INTEPLAST GROUP, LTD, LIVINGSTON, NEW JERSEY; OR AN APPROVED ALTERNATE.

5 VAPOR PROOFING MASTIC SHALL HAVE A WATER VAPOR TRANSMISSION RATE OF 0.17 PERMS OR LESS IN ACCORDANCE WITH ASTM E96; A TENSILE STRENGTH OF 32 PSI AND ELONGATION OF 3800% IN ACCORDANCE WITH ASTM D412; PROVIDE RESISTANCE TO DECAY OF 9 PERCENT OR LESS PERMANENT LOSS IN ACCORDANCE WITH ASTM E154; AND WITHSTAND A HYDROSTATIC PRESSURE OF 28 PSI IN ACCORDANCE WITH ASTM D751. APPROVED PRODUCT IS STEGO MASTIC.

6 VAPOR BARRIER SHALL BE CONTINUOUS UNDER SLABS, DOWN SIDES AND ACROSS THE BOTTOM OF INTERIOR GRADE BEAMS AND DOWN INTERIOR SIDE AND ACROSS THE BOTTOM OF EXTERIOR GRADE BEAMS. VAPOR BARRIER SHALL BE INSTALLED SMOOTH AND LEVEL. BUNCHING UNDER SLABS OR GRADE BEAMS WILL NOT BE PERMITTED AND SHALL BE CORRECTED PRIOR TO CONCRETE PLACEMENT.

7 CAREFULLY INSPECT VAPOR BARRIER FOR DAMAGE, TEARS OR PENETRATIONS PRIOR TO CONCRETE PLACEMENT. ANY DAMAGE SHALL BE REPAIRED BY COVERING WITH SOUND VAPOR BARRIER LAPPED A MINIMUM OF 6 INCHES ALL AROUND ONTO THE EXISTING VAPOR BARRIER, AND TAPING OF THE EDGES ALL AROUND.

8 IF AN ALTERNATE PRODUCT IS PROPOSED IN LIEU OF ONE OF THE SPECIFIED PRODUCTS, SUBMIT PRODUCT DATA FOR THE PRODUCT AND TEST REPORTS PREPARED BY AN INDEPENDENT ENGINEERING TESTING LABORATORY AND BEARING THE SEAL OF A CURRENTLY LICENSED PROFESSIONAL ENGINEER SHOWING TEST RESULTS FOR PERMEANCE, MINIMUM PUNCTURE RESISTANCE AND MINIMUM TENSILE STRENGTH OF THE PROPOSED PRODUCT AND FOR COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.

DRILLED SHAFT FOUNDATIONS

1 PRIOR TO THE COMMENCEMENT OF DRILLING OPERATIONS, FIELD LOCATE AND ADEQUATELY PROTECT ANY EXISTING STRUCTURES, UTILITIES AND/OR ANY OTHER PERMANENT ELEMENTS FROM DAMAGE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY DAMAGE RESULTING FROM DRILLING OPERATIONS.

2 THE DRILLED SHAFT FOUNDATIONS HAVE BEEN DESIGNED TO SUPPORT THE BUILDING LOADS THROUGH A COMBINATION OF END BEARING AND SKIN FRICTION. MINIMUM REQUIRED SHAFT LENGTHS ARE SHOWN ON THE PLANS.

3 THE FINAL LENGTHS OF THE SHAFTS SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE TESTING LABORATORY REPRESENTATIVE. SHOULD PIER CAGES REQUIRE LENGTHENING, VERTICAL BARS SHOULD BE LAPPED 45 BAR DIAMETERS TO THE BOTTOM OF THE CAGE AND TIES SHALL BE PROVIDED TO THE BOTTOM OF THE CAGE AS SCHEDULE.

4 IF THE TOTAL INSTALLED VERTICAL LINEAL FOOTAGE OF DRILLED SHAFTS, COMPUTED FOR THE PROJECT DRILLED SHAFTS AS A GROUP FOR A GIVEN SIZE, EXCEEDS OR IS LESS THAN THE TOTAL LINEAL FOOTAGE COMPUTED ON THE BASIS OF THE SHAFT LENGTHS SHOWN ON THE DRAWINGS FOR THE SHAFTS AS A GROUP, THE CONTRACT PRICE WILL BE ADJUSTED UNDER A CHANGE ORDER. THE TOTAL VERTICAL LINEAL FOOTAGE OF SHAFTS FOR A GIVEN SIZE WILL BE EQUAL TO THE SUM OF THE LENGTHS OF THE INDIVIDUAL SHAFTS OF THAT SIZE. THE DEPTH OF GRADE BEAM, PILASTER, PIER CAP OR SLAB WILL NOT BE USED TO COMPUTE FINAL SHAFT LENGTHS, BUT THE COST OF DRILLING THROUGH THE BUILDING PAD FOR THE DEPTH OF GRADE BEAM, PILASTER, PIER CAP OR SLAB SHALL BE INCLUDED IN THE BID PRICE.

5 CONCRETE FOR DRILLED SHAFTS - REFER TO THE CONCRETE NOTES FOR SPECIAL REQUIREMENTS FOR CONCRETE TO BE USED IN DRILLED SHAFT FOUNDATIONS.

6 EXCAVATIONS FOR DRILLED SHAFTS SHALL BE NEAT AND FREE OF DEBRIS AND LOOSE MATERIALS. THE BOTTOM OF EXCAVATION SHALL BE MOISTENED, AS NECESSARY, TO PERMIT THOROUGH CLEANING WITH THE DRILLING TOOL. USE A CLEAN-OUT TOOL, IF NECESSARY. REINFORCING STEEL AND CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATION AND INSPECTION OF THE SHAFTS. UNDER NO CIRCUMSTANCES SHALL A SHAFT BE EXCAVATED OR DRILLED THAT CANNOT BE FILLED WITH CONCRETE PRIOR TO THE END OF THE WORK DAY. WATER ACCUMULATIONS IN EXCESS OF 2 INCHES SHALL BE PUMPED OUT PRIOR TO PLACEMENT OF CONCRETE.

7 EXCAVATIONS FOR DRILLED SHAFTS SHALL COMPLY WITH THE FOLLOWING TOLERANCES:

A DIAMETER OF DRILLED SHAFT: +2 INCHES, -1/2 INCH
B MAXIMUM DEVIATION FROM INDICATED PLAN LOCATION:
5% OF SHAFT DIAMETER OR 3 INCHES, WHICHEVER IS LESS
C TOP OF CONCRETE SHAFT ELEVATION: +1 INCH, -3 INCHES
D MAXIMUM DEVIATION FROM TRUE VERTICAL ALIGNMENT: 1/8 INCH PER FOOT OF DEPTH

8 CONCRETE SHALL BE DIRECTED AT THE CENTER OF THE DRILLED SHAFT EXCAVATION WITHOUT HITTING THE REINFORCEMENT OR THE SIDES OF THE EXCAVATION. A TREMIE SHALL BE USED IF NECESSARY TO PREVENT CONCRETE FROM HITTING REINFORCEMENT DURING PLACEMENT.

9 DRILLED SHAFT EXCAVATIONS SHALL NOT BE MADE DURING INCLEMENT WEATHER.

10 IF GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR MAY, AT HIS OPTION, AND WITH THE APPROVAL OF THE ENGINEER, USE STEEL CASINGS. WHERE CASINGS ARE USED, THE HEAD OF CONCRETE MUST BE MAINTAINED AT 10 FEET ABOVE THE BOTTOM OF THE CASING DURING EXTRACTION AND THE TOP 10 FEET OF THE SHAFT SHALL BE VIBRATED DURING PLACEMENT.

11 CONCRETE FOR DRILLED SHAFTS SHALL BE PLACED UNDERWATER ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER AND ONLY IN COMPLIANCE WITH THE STRUCTURAL ENGINEER'S RECOMMENDATIONS AND INSTRUCTIONS, INCLUDING ADJUSTMENT OF THE CONCRETE MIX DESIGN.

12 PROVIDE SIDE AND BOTTOM SPACERS TO ENSURE PROPER COVER OF THE PIER REINFORCEMENT AND THAT THE REINFORCEMENT IS CENTERED IN THE SHAFT OR PIER HOLE. SIDE SPACERS SHALL BE THE SHAFTSPACER SYSTEM AS MANUFACTURED BY FOUNDATION TECHNOLOGIES, INC., LAWRENCEVILLE, GEORGIA (800) 773-2368; QUICK-LOCK OR QUICK-LOCK HD PIER WHEELS, AS MANUFACTURED BY PIERESEARCH, INC., OF ARLINGTON, TEXAS (800) 342-2409; PLW AZTEC E-Z LOK WHEEL, AS MANUFACTURED BY DAYTON SUPERIOR (888) 977-960; OR AN APPROVED ALTERNATE. BOTTOM SPACERS SHALL BE QUICK-LOCK PIER BOOTS, AS MANUFACTURED BY PIERESEARCH, INC., OF ARLINGTON, TEXAS; THE BARBOOT SYSTEM AS MANUFACTURED BY FOUNDATION TECHNOLOGIES, INC., LAWRENCEVILLE, GEORGIA; PIER BOOTS, AS MANUFACTURED BY MACON CONCRETE PRODUCTS, SAN ANTONIO, TEXAS (866) 663-1053; OR AN APPROVED ALTERNATE. SLED OR SKID-TYPE SIDE SPACERS WILL NOT BE PERMITTED. THE USE OF BOOTS, INCLUDING PRECAST CONCRETE BOOTS, WITHOUT HOLES FOR INSERTION OF VERTICAL BARS WILL NOT BE PERMITTED. HANGING OR SUSPENDING THE REINFORCEMENT CAGE TO POSITION IT IN THE DRILLED SHAFT EXCAVATION DURING CONCRETE PLACEMENT WILL NOT BE PERMITTED.

13 DOWELS INSTALLED INTO THE TOPS OF PIER SHAFTS SHALL BE INSTALLED IN A MANNER TO PREVENT DEPRESSIONS AND VOIDS AROUND THE PORTION OF THE DOWEL EMBEDDED INTO THE PIER CONCRETE AND TO ENSURE GOOD BOND BETWEEN THE PIER CONCRETE AND THE DOWEL BARS.

CONCRETE FORMWORK

1 FORMWORK SHALL BE DESIGNED, ERECTED, SHORED, BRACED AND MAINTAINED IN ACCORDANCE WITH ACI SPEC-301 TO SUPPORT VERTICAL, LATERAL, STATIC AND DYNAMIC LOADS AND CONSTRUCTION LOADS UNTIL THE CONCRETE STRUCTURE CAN SUPPORT SUCH LOADS. SPECIAL ATTENTION SHALL BE PAID TO THE DESIGN OF FORMWORK FOR HIGH SLUMP CONCRETE. FORMWORK THAT WILL BE USED TO SUPPORT THESE CONCRETES SHOULD BE DESIGNED FOR THE FULL FLUID DENSITY OF THE CONCRETE FOR THE HEIGHT OF THE FORM.

2 FORMWORK SHALL BE SUCH THAT CONCRETE MEMBERS ARE OF THE SIZE, SHAPE, ALIGNMENT, ELEVATION AND LOCATION INDICATED ON THE PLANS. TOLERANCES ON LINES, GRADES AND DIMENSIONS OF MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF ACI SPEC-117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."

3 FORMWORK SHALL BE CONSTRUCTED WITH PLYWOOD; TEMPERED CONCRETE-FORM HARDBOARD; DRESSED LUMBER FACED WITH PLYWOOD OR FIBERBOARD LINING; METAL; PLASTIC; OR METAL FRAMED PLYWOOD-FACED PANEL MATERIAL ACCEPTABLE TO THE ENGINEER TO PROVIDE CONTINUOUS, STRAIGHT, SMOOTH SURFACES. FORMING MATERIAL SHALL BE FREE OF RAISED GRAIN, TORN SURFACES, WORN EDGES, PATCHES, DENTS OR OTHER SURFACE DEFECTS. FURNISH MATERIAL IN THE LARGEST PRACTICAL SIZES TO MINIMIZE THE NUMBER OF JOINTS.

FORMWORK FOR CONCRETE THAT IS TO RECEIVE A FORM FINISH AND WILL BE EXPOSED TO VIEW IN THE COMPLETED CONSTRUCTION SHALL BE CONSTRUCTED USING SMOOTH STEEL FORMS TO PROVIDE A MINIMUM CLASS B FORMED SURFACE TOLERANCE (1/4 INCH ABRUPT OR GRADUAL IRREGULARITIES) IN ACCORDANCE WITH ACI PRC-347 "GUIDE TO FORMWORK FOR CONCRETE."

4 CONSTRUCT FORMS TIGHT ENOUGH TO PREVENT THE LOSS OF CONCRETE MORTAR AND TO MINIMIZE OR ELIMINATE FINS, LINES OR SURFACE IRREGULARITIES AT FORM JOINTS.

5 FABRICATE FORMS FOR EASY REMOVAL WITHOUT HAMMERING OR PRYING AGAINST CONCRETE SURFACES. PROVIDE CRUSH OR WRECKING PLATES WHERE STRIPPING MAY DAMAGE CAST CONCRETE SURFACES.

6 CHAMFER ALL EXPOSED CORNERS OR EDGES 3/4 INCH. FILLET THE NOSINGS OF ALL CONCRETE STAIRS. FILLETS AT STAIR NOSINGS SHALL HAVE A 1/4 INCH RADIUS. REVIEW THE PLANS FOR LOCATIONS WHERE RADIUSED OR FILLETED CORNERS OR EDGES ARE REQUIRED.

7 REMOVE ALL DIRT, TRASH, WOOD CHIPS, SCRAP TIE-WIRE AND REBAR AND ANY OTHER DEBRIS FROM FORMS PRIOR TO PLACEMENT OF CONCRETE.

8 COAT SURFACES OF FORMWORK WITH FORM RELEASE AGENT, IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, PRIOR TO PLACEMENT OF REBAR. REBAR FOUND TO HAVE RELEASE AGENT ON ITS SURFACES WILL BE REJECTED, REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

9 SURFACES THAT WILL NOT BE EXPOSED TO VIEW IN THE COMPLETED CONSTRUCTION MAY BE EARTH FORMED.

CARTON VOID FORMS

1 VOID FORMS BELOW THE SLAB AND BEAMS SHALL CONSIST OF WATER RESISTANT CORRUGATED PAPER OR CARDBOARD MATERIALS MANUFACTURED TO CREATE A VOID BELOW THE CONCRETE, ISOLATE THE CONCRETE FROM THE SUBGRADE AND PROVIDE A TEMPORARY SUPPORT FOR THE PLACEMENT OF REINFORCEMENT AND CONCRETE FOR STRUCTURAL CONCRETE SLABS THE SUBGRADE SOILS.

2 DEPTHS OF VOID FORMS SHALL BE AS SHOWN ON THE DRAWINGS.

3 VOID FORMS SHALL CONSIST OF CORRUGATED PAPER OR CARDBOARD MATERIAL COATED WITH A PARAFFIN WAX OR OTHER MOISTURE RESISTANT EXTERIOR COATING AND A UNIFORM, CELLULAR INTERIOR CONSTRUCTION OF NON-WAX IMPREGNATED COMPONENTS. FORM SHALL BE FABRICATED USING A WATERPROOF ADHESIVE. FORMS MAY BE FACTORY ASSEMBLED OR OF THE KNOCK-DOWN TYPE ASSEMBLED IN THE FIELD IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

4 VOID FORMS BELOW BEAMS SHALL BE TRAPEZOIDAL IN SHAPE AND OF THE DIMENSIONS SHOWN IN THE DRAWINGS. VOID FORMS BELOW SLABS SHALL BE RECTANGULAR IN SHAPE.

5 VOID FORMS FOR BEAMS SHALL HAVE A MINIMUM STRENGTH OF 1600 PSF. VOID FORMS FOR SLABS SHALL HAVE A MINIMUM STRENGTH OF 1000 PSF.

6 ENDS OF SECTIONS OF VOID FORMS SHALL BE SEALED TO PROTECT THE PAPER OR CARDBOARD MATERIAL. ENDS OF SECTIONS CUT IN THE FIELD SHALL BE SEALED BY DIPPING IN WAX OR BY OTHER SUITABLE MEANS AS APPROVED BY THE FORM MANUFACTURER.

7 FURNISH VOID FORMS WITH END CAPS TO SEAL VOIDS AT ENDS OF VOID FORMS. FURNISH SEALS FOR SEALING OF JOINTS BETWEEN ENDS OF VOID FORM SECTIONS.

8 A PROTECTIVE COVER BOARD IS REQUIRED AND SHALL BE INSTALLED OVER THE TOPS OF SLAB VOID FORMS. COVER BOARD SHALL CONSIST OF 1/4-INCH THICK PLYWOOD OR HARDBOARD. PROVIDE COVER BOARD IN 4 FT. X 8 FT. SHEETS.

9 COVER THE SURFACE OF THE INSTALLED CARTON FORMS AND PROTECTIVE COVER BOARD WITH POLYOLEFIN VAPOR BARRIER SHEETING WITH A MINIMUM THICKNESS OF 10 MILS.

10 THE CONTRACTOR SHALL USE EXTREME CARE IN THE STORAGE, HANDLING AND PLACEMENT OF CARTON FORMS TO AVOID DAMAGE, DETERIORATION OR COLLAPSE OF THE FORMS DURING CONSTRUCTION.

11 THE SUBGRADE WHERE VOID FORMS ARE TO BE INSTALLED SHALL BE SMOOTH, LEVEL AND DRY PRIOR TO INSTALLATION.

12 THE STRENGTH AND PERFORMANCE OF VOID FORM PRODUCTS WILL BE REDUCED BY EXPOSURE TO MOISTURE FROM ADVERSE WEATHER CONDITIONS OR HIGH HUMIDITY. VOID FORMS SHALL NOT BE INSTALLED UNTIL THE SUBGRADE HAS BEEN PROPERLY PREPARED AND APPROVED. ONCE INSTALLATION BEGINS, VOID FORM INSTALLATION AND CONSTRUCTION OF THE SLAB AND BEAMS SHALL PROCEED AS QUICKLY AS POSSIBLE TO MINIMIZE DETERIORATION OF THE FORMS AND EXPOSURE TO ADVERSE WEATHER OR MOISTURE. FORMS AND ACCESSORIES SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. INSTALL FORMS ONLY WHEN WEATHER FORECASTS ARE FOR FAVORABLE WEATHER FOR THE DURATION OF THE SLAB CONSTRUCTION PERIOD.

13 IN THE EVENT THAT VOID FORMS ARE EXPOSED TO ADVERSE WEATHER, OR IF DETERIORATION OR LOSS OF STRENGTH HAS OCCURRED, IN THE JUDGMENT OF THE ENGINEER, THE FORMS SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. FORMS THAT HAVE BEEN PARTIALLY OR FULLY SUBMERGED IN WATER SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.

14 IN THE EVENT OF A COLLAPSE OF THE VOID FORMS DURING CONCRETE PLACEMENT, THE ENGINEER SHALL BE NOTIFIED, THE CONCRETE PLACEMENT OPERATIONS TERMINATED IMMEDIATELY, AND THE CONCRETE REMOVED FROM THE COLLAPSED AREA.

15 REINFORCEMENT FOR SLABS AND BEAMS PLACED ON CARTON FORMS SHALL BE OF SUFFICIENT SIZE AND NUMBER TO ADEQUATELY SUPPORT THE REINFORCING BARS AT THE POSITIONS AND SPACINGS REQUIRED BY THE DRAWINGS AND TO PREVENT MOVEMENT OF THE BARS DURING CONCRETE PLACEMENT OPERATIONS.

16 CARTON FORMS SHALL BE THE FURNISHED BY A REPUTABLE MANUFACTURER REGULARLY ENGAGED IN THE FABRICATION AND MANUFACTURE OF CARTON VOID FORMS. ACCEPTABLE PRODUCTS ARE "SLABVOID FORMS", "PIER VOID FORMS" AND "WALL VOID FORMS" AS MANUFACTURED BY SUREVOID PRODUCTS, INC., 1895 WEST DARTMOUTH AVENUE, ENGLEWOOD, COLORADO 80110, PHONE (800) 458-5444; "MOLDED PULP VOID FORMS", AS MANUFACTURED BY RELIABLE VOID FORMS, 13801 AVENUE K, AUSTIN, TEXAS 78728, PHONE (512) 636-1513; OR AN APPROVED ALTERNATE.

CONCRETE REINFORCEMENT

Note 5

1 DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL BARS SHALL COMPLY WITH ACI PRC-315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES." CONCRETE CONSTRUCTION TOLERANCES, INCLUDING PLACEMENT OF REINFORCING STEEL, SHALL BE IN CONFORMANCE WITH THE AMERICAN CONCRETE INSTITUTE'S "STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS," ACI SPEC-117. ALL BENDS OF REINFORCING STEEL SHALL COMPLY WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE, INCLUDING MINIMUM RADII OF BENDS.

2 DEFORMED STEEL REINFORCING BARS SHALL CONFORM TO ANSI/ASTM A 615 WITH SUPPLEMENTARY REQUIREMENTS S1, GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 65 KSI. WELDED WIRE FABRIC SHALL BE PROVIDED IN FLAT SHEETS. THE USE OF ROLLED WELDED WIRE FABRIC WILL NOT BE PERMITTED.

3 AT GRADE BEAMS FOR PIER SUPPORTED STRUCTURES, PROVIDE STANDARD 90 DEGREE ACI HOOKS AT THE DISCONTINUOUS ENDS OF TOP AND BOTTOM GRADE BEAM REINFORCEMENT. CORNER BARS ARE NOT REQUIRED WHERE HOOKED BARS ARE PROVIDED.

4 PROVIDE THREE NO. 4 X 4'-0" BARS AT ALL RE-ENTRANT CORNERS. PLACE THE FIRST BAR ON THE DIAGONAL WITH 1-INCH CLEARANCE FROM CORNER AND TOP OF SLAB. PLACE THE REMAINING TWO BARS PARALLEL TO THE FIRST AT A SPACING OF 3 INCHES. THIS INCLUDES ANY RECTILINEAR OPENINGS OR BLOCKOUTS AND CORNERS OF DEPRESSED AREAS MADE DUE TO STANDARD CONSTRUCTION PRACTICES.

5 PROVIDE PLASTIC BAR CHAIRS AND/OR BOLSTERS AT 3'-0" ON CENTERS FOR ALL SLABS AND BEAMS ABOVE GRADE. HEIGHT OF CHAIRS AND BOLSTERS SHALL BE AS REQUIRED TO POSITION THE REBAR AND PROVIDE THE COVER SPECIFIED AND SHOWN IN THE DRAWINGS.

FOR TOPPING SLABS ON METAL DECKING, SUPPORT WELDED WIRE FABRIC ON CONTINUOUS METAL BOLSTERS WITH CONTINUOUS WIRE RUNNERS. THE USE OF BOLSTERS WITHOUT CONTINUOUS RUNNERS WILL NOT BE PERMITTED. BOLSTERS THAT ARE FOUND TO DEFORM OR CRUSH UNDER FOOT TRAFFIC WILL NOT BE PERMITTED AND SHALL BE REMOVED AND REPLACED WITH SATISFACTORY BOLSTERS AT NO ADDITIONAL COST.

6 LAP CONTINUOUS UNSCHEDULED REINFORCING BARS 40 BAR DIAMETERS UNLESS OTHERWISE NOTED. LAP WELDED WIRE FABRIC A MINIMUM OF TWO MESH.

7 FIELD CUTTING OF REINFORCING BARS SHALL BE BY SHEARING OR SAWING. FIELD CUTTING OF REINFORCING BARS BY TORCH WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE ENGINEER.

8 UNLESS OTHERWISE NOTED, ALL 90, 135 AND 180 DEGREE REBAR HOOKS SHOWN OR SPECIFIED ON THE DRAWINGS SHALL BE STANDARD ACI HOOKS. RADII OF BENDS SHALL COMPLY WITH ACI STANDARDS.

9 UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL COVERAGE SHALL BE AS FOLLOWS:

CONCRETE CAST PERMANENTLY AGAINST THE EARTH	3"
CONCRETE CAST AGAINST VAPOR BARRIER	2"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THRU #18 BARS	2"
#5 AND SMALLER BARS	1 1/2"
FOOTINGS	2" TOP, 3" BOTTOM
SLABS ABOVE GRADE	1 1/2"

CONCRETE JOINTS AND EMBEDDED ITEMS

1 CONCRETE BONDING AGENT - BONDING AGENTS SHALL BE USED TO BOND FRESH CONCRETE TO HARDENED CONCRETE. AGENT MAY BE A POLYVINYL ACETATE, ACRYLIC OR EPOXY ADHESIVE CONFORMING TO THE REQUIREMENTS OF ASTM C1059, TYPE 1, ASTM C884, ASTM C881 AND AASHTO M235. Expansion joint detail no more

2 SLEEVING OF GRADE BEAMS WHERE HORIZONTAL RUNS OF UNDER SLAB PLUMBING OR CONDUIT INTERSECT SHALL OCCUR ONLY AT WITHIN THE MIDDLE THIRD OF THE BEAM DEPTH. ANY PLUMBING OR CONDUITS THAT DO NOT INTERSECT THE GRADE BEAM AS SPECIFIED SHALL BE REFERRED TO THE ENGINEER. VERTICAL SLEEVES WILL NOT BE PERMITTED IN GRADE BEAMS WITHOUT THE EXPLICIT APPROVAL OF THE ENGINEER.

3 UNLESS OTHERWISE NOTED, DRILLED SHAFTS/PIERS AND CAPS SHALL BE PLACED MONOLITHICALLY. GRADE BEAMS AND FLOOR SLABS SHALL BE PLACED MONOLITHICALLY. PLACEMENT OF GRADE BEAMS AND SLABS NON-MONOLITHICALLY WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE ENGINEER.

4 THE CONTRACTOR SHALL ENSURE THAT ALL EMBEDDED ITEMS ARE DELIVERED TO THE SITE IN A TIMELY FASHION AND INSTALLED IN THE FORMWORK PRIOR TO PLACEMENT OF THE CONCRETE.

CONCRETE

1 CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI CODE-318. CONCRETE CONSTRUCTION TOLERANCES SHALL BE IN CONFORMANCE WITH THE AMERICAN CONCRETE INSTITUTE'S "STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS," ACI SPEC-117.

2 NORMAL WEIGHT CONCRETE, WITH THE SPECIFIED 28 DAY COMPRESSIVE STRENGTHS, SHALL BE USED AS FOLLOWS:

DRILLED SHAFT FOUNDATIONS MAXIMUM WATER/CEMENT RATIO = 0.53 (SEE NOTE 3 BELOW)	3000 PSI
FOOTINGS MAXIMUM WATER/CEMENT RATIO = 0.46	4000 PSI
LEVEL 1 STRUCTURED SLAB AND BEAMS MAXIMUM WATER/CEMENT RATIO = 0.46	4000 PSI
CONCRETE TOPPING SLABS ON COMPOSITE METAL DECK MAXIMUM WATER/CEMENT RATIO = 0.43	4000 PSI

3 CONCRETE FOR DRILLED PIERS OR SHAFTS SHALL BE PROPORTIONED TO PROVIDE THE SPECIFIED COMPRESSIVE STRENGTHS AT SLUMPS IN THE RANGE OF 7 TO 9 1/2 INCHES. THE CONCRETE MIX DESIGN SHALL INCLUDE A RETARDER AND MID-RANGE WATER REDUCER TO PROVIDE THE REQUIRED SLUMP. RIVER GRAVEL COARSE AGGREGATE, WITH CLASS F FLY ASH, IS PREFERRED, BUT CRUSHED LIMESTONE COARSE AGGREGATE MAY BE USED. EMPHASIS SHALL BE PLACED ON DEVELOPMENT OF A CONCRETE MIX DESIGN WITH FLUIDITY AND FLOWABILITY WITHOUT SEGREGATION. CONCRETE DELIVERED TO THE SITE WITH LESS THAN THE MINIMUM SPECIFIED SLUMP FOR DRILLED PIERS SHALL BE CAUSE FOR REJECTION.

4 NORMAL WEIGHT CONCRETE - UNLESS OTHERWISE NOTED, CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH ASTM C94, "STANDARD SPECIFICATION FOR READY-MIXED CONCRETE," ACI SPEC-301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE'" AND ACI PRC-304S "GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE."

A CEMENT

1) CEMENT FOR CONCRETE MIXED WITH CLASS F FLY ASH SHALL CONFORM TO ASTM C150, TYPE I, IA, II OR IV, OR ASTM C595, TYPE IP.

2) CEMENT FOR CONCRETE MIXED WITH CLASS C FLY ASH OR STRAIGHT CEMENT WITHOUT FLY ASH SHALL BE TYPE I LA, II LA OR TYPE I/II LA LOW ALKALI CEMENT. THE ALKALI CONTENT OF THE CEMENT SHALL NOT EXCEED 0.6%.

3) TYPE IL OR IIL CEMENT WILL BE PERMITTED ONLY WITH THE EXPLICIT APPROVAL OF THE STRUCTURAL ENGINEER.

4) USE THE SAME BRAND OF CEMENT PROPOSED IN THE MIX DESIGNS THROUGHOUT THE PROJECT. THE BRAND OF CEMENT SHALL NOT BE CHANGED DURING THE PROJECT WITHOUT THE NOTIFICATION AND APPROVAL OF THE ENGINEER.

5) WHERE A STRAIGHT CEMENT MIX, WITH NO FLY ASH CONTENT, IS EXPLICITLY APPROVED BY THE STRUCTURAL ENGNEER, AND WHERE THE PROPOSED CEMENT USED IS TYPE IL OR IIL LIMESTONE CEMENT, THE WATER CEMENT RATIO WILL BE CALCULATED ON THE BASIS OF THE NET CEMENT CONTENT, LESS THE LIMESTONE CONTENT, AS SHOWN IN THE CEMENT MILL CERTIFICATE.

B ADMIXTURES

1) WATER REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494, TYPE A, D OR E AND SHALL BE NON-STAINING AND CHLORIDE FREE.

2) MID-RANGE WATER REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494, TYPES A AND F.

3) HIGH-RANGE WATER REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494, TYPE F, AND SHALL BE POLYCARBOXYLATE BASED AND FORMULATED TO PROLONG THE SLUMP LIFE OF THE CONCRETE.

4) ALL ADMIXTURES PROPOSED FOR CONCRETE SHALL BE COMPATIBLE, PREFERABLY PRODUCED BY THE SAME MANUFACTURER, AND SHALL BE INTRODUCED INTO THE CONCRETE MIX IN THE ORDER REQUIRED BY THE ADMIXTURE MANUFACTURER.

5) AIR ENTRAINMENT IS NOT REQUIRED FOR STRUCTURAL CONCRETE AND AIR ENTRAINING ADMIXTURES SHALL NOT BE USED. AIR ENTRAINMENT SHALL CONSIST ONLY OF THE AIR NATURALLY ENTRAPPED DURING THE CONCRETE MIXING PROCESS.

C MIXING WATER SHALL BE FRESH, CLEAN AND POTABLE.

D AGGREGATES

1) COARSE AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C33, LIMESTONE OR WASHED RIVER GRAVEL, FREE OF CHEMICALS, COATINGS OF SILT OR CLAY OR OTHER FINE MATERIALS THAT MAY AFFECT HYDRATION OR BOND OF THE CEMENT PASTE.

2) FOR CONCRETE MIXED WITH CLASS F FLY ASH, COARSE AGGREGATES MAY CONSIST OF WASHED RIVER GRAVEL OR CRUSHED LIMESTONE.

3) FOR CONCRETE MIXED WITH CLASS C FLY ASH OR FOR STRAIGHT CEMENT MIXES, COARSE AGGREGATE SHALL CONSIST OF WASHED CRUSHED LIMESTONE. THE USE OF RIVER GRAVEL OR OTHER SILICEOUS AGGREGATES IS PROHIBITED IN CLASS FLY ASH OR STRAIGHT CEMENT CONCRETE MIXES.

4) FINE AGGREGATES SHALL CONSIST OF NATURAL SAND OR MANUFACTURED SAND FROM LIMESTONE THAT COMPLIES WITH ASTM C33.

E FLY ASH

1) THE USE OF CLASS F FLY ASH IS PREFERRED. THE USE OF CLASS C FLY ASH WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. IF APPROVED, CLASS C FLY ASH MIXES SHALL BE IN STRICT COMPLIANCE WITH THESE DRAWINGS AND THE PROJECT SPECIFICATIONS.

2) FLY ASH FOR THE PROJECT SHALL BE PRODUCED FROM COAL OF A SINGLE KNOWN AND CONSISTENT SOURCE.

3) THE USE OF BOTH CLASS F AND CLASS C FLY ASH MIXES WITHIN A PROJECT WILL NOT BE PERMITTED.

5 NORMAL WEIGHT CONCRETE SHALL NOT WEIGH MORE THAN 145 PCF.

6 CONCRETE SHALL BE PROPORTIONED TO PROVIDE THE SPECIFIED COMPRESSIVE STRENGTHS AT SLUMPS IN THE RANGE OF 7 TO 9 1/2 INCHES. THE USE OF A MID- OR HIGH-RANGE WATER REDUCING ADMIXTURE IS REQUIRED TO IMPROVE WORKABILITY AND PLACEABILITY OF THE CONCRETE AT THE SPECIFIED WATER/CEMENT RATIOS. HIGHER SLUMPS MAY BE PERMITTED BY THE ENGINEER PROVIDED THAT TESTS ARE PERFORMED TO ENSURE THAT THE CONCRETE AT THE HIGHER SLUMPS DOES NOT RESULT IN SEGREGATION OF THE AGGREGATE AND PASTE OR EXCESSIVE BLEEDING. FOR SLOPED OR STEPPED CONSTRUCTION, SLUMPS MAY BE REDUCED AS DEEMED APPROPRIATE FOR PLACEMENT AND FINISHING BY THE CONTRACTOR.

7 FLY ASH

A FLY ASH SHALL BE USED IN ALL CONCRETE UNLESS THIS REQUIREMENT IS SPECIFICALLY WAIVED BY THE ENGINEER.

B FOR CLASS F FLY ASH MIXES FOR GRADE BEAMS AND GROUND-SUPPORTED SLABS, THE CLASS F FLY ASH SHALL BE 30% OF THE TOTAL WEIGHT OF THE CEMENT PLUS FLY ASH. FOR CLASS C FLY ASH MIXES FOR GRADE BEAMS AND GROUND-SUPPORTED SLABS, THE CLASS C FLY ASH SHALL BE 35% OF THE TOTAL WEIGHT OF THE CEMENT PLUS FLY ASH.

C FOR ALL OTHER CONCRETE, FOR CLASS F FLY ASH MIXES, THE CLASS F FLY ASH CONTENT SHALL BE 25% OF THE TOTAL WEIGHT OF THE CEMENT PLUS FLY ASH. FOR CLASS C FLY ASH MIXES, THE CLASS C FLY ASH CONTENT SHALL BE 30% OF THE TOTAL WEIGHT OF THE CEMENT PLUS FLY ASH.

D STRAIGHT CEMENT CONCRETE MIXES, WITH NO FLY ASH, WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER.

E THE INTERMINGLING OR USE OF BOTH CLASS F AND CLASS C FLY ASH MIXES FOR STRUCTURAL CONCRETE WITHIN THE PROJECT WILL NOT BE PERMITTED.

8 ADDITION OF WATER AT THE PROJECT SITE

A THE BATCHING OF CONCRETE TO DELIBERATELY WITHHOLD WATER AT THE BATCH PLANT WITH THE INTENTION OF ADDING THE WITHHELD WATER AT THE PROJECT JOB SITE IS PROHIBITED AND WILL NOT BE PERMITTED.

B THE ADDITION OF WATER TO CONCRETE MIXER TRUCKS AT THE SITE SHALL BE LIMITED TO A MAXIMUM OF 5 GALLONS PER FULLY BATCHED TRUCK, PROVIDED THAT THE ADDITION OF THE WATER DOES NOT CAUSE THE WATER/CEMENT RATIO TO EXCEED THE SPECIFIED MAXIMUM SHOWN IN THE APPROVED MIX DESIGN. WATER IN EXCESS OF THIS AMOUNT WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE ENGINEER. THE INDISCRIMINATE ADDITION OF WATER TO MIXER TRUCKS WILL NOT BE PERMITTED. UNDER NO CIRCUMSTANCES SHALL THE WATER/CEMENT RATIO OF THE CONCRETE EXCEED THE MAXIMUM APPROVED FOR THE DESIGN MIX.

9 JOB SITE CONCRETE MONITORING AND CONTROL - THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL TO MONITOR CONCRETE FOR EACH POUR. IF CONCRETE CONSISTENTLY ARRIVES AT THE SITE (3 TRUCKS OR MORE) WITH LESS THAN THE SPECIFIED MINIMUM SLUMP, THE DESIGNATED MONITOR SHALL NOTIFY THE BATCH PLANT SO THAT THE DOSAGE OF THE WATER REDUCING ADMIXTURE CAN BE ADJUSTED TO PROVIDE THE REQUIRED SLUMP. SIMILARLY, IF CONCRETE ARRIVES WITH A SLUMP IN EXCESS OF THE SPECIFIED MAXIMUM, THE MONITOR SHALL NOTIFY THE BATCH PLANT SO THAT THE DOSAGE OF THE WATER REDUCING ADMIXTURE CAN BE ADJUSTED TO REDUCE THE SLUMP.

10 HOT AND COLD WEATHER

A COLD WEATHER IS DEFINED AS A PERIOD WHEN, FOR MORE THAN 2 SUCCESSIVE DAYS, THE AIR TEMPERATURE FALLS BELOW FREEZING AND THE MEAN DAILY TEMPERATURE IS BELOW 40 F. CONCRETE SHALL NOT BE PLACED WHEN COLD WEATHER CONDITIONS ARE EXPECTED, UNLESS SPECIAL PROVISIONS ARE MADE. IN THE EVENT THAT A FREEZE IS EXPECTED AFTER PLACEMENT OF FRESH CONCRETE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE CONCRETE IN ACCORDANCE WITH ACI PRC-306 "COLD WEATHER CONCRETING."

B HOT WEATHER IS DEFINED AS ANY COMBINATION OF HIGH AIR TEMPERATURE, LOW RELATIVE HUMIDITY AND WIND VELOCITY THAT TENDS TO IMPAIR THE QUALITY OF FRESH OR HARDENED CONCRETE OR OTHERWISE RESULTS IN ABNORMAL PROPERTIES.

1) MIX TEMPERATURE - WITH A RETARDING ADMIXTURE, THE PLACEMENT TEMPERATURE OF CONCRETE FOR DRILLED PIERS SHALL NOT EXCEED 100 F. FOR ALL OTHER CONCRETE, THE PLACEMENT TEMPERATURE SHALL NOT EXCEED 95 F. FOR CONCRETE MIXED WITHOUT A RETARDING ADMIXTURE, THE PLACEMENT TEMPERATURE OF CONCRETE FOR DRILLED PIERS SHALL NOT EXCEED 95 F. FOR ALL OTHER CONCRETE, THE PLACEMENT TEMPERATURE SHALL NOT EXCEED 90 F. WHEN CONCRETE TEMPERATURES EXCEED THESE VALUES, IT SHALL BE THE CONCRETE SUPPLIER'S RESPONSIBILITY TO LOWER THE CONCRETE TEMPERATURES THROUGH THE USE OF FOG SPRAY COOLING, CHILLED WATER, ICE OR NITROGEN INJECTION.

2) WHEN THE FORECAST RATE OF EVAPORATION, AS DETERMINED BY ACI PRC-305 "HOT WEATHER CONCRETING" INDICATES A LOSS OF 0.2 POUNDS PER SQUARE FOOT PER HOUR OF WATER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT PRECAUTIONS IN ACCORDANCE WITH THE RECOMMENDATIONS OF ACI PRC-305, OR TO IMMEDIATELY TAKE PRECAUTIONS IF ACTUAL CONDITIONS EXCEED FORECASTS AND CAUSE LOSSES OF 0.2 POUNDS PER SQUARE FOOT PER HOUR, OR MORE.

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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.09	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	2022.10.13

CURRENT:

SHEET NAME:
STRUCTURAL NOTES AND SPECIFICATIONS

SHEET NO:
S1.1

STRUCTURAL NOTES AND SPECIFICATIONS (CONT'D)

11 CONCRETE PLACEMENT

A PUMPING OF CONCRETE SHALL BE IN CONFORMANCE WITH THE RECOMMENDATIONS OF ACI PRC-304.2 "GUIDE TO PLACING CONCRETE BY PUMPING METHODS." THE USE OF ALUMINUM OR ALUMINUM ALLOY PIPES FOR THE CONVEYANCE OF CONCRETE WILL NOT BE PERMITTED.

B EXCEPT AT DRILLED PIERS, THE CONTRACTOR SHALL USE A STEEL TREMIE TO PLACE CONCRETE IN ALL AREAS WHERE THE FALL OF THE CONCRETE WILL EXCEED 5 FEET. THE USE OF AN ALUMINUM TREMIE WILL NOT BE PERMITTED. AT DRILLED PIERS, THE CONCRETE SHALL BE DIRECTED DOWN THE CENTER OF THE PIER SUCH THAT THE CONCRETE CAN FALL WITHOUT HITTING THE REBAR CAGE. IF THE CONCRETE AT PIERS CANNOT BE DISCHARGED IN THIS MANNER, A TREMIE SHALL BE USED.

C CONCRETE SHALL BE PLACED AND DEPOSITED CONTINUOUSLY AND IN LAYERS OF SUCH THICKNESS THAT NO CONCRETE WILL BE DEPOSITED ON CONCRETE THAT HAS HARDENED SUFFICIENTLY TO CAUSE THE FORMATION OF SEAMS, COLD JOINTS OR PLANES OF WEAKNESS WITHIN THE SECTION.

D CONSOLIDATE THE PLACED CONCRETE BY VIBRATION SUCH THAT THE CONCRETE IS THOROUGHLY COMPACTED INTO THE FORMS AND AROUND THE REINFORCEMENT. CONSOLIDATE THE CONCRETE IN CONFORMANCE WITH ACI PRC-309 "GUIDE FOR CONSOLIDATION OF CONCRETE." USE CARE TO AVOID BOTH OVERVIBRATING AND UNDERVIBRATING OF CONCRETE.

12 CONCRETE SHALL NOT BE PLACED PRIOR TO APPROVAL OF THE DESIGN MIXES BY THE ENGINEER.

CONCRETE CURING

1 CURING OF STRUCTURAL CONCRETE - THE CONTRACTOR SHALL CURE THE SURFACES OF FRESHLY PLACED CONCRETE USING MOIST OR WATER CURING METHODS SUCH AS ABSORPTIVE MATS OR FABRICS KEPT CONTINOUSLY WET, POLYETHYLENE SHEETING AND FOGGING OR MISTING, OR BY PONDING OR SPRINKLERING. THE USE OF SPRAY-ON CHEMICAL CURING COMPOUNDS WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE ENGINEER OR ARCHITECT AND MUST BE COMPATIBLE WITH PROPOSED FLOOR COVERINGS, STAINS, WATERPROOFING MATERIALS, SEALERS/HARDENERS AND/OR TOPPINGS. CONCRETE SHALL BE CURED A MINIMUM OF 7 DAYS. FORMWORK LEFT IN PLACE FOR THE 7 DAY PERIOD WILL BE CONSIDERED ADEQUATE CURING. THE PROPOSED CURING METHOD SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

CONCRETE FINISHING

1 CONCRETE FINISHES

A INTERIOR STRUCTURED SLABS - PROVIDE A SMOOTH TROWELED FINISH
B EXTERIOR STRUCTURED SLABS - PROVIDE A BROOM FINISH. AS SLOPED CONCRETE, UNLESS OTHERWISE NOTED, BROOMING SHALL BE IN THE DIRECTION OF THE SLOPE.
C INTERIOR SLABS ON METAL DECK - PROVIDE A SMOOTH TROWELED FINISH
D EXPOSED SURFACES OF EXTERIOR FACES OF PERIMETER BEAMS - PROVIDE A RUBBED FINISH
E SURFACES NOT EXPOSED TO VIEW, UNLESS OTHERWISE NOTED - PROVIDE A FORMED FINISH

2 REPAIR OF SURFACE DEFECTS - DEFECTIVE AREAS SHALL BE REPAIRED IMMEDIATELY AFTER REMOVAL OF FORMS. HONEYCOMBED AND OTHER DEFECTIVE AREAS SHALL BE REMOVED DOWN TO SOUND CONCRETE. THE DEFECTIVE AND SURROUNDING AREA SHALL BE DAMPENED AND A BONDING GROUT APPLIED TO THE AREA. BONDING GROUT SHALL CONSIST OF APPROXIMATELY ONE PART CEMENT TO ONE PART FINE SAND PASSING A NO. 30 SIEVE. MIX GROUT TO THE CONSISTENCY OF A THICK CREAM AND BRUSH THOROUGHLY INTO THE SURFACE.

PATCHING MORTAR SHALL BE OF THE SAME MATERIALS AND APPROXIMATELY THE SAME PROPORTIONS AS CONCRETE EXCEPT THAT COARSE AGGREGATE SHALL BE OMITTED. PREPARE MORTAR WITH NO MORE THAN ONE PART CEMENT TO 2 1/2 PARTS SAND. USE WHITE PORTLAND CEMENT FOR PART OF THE GRAY CEMENT TO MIX A MORTAR OF A COLOR TO MATCH THE SURROUNDING CONCRETE. USE NO MORE WATER THAN NECESSARY AND MIX MORTAR TO THE STIFFEST CONSISTENCY THAT WILL PERMIT PLACING.

AFTER SURFACE WATER FROM THE BONDING GROUT HAS DISSIPATED, THOROUGHLY BRUSH PATCHING MORTAR INTO THE BONDING GROUT.

IN LIEU OF USE OF A BONDING GROUT, A LATEX BONDING AGENT MAY BE USED.

Grout cleaned rubber finish removed

STRUCTURAL STEEL NOTES

1 STRUCTURAL STEEL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A572 OR A992, Fy = 50 KSI. STRUCTURAL STEEL CHANNELS SHALL CONFORM TO ASTM A997, Fy = 50 KSI. STRUCTURAL STEEL ANGLES AND PLATES SHALL CONFORM TO ASTM A572, Fy = 50 KSI.

2 STRUCTURAL STEEL TUBING OR HOLLOW STRUCTURAL SECTIONS(HSS) SHALL CONFORM TO ASTM A500, GRADE C, Fy = 50 KSI, OR A1085, Fy = 50 KSI.

3 DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL COMPLY WITH THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN," AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," AND ALL UPDATING PUBLICATIONS.

4 BEAM CONNECTIONS SHALL BE IN ACCORDANCE WITH THE DRAWINGS. UNLESS OTHERWISE NOTED, CONNECTIONS SHALL BE SHOP WELDED AND FIELD BOLTED. UNLESS OTHERWISE NOTED, ALL BOLTED CONNECTIONS SHALL BE MADE USING A325 TENSION CONTROL BOLTS. MEMBER REACTIONS SHOWN ON THE DRAWINGS ARE ASD UNFACTORED REACTIONS.

5 UNLESS NOTED OTHERWISE, ALL BOLTS AT BOLTED CONNECTIONS SHALL CONSIST OF HIGH-STRENGTH, TENSION-CONTROL BOLTS WITH TORQUE OFF SPLINES COMPLETE WITH HARDENED WASHERS AND MATING NUTS. BOLTS, NUTS, AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 AND ASTM F1852 "STANDARD SPECIFICATION FOR "TWIST OFF" TYPE TENSION CONTROL STRUCTURAL BOLT/NUT/WASHER ASSEMBLIES, STEEL, HEAT TREATED, 120/105 KSI MINIMUM TENSILE STRENGTH." ACCEPTABLE BOLTS ARE LEJUENE BOLTS AS SUPPLIED BY THE LEJEUNE BOLT COMPANY; SMARTHEX TC BOLTS, AS MANUFACTURED BY LOHR STRUCTURAL FASTENERS; UNYTITE TENSION CONTROL BOLTS, AS MANUFACTURED BY UNYTITE, INC.; OR AN ALTERNATE APPROVED BY THE STRUCTURAL ENGINEER.

6 WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F436 "STANDARD SPECIFICATION FOR HARDENED STEEL WASHERS."

7 WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY SPECIFICATIONS. ELECTRODES SHALL CONFORM TO AWS A5.5, E70XX, EXCEPT THAT, AT THE ERECTOR'S OPTION, STEEL DECKING MAY BE WELDED TO THE SUPPORTING STRUCTURE USING E60XX ELECTRODES.

8 ALL MISCELLANEOUS WELDS (FIELD OR SHOP) SHALL BE MINIMUM SIZE FILLET ALL AROUND IN ACCORDANCE WITH AISC. WELDING OF CONTINUOUS MEMBERS SHALL BE A MINIMUM OF 2 INCHES OF 3/16 INCH FILLET STITCH WELDS AT 12 INCHES ON CENTER, STAGGERED EACH SIDE, UNLESS OTHERWISE NOTED. COLUMN BASE PLATES, CAP PLATES AND STIFFENER PLATES SHALL BE WELDED ALL AROUND, UNLESS OTHERWISE NOTED.

9 SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION AND TYPE. ANY MEMBER HAVING A SPLICE NOT SHOWN AND DETAILED ON THE SHOP DRAWINGS WILL BE REJECTED.

10 BURNING OF HOLES IN STRUCTURAL STEEL IS PROHIBITED. ANY MEMBER WITH BURNED HOLES SHALL BE REPLACED.

11 BEAMS SHALL BE CAMBERED UPWARD AS SHOWN ON DRAWINGS. IF NO CAMBER IS SPECIFIED, THEN BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER PLACED UP.

12 ANGLES FOR SUPPORT OF STEEL DECKS AT FLOOR AND ROOF EDGES AND OPENINGS IN CONCRETE FLOORS AND ROOFS ARE DETAILED IN THE DRAWINGS. THE CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SIMILAR CONDITIONS AND SHALL PROVIDE SUCH FRAMING WHETHER SHOWN BY SECTION MARKS OR NOT.

13 EXAMINE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL ITEMS REQUIRED TO BE HOT-DIP GALVANIZED AFTER FABRICATION. ALL STEEL MEMBERS THAT WILL BE EXPOSED TO VIEW OR THE ENVIRONMENT IN THE COMPLETED CONSTRUCTION SHALL BE HOT DIP GALVANIZED. FIELD WELDS OR DAMAGE TO GALVANIZING SHALL BE REPAIRED WITH COLD GALVANIZING COMPOUND.

14 TOP FLANGES OF COMPOSITE BEAMS SHALL NOT BE PAINTED. STRUCTURAL STEEL TO RECEIVE SPRAY-ON FIREPROOFING SHALL NOT BE PAINTED. OTHERWISE, ALL STRUCTURAL STEEL SHALL BE PAINTED WITH A HIGH-GRADE RUST INHIBITING RED OR GRAY OXIDE PRIMER. ALL FIELD WELDS AND EXPOSED STEEL SHALL BE TOUCHED UP AFTER ERECTION.

15 REFER TO THE ARCHITECTURAL DRAWINGS FOR INTERIOR OR EXTERIOR STRUCTURAL STEEL THAT WILL RECEIVE A FINISH TOP COAT OF PAINT AND BE EXPOSED TO VIEW IN THE COMPLETED CONSTRUCTION. THE FOLLOWING IS APPLICABLE TO THESE MEMBERS.

A ALL STRUCTURAL STEEL MEMBERS SHALL BE FABRICATED PRIOR TO PREPARING MEMBERS FOR THE APPLICATION OF THE PRIMER COAT.

B FOLLOWING FABRICATION OF THE STRUCTURAL STEEL MEMBERS, THE STRUCTURAL STEEL SURFACES SHALL BE PREPARED IN CONFORMANCE WITH THE SOCIETY FOR PROTECTIVE COATINGS SURFACE PREPARATION AND STANDARDS (SP) 6/NACE NO. 3 - "COMMERCIAL BLAST CLEANING." THE STANDARD REQUIRES THE REMOVAL OF ALL VISIBLE OIL, GREASE, DIRT, DUST, MILL SCALE, RUST, PAINT OXIDES, CORROSION PRODUCTS AND/OR ANY OTHER FOREIGN MATTER BY BLASTING WITH A DRY ABRASIVE THROUGH A NOZZLE USING CLEAN, DRY, OIL-FREE COMPRESSED AIR. DISCOLORATIONS OR STAINS OF THE SURFACE SHALL BE LIMITED TO NO MORE THAN 33% PER UNIT AREA OF 9 SQUARE INCHES.

C FOLLOWING SURFACE PREPARATION, THE STEEL SHALL BE PAINTED WITH A HIGH-SOLIDS, MEDIUM-OIL, MODIFIED ALKYD PRIMER APPLIED WITH A DRY FILM THICKNESS OF 2.0 TO 3.5 MILS AND EXCEEDING THE REQUIREMENTS OF FEDERAL SPECIFICATIONS TT-P-636, TT-P-645 AND TT-P-86D, TYPES I AND II. THE MINIMUM SOLIDS CONTENT SHALL BE 56% BY VOLUME.THE USE OF A SHORT-OIL ALKYD PRIMER BASED ON FEDERAL SPECIFICATION TT-P-836 WILL NOT BE PERMITTED. AN ACCEPTABLE PRODUCT IS TNEMEC SERIES 10 PRIMER, OR AN APPROVED ALTERNATE. THIS PRIMER IS WELDABLE AND DOES NOT AFFECT THE INTEGRITY OF WELDS.

D STEEL SURFACE PREPARATION AND APPLICATION OF PRIMER IN THE SHOP SHALL BE SUBJECT TO INSPECTION AND REVIEW BY A REPRESENTATIVE OF THE TESTING LABORATORY, OWNER, ARCHITECT AND/OR ENGINEER. THE CONTRACTOR SHALL NOTIFY THE OWNER OR ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO APPLICATION OF PRIMER. IT SHALL BE THE CONTRACTOR'S AND FABRICATOR'S RESPONSIBILITIES TO COOPERATE FULLY WITH THE INSPECTOR AND SURFACE AND PAINTING INSPECTION REQUIREMENTS.

E THE PRIMED STEEL SHALL BE SHIPPED AND ERECTED.

F FOLLOWING ERECTION OF THE PRIMED STRUCTURAL STEEL, ALL FIELD WELDS SHALL BE CLEANED IN ACCORDANCE WITH SSPC-SP11 - "POWER TOOL CLEANING TO BARE METAL" TO REMOVE ALL SLAG, FOREIGN MATTER AND SURFACE CONTAMINANTS AT THE WELD SITES. THE FIELD WELDS SHALL THEN BE IMMEDIATELY SPOT PRIMED USING THE SAME HIGH-SOLIDS, MEDIUM OIL, MODIFIED ALKYD PRIMER USED IN THE SHOP AND APPLIED TO A DRY FILM THICKNESS OF 2.0 TO 3.5 MILS.

G FOLLOWING CLEANING AND PREPARATION OF THE FIELD WELDS, ALL SURFACES SHALL BE CAREFULLY INSPECTED. THE STEEL MUST BE CLEAN, DRY AND FREE OF ALL OIL, GREASE, RUST AND DELAMINATED PRIMER PAINT PRIOR TO APPLICATION OF THE TOP COATS OF PAINT. ANY RUST OR LOOSE PRIMER SHALL BE REMOVED AND THE STEEL SUBSTRATE CLEANED IN ACCORDANCE WITH SSPC SP2 - "HAND TOOL CLEANING" AND SPOT REPRIMED. THE FINAL STEP BEFORE APPLICATION OF THE TOP COATS SHALL BE CLEANING IN ACCORDANCE WITH SSPC-SP1 -"SOLVENT CLEANING."

H APPLY TOP COATS OF PAINT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.

16 ADEQUATE ERECTION BRACING SHALL BE MAINTAINED UNTIL ALL CONNECTIONS ARE MADE, THE FLOOR AND ROOF DECKS ARE INSTALLED AND THE PERMANENT STEEL BRACING, IF ANY, HAS BEEN INSTALLED.

17 TOLERANCES - WIDE FLANGE AND CHANNEL MEMBERS

A CAMBER

FOR MEMBERS WITH FLANGE WIDTH EQUAL TO OR GREATER THAN 6 INCHES, PERMISSIBLE VARIATION IS 1/8 INCH X (TOTAL MEMBER LENGTH IN FEET/10)

FOR MEMBERS WITH FLANGE WIDTH LESS THAN 6 INCHES, PERMISSIBLE VARIATION IS 1/8 INCH X (TOTAL MEMBER LENGTH IN FEET/10). FOR SUCH MEMBERS WITH LENGTH OF 45 FEET OR LESS, THE MAXIMUM PERMISSIBLE VARIATION IS 3/8 INCH MAX.

B SWEEP

FOR MEMBERS WITH FLANGE WIDTH EQUAL TO OR GREATER THAN 6 INCHES, PERMISSIBLE VARIATION IS 1/8 INCH X (TOTAL MEMBER LENGTH IN FEET/10).

FOR MEMBERS WITH FLANGE WIDTH LESS THAN 6 INCHES, PERMISSIBLE VARIATION IS 1/8 INCH X (TOTAL MEMBER LENGTH IN FEET/5). FOR SUCH MEMBERS WITH LENGTH OF 45 FEET OR LESS, THE MAXIMUM PERMISSIBLE VARIATION IS 3/8 INCH MAX.

18 TOLERANCES - HOLLOW STRUCTURAL SECTIONS AND TUBULAR STEEL MEMBERS

A STRAIGHTNESS

THE PERMISSIBLE VARIATION FOR STRAIGHTNESS OF HOLLOW STRUCTURAL SECTIONS AND TUBULAR STEEL SECTIONS IS 1/8 INCH X (TOTAL MEMBER LENGTH IN FEET/5).

B SQUARENESS OF SIDES

FOR SQUARE OR RECTANGULAR MEMBERS, ADJACENT SIDES OF MEMBER MAY DEVIATE FROM 90 DEGREES BY A TOLERANCE OF PLUS OR MINUS 2 DEGREES MAXIMUM.

C TWIST

TWIST, OR VARIATION WITH RESPECT TO AXIAL ALIGNMENT OF THE SECTION, IS MEASURED BY HOLDING DOWN ONE END OF A SQUARE OR RECTANGULAR SECTION ON A FLAT SURFACE WITH THE BOTTOM SIDE OF THE MEMBER PARALLEL TO THE SURFACE AND NOTING THE HEIGHT THAT EITHER CORNER, AT THE OPPOSITE END OF THE MEMBER, EXTENDS ABOVE THE SURFACE. THE TOLERANCES FOR TWIST SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

DIMENSION OF LONGEST SIDE, IN.	MAXIMUM TWIST PER 3 FT. OF LENGTH, IN.
1 1/2 AND UNDER	0.050
OVER 1 1/2 TO 2 1/2	0.062
OVER 2 1/2 TO 4	0.075
OVER 4 TO 6	0.087
OVER 6 TO 8	0.100
OVER 8	0.112

D RADIUS OF CORNERS - FOR SQUARE OR RECTANGULAR HOLLOW SECTIONS, THE RADIUS OF ANY OUTSIDE CORNER SHALL NOT EXCEED 3 TIMES THE WALL THICKNESS.

HEADED STUDS AND ANCHORS

STUDS FOR SHEAR CONNECTORS AND ANCHORS FOR EMBEDDED PLATES, ANGLES AND OTHER SHAPES SHALL BE OF THE DIAMETER AND LENGTH SPECIFIED ON THE DRAWINGS. STUDS AND HEADED ANCHORS SHALL PROVIDE THE FOLLOWING MINIMUM PROPERTIES IN CONFORMANCE WITH AWS D1.1, TABLE 7.1:

PROPERTY	TYPE A (1/4 & 3/8 INCH DIAMETER)	TYPE B (1/2 INCH DIA. OR MORE)
TENSILE STRENGTH	61 KSI	65 KSI
YIELD STRENGTH	49 KSI	51 KSI
ELONGATION (% IN 2 INCHES)	17%	20%
REDUCTION OF AREA	50%	50%

STUDS AND HEADED ANCHORS SHALL BE HEADED STEEL STUDS AS MANUFACTURED BY THE NELSON DIVISION OF TRW. STUDS SHALL BE ATTACHED TO BEAMS, PLATES, ANGLES, ETC. USING A WELDING GUN SPECIFICALLY MANUFACTURED FOR THIS PURPOSE. MANUAL WELDING USING ROD ELECTRODES WILL NOT BE PERMITTED.

STEEL JOISTS - K SERIES

1 STANDARDS

A STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, K-SERIES."
B STEEL JOIST INSTITUTE "RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS."

2 JOISTS SHALL BE DESIGNED, FABRICATED, TRANSPORTED, STORED AND ERECTED IN CONFORMANCE WITH THE REFERENCE STANDARDS. JOIST SELECTION AND DESIGN IS BASED ON ALLOWABLE STRESS DESIGN.

3 BRIDGING SHALL BE HORIZONTAL RODS OR ANGLES IN ACCORDANCE WITH PARAGRAPHS 5.4 (A), (B) AND (C) AND 5.5 OF THE STEEL JOIST INSTITUTE SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE DRAWINGS. BRIDGING SHALL BE THROUGH STRUCTURAL STEEL JOIST ANO ANCHORED TO SPANDREL MEMBERS, HIP BEAMS, VALLEY BEAMS OR TILT-UP PANELS, AS APPROPRIATE.

4 JOISTS, BRIDGING AND CONNECTIONS SHALL BE DESIGNED FOR A NET UPLIFT OF 20 POUNDS PER SQUARE FOOT. THE TRIBUTARY WIDTH OF ROOF SUPPORTED BY THE JOISTS SHALL BE EQUAL TO THE SPACING OF THE JOISTS. THE UPLIFT LOAD SHALL BE EQUAL TO THE TRIBUTARY WIDTH TIMES THE SPECIFIED UNIFORM UPLIFT LOAD.

5 TOP CHORD JOIST EXTENSIONS SHALL BE DESIGNED TO SUPPORT A LIVE LOAD OF 100 POUNDS PER LINEAL FOOT, A TOTAL LOAD OF 150 POUNDS PER LINEAL FOOT AND AN UPLIFT LOAD OF 100 POUNDS PER LINEAL FOOT.

6 JOIST CONNECTION - AS A MINIMUM, WELD TO SUPPORTS WITH TWO 2-INCH LONG, 1/8-INCH FILLET WELDS PER END. FIELD BOLT JOISTS NEAREST COLUMNS WITH TWO 1/2-INCH DIAMETER BOLTS. PROVIDE 2 1/2 INCH MINIMUM BEARING ON STEEL BEAMS AND 4 INCH MINIMUM BEARING ON STEEL BEARING PLATES AT CONCRETE OR MASONRY WALLS.

7 CAMBER - SJI SPECIFICATIONS PARAGRAPH 4.7.

8 THE CONTRACTOR SHALL EXAMINE THE CONTRACT DOCUMENTS FOR CONDITIONS REQUIRING NON-STANDARD SEATS WHETHER SHOWN ON THE FRAMING PLANS OR NOT. SEATS SHALL BE OF DEPTH TO ALLOW FULL DECK BEARING ON TOP CHORD AND FULL JOIST BEARING ON SUPPORTING BEAMS. IN PARTICULAR, THE JOIST MANUFACTURER SHALL REVIEW FLANGE WIDTHS OF WIDE FLANGE BEAMS AND GIRDERS FOR AVAILABLE BEARING LENGTHS AND DESIGN THE JOIST SEATS FOR THE BEARING LENGTHS AVAILABLE. OPTIONALLY, AND WITH THE APPROVAL OF THE ENGINEER, A STEEL BEAM WITH THE NECESSARY FLANGE WIDTH AND A SECTION MODULUS AND MOMENT OF INERTIA EQUAL TO OR GREATER THAN THE BEAM SPECIFIED MAY BE SUBSTITUTED. ALTERNATE DETAILS, SUCH AS BEARING PLATES OR FLANGE EXTENSIONS, MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, JOIST MANUFACTURER AND STEEL FABRICATOR TO COORDINATE SUCH CONDITIONS.

9 PROVIDE FLAT BEARING FOR ALL JOISTS.

10 JOISTS SHALL BE ERECTED IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS AND REGULATIONS. ADEQUATE ERECTION BRACING SHALL BE MAINTAINED UNTIL ALL CONNECTIONS HAVE BEEN MADE AND THE ROOF DECK PANELS HAVE BEEN INSTALLED AND FASTENED TO THE STRUCTURE. BRIDGING INSTALLATION SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS.

11 JOISTS SHALL BE PAINTED WITH A HIGH-QUALITY RUST INHIBITING GRAY OXIDE PRIMER.

COMPOSITE CONSTRUCTION NOTES

COMPOSITE METAL DECK NOTES

1 COMPOSITE STEEL FLOOR DECK SHALL BE 3 INCHES DEEP, 20 GAGE, GALVANIZED (WITH G60 COATING), WITH A MINIMUM YIELD STRENGTH OF 40 KSI AND A MINIMUM SECTION MODULUS = 0.553 IN3. ACCEPTABLE PRODUCTS ARE VULCRAFT 3VLI20 OR AN APPROVED ALTERNATE.

2 STEEL DECK SHALL HAVE A MINIMUM OF 2-SPANS CONTINUOUS. SIDE LAPS SHALL BE FASTENED AT 36" MAXIMUM SPACING ON CENTERS USING #10 TEK SCREWS, BUTTON PUNCHING OR CRIMPING, 5/8 INCH DIAMETER PUDDLE WELDS OR 1" LONG FILLET WELDS. ENDS SHALL HAVE A MINIMUM BEARING OF 1 1/2 INCHES ON STEEL SUPPORTS. BUTT ENDS OF DECK PANELS TOGETHER AT SUPPORTS. WELD DECK AT ENDS AND AT INTERMEDIATE SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS AT 12 INCHES MAXIMUM ON CENTERS. EDGES OF DECK PANELS SHALL BE FASTENED TO SUPPORTS USING 5/8 INCH DIAMETER PUDDLE WELDS AT 12" MAXIMUM SPACING.

COMPOSITE BEAM SHEAR CONNECTORS FASTENED TO BEAMS THROUGH THE DECK WILL BE CONSIDERED ADEQUATE FASTENERS OF THE DECK TO THE BEAMS PROVIDED THAT THEY ARE INSTALLED AT THE MINIMUM SPACINGS DESCRIBED FOR PUDDLE WELDS ABOVE.

UNLESS OTHERWISE NOTED, SINGLE DECK SPANS WILL REQUIRE SHORING AT MIDSPAN.

3 PROVIDE CLOSURES AS NECESSARY AT OPEN ENDS AND AT EDGES OF DECK WHERE DECK DOES NOT ABUT OR LAP THE SUPPORTING STRUCTURE. CLOSURES SHALL MATCH THE PROFILE OF THE DECK. THE USE OF CONTINUOUS ANGLE CLOSURES WILL NOT BE PERMITTED. EXPANDABLE FOAM MAY BE USED TO CLOSE OPEN ENDS OF FLUTES, BUT FOAM SHALL NOT EXTEND INTO THE RIBS OR FLUTES OF THE DECK OR THE SPACE BETWEEN ENDS OF DECK PANELS INTENDED FOR CONCRETE.

4 EDGE ANGLES OR BENT PLATES THAT ARE INTENDED TO FUNCTION AS POUR STOPS ARE SHOWN IN THE DRAWINGS. CONTRACTOR SHALL EXAMINE THE DRAWINGS FOR ALL EDGE CONDITIONS AND PROVIDE EDGE ANGLES OR BENT PLATE POUR STOPS AT DECK EDGES WHETHER SHOWN ON THE DRAWINGS OR NOT.

5 STEEL DECK SHALL CONFORM TO ANSI/SOI-C1.0 STANDARD FOR COMPOSITE STEEL FLOOR DECK.

6 CONTRACTOR SHALL SUBMIT DESIGN AND PRODUCT DATA FOR THE COMPOSITE METAL DECK TO THE ENGINEER FOR REVIEW.

COMPOSITE SLAB

1 THE COMPOSITE FLOOR SLAB SHALL CONSIST OF 2½ INCHES OF NORMAL WEIGHT CONCRETE TOPPING OVER THE 3 INCH COMPOSITE METAL DECK FOR A TOTAL SLAB THICKNESS OF 5½ INCHES.

2 THE CONCRETE TOPPING SHALL BE IN ACCORDANCE WITH THE REINFORCED CONCRETE NOTES.

3 COMPOSITE SLAB SHALL BE REINFORCED WITH 6x6-W4XW4 WELDED WIRE FABRIC LAPPED A MINIMUM OF ONE AND ONE-HALF MESH AT ENDS AND SIDES. WELDED WIRE FABRIC SHALL BE INSTALLED WITH 1-INCH OF CLEAR COVER FROM THE TOP OF THE SLAB. WWF SHALL BE SUPPORTED ON CONTINUOUS SLAB BOLSTERS OF THE PROPER HEIGHT PLACED 1 FOOT EACH SIDE OF BEAMS AND GIRDERS AND AT 3 FEET MAXIMUM ON CENTERS BETWEEN THE BEAMS. WWF SHALL BE PROVIDED IN FLAT SHEETS.

SHEAR CONNECTORS

1 SHEAR CONNECTORS SHALL BE 3/4 INCH DIAMETER BY 4 11/16 INCH LONG HEADED STUDS CONFORMING TO THE REQUIREMENTS FOR HEADED STUDS AND HEADED ANCHORS AND AS MANUFACTURED BY NELSON DIVISION OF TRW, OR AN APPROVED ALTERNATE.

2 SHEAR CONNECTORS SHALL HAVE A MINIMUM LATERAL CONCRETE COVER OF 1 INCH. MINIMUM CENTER TO CENTER SPACING SHALL BE NOT LESS THAN SIX STUD DIAMETERS ALONG THE BEAM AND FOUR STUD DIAMETERS TRANSVERSE TO THE BEAM AXIS. MAXIMUM SHEAR STUD SPACING SHALL NOT EXCEED 8 TIMES THE TOTAL SLAB THICKNESS. THE FABRICATOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND PROVIDE NOT LESS THAN THE MINIMUM NUMBER OF STUDS REQUIRED.

3 REFER TO THE PLANS FOR THE LEGEND FOR COMPOSITE BEAM AND GIRDER SHEAR CONNECTOR DESIGNATIONS.

METAL ROOF DECK

1 ROOF DECK SHALL BE WIDE RIB (TYPE B), 1-1/2 INCHES DEEP, GALVANIZED (WITH MINIMUM G60 COATING), WITH A MINIMUM YIELD STRENGTH OF 33 KSI, DESIGNED IN ACCORDANCE WITH THE ANSI/SDI-RD1.0 STANDARD FOR STEEL ROOF DECK.

DECK SHALL BE 22 GAGE (MINIMUM SECTION MODULUS OF 0.183 IN3/FT OF WIDTH.

ACCEPTABLE PRODUCT IS VULCRAFT 1.5B22 OR AN APPROVED ALTERNATE.

2 WIDE RIB STEEL DECK SHEETS SHALL BE A MINIMUM OF 36 INCHES WIDE.

3 THE ROOF DECK SHALL BE ATTACHED TO THE STRUCTURAL FRAMING USING ONE OF THE FOLLOWING METHODS/PATTERNS:

A USE A 36/7 FASTENER PATTERN WITH 5/8 INCH DIAMETER PUDDLE WELDS AT DECK SUPPORTS AND A MINIMUM OF 4 SIDELAP FASTENERS PER DECK SPAN USING #10 TEK SCREWS; OR

B USE A 36/7 FASTENER PATTERN WITH HILTI X-HSN 24/X-ENP 19 L15 POWDER DRIVEN FASTENERS AT DECK SUPPORTS AND A MINIMUM OF 4 SIDELAP FASTENERS PER DECK SPAN USING #10 TEK SCREWS.

C WHERE ROOF DECKING IS SHOWN TO BE FASTENED OR ANCHORED TO TOP OF CMU, FASTEN USING MUSHROOM HEADED SPIKES.

4 STEEL ROOF DECK SHALL HAVE A MINIMUM OF 2 SPANS CONTINUOUS.

5 CONTRACTOR SHALL SUBMIT DESIGN AND PRODUCT DATA FOR ROOF DECK TO ENGINEER FOR REVIEW.

6 OPENINGS IN ROOF DECK

A OPENINGS 6" IN DIAMETER OR LESS WILL NOT REQUIRE REINFORCEMENT OR FRAMING.
B OPENINGS 6" TO 6" IN DIAMETER SHALL BE REINFORCED WITH AN 16 GAGE PLATE.
C OPENINGS 8" TO 12" IN DIAMETER SHALL BE REINFORCED WITH A 16 GAGE PLATE.
D OPENINGS 12" TO 15" IN DIAMETER SHALL BE REINFORCED WITH A 14 GAGE PLATE.
E OPENINGS 15" OR GREATER IN SIZE SHALL BE REFERRED TO THE ENGINEER FOR FRAMING, OR SHALL BE FRAMED IN ACCORDANCE WITH THE TYPICAL DETAIL FOR FRAMING OF ROOF OPENINGS.
F REFER TO DETAIL 4/S6.2.

REINFORCEMENT PLATES SHALL EXTEND A MINIMUM OF 6" EITHER SIDE OF THE OPENING IN THE DIRECTION PARALLEL TO THE DECK RIBS, AND TO THE SECOND RIB EITHER SIDE OF THE OPENING IN THE DIRECTION PERPENDICULAR TO THE DECK SPAN. FASTEN PLATE TO DECK USING #10 IN ROWS WITH ONE SCREW AT EACH RIB, WITH ROWS AT 6" ON CENTERS.

7 AT RIDGE, HIP AND VALLEY LINES, PROVIDE CONTINUOUS 20 GAGE PLATE FASTENED TO THE DECK RIBS EACH SIDE OF THE RIDGE, HIP OR VALLEY LINE AT 12" ON CENTERS WITH #10 TEK SCREWS.

8 THE SUSPENDING OF LIGHT GAGE FRAMING, CONDUIT, PIPING OR DUCTWORK DIRECTLY FROM THE DECKING WILL NOT BE PERMITTED. LIGHT GAGE FRAMING, CONDUIT, PIPING AND DUCTWORK SHALL BE SUPPORTED FROM THE JOIST OR STEEL FRAMING. THE SUSPENSION OR HANGING OF LIGHT GAGE FRAMING DIRECTLY FROM THE ROOF DECKING WILL NOT, UNDER ANY CIRCUMSTANCES, BE PERMITTED.

HOT-DIP GALVANIZING

1 GALVANIZING OF STEEL MEMBERS AND COMPONENTS SHALL BE PERFORMED BY A GALVANIZER THAT IS A MEMBER OF THE AMERICAN GALVANIZERS ASSOCIATION.

2 MEMBERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.

3 BOLTS, NUTS, WASHERS AND HARDWARE COMPONENTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.

4 SAFEGUARD PRODUCTS AGAINST STEEL EMBRITTLEMENT IN CONFORMANCE WITH ASTM A143.

5 GALVANIZE IN A MANNER TO AVOID MECHANICAL DAMAGE AND TO MINIMIZE DISTORTION.

6 PRECLEAN ALL MEMBERS AND HARDWARE IN ACCORDANCE WITH ACCEPTED METHODS OF PRODUCE ACCEPTABLE SURFACES FOR QUALITY HOT-DIP GALVANIZING. REMOVE ALL SHARD EDGES, BURRS AND SURFACE CONTAMINANTS.

7 FINISHED SURFACE SHALL BE CONTINUOUS, ADHERENT, AND AS SMOOTH AND EVENLY DISTRIBUTED AS POSSIBLE. SURFACE SHALL BE FREE OF DRIPS, RUNS, BURRS, LUMPS, ROUGHNESS, RUST STAINS AND BARE SPOTS. FOR MEMBERS EXPOSED DIRECTLY TO HUMAN CONTACT, THE PRESENCE OF BURRS, SHARP EDGES, ROUGHNESS, LUMPS OR RUNS MAY BE CONSIDERED GROUNDS FOR REJECTION OF THE MEMBER. THE SURFACE SHALL WITHSTAND NORMAL HANDLING CONSISTENT WITH THE NATURE AND THICKNESS OF THE COATING AND THE NORMAL USE OF THE MEMBER.

MEMBERS THAT DO NOT, IN THE OPINION OF THE ENGINEER, SATISFY THESE REQUIREMENTS MAY BE REJECTED AND REQUIRE REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

COLD GALVANIZING COMPOUND

1 FOR REPAIR OF GALVANIZED STEEL MEMBERS AND FABRICATIONS, A COLD GALVANIZING COMPOUND SHALL BE USED THAT MEETS THE REQUIREMENTS OF FEDERAL SPECIFICATION DOD-P-21035A, FEDERAL SPECIFICATION MIP-P-26915A, FEDERAL SPECIFICATION TT-P-460 (TYPE I, ZINC DUST) AND CANADIAN GOVERNMENT SPECIFICATION 1-GP-181A (ZINC COATING).

2 REQUIREMENTS

A PREMIXED, READY TO APPLY, LIQUID ORGANIC ZINC COMPOUND.
B SILVERY FINISH OR LIGHT GRAY FLAT FINISH AS NECESSARY TO MATCH THE EXISTING GALVANIZED FINISH.
C METALLIC ZINC CONTENT - 95% BY WEIGHT IN DRY FILM
D SOLIDS CONTENT - 52% BY VOLUME

3 ACCEPTABLE PRODUCTS ARE ZRC COLD GALVANIZING COMPOUND FOR FLAT, LIGHT GRAY FINISHES, OR ZRC GALVALITE FOR SHINY-SILVERY FINISHES. SUBSTITUTES OR ALTERNATES WILL NOT BE PERMITTED.

4 CLEAN SURFACES TO RECEIVE THE COLD GALVANIZING COMPOUND TO REMOVE ALL GREASE, OIL, RUST, SCALE, PAINT AND SLAG. CLEAN SURFACES DOWN TO BARE METAL AND APPLY THE COLD GALVANIZING COMPOUND IMMEDIATELY AFTER CLEANING. IF THE APPLICATION OF THE COLD GALVANIZING COMPOUND IS DELAYED AND NOT APPLIED IMMEDIATELY AFTER CLEANING, THEN SURFACES WILL REQUIRE RECLEANING PRIOR TO APPLICATION.

5 APPLY WITH SUFFICIENT WET FILM THICKNESS TO ACHIEVE A DRY FILM BUILD OF 2.5 TO 3.5 MILS USING THE MANUFACTURER'S RECOAT TIME DIRECTIONS, BUT NOT LESS THAN THE THICKNESS SPECIFIED BY ASTM A123 FOR HOT DIP GALVANIZED COATING. APPLICATION MAY BE BY BRUSH, ROLLER OR SPRAYER.

6 USE CARE TO SELECT THE APPROPRIATE COLD GALVANIZING COMPOUND APPROPRIATE FOR THE EXISTING GALVANIZED FINISH. USE OF A FLAT GRAY COMPOUND FOR A SILVERY-SHINY FINISH, OR A SILVERY COMPOUND FOR A FLAT GRAY FINISH MAY BE GROUNDS FOR REJECTION.

7 THE DEVELOPMENT OF RUST WITHIN THE FIRST YEAR FOLLOWING SUBSTANTIAL COMPLETION SHALL BE GROUNDS FOR REJECTION AND WILL REQUIRE RECLEANING, RE-PREPARATION OF SURFACES AND RECOATING AT NO ADDITIONAL COST.

INSTALLATION OF REBAR INTO EXISTING HARDENED CONCRETE

1 WHERE SHOWN ON THE DRAWINGS, REBAR INSTALLED INTO EXISTING CONCRETE SHALL BE DRILLED AND ANCHORED TO THE CONCRETE USING AN ADHESIVE IN STRICT CONFORMANCE TO THE ADHESIVE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

2 ADHESIVES SHALL MEET THE ACCEPTANCE CRITERIA OF AC30B - ACCEPTANCE CRITERIA FOR POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS PUBLISHED BY THE ICC EVALUATION SERVICE AND BE APPROVED FOR SUPPORT OF LONG-TERM TENSILE OR COMPRESSIVE LOADS WITHOUT CREEP, AND BE APPROVED FOR USE IN CRACKED CONCRETE.

3 ADHESIVE ANCHORS SHALL BE INSTALLED BY PERSONNEL QUALIFIED, TRAINED AND CERTIFIED FOR ANCHOR INSTALLATION IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM. DOCUMENTATION SHALL BE AVAILABLE AND REVIEWED BY THE TESTING LABORATORY REPRESENTATIVE PRIOR TO COMMENCEMENT OF ANCHOR INSTALLATION.

4 ALL HOLES SHALL BE INSTALLED USING A HAMMER DRILL AND HOLLOW DRILL BIT SYSTEM AND VACUUM, UNLESS OTHERWISE APPROVED BY THE MANUFACTURER AND STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED PRIOR TO USE OF A CORING BIT OR CORING BIT AND ROUGHENING TOOL.

5 EXTRA CARE SHALL BE USED TO PROPERLY CLEAN HOLES PRIOR TO INSTALLATION OF ADHESIVE AND REBAR. HOLE CLEANLINESS IS CRITICAL TO PROPER PERFORMANCE. HOLE CLEANING SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AND RECOMMENDATIONS, BUT SHALL INCLUDE BLOWING THE DRILLED HOLE OUT WITH COMPRESSED AIR FOLLOWED BY CLEANING WITH A BRUSH AND FINAL CLEANING WITH COMPRESSED AIR. COMPRESSED AIR SHALL BE APPLIED TO THE BOTTOM OF THE HOLE USING A NOZZLE EXTENSION. ADHESIVE SHALL COMPLETELY FILL THE HOLE AFTER INSTALLATION OF THE REBAR. UNFILLED HOLES MAY BE GROUNDS FOR REJECTION OF THE INSTALLATIONS. SIZES AND MINIMUM EMBEDMENT LENGTHS SHALL BE AS SHOWN ON THE DRAWINGS.

6 APPROVED ADHESIVES ARE "HIT RE500 V3 ADHESIVE", AS MANUFACTURED BY HILTI; "SET XP ANCHORING ADHESIVE", FOR CONCRETE TEMPERATURES OF 50 DEGREES F, OR GREATER, OR "AT-XP", FOR CONCRETE TEMPERATURES OF 14 TO 50 DEGREES, AS MANUFACTURED BY SIMPSON STRONG-TIE; "SET-3G EPOXY ANCHORING SYSTEM", AS MANUFACTURED BY SIMPSON STRONG-TIE; "PURE 110+", AS MANUFACTURED BY DE WALT FASTENERS; OR "ULTRABOND HS-1CC", AS MANUFACTURED BY ADHESIVES TECHNOLOGY. NO ALTERNATES OR SUBSTITUTES WILL BE PERMITTED.

CONCRETE MASONRY UNIT CONSTRUCTION

1 CONCRETE MASONRY UNITS SHALL BE HOLLOW, LOAD BEARING, LIGHTWEIGHT UNITS CONFORMING TO THE REQUIREMENTS OF ASTM C90.

2 REINFORCING STEEL SHALL BE ASTM A 615, GRADE 60. CMU WALLS SHALL BE REINFORCED AS SHOWN ON THE DRAWINGS. VERTICAL REINFORCING BARS SHALL BE LAPPED AS SHOWN ON THE DRAWINGS.

3 MORTAR FOR LOAD BEARING MASONRY SHALL BE TYPE S PROPORTIONED BY VOLUME IN ACCORDANCE WITH ASTM C270 CAPABLE OF PROVIDING A MINIMUM COMPRESSIVE PRISM STRENGTH, F'm OF THE MASONRY SYSTEM OF 1500 PSI. MORTAR FOR NON-LOAD BEARING MASONRY SHALL BE TYPE N PROPORTIONED BY VOLUME IN ACCORDANCE WITH ASTM C270.

PROVIDED THAT MORTAR COMPONENTS ARE PROPORTIONED BY VOLUME, NO SAMPLING OR PHYSICAL TESTING OF MORTAR IS REQUIRED, BUT PROPORTIONS SHALL BE VERIFIED BY THE TESTING LABORATORY REPRESENTATIVE.

4 GROUT FOR CMU CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C476 AND SHALL HAVE A SLUMP IN THE RANGE OF 8 TO 11 INCHES. UNDER NO CIRCUMSTANCES SHALL THE SLUMP BE LESS THAN 8 INCHES.

PROVIDED THAT GROUT COMPONENTS ARE PROPORTIONED BY VOLUME, NO SAMPLING OR PHYSICAL TESTING OF GROUT IS REQUIRED, BUT PROPORTIONS SHALL BE VERIFIED BY THE TESTING LABORATORY REPRESENTATIVE.

5 JOINT REINFORCEMENT SHALL CONSIST OF LADDER TYPE REINFORCEMENT WITH NO. 9 GAGE SIDE RODS AND NO. 9 GAGE CROSS RODS. UNLESS NOTED OTHERWISE, PROVIDE JOINT REINFORCEMENT AT EVERY OTHER COURSE. JOINT REINFORCEMENT SHALL BE HOT DIP GALVANIZED.

6 MORTARED JOINTS SHALL BE TOOLED CONCAVE.

7 PROVIDE 2-#5 VERTICAL REINFORCING BARS EACH SIDE OF OPENINGS THROUGH WALLS, AT BOTH SIDES OF CONTROL JOINTS AND AT ALL CORNERS OF WALLS, UNLESS OTHERWISE NOTED.

8 PROVIDE VERTICAL CONTROL JOINTS WHERE SHOWN BY THE DRAWINGS. IF NOT SHOWN OR INDICATED, PROVIDE CONTROL JOINTS AT A MAXIMUM SPACING OF 20 FEET ON CENTERS SO AS NOT TO REDUCE THE STRENGTH OR STABILITY OF THE WALL. AT CORNERS OF BUILDINGS, PROVIDE VERTICAL CONTROL JOINT WITHIN 32 INCHES OF CORNER AT ONE SIDE. SUBMIT DRAWINGS INDICATING PROPOSED LOCATIONS AND CONSTRUCTION DETAILS FOR CONTROL JOINTS FOR THE ARCHITECT'S REVIEW.

9 BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH VERTICAL CONTROL JOINTS. THE HORIZONTAL BOND BEAM REINFORCEMENT SHALL BE FURNISHED WITH A BOND BREAKER FOR A DISTANCE OF 12 INCHES EACH SIDE OF THE JOINT. BOND BREAKER MAY CONSIST OF PVC SLEEVE OR GREASED PLASTIC TAPE AROUND THE REBAR, OR OTHER DETAIL AS SUBMITTED AND APPROVED BY THE ARCHITECT OR ENGINEER. HORIZONTAL JOINT REINFORCEMENT SHALL BE DISCONTINUOUS AT CONTROL JOINTS.

10 UNLESS OTHERWISE NOTED, MASONRY SHALL BE CONSTRUCTED WITH A RUNNING BOND.

LIGHT GAGE STEEL STUD FRAMING

1 LIGHT GAGE STEEL STUDS SHALL BE FABRICATED FROM MATERIAL COMPLYING WITH ASTM A 1003 OR A653 AND PROVIDED WITH A GALVANIZED COATING. FOR EXTERIOR FRAMING, THE COATING SHALL BE A MINIMUM G90 COATING, OR EQUIVALENT. INTERIOR FRAMING SHALL BE PROVIDED WITH A MINIMUM G60 COATING, OR EQUIVALENT. THE MINIMUM YIELD STRENGTH OF THE MATERIAL SHALL BE 33 KSI.

2 IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN, DETAIL, FURNISH AND INSTALL THE EXTERIOR LIGHT GAGE FRAMING SYSTEMS AND THE SOFFIT FRAMING AT THE BUILDING ROOF OVERHANGS AND SOFFITS. LIGHT GAGE FRAMING SHALL BE DESIGNED FOR THE VERTICAL DEAD AND LIVE LOADS AND COMPONENTS AND CLADDING LOADS SHOWN IN THESE DRAWINGS, AND FOR THE WEIGHT OF THE EXTERIOR CLADDING AND GLAZING SYSTEMS SUPPORTED BY THE FRAMING. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATION 05 40 00 - COLD FORMED METAL FRAMING FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

3 LIGHT GAGE STEEL STUD SCHEDULE - WALLS WITH METAL SIDING, OR NON-STUCCO OR NON-MASONRY SIDING
EXTERIOR STUDS: INTERIOR ZONES - SPACING AT 16" ON CENTERS
20 PSF WINO LOAD
MAXIMUM ALLOWABLE DEFLECTION = UNBRACED HEIGHT/240
(PER IBC TABLE 1604.3 NOTE F, THE WIND LOAD MAY BE TAKEN AS 0.7 TIMES THE SPECIFIED COMPONENTS AND CLADDING WIND PRESSURE FOR DEFLECTION CALCULATIONS)

UNBRACED VERTICAL HEIGHT	STUD SIZE
12'-0"	600S137-43
20'-0"	600S162-54

4 LIGHT GAGE STEEL STUD SCHEDULE - WALLS WITH STUCCO OR MASONRY CLADDING
EXTERIOR STUDS: INTERIOR ZONES - SPACING AT 16" ON CENTERS
20 PSF WIND LOAD
MAXIMUM ALLOWABLE DEFLECTION = UNBRACED HEIGHT/600
(PER IBC TABLE 1604.3 NOTE F, THE WIND LOAD MAY BE TAKEN AS 0.7 TIMES THE SPECIFIED COMPONENTS AND CLADDING WIND PRESSURE FOR DEFLECTION CALCULATIONS)

UNBRACED VERTICAL HEIGHT	STUD SIZE
12'-0"	600S137-43

5 EXTERIOR STUDS: END ZONES

STUDS FOR END ZONES OF THE PROJECT BUILDING, AS DEFINED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE AND ASCE 7, SHALL BE AS SCHEDULED ABOVE, EXCEPT THAT THE STUDS SHALL BE SPACED AT 12 INCHES ON CENTERS. THE END ZONE DISTANCE FOR THE PROJECT BUILDING IS 7 FEET. THE END ZONE DISTANCE SHALL EXTEND FOR THE SPECIFIED DISTANCE FROM EACH BUILDING CORNER. ALL AREAS OUTSIDE OF THESE DISTANCES ARE CONSIDERED INTERIOR ZONES.

6 SCHEDULE NOTE - FRAMING MEMBERS SIZES SHOWN ABOVE ARE SUGGESTED SIZES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND VERIFY REQUIRED FRAMING MEMBER SIZES.

7 FRAMING CONNECTIONS

A AT STRUCTURAL FLOOR FRAMING, CONNECTIONS OF STUDS TO THE STRUCTURE SHALL ALLOW FOR A MINIMUM VERTICAL MOVEMENT OF THE STRUCTURE OF 3/4 INCHES.

B AT STRUCTURAL ROOF FRAMING, CONNECTIONS OF STUDS TO THE STRUCTURE SHALL ALLOW FOR A MINIMUM VERTICAL MOVEMENT OF THE STRUCTURE OF 1 INCH.

C FIXED CONNECTION DEVICES SHALL BE DESIGNED TO SUPPORT THE WEIGHT OF THE EXTERIOR WALL SYSTEMS IN COMBINATION WITH THE SPECIFIED LATERAL LOADS.

D MOVEMENT CONNECTION DEVICES SHALL ACCOMMODATE THE SPECIFIED VERTICAL STRUCTURAL MOVEMENTS USING SLOTTED HOLES, SCREWS AND ANTI-FRICTION BUSHINGS, OR OTHER APPROPRIATE DEVICES, WHILE MAINTAINING STRUCTURAL PERFORMANCE AND THE REQUIRED LATERAL LOAD RESISTING CAPACITY. SLOTTED CLIP ANGLES WITHOUT THE USE OF BUSHINGS OR SHOULDER SCREWS WILL NOT BE PERMITTED.

E CONNECTIONS SHALL PROVIDE A LATERAL LOAD CAPACITY EQUAL TO 1/2 THE VERTICAL STUD SPAN TIMES THE STUD SPACING IN FEET TIMES THE WIND LOAD SPECIFIED IN POUNDS PER SQUARE FOOT AS SHOWN IN THE STUD SCHEDULE. CONNECTION MATERIAL SHALL BE OF A THICKNESS NECESSARY TO SUPPORT THE SPECIFIED LOADS, BUT SHALL NOT BE LESS THAN 16 GAGE. SIZE AND NUMBER OF SCREWS OR FASTENERS SHALL BE AS NECESSARY TO SUPPORT THE REQUIRED LOADS, BUT SHALL NOT BE LESS THAN TWO NO. 8 SCREWS.

F CONNECTIONS SHALL BE INSTALLED AS HIGH ON THE STRUCTURAL FRAMING AS POSSIBLE, BUT SHALL NOT BE LOCATED BELOW MID-DEPTH OF MEMBERS.

G WELDING WILL BE PERMITTED ONLY ON MATERIAL OF 16 GAGE OR HEAVIER THICKNESS.

H THE CONTRACTOR SHALL SUBMIT FRAMING PLANS, ELEVATIONS, SECTIONS, BRACING AND CONNECTION DETAILS AND DESIGN CALCULATIONS, TO THE ENGINEER AND ARCHITECT FOR REVIEW.

I REFER TO THE SPECIFICATION 05 40 00 - COLD FORMED METAL FRAMING FOR ADDITIONAL REQUIREMENTS.

8 FRAMING INSTALLATION

A FRAMING AND CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH ALL MANUFACTURER INSTRUCTIONS AND RECOMMENDATIONS AND THE APPROVED SHOP DRAWINGS.

B UNLESS OTHERWISE NOTED, BRIDGING SHALL BE PROVIDED AND INSTALLED AT 4'-0" MAXIMUM ON CENTERS AT STUD FRAMING. BRIDGING AT STUD FRAMING SHALL CONSIST OF COLD-ROLLED CHANNELS INSERTED THROUGH WEB OPENINGS AND FASTENED TO STUDS WITH CLIP ANGLES. CLIP ANGLE SHALL BE FASTENED TO STUD WITH A MINIMUM OF TWO SCREWS. BRIDGING CHANNEL SHALL BE FASTENED TO CLIP ANGLE WITH A MINIMUM OF 2 SCREWS.

SUBMITTALS

THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. WORK ASSOCIATED WITH THESE ITEMS SHALL NOT COMMENCE UNTIL THE SUBMITTALS HAVE BEEN REVIEWED AND RETURNED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING:

1 CONCRETE

A TEST DATA AND MIX DESIGNS FOR EACH TYPE AND STRENGTH OF CONCRETE SPECIFIED AND PRODUCT DATA FOR ALL PROPOSED CONCRETE ADMIXTURES. PLACEMENT OF CONCRETE SHALL NOT COMMENCE UNTIL THE MIX DESIGNS HAVE BEEN SUBMITTED AND APPROVED.

B REINFORCING STEEL SHOP DRAWINGS DETAILING REINFORCEMENT FABRICATION AND BAR PLACEMENT. SHOP DRAWINGS SHALL CLEARLY INDICATE THE LOCATION, SIZE, SPACING, SPLICES AND PIECEMARK FOR ALL REINFORCING STEEL. THE SHOP DRAWINGS SHALL PROVIDE SUFFICIENT DETAIL TO PERMIT PLACEMENT OF REINFORCEMENT WITHOUT THE USE OF THE DESIGN DRAWINGS. THE SHOP DRAWINGS SHALL INCLUDE A COMPLETE BILL OF MATERIALS FOR ALL REINFORCING STEEL. FABRICATION OF REINFORCING STEEL SHALL NOT COMMENCE UNTIL THE ENGINEER HAS COMPLETED THE REVIEW OF THE SHOP DRAWINGS.

C PRODUCT DATA AND, IF REQUESTED, SAMPLES OF PROPOSED DRILLED PIER SIDE AND BOTTOM SPACERS.

D PROPOSED METHOD OF CURING AND PRODUCT DATA FOR ANY CURING COMPOUNDS PROPOSED FOR USE ON THE PROJECT.

E UPON REQUEST, PROVIDE MILL CERTIFICATES FOR THE PROJECT REINFORCING STEEL.

2 STEEL DECKING

A PRODUCT AND DESIGN DATA AND SHOP DRAWINGS FOR COMPOSITE METAL DECK.

B PRODUCT AND DESIGN DATA AND SHOP DRAWINGS FOR METAL ROOF DECK.

3 STRUCTURAL STEEL

A STRUCTURAL STEEL SHOP DRAWINGS DETAILING ALL STRUCTURAL STEEL MEMBERS, CONNECTIONS AND RELATED STRUCTURAL STEEL ITEMS. SHOP DRAWINGS SHALL INDICATE MATERIAL TYPE, SIZES, LOCATIONS, BOLT HOLES, COPED EDGES, WELDS AND ALL OTHER DETAILS NECESSARY TO FABRICATE AND ERECT EACH PIECE. IN ADDITION, THE CONTRACTOR SHALL SUBMIT COORDINATED ERECTION DRAWINGS, CLEARLY INDICATING THE INSTALLED LOCATION, SIZE, ORIENTATION AND PIECEMARK FOR ALL STRUCTURAL STEEL MEMBERS. THE SHOP DRAWINGS AND ERECTION DRAWINGS SHALL PROVIDE SUFFICIENT DETAIL TO PERMIT STEEL FABRICATION AND ERECTION WITHOUT THE USE OF THE DESIGN DRAWINGS.

B SHOP DRAWINGS AND DETAILS FOR ALL OPEN WEB STEEL JOISTS, INCLUDING TYPE AND LOCATIONS OF BRIDGING AND DETAILS OF CONNECTIONS AND TOP AND/OR BOTTOM CHORD EXTENSIONS.

C SHOP DRAWINGS AND DETAILS FOR ALL STEEL STAIRS FOR REVIEW BY THE ARCHITECT AND, IF REQUESTED, DESIGN CALCULATIONS FOR REVIEW BY THE STRUCTURAL ENGINEER INCLUDING DESIGN LOADS AND DEFLECTIONS. BOTH SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BEAR THE SEAL OF A LICENSED TEXAS PROFESSIONAL ENGINEER.

D SHOP DRAWINGS AND DETAILS FOR ALL STEEL ITEMS TO BE EMBEDDED IN THE FOUNDATION.

E UPON REQUEST, SUBMIT MILL CERTIFICATES FOR THE PROJECT STRUCTURAL STEEL. IF STEEL IS OF FOREIGN MANUFACTURE, MILL CERTIFICATE DATA SHALL BE IN ENGLISH AND IMPERIAL UNITS.

4 ANCHORING ADHESIVE

A FOR ADHESIVES PROPOSED FOR USE FOR ANCHORING OF REBAR OR ANCHOR BOLTS OR RODS TO HARDENED CONCRETE, PROVIDE PRODUCT DATA, INCLUDING THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AND EVIDENCE OF COMPLIANCE OF THE PROPOSED ADHESIVE WITH ICC-ES-AC308 - ACCEPTANCE CRITERIA FOR POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS TO ENSURE RESISTANCE TO CREEP AND SUITABILITY FOR LONG-TERM TENSION LOADS.

B PROVIDE COPIES OF CERTIFICATION OF INSTALLERS. CERTIFICATIONS SHALL INCLUDE PRINTED COPIES OF WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.

5 PRODUCT DATA FOR UNDERSLAB VAPOR BARRIER.

6 LIGHT GAGE COLD FORMED STEEL FRAMING

A SUBMIT SHOP DRAWINGS FOR LIGHT GAGE STEEL FRAMING SHOWING FRAMING PLANS, ELEVATIONS, LAYOUTS, SECTIONS, OPENINGS, HEADERS, JAMBS, MEMBER OR COMPONENT SIZES AND PRODUCT COMPONENT LOCATIONS, INCLUDING ANCHORAGE, BRACING, BRIDGING, CONNECTIONS, FASTENER SIZE, TYPE AND NUMBER, ACCESSORIES AND FINISHES. ELEVATION DRAWINGS, WITH SECTIONS AND DETAILS, SHALL BE SUBMITTED FOR EXTERIOR WALLS. DETAILS SHALL INCLUDE LATERAL AND VERTICAL CAPACITIES OF CONNECTIONS. SHOW DETAILS OF BUILT-UP HEADERS AND BEAMS, INCLUDING SIZES OF COMPONENTS, AND FASTENER, CONNECTION AND SUPPORT REQUIREMENTS.

B SUBMIT DESIGN CALCULATIONS FOR THE LIGHT GAGE FRAMING SYSTEMS, INCLUDING VERIFICATION OF MEMBER SIZES, CONNECTIONS, FASTENERS, HEADERS OR BUILT-UP MEMBERS AND TRACK SIZES. SHOW CALCULATED FORCES AND DEFLECTIONS. CALCULATIONS AND SHOP DRAWINGS SHALL BEAR THE SEAL OF A CURRENTLY LICENSED TEXAS PROFESSIONAL ENGINEER. SHOP DRAWINGS SHALL INCLUDE CONNECTION DETAILS FOR LIGHT GAGE STEEL STUD FRAMING SHOWING MATERIAL GAGES, NUMBER AND SIZE OF SCREWS, LATERAL LOAD CAPACITIES, LOCATIONS, CLEARANCES, ALLOWABLE MOVEMENT AND INSTALLATION INSTRUCTIONS.

C CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED CONCURRENTLY. FAILURE TO SUBMIT CONCURRENTLY SHALL BE CAUSE FOR REJECTION.

D SHOP DRAWINGS SHALL BE SUFFICIENTLY DETAILED TO ALLOW INSTALLATION OF THE FRAMING SYSTEMS WITHOUT REFERENCE TO THE ARCHITECTURAL OR STRUCTURAL CONSTRUCTION DOCUMENTS.

7 PRODUCT SUBMITTALS AND CERTIFICATIONS FOR MATERIALS AND ACCESSORIES TO BE USED IN THE CONSTRUCTION OF LOAD BEARING MASONRY WALLS.

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PROJ. NO. 21066
ORIG. ISSUE 2022.10.13
CURRENT:

SHEET NAME:
STRUCTURAL NOTES AND SPECIFICATIONS

SHEET NO:
S1.2

STRUCTURAL NOTES AND SPECIFICATIONS (CONT'D)

TESTING LABORATORY REQUIREMENTS

THE OWNER SHALL SECURE THE SERVICES OF A COMMERCIAL TESTING LABORATORY TO PERFORM ALL MATERIALS TESTS AND INSPECTIONS, AS REQUIRED BY THE CONSTRUCTION DOCUMENTS, AND SPECIAL INSPECTIONS, AS REQUIRED BY SECTION 1704 OF THE INTERNATIONAL BUILDING CODE. TESTING, INSPECTIONS AND SPECIAL INSPECTIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER CURRENTLY LICENSED IN THE STATE OF TEXAS.

1 REINFORCED CONCRETE CONSTRUCTION

A ONE SET OF CONCRETE TEST CYLINDERS SHALL BE OBTAINED FOR EVERY 50 CUBIC YARDS OF CONCRETE PLACED, OR ANY PORTION THEREOF PLACED IN A SINGLE DAY, AS FOLLOWS:

1) FIVE (5) CONCRETE TEST CYLINDERS SHALL BE MOLDED FROM EACH SAMPLE AND CURED ACCORDING TO ASTM C 31. COMPRESSIVE TESTS SHALL BE PERFORMED ON ONE CYLINDER AT 7 DAYS AND THREE CYLINDERS AT 28 DAYS. THE FIFTH CYLINDER SHALL BE RETAINED FOR 56 DAYS AND TESTED ONLY IF THE AVERAGE STRENGTH OF THE 28 DAYS TESTS DOES NOT MEET THE MINIMUM REQUIRED COMPRESSIVE STRENGTH.

2) A SLUMP TEST AND TEMPERATURE MEASUREMENT SHALL BE PERFORMED FOR EACH SAMPLE.

3) COMPUTATION OF WATER/CEMENT RATIO, AS REQUIRED OR DIRECTED BY THE ENGINEER.

4) FOR PUMPED CONCRETE, CONCRETE SHALL BE SAMPLED AT THE DISCHARGE END OF THE PUMP HOSE.

B ADDITIONAL CYLINDERS MAY BE MADE AND TESTED, AS NECESSARY, FOR ACCELERATED REMOVAL OF FORMS OR ERECTION OF MEMBERS TO VERIFY THAT NECESSARY STRENGTHS HAVE BEEN OBTAINED. SUCH CYLINDERS SHALL MADE AT THE CONTRACTOR'S EXPENSE.

C INSPECT FORMWORK, REINFORCEMENT AND ANCHOR BOLT FABRICATION AND STEEL EMBEDMENTS PRIOR TO CONCRETE PLACEMENT FOR COMPLIANCE OF THE CONSTRUCTION TO THE CONSTRUCTION DOCUMENTS.

2 DRILLED PIERS - SERVICES ARE TO BE PROVIDED AS FOLLOWS:

A CONTINUOUS INSPECTION OF DRILLING OPERATIONS FOR DRILLED PIER EXCAVATIONS.

B VISUAL INSPECTION OF ALL DRILLED PIER EXCAVATIONS UPON COMPLETION OF EXCAVATION OPERATIONS AND PRIOR TO PLACEMENT OF REINFORCEMENT AND CONCRETE.

C MAINTAIN A LOG OF EACH DRILLED PIER.

D INSPECT REINFORCING STEEL INSTALLATION PRIOR TO CONCRETE PLACEMENT.

3 STEEL CONSTRUCTION - SERVICES ARE TO BE PROVIDED AS FOLLOWS:

A INSPECT CONNECTIONS OF STEEL MEMBERS AND DECKING.

B INSPECT INSTALLATION OF COMPOSITE SHEAR CONNECTORS.

C INSPECT WELDS AND BOLTED CONNECTIONS.

D INSPECT ALL STEEL EMBEDS THAT ARE TO BE EMBEDDED INTO THE CONCRETE CONSTRUCTION.

4 CONCRETE MASONRY CONSTRUCTION - PROVIDE SPECIAL INSPECTION OF THE REINFORCED CONCRETE MASONRY CONSTRUCTION AS REQUIRED BY THE BUILDING CODE FOR FULLY GROUTED HOLLOW-UNIT MASONRY.

SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE QUALITY ASSURANCE PROGRAM REQUIREMENTS OF TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6.

NOTE:
SAMPLING AND PHYSICAL TESTING OF MORTAR AND GROUT IN CONNECTION WITH MASONRY CONSTRUCTION IS NOT NECESSARY OR REQUIRED PROVIDED THAT MORTAR AND GROUT ARE PROPORTIONED BY VOLUME IN ACCORDANCE WITH THE APPROPRIATE ASTM SPECIFICATION AND PROVIDED THAT PROPORTIONS ARE VERIFIED AT THE JOB SITE.

5 THE CONTRACTOR SHALL COOPERATE AND COORDINATE FULLY WITH THE TESTING LABORATORY.

6 IN THE EVENT THAT CONCRETE ELEMENTS OR MEMBERS DO NOT ACHIEVE THE SPECIFIED MINIMUM COMPRESSIVE STRENGTHS, THE ENGINEER MAY REQUIRE ADDITIONAL ANALYSIS, TESTING OR REMOVAL AND REPLACEMENT OF MEMBERS. ANY AND ALL SUCH ADDITIONAL ANALYSIS OR TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE, WHETHER SUCH ANALYSIS OR TESTING DEMONSTRATES ADEQUATE STRENGTH OR NOT. REPLACEMENT OF ANY MEMBERS DEEMED QUESTIONABLE OR INADEQUATE BY THE ENGINEER SHALL BE AT THE CONTRACTOR'S EXPENSE.

7 THE OWNER OR CONTRACTOR SHALL ARRANGE FOR COPIES OF THE INSPECTION AND TESTING REPORTS TO BE SENT TO THE ENGINEER. COPIES OF TEST AND INSPECTION REPORTS SHALL BE FORWARDED TO THE ENGINEER AS QUICKLY AS POSSIBLE FOLLOWING COMPLETION OF THE TESTS AND INSPECTIONS.

SPECIAL INSPECTION REQUIREMENTS

1 EACH SPECIAL INSPECTOR SHALL BE A QUALIFIED INDIVIDUAL WITH DEMONSTRATED COMPETENCE SATISFACTORY TO THE BUILDING OFFICIAL AND THE ENGINEER IN ACCORDANCE WITH SECTION 1704.2.1 OF THE INTERNATIONAL BUILDING CODE. THE SPECIAL INSPECTOR SHALL KEEP RECORDS OF ALL INSPECTIONS AND PROVIDE REPORTS TO THE ENGINEER OF RECORD AND THE OWNER IN ACCORDANCE WITH SECTION 1704.2.4 OF THE IBC. SPECIAL INSPECTORS SHALL PERFORM SERVICES UNDER THE SUPERVISION OF A CURRENTLY LICENSED TEXAS PROFESSIONAL ENGINEER.

2 REPORTS - REPORTS SHALL BE SUBMITTED TO THE OWNER AND THE ENGINEER ON A WEEKLY BASIS. REPORTS SHALL, AS A MINIMUM, PROVIDE THE FOLLOWING INFORMATION:

A DESCRIPTION OF WORK INSPECTED
B LOCATION OF THE WORK WITHIN THE PROJECT
C TEST OR INSPECTION METHOD OR STANDARD USED AND THE QUANTITY INSPECTED.
D LIST OF ANY DEFICIENCIES FOUND AND THE CORRECTIVE ACTION TO BE TAKEN.
E WRITTEN VERIFICATION WHEN ALL DEFICIENCIES HAVE BEEN CORRECTED.

3 LETTER OF CONCURRENCE - UPON COMPLETION OF CONSTRUCTION, PROVIDE A FINAL LETTER OF CONCURRENCE, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER CURRENTLY LICENSED IN THE STATE OF TEXAS AND EMPLOYED BY THE ENGINEERING TESTING AND INSPECTION FIRM PROVIDING THE SPECIAL INSPECTION SERVICES, TO THE BUILDING OFFICIAL. THE CONCURRENCE LETTER SHALL PROVIDE A STATEMENT REGARDING THE SITE VISITS MADE, THE TESTS AND INSPECTIONS PERFORMED, THE RESULTS OF THE TESTS AND INSPECTIONS PERFORMED, AND ASSURANCE OF CONFORMANCE OF THE CONSTRUCTION TO THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. ANY DISCREPANCIES OR DEFICIENCIES IDENTIFIED WHICH HAVE NOT, TO THE SPECIAL INSPECTOR'S KNOWLEDGE, BEEN RESOLVED SHALL BE INCLUDED IN THE LETTER.

4 SPECIAL INSPECTIONS SHALL BE PROVIDED AS REQUIRED BY SECTION 1705 OF THE IBC FOR THE FOLLOWING ITEMS:

A STEEL CONSTRUCTION (COLUMNS, BEAMS, GIRDERS, JOISTS AND DECK) - THE SPECIAL INSPECTOR SHALL PROVIDE PERIODIC INSPECTION OF ALL CONNECTIONS, BOLTS AND WELDS AS SHOWN AND REQUIRED BY SECTION 1705.2 OF THE IBC AND, FOR OPEN-WEB STEEL JOISTS, TABLE 1705.2.3 OF THE IBC.

B CONCRETE CONSTRUCTION (DRILLED SHAFTS, BEAMS, SLABS AND TOPPING SLABS) - THE SPECIAL INSPECTOR SHALL PROVIDE INSPECTION SERVICES AS REQUIRED BY SECTION 1705.3 AND TABLE 1705.3 OF THE IBC TO VERIFY DIMENSIONS OF MEMBERS AND TO VERIFY THE QUANTITY, SIZE AND PLACEMENT OF STEEL REINFORCEMENT; VERIFY THAT THE APPROVED CONCRETE MIX DESIGN IS BEING USED FOR EACH POUR; AND THAT CONCRETE IS BEING SAMPLED IN ACCORDANCE WITH TABLE 1705.3 OF THE IBC.

FOR DRILLED SHAFT AND PIER FOUNDATION CONSTRUCTION, SPECIAL INSPECTION SHALL ALSO BE PERFORMED IN ACCORDANCE WITH TABLE 1705.8 OF THE IBC.

C CONCRETE MASONRY CONSTRUCTION - PROVIDE SPECIAL INSPECTION OF THE REINFORCED CONCRETE MASONRY CONSTRUCTION AS REQUIRED BY SECTION 1705.4 OF THE BUILDING CODE FOR FULLY GROUTED HOLLOW-UNIT MASONRY. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE QUALITY ASSURANCE PROGRAM REQUIREMENTS OF TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6.

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SHEET NAME:
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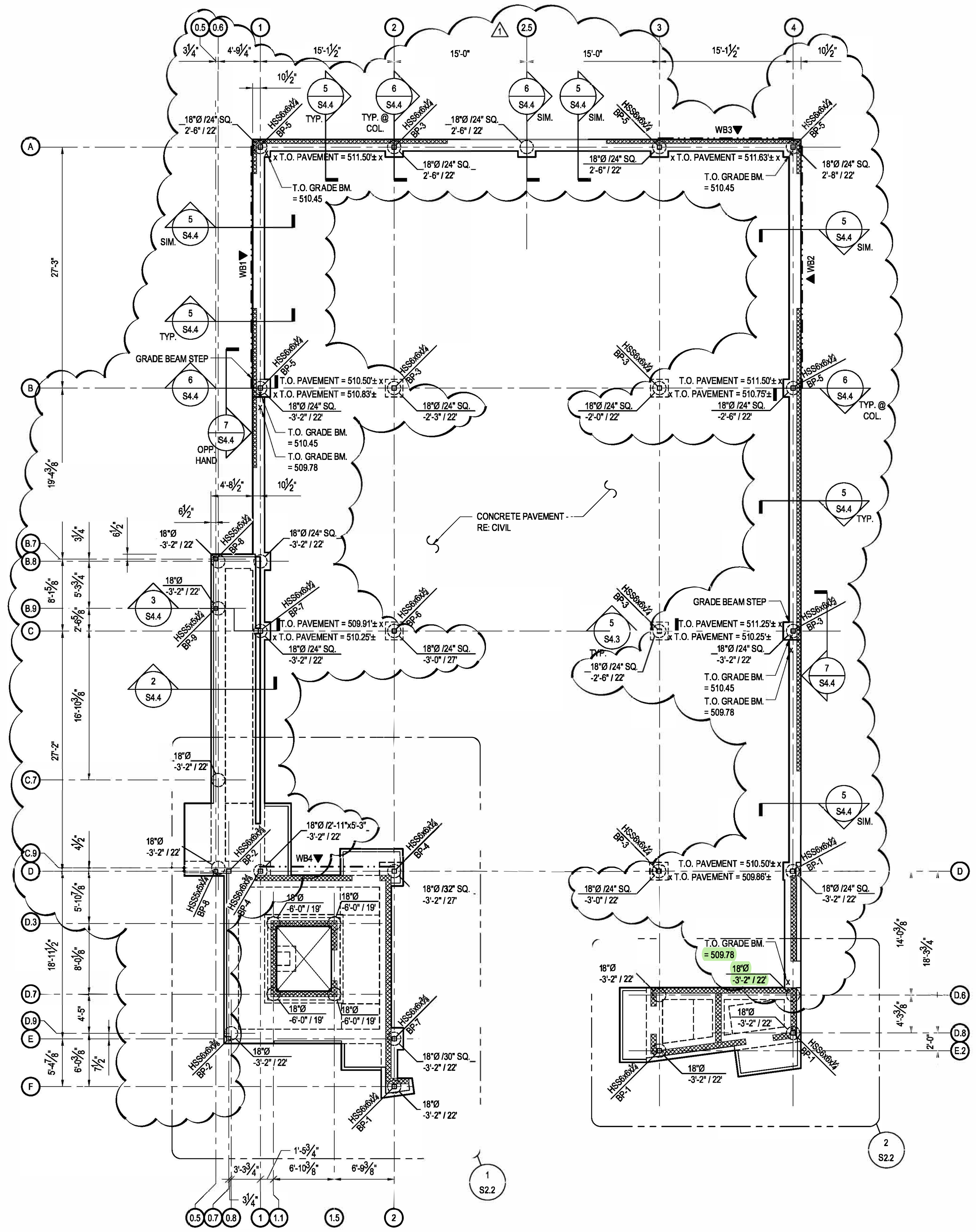
SHEET NO:
S1.3



1 FOUNDATION PLAN

1/8" = 1'-0"

TRUE NORTH PLAN NORTH

PLAN NOTES:

1. FIN. FLR. EL. = TOP OF SLAB ELEVATION = ACTUAL ELEVATION 509.78 = REFERENCE ELEVATION 100'-0" UNLESS NOTED OTHERWISE AS (+) OR (-). NEW FINISH FLOOR SHALL MATCH EXISTING. FIELD VERIFY.
2. SEE SHEETS S1.1, S1.2, AND S1.3 FOR STRUCTURAL NOTES.
3. SEE SHEET S4.1 FOR TYPICAL FOUNDATION DETAILS.
4. SEE 1/S4.1 FOR TYPICAL PIER DETAIL AND PIER SCHEDULE.
5. SEE SHEET S5.1 FOR WIND BRACE ELEVATIONS.
6. SEE SHEET S6.1 FOR STEEL COLUMN BASE PLATE SCHEDULE.
7. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR CONSTRUCTION REQUIREMENTS FOR EXTERIOR CONCRETE WALKWAYS AND SIDEWALKS.
8. VERIFY ALL TOP OF PAVEMENT ELEVATIONS WITH CIVIL. IF TOP OF PAVEMENT ELEVATIONS VARY FROM CIVIL, NOTIFY ENGINEER TO ADJUST TOP OF PIER ELEVATIONS.

LEGEND:

18"Ø /24" SQ. -6'-0" / 22'
- PIER DIAMETER
- PILASTER/PIER CAP PLAN DIMENSIONS (NO PILASTER IF BLANK)
- MINIMUM PIER LENGTH - SEE 1/S4.1
- T.O. PIER EL. FROM REF. EL. = 100'-0"

WB1 — BRACED FRAME, REFER TO SHEET S5.1 FOR ELEVATIONS.

-2⅛" — TOP OF SLAB DEVIATIONS FROM REFERENCE EL. 100'-0"

HSS6x6x¼ / BP-1
- COLUMN DESIGNATION
- BASEPLATE DESIGNATION

KEYED NOTES

1

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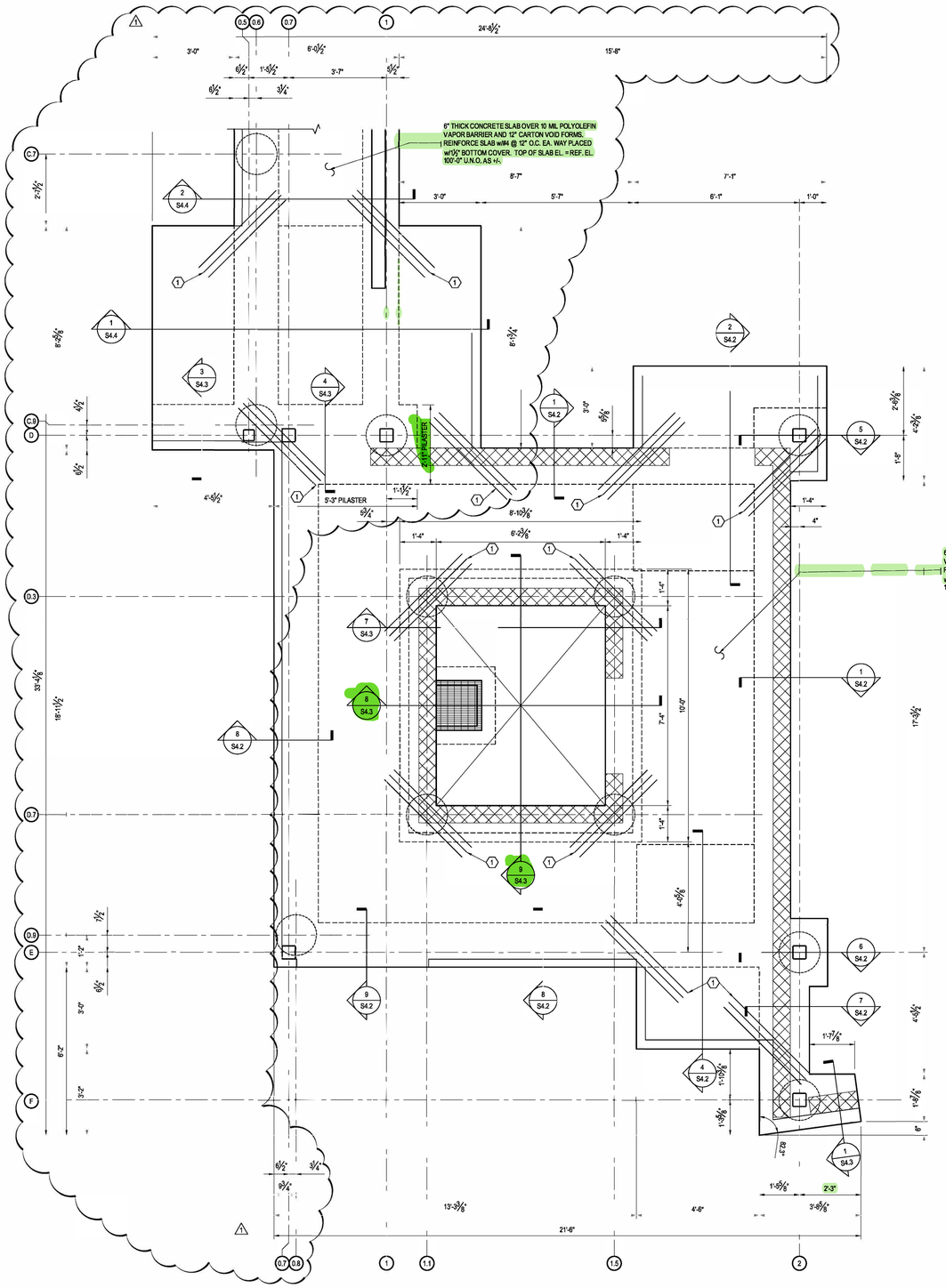
1	2022.12.09	Addendum No.1 - CoA Comments

PROJ. NO. 21066
ORIG. ISSUE 2022.10.13
CURRENT:

SHEET NAME:
FOUNDATION PLAN

SHEET NO:
S2.1



1 ENLARGED FOUNDATION PLAN
1/2" = 1'-0"

TRUE NORTH PLAN NORTH

PLAN NOTES:

1. FIN. FLR. EL. = TOP OF SLAB ELEVATION + ACTUAL ELEVATION 509.78 = REFERENCE ELEVATION 100'-0" UNLESS NOTED OTHERWISE AS ON 1/S1.1 NEW FINISH FLOOR SHALL MATCH EXISTING. FIELD VERIFY.
2. SEE SHEETS S1.1, S1.2, AND S1.3 FOR STRUCTURAL NOTES.
3. SEE SHEET S4.1 FOR TYPICAL FOUNDATION DETAILS.
4. SEE 1/S4.1 FOR TYPICAL PIER DETAIL AND PIER SCHEDULE.
5. SEE SHEET S5.1 FOR WIND BRACE ELEVATIONS.
6. SEE SHEET S6.1 FOR STEEL COLUMN BASE PLATE SCHEDULE.
7. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR CONSTRUCTION REQUIREMENTS FOR EXTERIOR CONCRETE WALKWAYS AND SIDEWALKS.

KEYED NOTES:

1. 3 - #4 x 4'-0" AT ALL RE-ENTRANT CORNERS. PLACE w/1" CLEAR FROM CORNERS - SEE STRUCTURAL NOTES AND SPECIFICATIONS.

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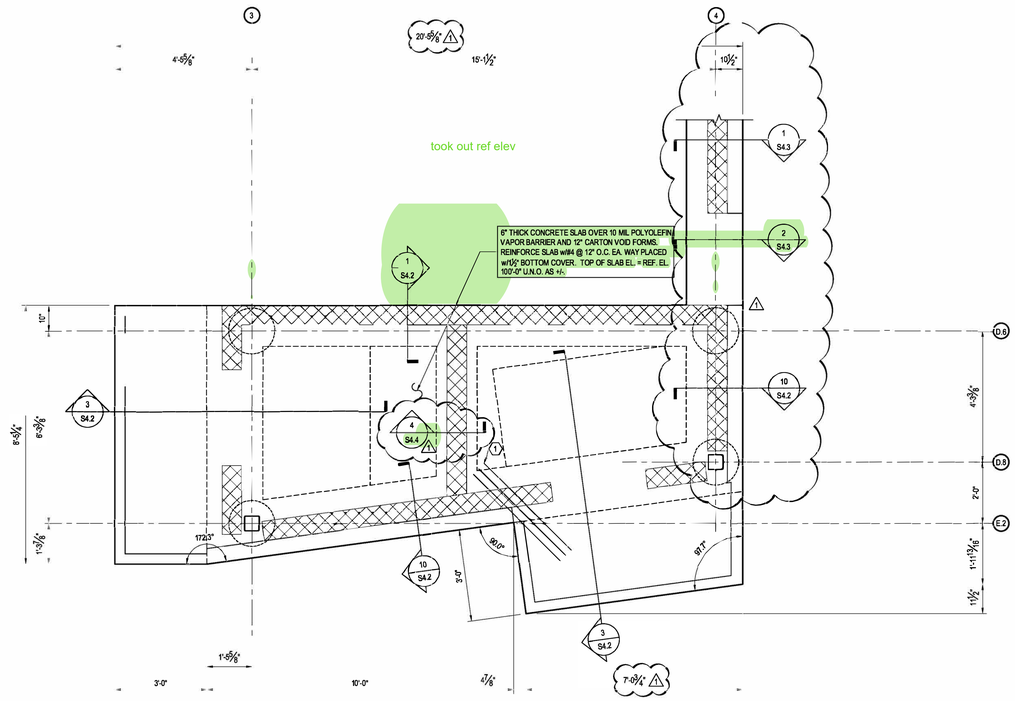

2 ENLARGED FOUNDATION PLAN
1/2" = 1'-0"

TRUE NORTH PLAN NORTH

PLAN NOTES:

1. FIN. FLR. EL. = TOP OF SLAB ELEVATION + ACTUAL ELEVATION 509.78 = REFERENCE ELEVATION 100'-0" UNLESS NOTED OTHERWISE AS ON 1/S1.1 NEW FINISH FLOOR SHALL MATCH EXISTING. FIELD VERIFY.
2. SEE SHEETS S1.1, S1.2, AND S1.3 FOR STRUCTURAL NOTES.
3. SEE SHEET S4.1 FOR TYPICAL FOUNDATION DETAILS.
4. SEE 1/S4.1 FOR TYPICAL PIER DETAIL AND PIER SCHEDULE.
5. SEE SHEET S5.1 FOR WIND BRACE ELEVATIONS.
6. SEE SHEET S6.1 FOR STEEL COLUMN BASE PLATE SCHEDULE.
7. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR CONSTRUCTION REQUIREMENTS FOR EXTERIOR CONCRETE WALKWAYS AND SIDEWALKS.

KEYED NOTES:

1. 3 - #4 x 4'-0" AT ALL RE-ENTRANT CORNERS. PLACE w/1" CLEAR FROM CORNERS - SEE STRUCTURAL NOTES AND SPECIFICATIONS.

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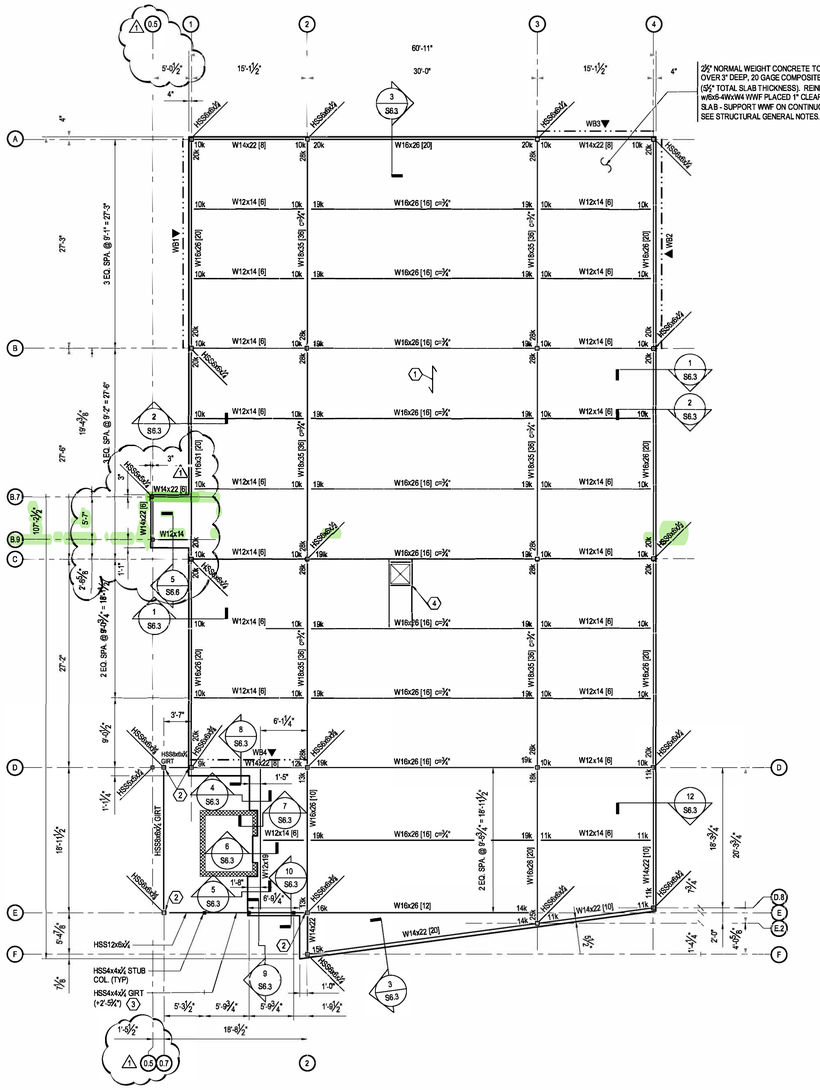
21066	2022.10.13

CURRENT:

SHEET NAME:
ENLARGED FOUNDATION PLANS

SHEET NO:
S2.2



1 UPPER LEVEL FRAMING PLAN
1/8" = 1'-0"

PLAN NOTES
1. FINISHED FLOOR ELEVATION = REFERENCE ELEVATION 112'-6".
2. T.O.S. EL. = BOTTOM OF DECK = REF. EL. 112'-0½" U.N.O. AS +/-.
2. SEE SHEETS S1.1, S1.2, AND S1.3 FOR STRUCTURAL NOTES.
3. BEAM REACTIONS LESS THAN OR EQUAL TO 6K HAVE BEEN OMITTED FROM THE PLAN.
4. SEE SHEET S5.1 FOR WIND BRACE ELEVATIONS.
5. SEE SHEET S6.1 FOR CONNECTION SCHEDULE AND DETAILS AND TYPICAL FLOOR BEAM CONNECTIONS.

LEGEND
COMPOSITE BEAM AND GIRDER DESIGNATIONS:

BEAMS WITH UNIFORMLY SPACED SHEAR CONNECTORS

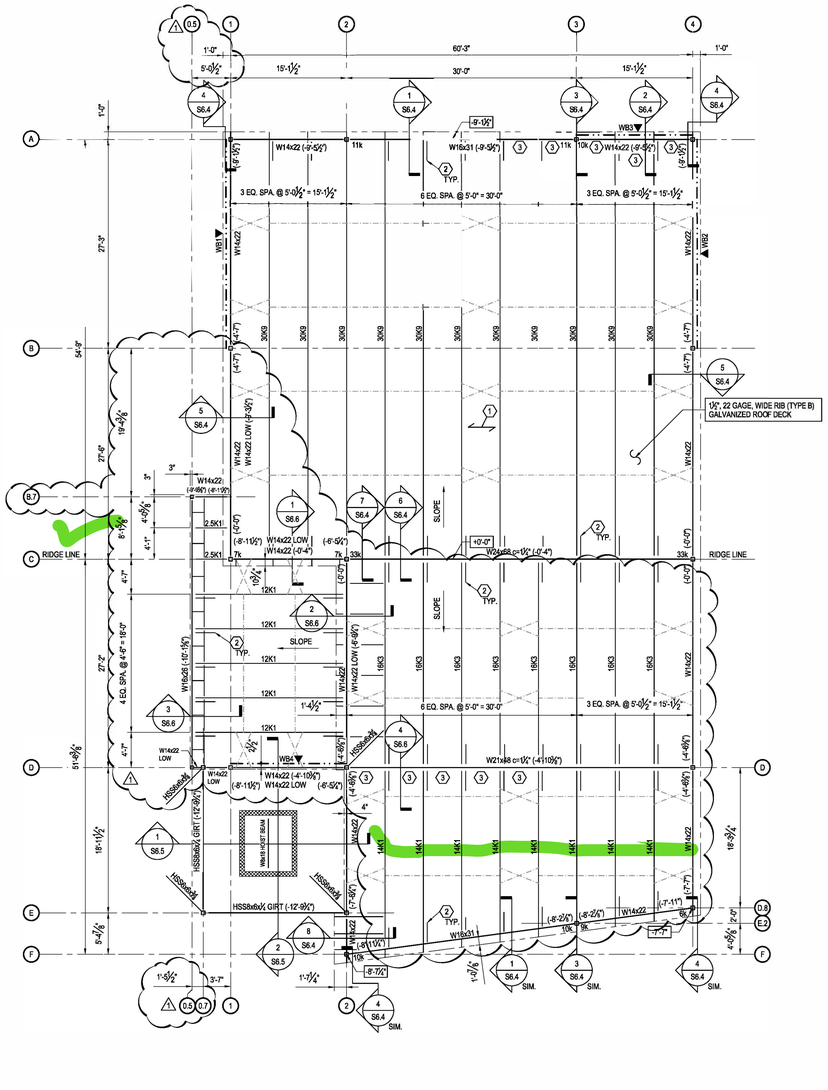
W18x35 [20] c=½" 1

MEMBER SIZE | TOTAL NUMBER OF UNIFORMLY SPACE SHEAR CONNECTORS REQUIRED | CAMBER

(-0'-5") T.O. BEAM DEVIATIONS FROM REF. EL.

WB1 BRACED FRAME, REFER TO SHEET S5.1 FOR ELEVATIONS.

KEYED NOTES
1. DIRECTION OF DECK SPAN.
2. SEE 11/S6.3 FOR TUBE CONNECTION.
3. HSS4x4x¼ x 12'-2" LG. GIRT CENTERED OVER STUB COLS - SEE 9/S6.3
4. C8x11.5 FRAMING AT CHASE OPENING - SEE 6/S6.2



2 ROOF FRAMING PLAN
1/8" = 1'-0"

PLAN NOTES
1. TOP OF STEEL ELEVATION = BOTTOM OF DECK = REFERENCE ELEVATION 135'-0½" UNLESS NOTED OTHERWISE AS (+) OR (-).
2. SEE SHEETS S1.1, S1.2, AND S1.3 FOR STRUCTURAL NOTES.
3. BEAM REACTIONS LESS THAN OR EQUAL TO 6K HAVE BEEN OMITTED FROM THE PLAN.
4. SEE SHEET S5.1 FOR WIND BRACE ELEVATIONS.
5. SEE SHEET S6.1 FOR CONNECTION SCHEDULE AND DETAILS.

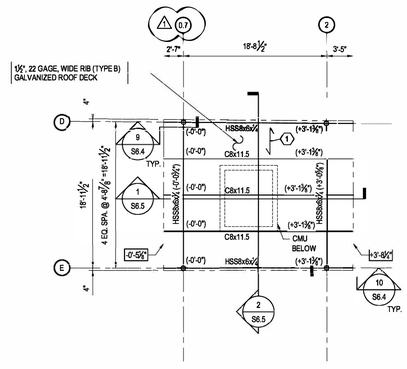
LEGEND
[+2'-6"] T.O.S. / BOTTOM OF DECK DEVIATIONS FROM T.O.S. REF. EL.

(-0'-5") T.O. BEAM DEVIATIONS FROM REF. EL.

WB1 BRACED FRAME, REFER TO SHEET S5.1 FOR ELEVATIONS.

JOIST BRIDGING
PROVIDE X-BRIDGING WHERE SHOWN. AT WIDE FLANGE BEAMS, LINES OF BRIDGING SHALL BE TERMINATED WITH X-BRIDGING.

KEYED NOTES
1. DIRECTION OF DECK SPAN.
2. L2x2x¼ BEAM BOTTOM FLANGE BRACES SHOWN AS ON PLAN. SEE 3/S6.2
3. PROVIDE ⅜ x 6 x 0'-8" LG. BENT PLATE SHEAR COLLECTORS BETWEEN JOISTS WHERE SHOWN. SEE SECTION 2/S6.4 AND 4/S6.6.



3 HIGH ROOF FRAMING PLAN
1/8" = 1'-0"

TRUE NORTH PLAN NORTH

PLAN NOTES
1. TOP OF STEEL ELEVATION = BOTTOM OF DECK = REFERENCE ELEVATION 131'-10¾" UNLESS NOTED OTHERWISE AS (+) OR (-).
2. SEE SHEETS S1.1, S1.2, AND S1.3 FOR STRUCTURAL NOTES.
3. BEAM REACTIONS LESS THAN OR EQUAL TO 6K HAVE BEEN OMITTED FROM THE PLAN.
5. SEE SHEET S6.1 FOR CONNECTION SCHEDULE AND DETAILS.
6. ALL STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE GALVANIZED.

LEGEND
[+2'-6"] T.O.S. / BOTTOM OF DECK DEVIATIONS FROM T.O.S. REF. EL.

(-0'-5") T.O. BEAM DEVIATIONS FROM REF. EL.

KEYED NOTES
1. DIRECTION OF DECK SPAN.

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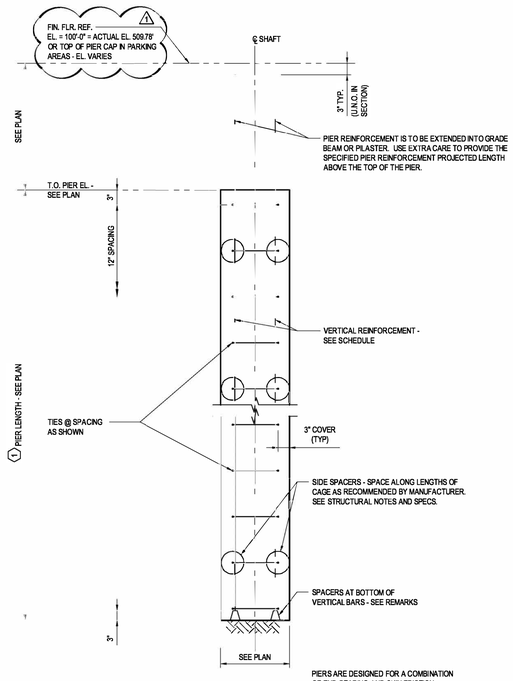
SHEET NAME:
FRAMING PLANS

SHEET NO:
S3.1

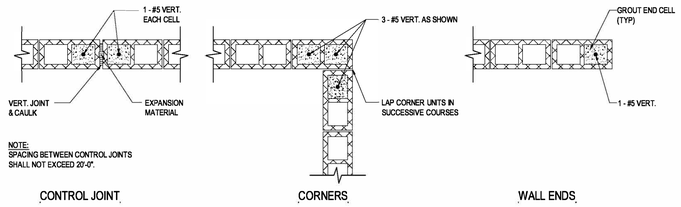


DRILLED PIER REINFORCING SCHEDULE			
SHAFT DIAMETER (INCHES)	VERTICAL BARS	TIES	REMARKS
18	5 - #6 (2)	#3 ○ TIES - PROVIDE 1'-5" LAP	PROVIDE BOT. SPACERS AT EVERY VERTICAL BAR

(1) MINIMUM PIER LENGTHS SHALL BE AS SHOWN ON THE FOUNDATION PLAN ON SHEET S2.1. FINAL PIER LENGTHS (BOTTOM OF PIER ELEVATIONS) WILL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE TESTING LAB REPRESENTATIVE. IF REBAR CAGES NEED TO BE LENGTHENED, LAP VERTICAL BARS 3'-0" MINIMUM TO BOTTOM OF CAGE AND PROVIDE TIES AS SCHEDULED TO BOTTOM. PIER LENGTHS, FOR DETERMINATION OF CONTRACT PRICE ADJUSTMENTS DUE TO FINAL BEARING ELEVATIONS SHALL BE MEASURED FROM THE BOTTOM OF THE PIER SHAFT TO THE UPPER TERMINATION OF THE SHAFT AT THE BOTTOM OF THE PILASTER. DEPTHS OF GRADE BEAMS, PILASTER, CAPS OR SLABS WILL NOT BE INCLUDED IN THE COMPUTATION OF SHAFT LENGTHS. REFER TO THE PROJECT SPECIFICATIONS.

(2) FURNISH PIER REBAR IN STOCK LENGTHS. VERIFY ACTUAL DEPTHS OF PIERS IN THE FIELD AFTER COMPLETION OF DRILLING AND APPROVAL OF THE PIER BY TESTING LABORATORY REPRESENTATIVE. MEASURE PIER DEPTH AND CUT PIER REBAR TO THE REQUIRED LENGTH BASED ON THE FIELD MEASUREMENT.

1 DRILLED PIER TYPICAL DETAIL & SCHEDULE
3/4" = 1'-0"



2 CMU WALL TYPICAL DETAILS
3/4" = 1'-0"

CMU LINTEL SCHEDULE		
WALL THK.	8'-0" MAX. SPAN	12'-0" MAX. SPAN
8"	GROUT FILL 2 COURSES; 2-#4 CONT.	GROUT FILL 3 COURSES; 2-#6 CONT.

NOTES:
1. PROVIDE 8" MIN. BEARING EACH END.
2. PROVIDE CMU LINTEL @ ALL MASONRY OPENINGS WHERE STEEL LINTELS ARE NOT SCHEDULED OR UNLESS OTHERWISE NOTED.
3. SEE ARCH. DRAWINGS FOR SIZE & LOCATION OF MASONRY OPENINGS.
4. GROUT SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C476 AND BE PROPORTIONED BY VOLUME.
5. EXTEND TOP & BOTTOM LINTEL BEAMS 2'-0" BEYOND THE MASONRY OPENING AT EACH END AT SPANS GREATER THAN 8'-0".
6. WHERE BOND BEAM REINFORCEMENT INTERSECTS CONTROL JOINTS, BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH JOINTS. DEBOND REINFORCEMENT FOR A DISTANCE OF 8" EITHER SIDE OF JOINTS BY WRAPPING WITH PLASTIC TAPE. REFER TO THE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS. UNLESS OTHERWISE NOTED, CONTROL JOINT SPACING SHALL NOT EXCEED 20'-0" O.C.

3 CMU LINTEL SCHEDULE TYPICAL DETAIL
3/4" = 1'-0"

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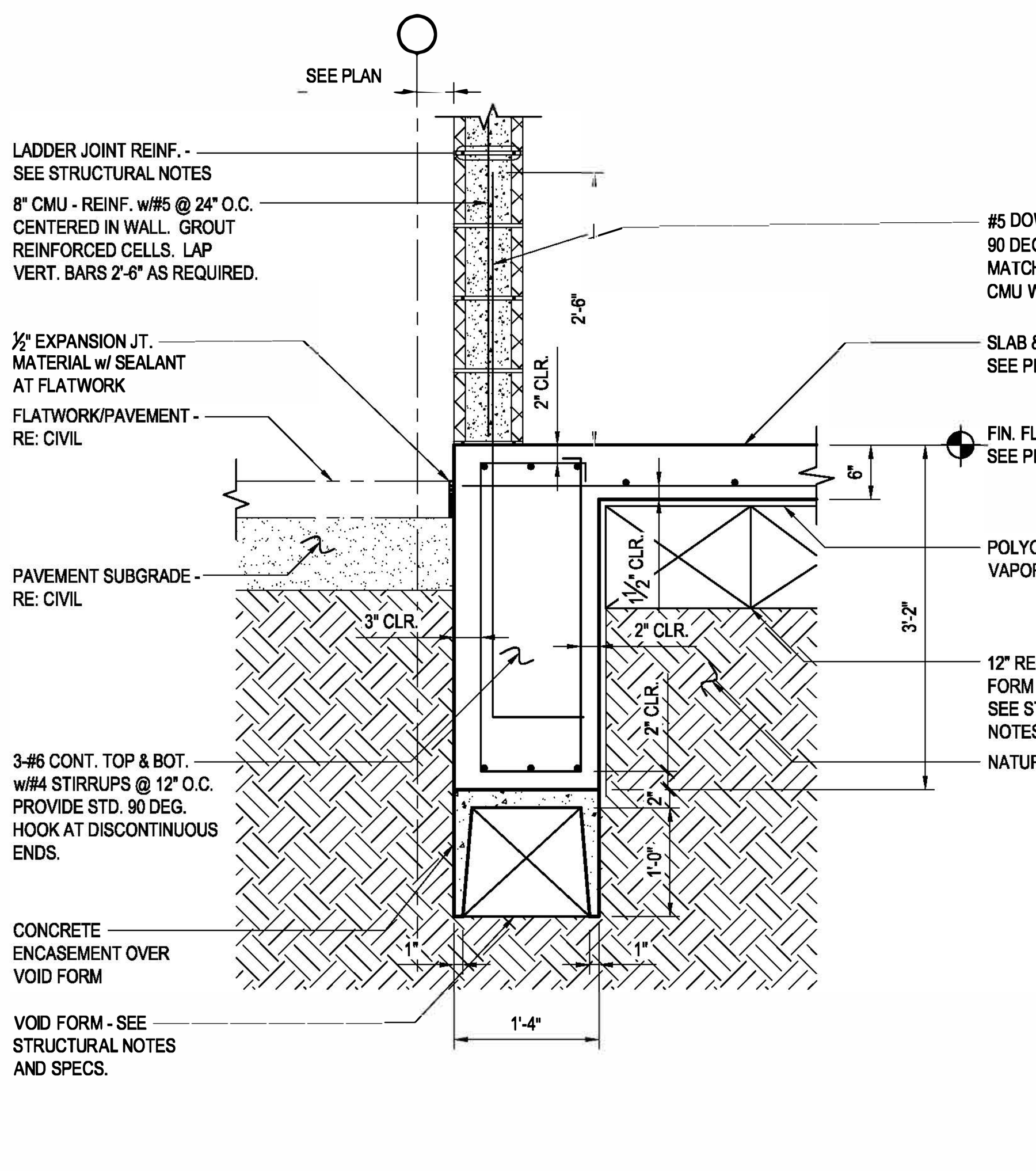
SHEET NAME:
DRILLED PIER SCHEDULE & CMU TYPICAL DETAILS

SHEET NO:
S4.1



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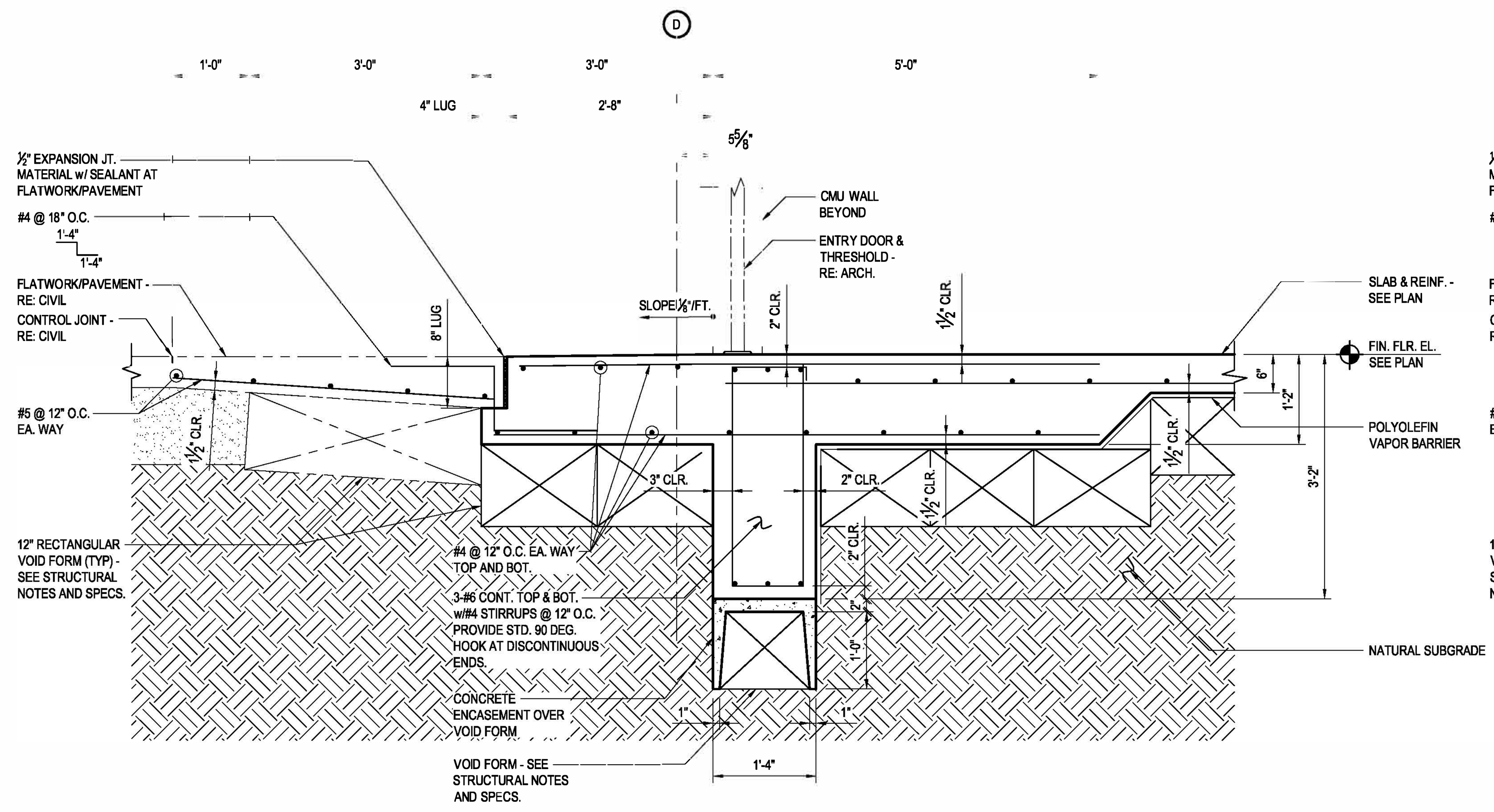

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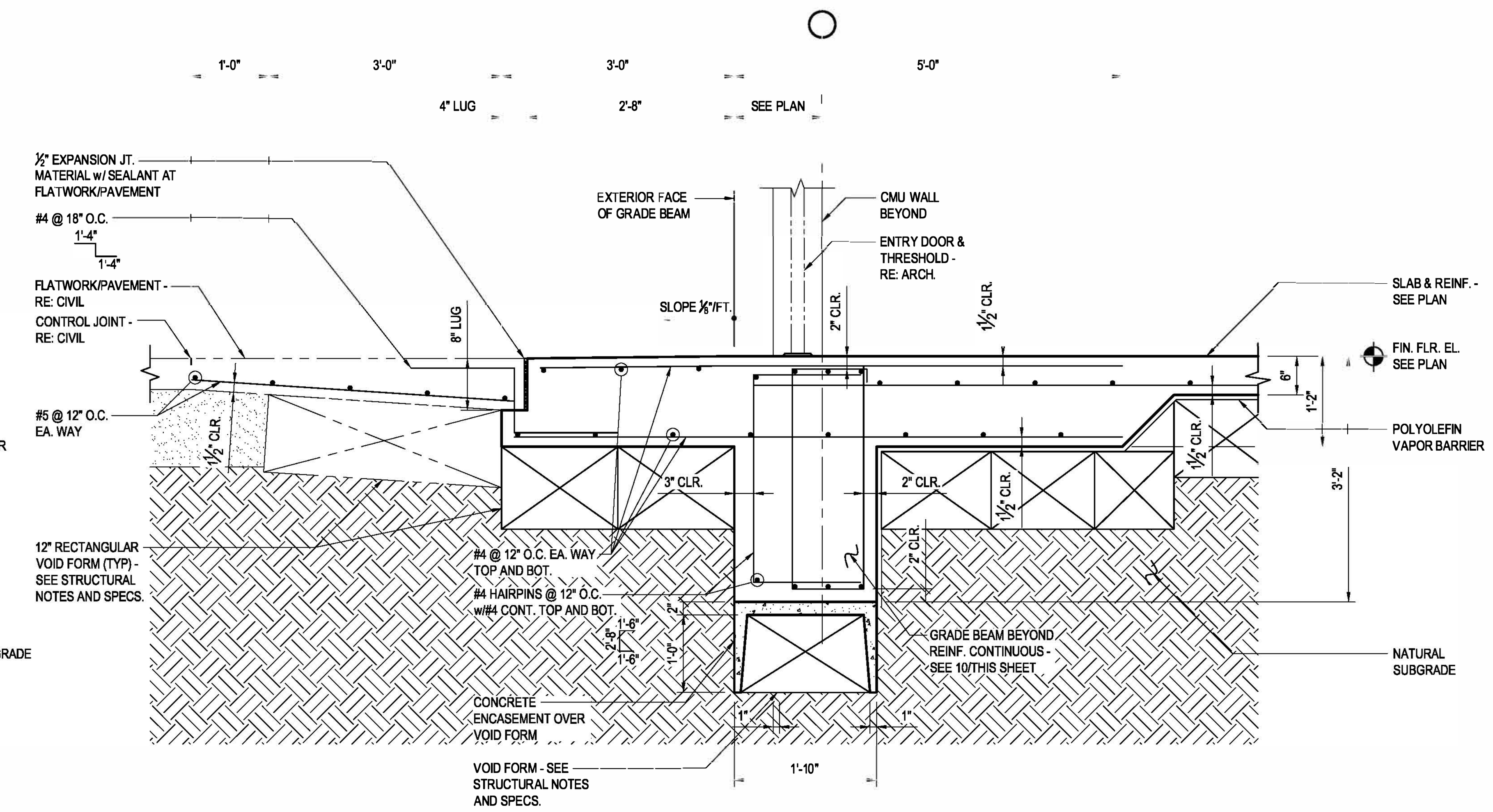

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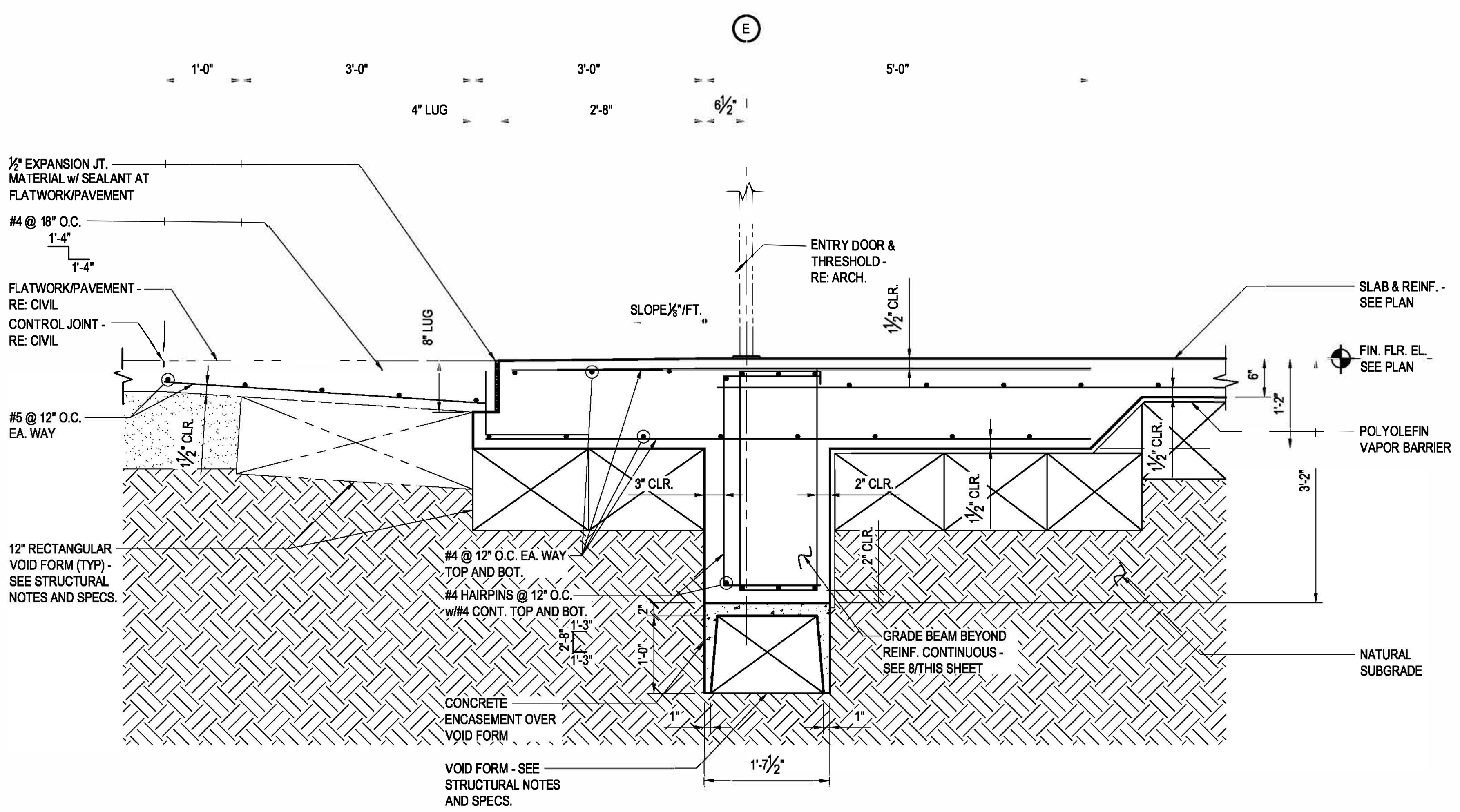

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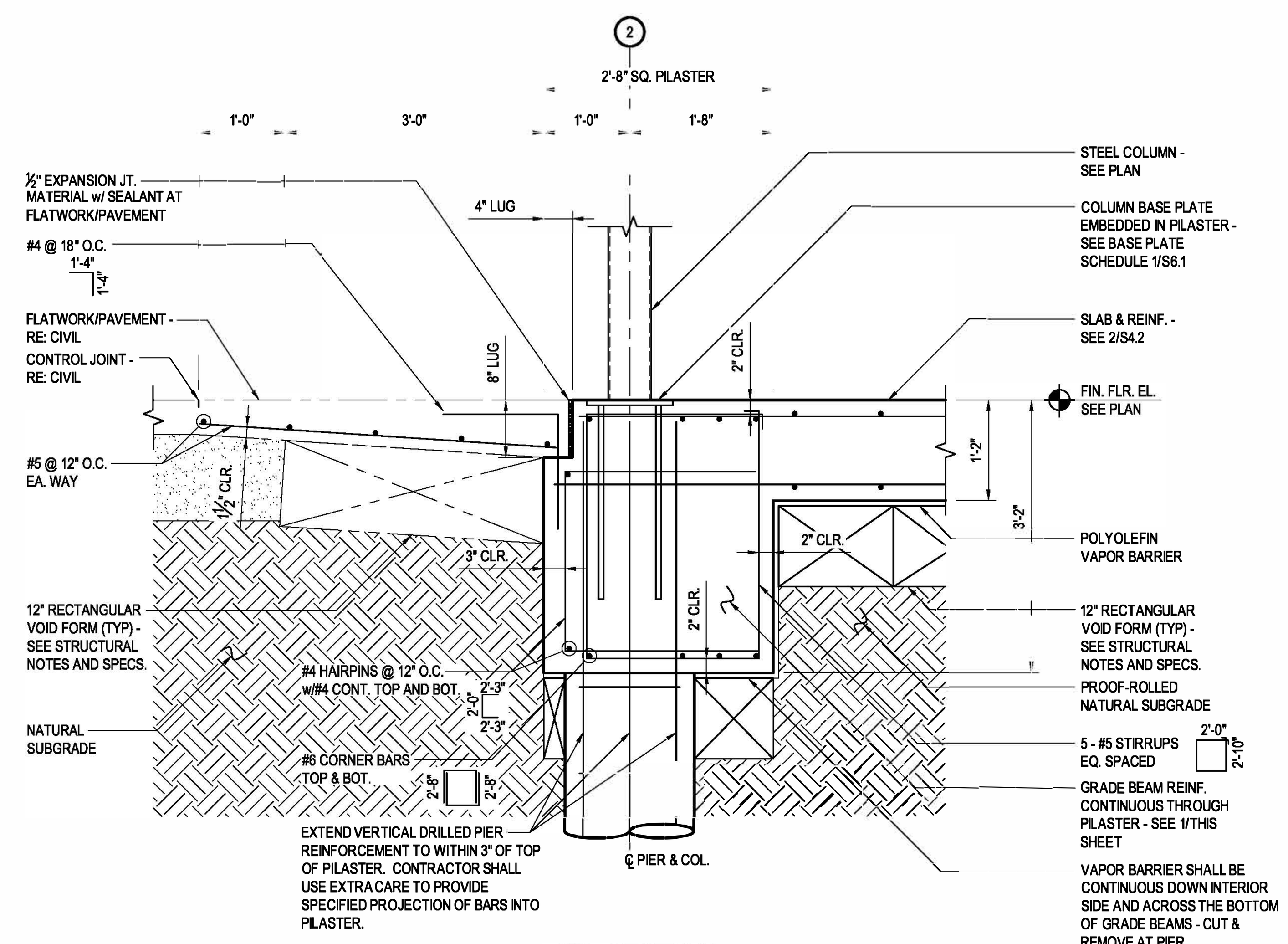

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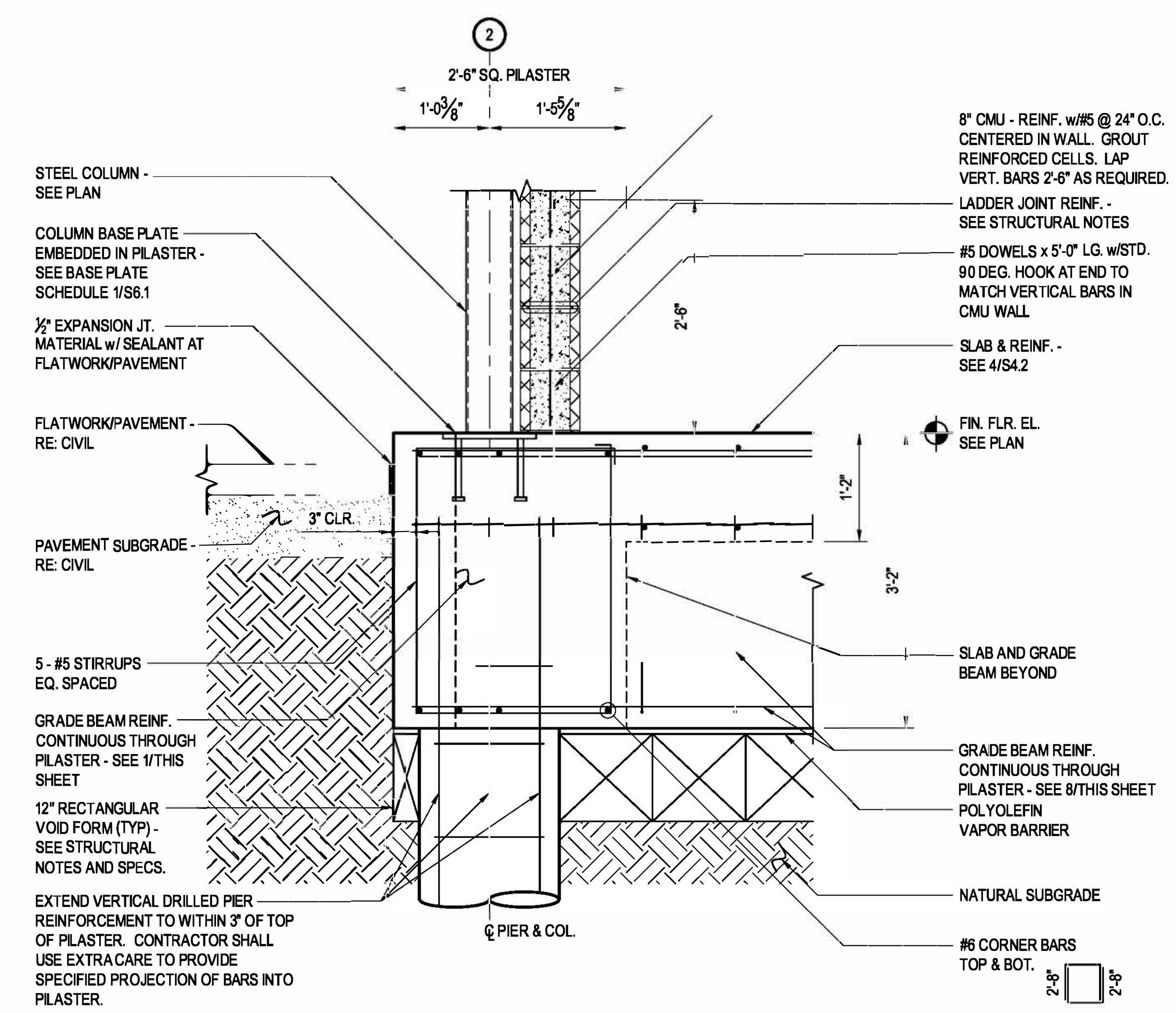

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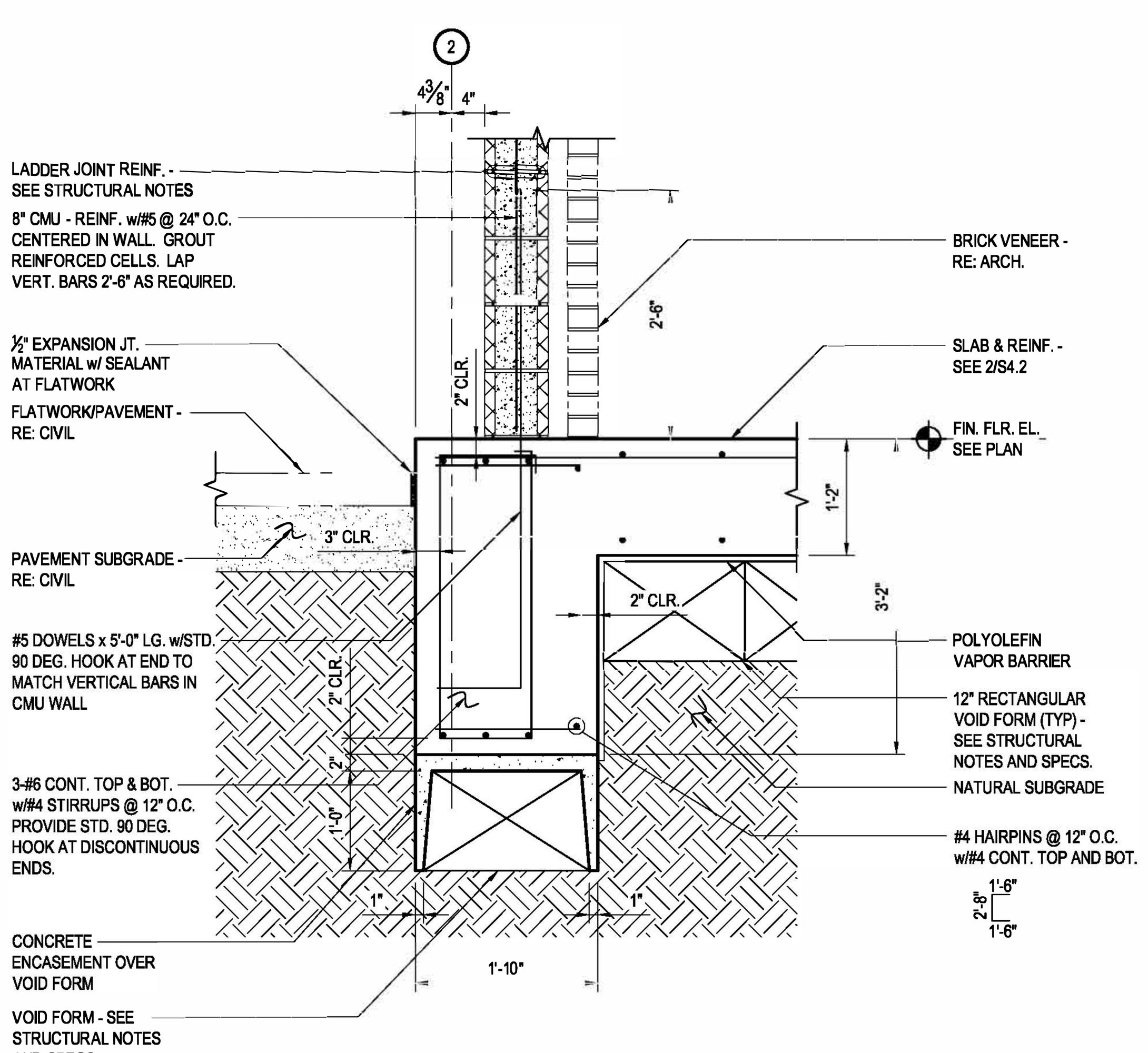

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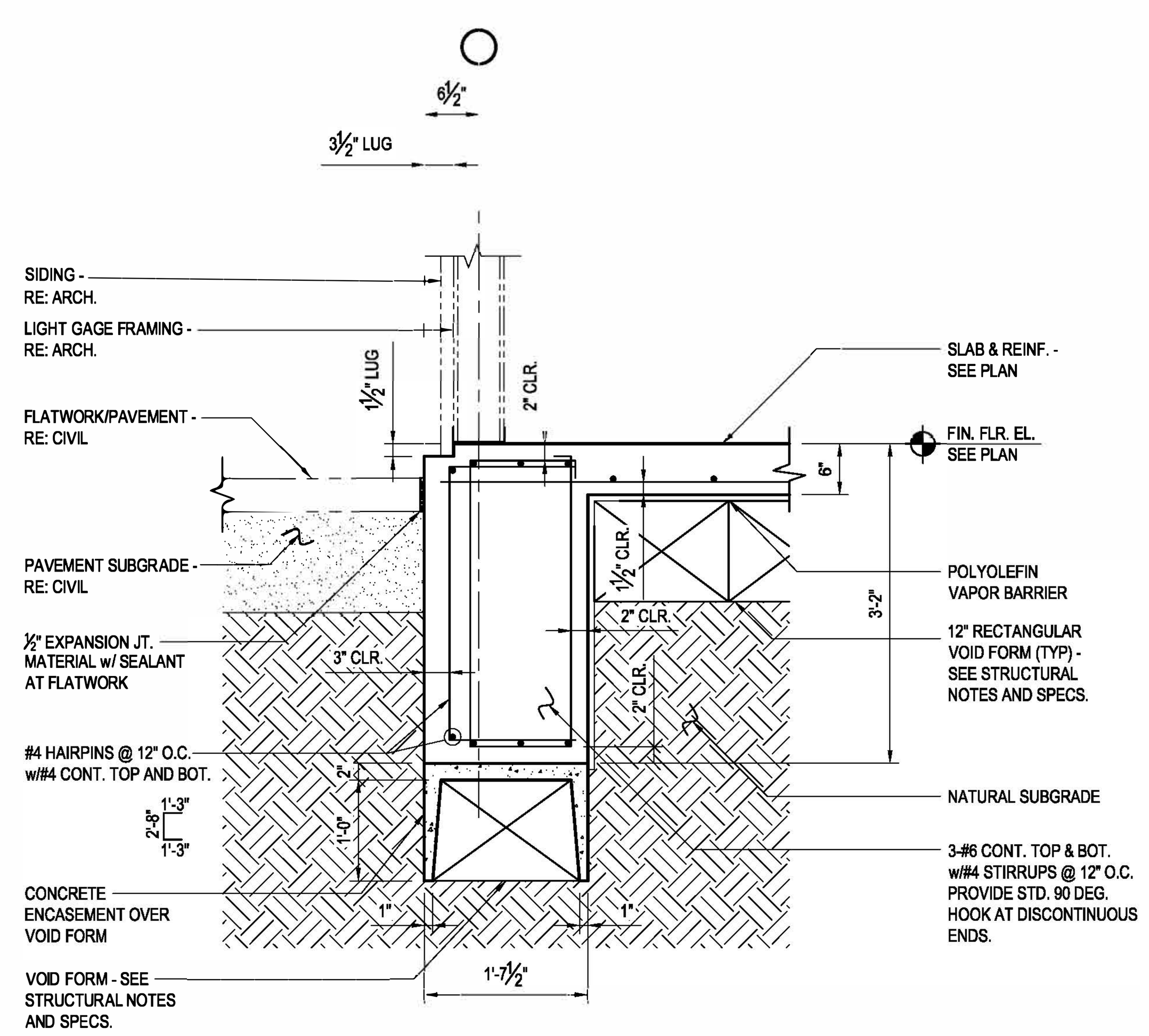

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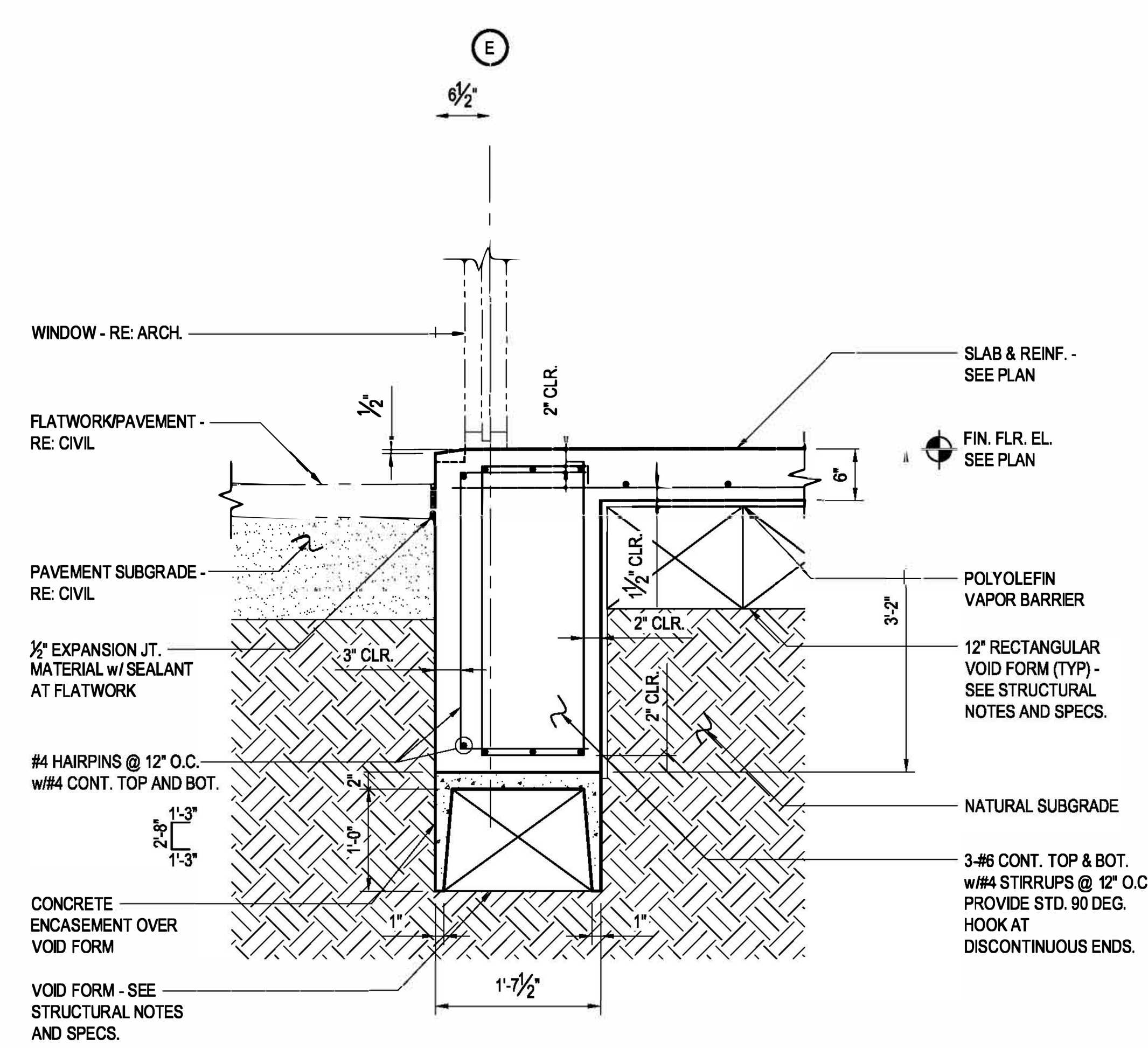

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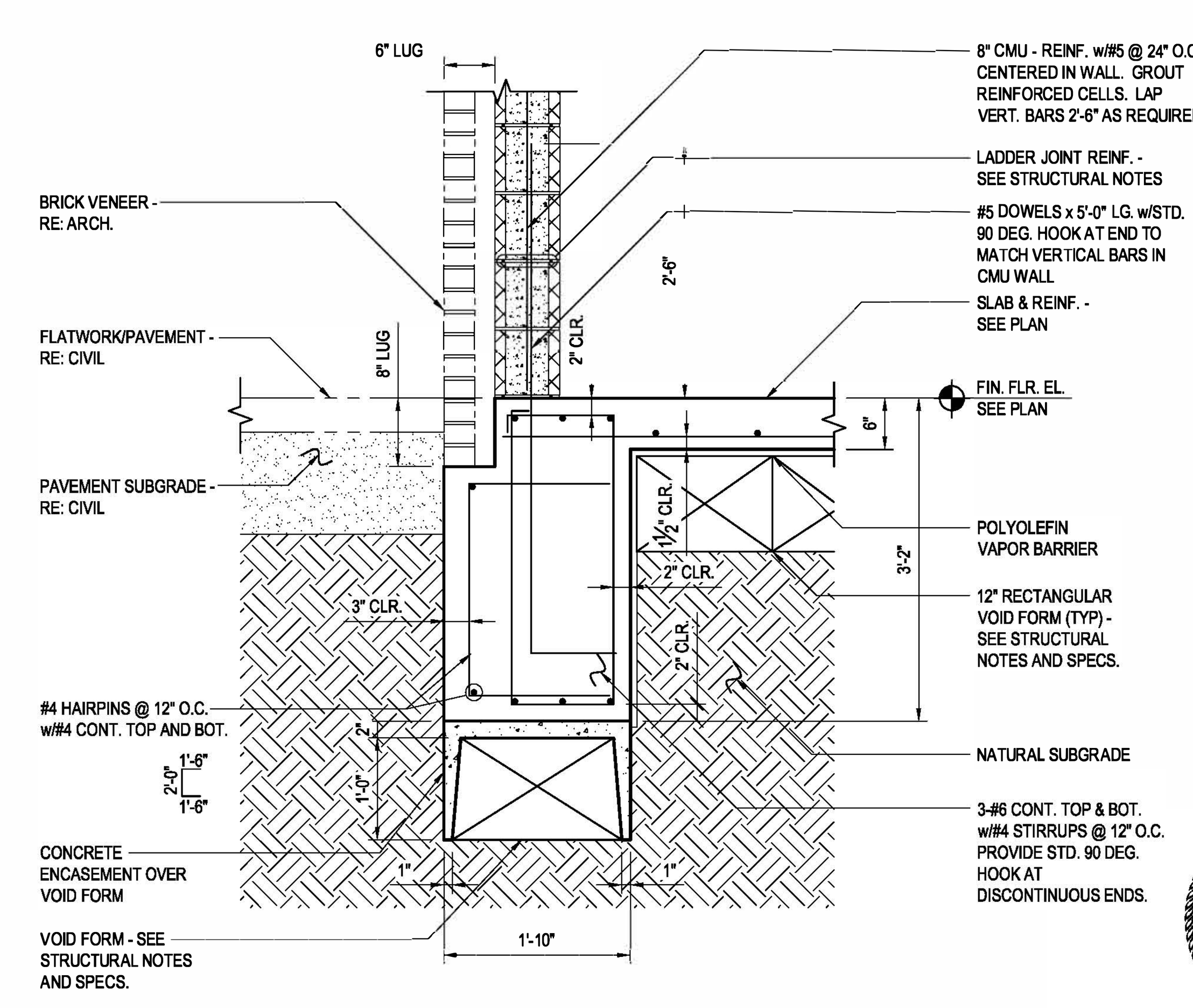

10 SECTION
3/4"=1'-0"

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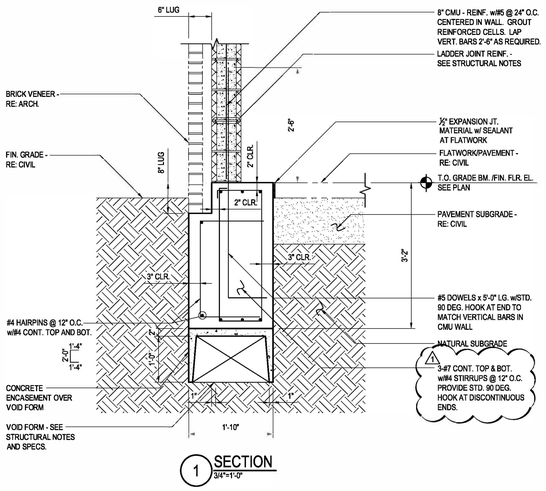
S4.2



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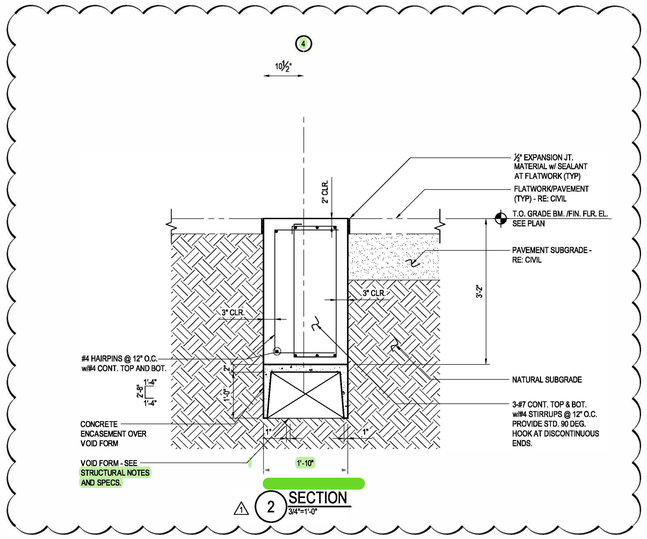

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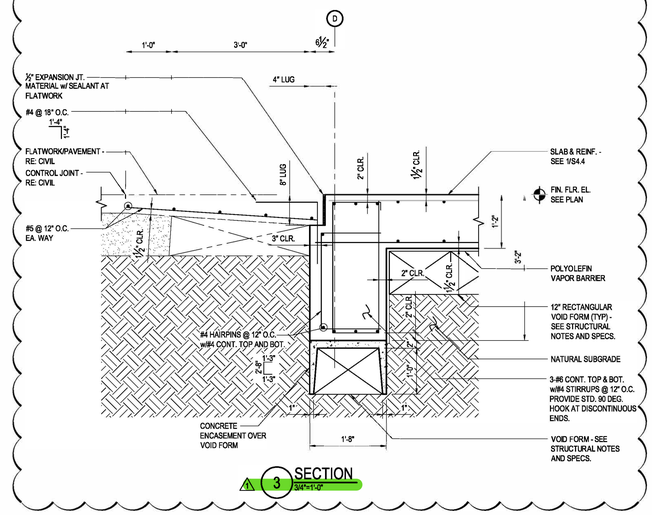

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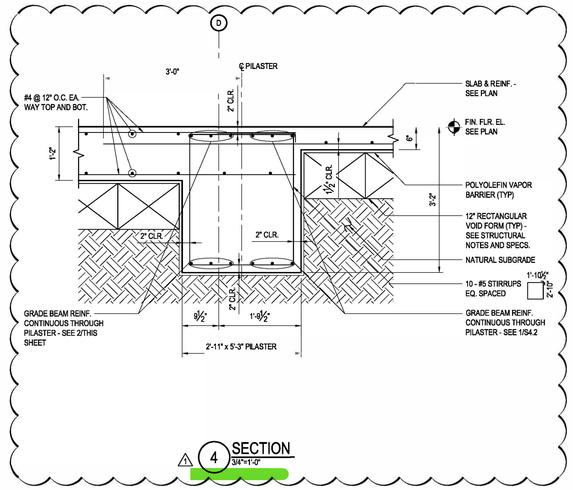

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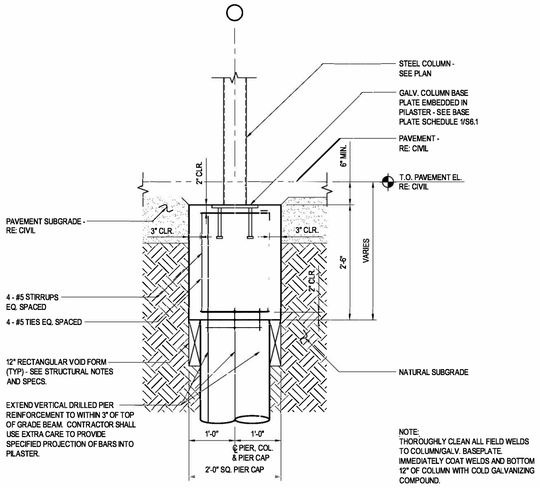
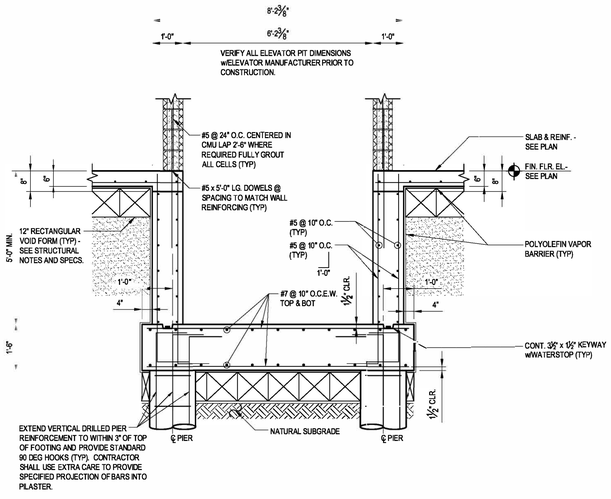


5 SECTION
3/4"=1'-0"

NOT USED

6 SECTION
3/4" = 1'-0"



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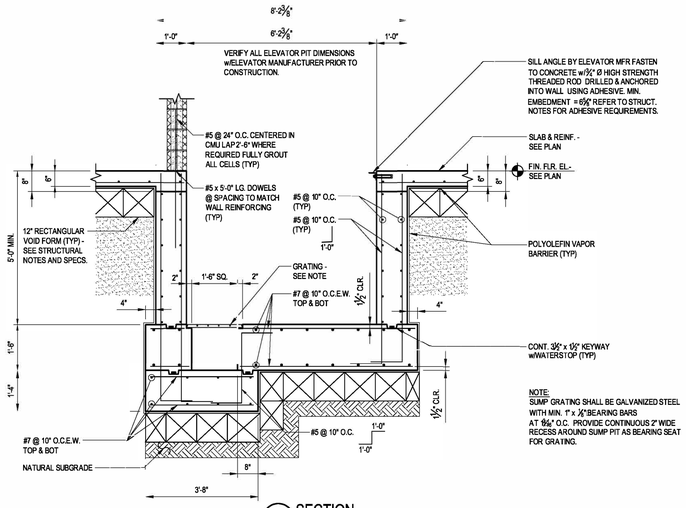
1/2"=1'-0"



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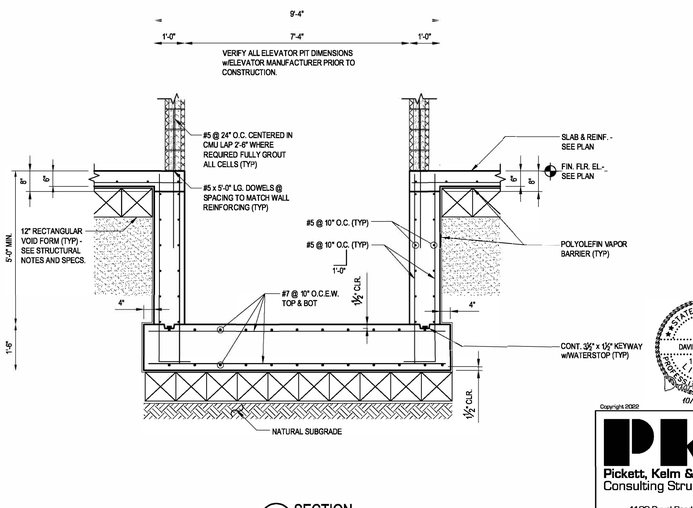

9 SECTION
1/2"=1'-0"

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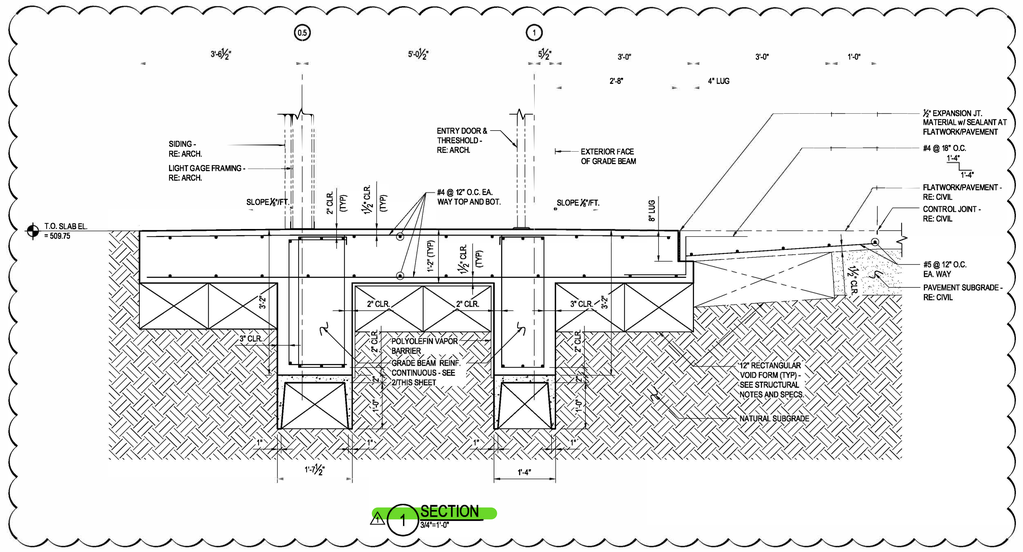
SHEET NO:
S4.3



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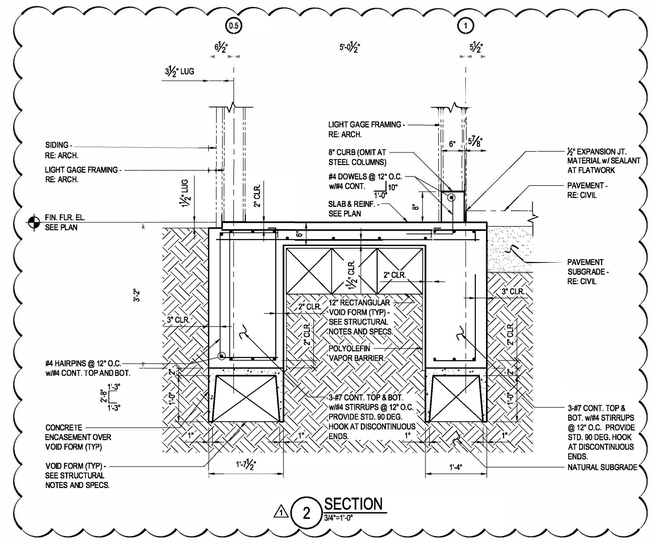

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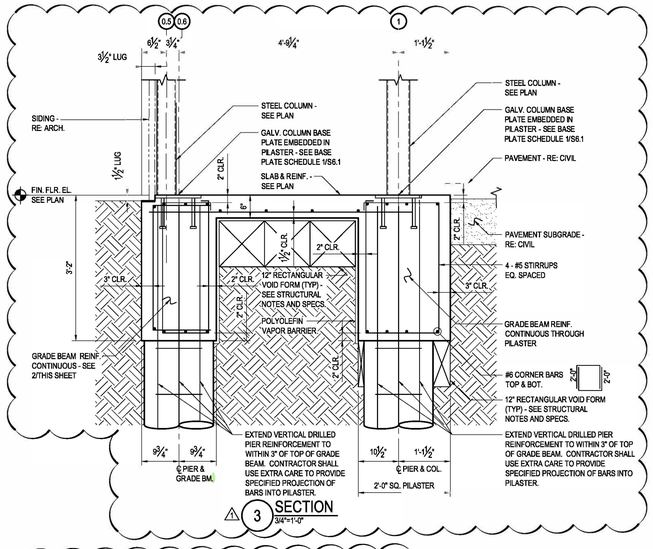

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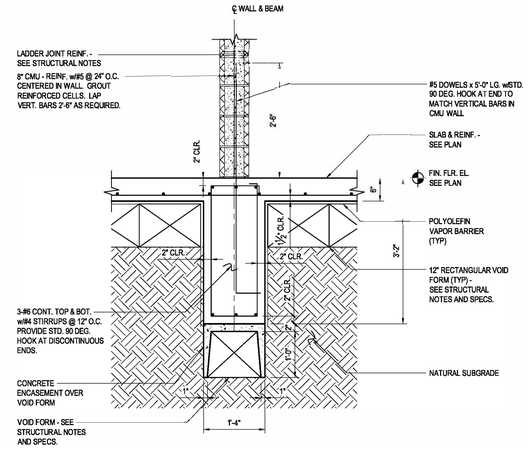

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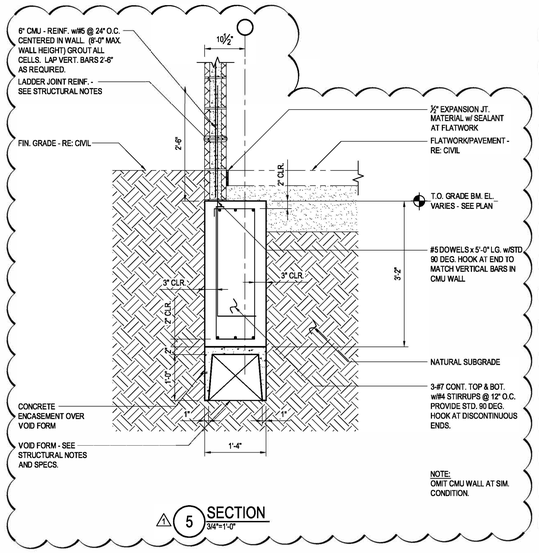

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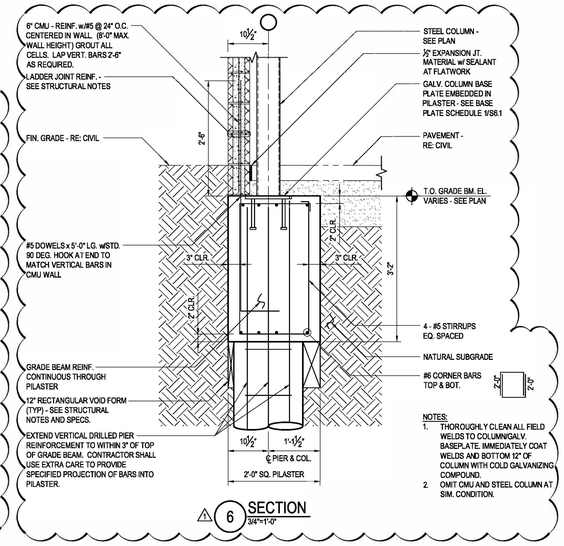

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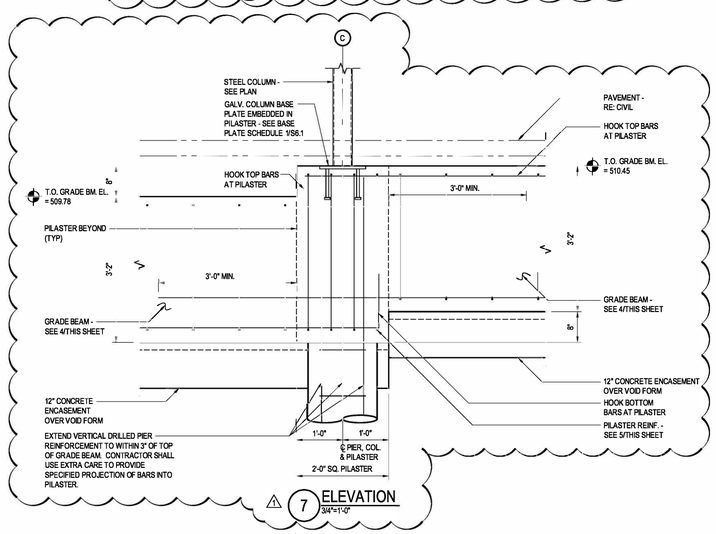

7 ELEVATION
3/4"=1'-0"

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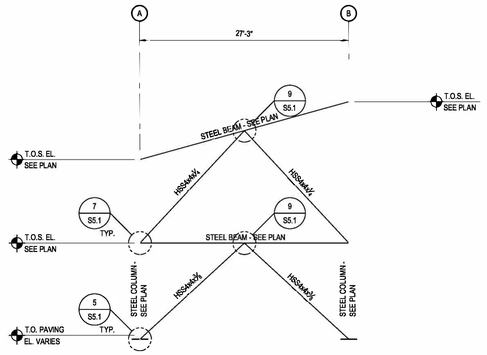
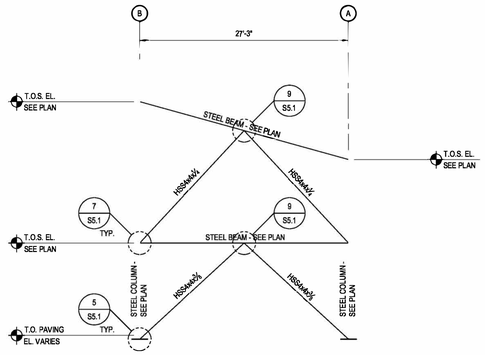
SHEET NO:
S4.4



WB1
1 ELEVATION
1/8" = 1'-0"



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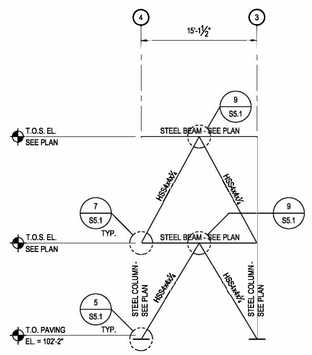

WB3
3 ELEVATION
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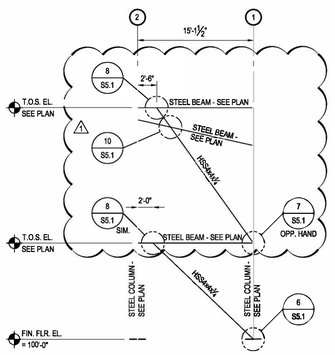

WB4
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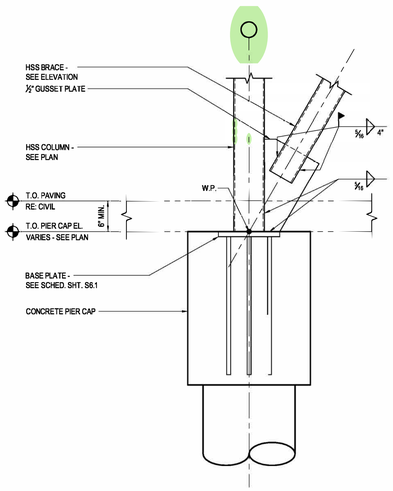

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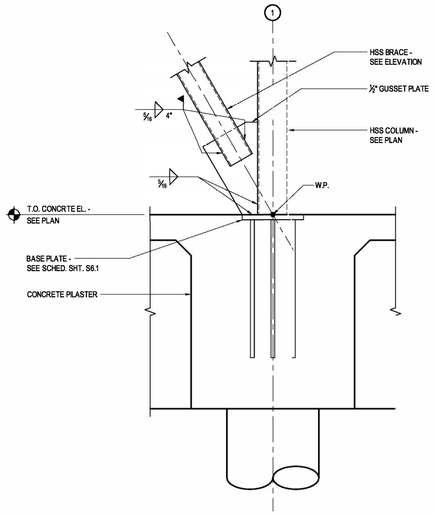

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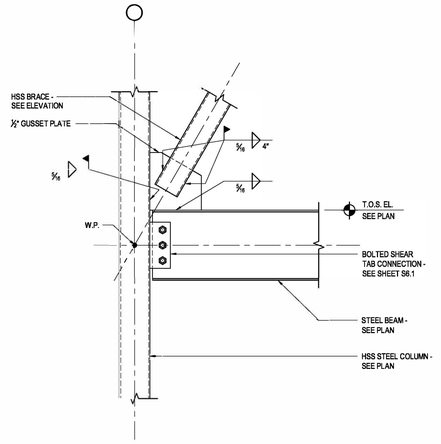

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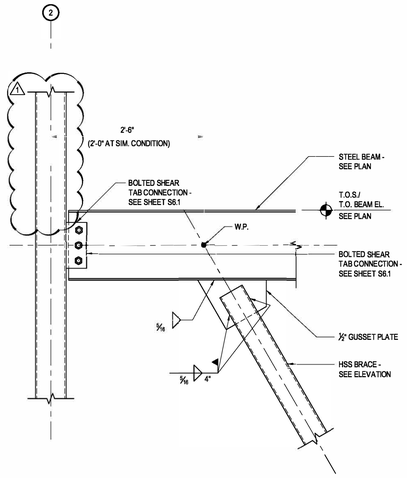

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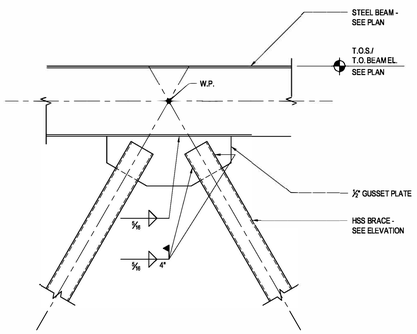

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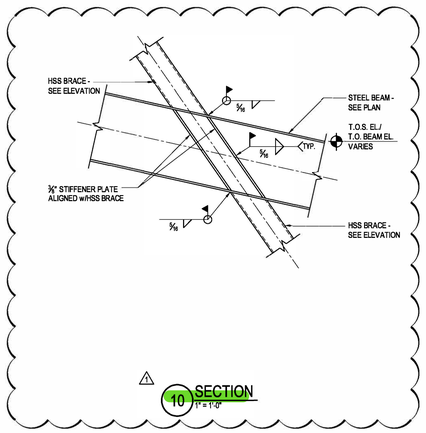

10 SECTION
1" = 1'-0"

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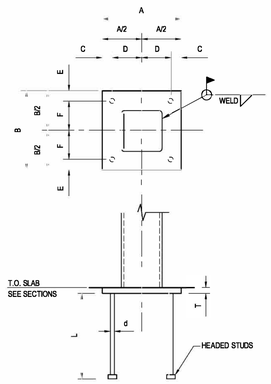
Texas Registration No. F-1491

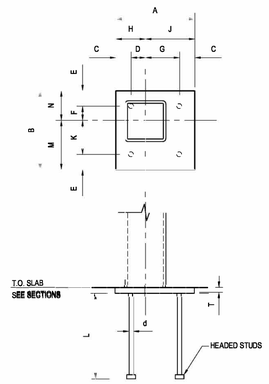
PKA Proj. No. 0301-55-00

SHEET NAME:
BRACED FRAME ELEVATIONS AND DETAILS

SHEET NO:
S5.1



TYPE 1



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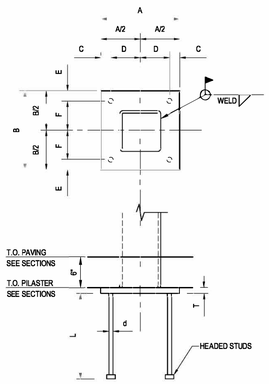

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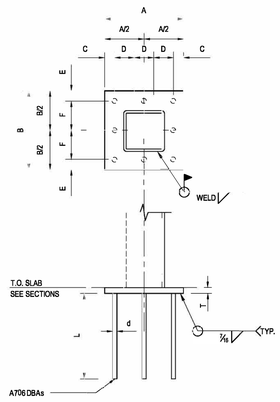

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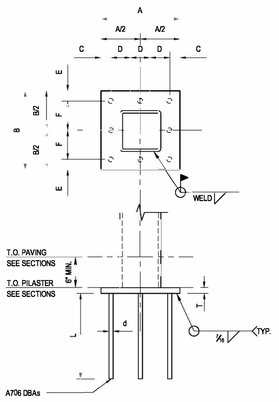


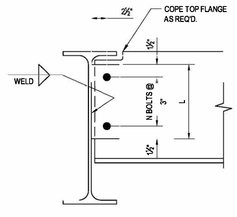
TYPE 5

BASE PLATE SCHEDULE

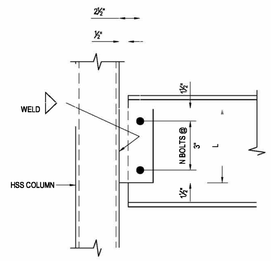
COLUMN SIZE	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	M	N	T	d	L	WELD	NOTES
HSS6x6	BP-1	1	12"	12"	2"	4"	2"	4"	-	-	-	-	-	-	¾"	¾"	8"	5/16"	--
	BP-2	2	12"	12"	3"	1½"	3"	1½"	4½"	4½"	1½"	4½"	1½"	4½"	¾"	¾"	8"	5/16"	--
	BP-3	3	12"	12"	2"	4"	2"	4"	-	-	-	-	-	-	¾"	¾"	8"	5/16"	GALV.
	BP-4	4	12"	12"	2"	4"	2"	4"	-	-	-	-	-	-	¾"	#6	27"	5/16"	BRACE FRAME AND GALV.
	BP-5	5	12"	12"	2"	4"	2"	4"	-	-	-	-	-	-	¾"	#6	27"	5/16"	BRACE FRAME AND GALV.
	BP-6	3	12"	12"	2"	4"	2"	4"	-	-	-	-	-	-	1"	¾"	8"	5/16"	GALV.
	BP-7	1	12"	12"	2"	4"	2"	4"	-	-	-	-	-	-	¾"	¾"	8"	5/16"	GALV.
⚠1 HSS5x5	BP-8	2	12"	12"	3"	-	3"	-	6"	3"	9"	6"	9"	3"	¾"	¾"	8"	5/16"	--
	BP-9	2	12"	12"	3"	-	3"	3"	6"	3"	9"	3"	6"	6"	¾"	¾"	8"	5/16"	--

NOTE:
1 CONTRACTOR SHALL USE CARE TO PROPERLY LOCATE BASE PLATES. THE MAXIMUM PERMISSIBLE TOLERANCE IN PLACEMENT OF THE COLUMN FROM THE PLAN CENTERLINE OF THE BASE PLATE IS 1" IN ANY DIRECTION. IN THE EVENT THAT PLACEMENT OF THE COLUMN ON THE BASE PLATE EXCEEDS THIS TOLERANCE, THE CONTRACTOR MAY BE REQUIRED TO BREAKOUT THE BASE PLATE AND SLAB AND REPLACE AT THE CONTRACTOR'S EXPENSE. PLACEMENT OF ANY BASE PLATE OUTSIDE OF THE SPECIFIED TOLERANCE SHALL BE REFERRED TO THE ENGINEER.
2 AT GALV. BASEPLATES THOROUGHLY CLEAN ALL FIELD WELDS. IMMEDIATELY COAT WELDS WITH COLD GALVANIZING COMPOUND. AT LOCATIONS WHERE COLUMN IS EMBEDDED IN PAVEMENT COAT BOTTOM 12" OF COLUMN WITH COLD GALVANIZING COMPOUND.

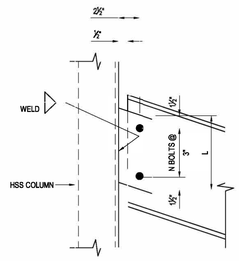
1 BASE PLATE SCHEDULE
N.T.S.



BEAM TO GIRDER/BEAM CONNECTION

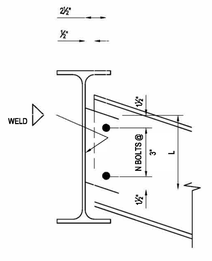


BEAM TO COLUMN CONNECTION



BEAM TO COLUMN CONNECTION

NOTE:
USE CONNECTION PLATES CUT TO MATCH SLOPE OF BEAM IF NECESSARY TO INSTALL SCHEDULED NUMBER OF BOLTS.



BEAM TO GIRDER CONNECTION

NOTE:
USE CONNECTION PLATES CUT TO MATCH SLOPE OF BEAM IF NECESSARY TO INSTALL SCHEDULED NUMBER OF BOLTS.

BOLTED SHEAR TAB CONNECTION SCHEDULE

BEAM SIZE	SHEAR TAB LENGTH L	SHEAR TAB THICKNESS	BOLT SIZE	NO. BOLTS N	WELD SIZE	CAPACITY (ASD)	NOTES
W12, W14	9"	3/8"	¾"	3	5/16"	27.9 KIPS	--
W16	12"	3/8"	¾"	4	5/16"	37.2 KIPS	--
W18, W21	15"	3/8"	¾"	5	5/16"	46.5 KIPS	--
W24	21"	3/8"	¾"	7	5/16"	65.1 KIPS	--

NOTES:
1 SHEAR TABS MAY BE SKEWED NO MORE THAN 45 DEGREES FROM LINE PERPENDICULAR TO SUPPORTING MEMBER.
2 ALL BOLTS SHALL BE ¾" DIA. A325 TENSION CONTROL BOLTS.

2 SHEAR TAB CONNECTION SCHEDULE & DETAILS
N.T.S.

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REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.09	Addendum No.1 - CoA Comments

PROJ. NO.	ORIG. ISSUE
21066	2022.10.13

CURRENT:

STATE OF TEXAS
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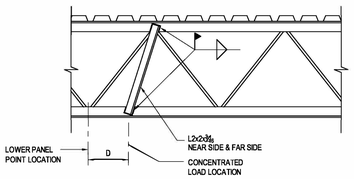
PKA Proj. No. CSD 5536

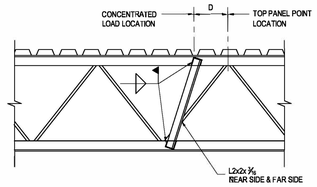
SHEET NAME:
STEEL BASEPLATE AND CONNECTION SCHEDULES

SHEET NO:
S6.1



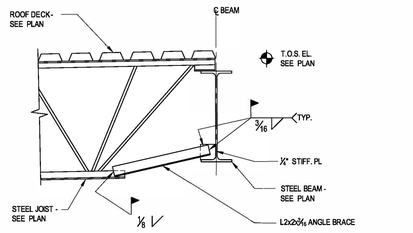
NOTE:
PROVIDE STIFFENER ANGLES WHERE DIMENSION "D" EXCEEDS 4" AND CONCENTRATED LOAD IS 100 LBS. OR GREATER.

JOIST STIFFENER - CONC. LOAD AT BOTTOM CHORD
1 TYPICAL DETAIL
3/4" = 1'-0"



NOTE:
PROVIDE STIFFENER ANGLES WHERE DIMENSION "D" EXCEEDS 4" AND CONCENTRATED LOAD IS 100 LBS. OR GREATER.

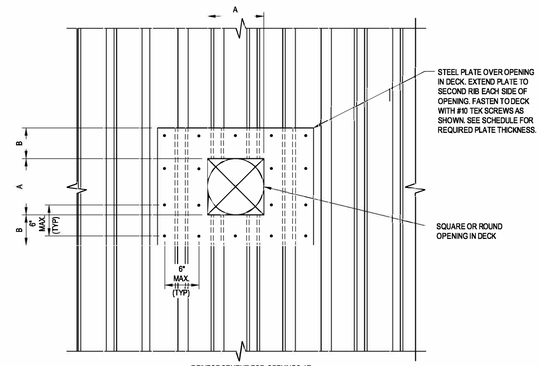
JOIST STIFFENER - CONC. LOAD AT TOP CHORD
2 TYPICAL DETAIL
3/4" = 1'-0"



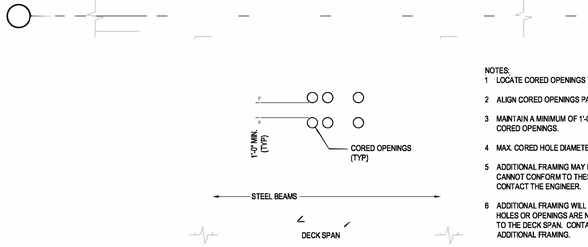
NOTE:
PROVIDE BOTTOM FLANGE BRACES AT BEAM SUPPORTED JOISTS AS SHOWN ON FRAMING PLANS. INSTALL AFTER ROOF DEAD LOADS HAVE BEEN APPLIED.

BEAM BOTTOM FLANGE BRACE
3 TYPICAL DETAIL
N.T.S.

DIM. "A"	PLATE THICKNESS	DIM. "B"
UP TO 6"	NONE	0"
6" - 7⅞"	18 GA.	6"
8" - 11⅞"	16 GA.	6"
12" - 13⅞"	14 GA.	9"
14" - 16"	12 GA.	12"

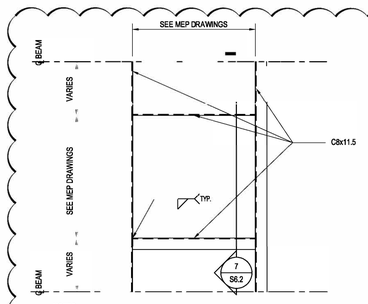


REINFORCEMENT FOR OPENINGS AT ROOF DECK OPGS. FROM 8" TO 16"
4 TYPICAL DETAIL
N.T.S.



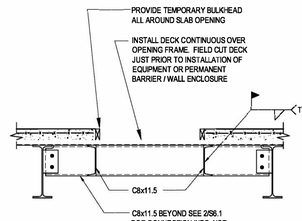
NOTES:
1. LOCATE CORED OPENINGS TO MISS STEEL BEAMS.
2. ALIGN CORED OPENINGS PARALLEL WITH DECK SPAN.
3. MAINTAIN A MINIMUM OF 1'-0" CLEAR. BETWEEN ROWS OF CORED OPENINGS.
4. MAX. CORED HOLE DIAMETER = 10"
5. ADDITIONAL FRAMING MAY BE REQUIRED IF OPENING CANNOT CONFORM TO THESE REQUIREMENTS. CONTACT THE ENGINEER.
6. ADDITIONAL FRAMING WILL BE REQUIRED IF ROWS OF HOLES OR OPENINGS ARE NECESSARY PERPENDICULAR TO THE DECK SPAN. CONTACT THE ENGINEER FOR ADDITIONAL FRAMING.

CORED OPENING REQUIREMENTS
5 TYPICAL DETAIL
1/2" = 1'-0"



NOTES:
1. VERIFY ALL MECH. OPENING CLEAR DIMENSIONS WITH MECHANICAL DRAWINGS & REQUIREMENTS.

FLOOR FRAMING FOR MECH. OPGS. LARGER THAN 10"Ø OR SQUARE
6 TYPICAL DETAIL
3/4" = 1'-0"



FLOOR FRAMING FOR MECH. OPGS. LARGER THAN 10" Ø OR SQUARE
7 TYPICAL SECTION
3/4" = 1'-0"

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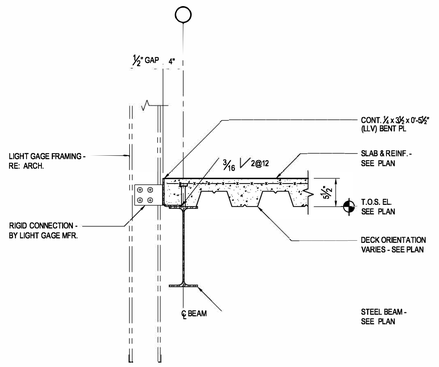
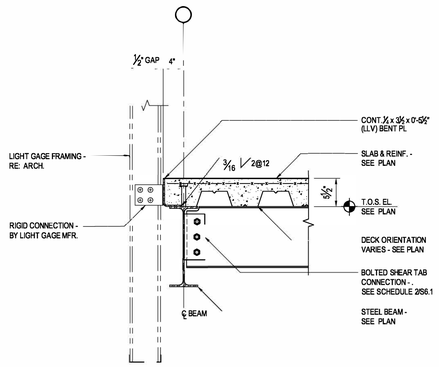
PKA Proj. No. 0301.0540

SHEET NAME:
STEEL FRAMING TYP. SECTIONS AND DETAILS

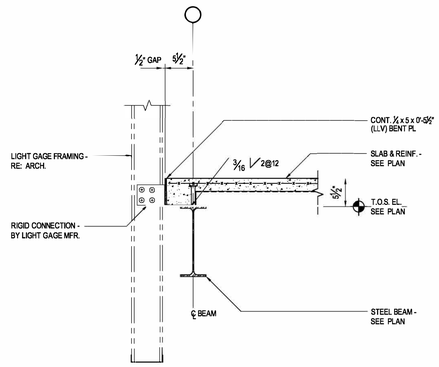
SHEET NO:
S6.2



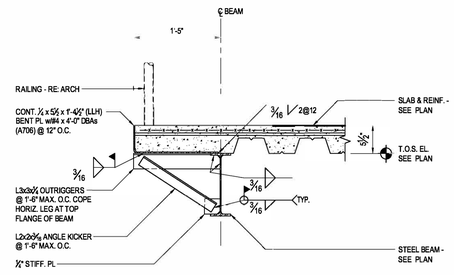
1 SECTION 1"=1'-0"



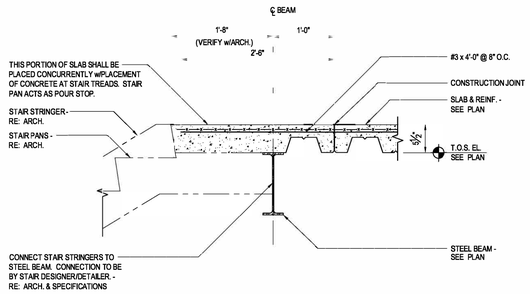
2 SECTION 1"=1'-0"



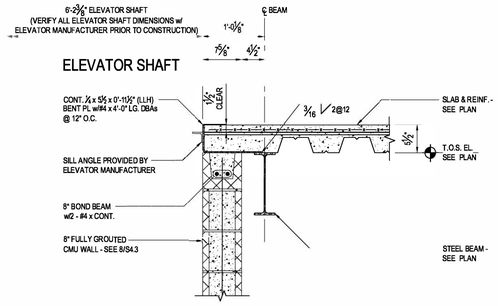
3 SECTION 1"=1'-0"



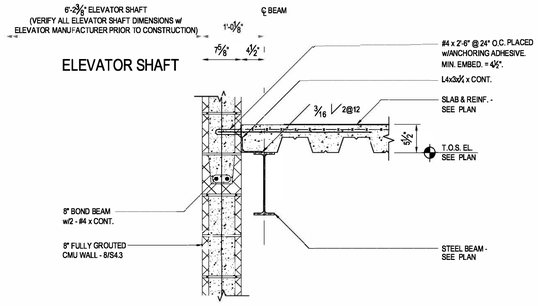
4 SECTION 1"=1'-0"



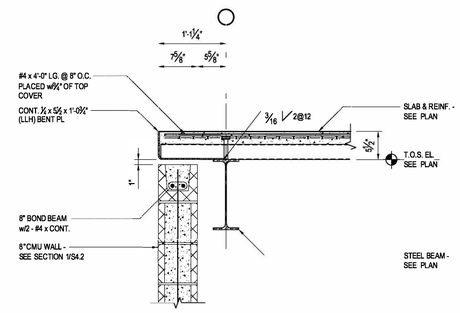
5 SECTION 1"=1'-0"



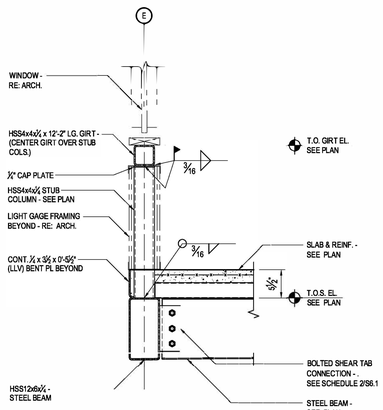
6 SECTION 1"=1'-0"



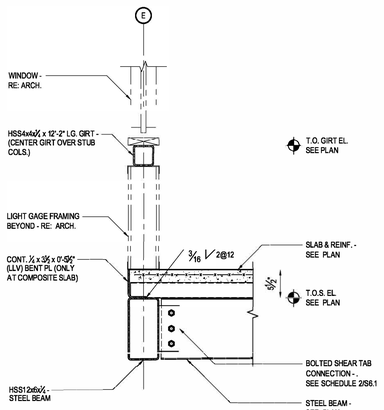
7 SECTION 1"=1'-0"



8 SECTION 1"=1'-0"



9 SECTION 1"=1'-0"



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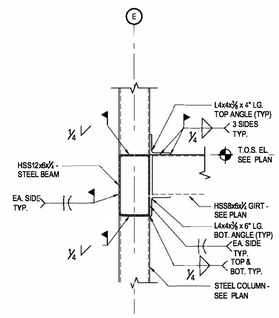

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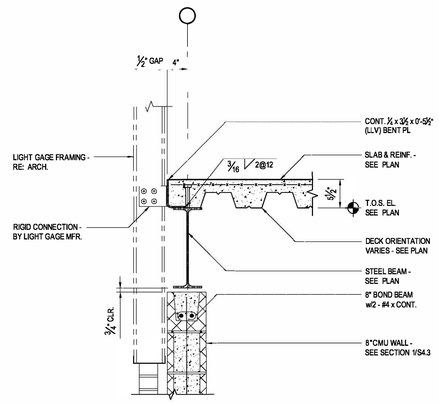

12 SECTION 1"=1'-0"

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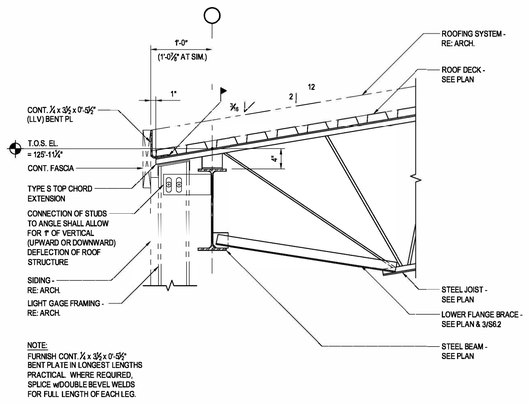
PKA Proj. No. 0301504E

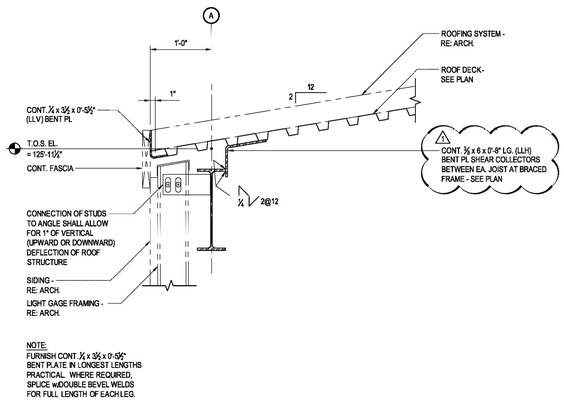
SHEET NAME:
STEEL FRAMING SECTIONS AND DETAILS

SHEET NO:
S6.3



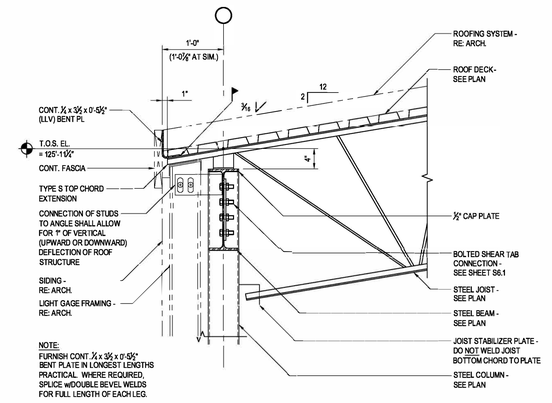
NOTE:
FURNISH CONT. ¼ x 3½ x 0'-5½" BENT PLATE IN LONGEST LENGTHS PRACTICAL WHERE REQUIRED, SPLICE w/DOUBLE BEVEL WELDS FOR FULL LENGTH OF EACH LEG.

1 SECTION
1" = 1'-0"



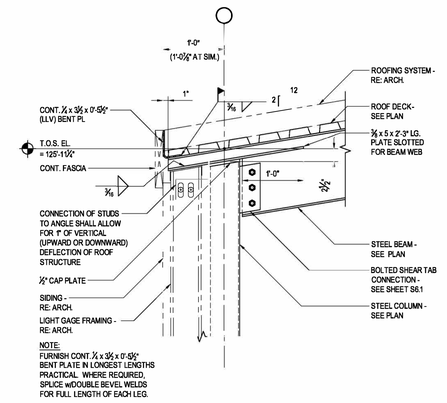
NOTE:
FURNISH CONT. ¼ x 3½ x 0'-5½" BENT PLATE IN LONGEST LENGTHS PRACTICAL WHERE REQUIRED, SPLICE w/DOUBLE BEVEL WELDS FOR FULL LENGTH OF EACH LEG.

2 SECTION
1" = 1'-0"



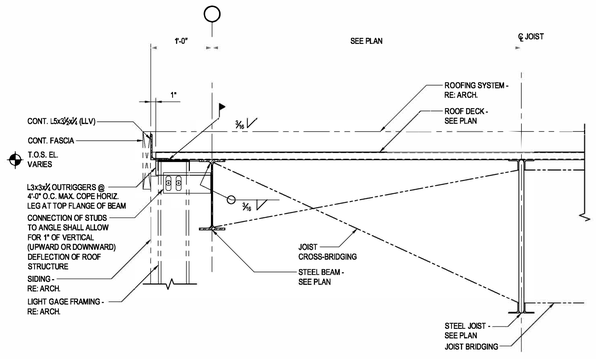
NOTE:
FURNISH CONT. ¼ x 3½ x 0'-5½" BENT PLATE IN LONGEST LENGTHS PRACTICAL WHERE REQUIRED, SPLICE w/DOUBLE BEVEL WELDS FOR FULL LENGTH OF EACH LEG.

3 SECTION
1" = 1'-0"

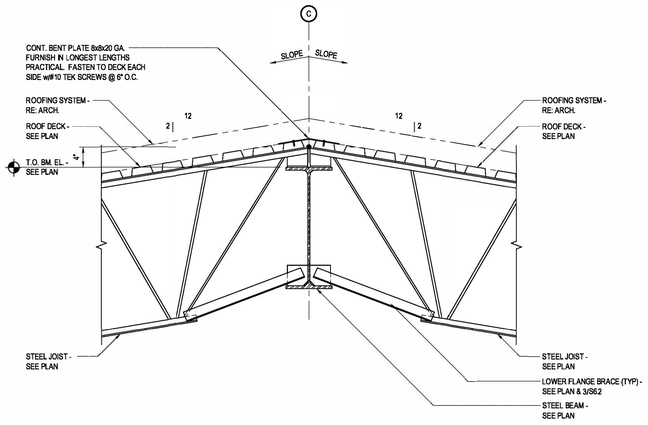


NOTE:
FURNISH CONT. ¼ x 3½ x 0'-5½" BENT PLATE IN LONGEST LENGTHS PRACTICAL WHERE REQUIRED, SPLICE w/DOUBLE BEVEL WELDS FOR FULL LENGTH OF EACH LEG.

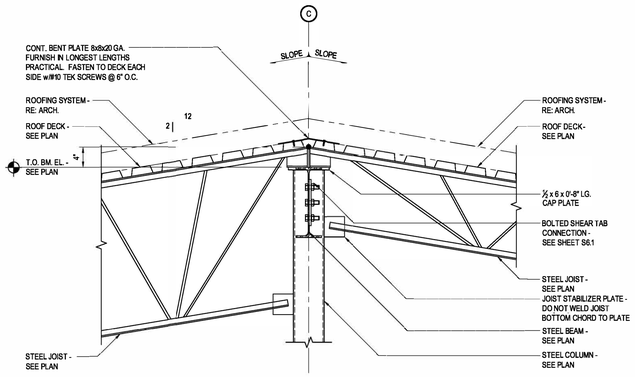
4 SECTION
1" = 1'-0"



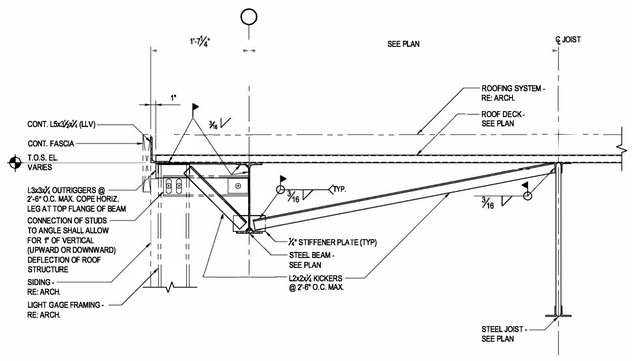
5 SECTION
1" = 1'-0"



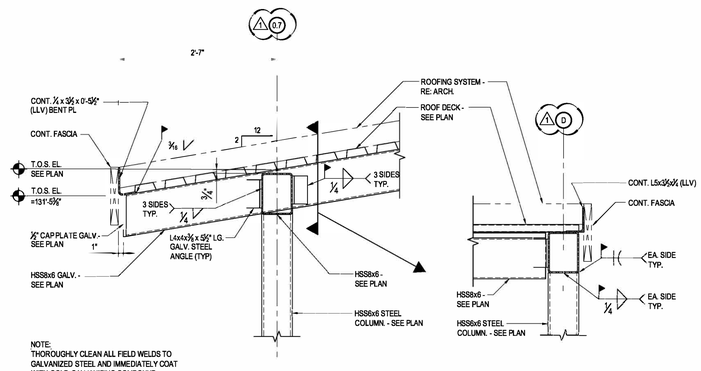
6 SECTION
1" = 1'-0"



7 SECTION
1" = 1'-0"

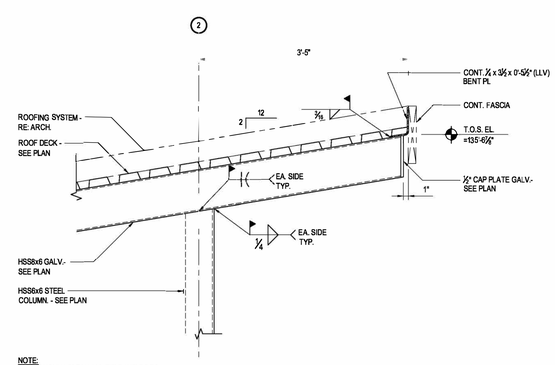


8 SECTION
1" = 1'-0"



NOTE:
THOROUGHLY CLEAN ALL FIELD WELDS TO GALVANIZED STEEL AND IMMEDIATELY COAT WITH GOLD-GALVANIZING COMPOUND.

9 SECTION
1" = 1'-0"



NOTE:
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10 SECTION
1" = 1'-0"

FIFTH DIMENSION
ARCHITECTURE & INTERIORS, LLC
BIRMINGHAM, AL AUSTIN, TX ORLANDO, FL ATLANTA, GA
www.5dai.com

6707 Riverside

6707 Riversideland LLC
6707 Riverside Drive
Austin, TX 78741

REVISIONS

Δ	DATE	DESCRIPTION
1	2022.12.09	Addendum No.1 - CoA Comments

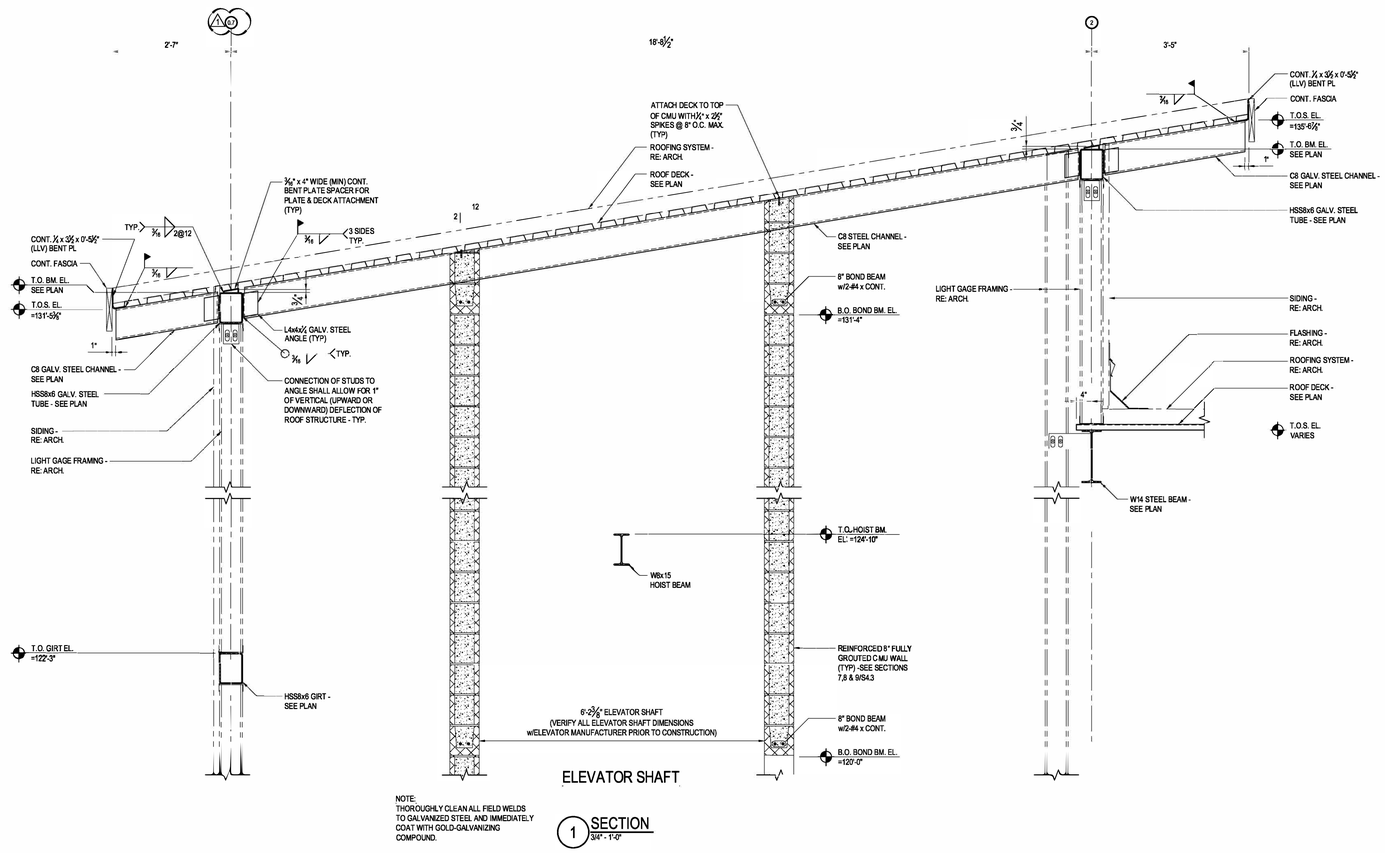
PROJ. NO.	ORIG. ISSUE
21066	2022.10.13

CURRENT:

PKA
Pickett, Kelm & Associates, Inc.
Consulting Structural Engineers
4100 Duval Road, Bldg. 4, Suite 103
Austin, Texas 78759 • Phone 512-345-5538
Texas Registration No. F-1491
PKA Proj. No. C0515-5808

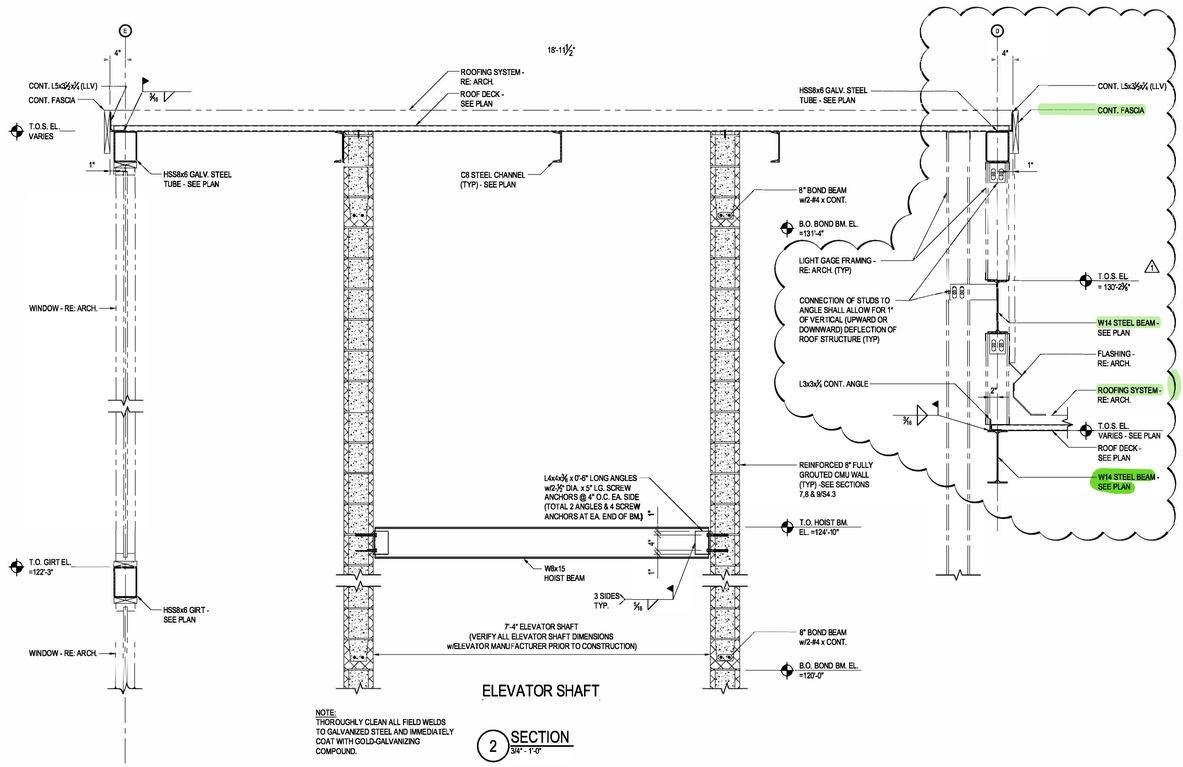
SHEET NAME:
STEEL FRAMING SECTIONS AND DETAILS

SHEET NO:
S6.4



NOTE:
THOROUGHLY CLEAN ALL FIELD WELDS TO GALVANIZED STEEL AND IMMEDIATELY COAT WITH GOLD-GALVANIZING COMPOUND.

1 SECTION
3/4" = 1'-0"



NOTE:
THOROUGHLY CLEAN ALL FIELD WELDS TO GALVANIZED STEEL AND IMMEDIATELY COAT WITH GOLD-GALVANIZING COMPOUND.

2 SECTION
3/4" = 1'-0"

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6707 Riversideland LLC
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21066	2022.10.13

CURRENT:

STATE OF TEXAS
DAVID M. COLE
103902
LICENSED
PROFESSIONAL ENGINEER
SEAL
10/5/2022

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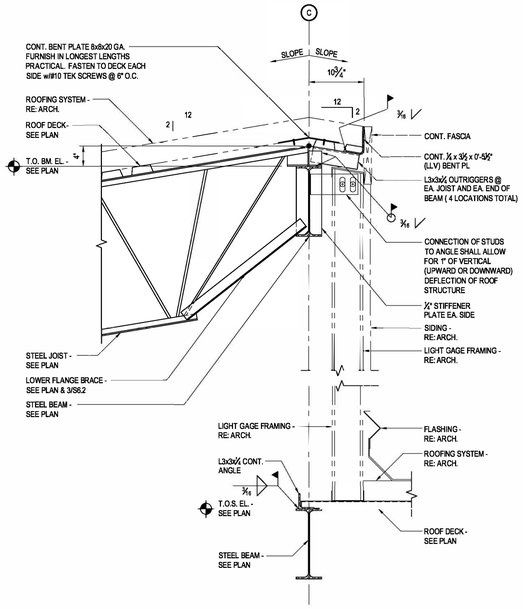
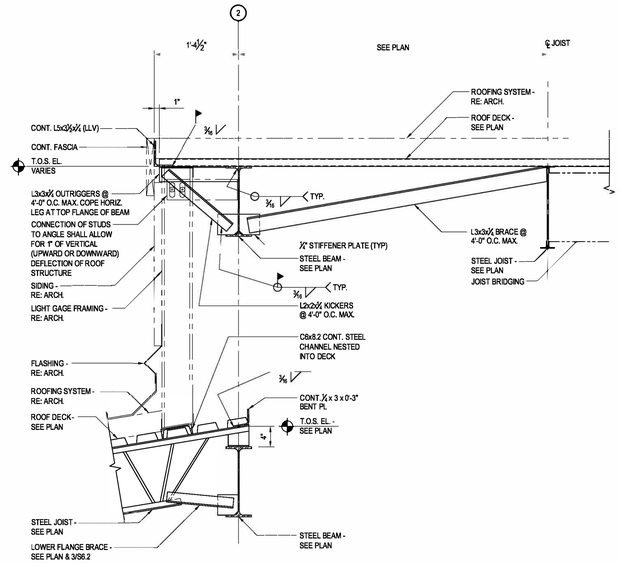
Austin, Texas 78759 • Phone 512-345-5538
Texas Registration No. F-1491
PKA Proj. No. CSD 5536

SHEET NAME:
STEEL FRAMING SECTIONS AND DETAILS

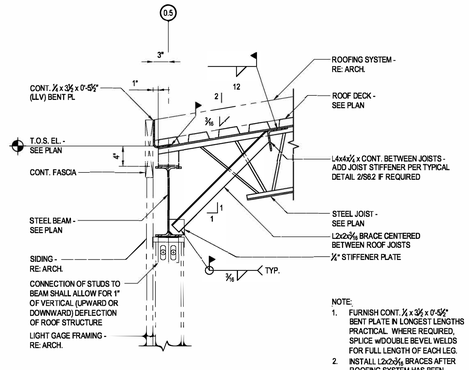
SHEET NO:
S6.5



1 SECTION
1" = 1'-0"

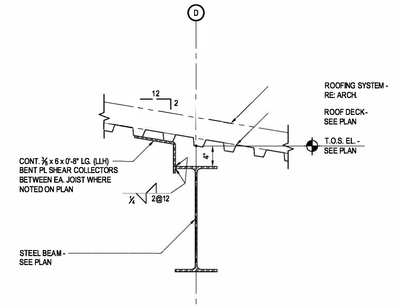


2 SECTION
1" = 1'-0"



NOTE:
1. FURNISH CONT. ¼ x 3½ x 0'-5½" BENT PLATE IN LONGEST LENGTHS PRACTICAL. WHERE REQUIRED, SPLICE w/DOUBLE BEVEL WELDS FOR FULL LENGTH OF EACH LEG.
2. INSTALL L2x2x3/16 BRACES AFTER ROOFING SYSTEM HAS BEEN PLACED.

3 SECTION
1" = 1'-0"



4 SECTION
1" = 1'-0"

5 SECTION
1"=1'-0"

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PKA Proj. No. CSD-55-002

SHEET NAME:
STEEL FRAMING SECTIONS AND DETAILS

SHEET NO:
S6.6 ⚠