

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DR, PORTLAND, TX 78374

PERMIT INFORMATION

BUILDING CODE ANALYSIS

A. SUMMARY OF THE PROJECT:

Existing building space (4,160 SF) will be bisected with a new demising wall to create two separate tenant spaces (2,080 SF each). Interior work includes interior creating office spaces for public administration. Exterior work includes demolition of existing storefront and installation of new storefront with entry door, and installation of new signage.

B. BUILDING DEPARTMENT JURISDICTION:

City of Portland — Development Services Department
601 Moore Avenue
Portland, Texas 78374
Phone: 361-777-4550

C. APPLICABLE BUILDING CODES:

BUILDING: 2021 International Building Code (IBC)
FIRE: 2015 International Fire Code (IFC)
PLUMBING: 2021 International Plumbing Code (IPC)
MECHANICAL: 2021 International Mechanical Code (IMC)
ELECTRICAL: 2020 National Electrical Code (NEC)
ACCESSIBILITY: 2012 Texas Accessibility Standards (TAS) / ADAAG
ENERGY: 2015 International Energy Conservation Code (IECC)
WINDSTORM: 2024 IBC, ASCE 7-22

D. LEGAL DESCRIPTION:

[To be provided — legal description of the property at 704 Buddy Ganem Drive, Portland, TX 78374]
HCAD NUMBER: [To be confirmed]

E. OCCUPANCY CLASSIFICATION: IBC Sect. 304.1 Group B — Business

F. CONSTRUCTION TYPE: Existing Gross Floor Area (Tenant Space): 2,080 SF

G. CALCULATED OCCUPANT LOAD: IBC Table 1004.1.2

Area per Occupant / Business (B): 100 SF/occupant
Gross Floor Area: 2,080 SF
Occupant Load: 20

H. EXIT CAPACITY: IBC Section 1005.1

Required Egress Width per Person (B): 0.2"
Exit Width Required: 21 x 0.2" = 4.2"
Exit Width Provided: 2 Doors
Number of Exits Provided: 2
Minimum Number of Exits Required: 2

I. PLUMBING FIXTURE REQUIREMENTS: IBC Table 2902.1

Group B — Business (Non-gender divided, private restrooms):

Water Closets: 2 provided (1 per restroom)
Lavatories: 2 provided (1 per restroom)
Drinking Fountains: 2 provided
Service Sink (Kitchen): 1 provided
Mop Sink (Janitor's Closet): 1 provided

Note: Restrooms are private and not divided by gender.

J. PARKING

Required parking: 2,080 SF (1:250) = 8 spaces.
Provided parking: 8 spaces including one (1) accessible space.

K. ACCESSIBILITY REQUIREMENTS:

These documents were designed with intent to comply with the 2012 Texas Accessibility Standards (TAS) according the Texas Department of Licensing and Regulation.

TABS PROJECT NUMBER: TABS2026025037



SHEET INDEX

NO.	DESCRIPTION
A0.0	GENERAL NOTES AND SPECIFICATIONS
A1.0	CONSTRUCTION FLOOR PLAN
A2.0	DOORS & WINDOWS
A3.0	REFLECTED CEILING PLAN & TYP. WALL SECTIONS
A4.0	INTERIOR ELEVATIONS
A4.1	INTERIOR ELEVATIONS
A5.0	FRONT EXTERIOR SIGNAGE
M0.00	MECHANICAL LEGEND AND NOTES
M1.00	LEVEL 1 MECHANICAL FLOOR PLAN
M2.00	MECHANICAL SCHEDULES
M3.00	MECHANICAL DETAILS
M4.00	MECHANICAL SHEET SPECS
E1.0	LIGHTING FLOOR PLAN
E1.1	LIGHTING CONTROL PLAN
E2.0	POWER FLOOR PLAN
E3.0	PANEL SCHEDULE, LOAD SUMMARY & ELEC. RISER
E4.0	ELECTRICAL DETAILS
E5.0	ELECTRICAL SPECIFICATIONS
P0.00	PLUMBING LEGEND AND NOTES
P1.00	LEVEL 1 SANITARY PLAN
P2.00	LEVEL 1 DOMESTIC WATER PLAN
P3.00	PLUMBING SCHEDULES
P4.00	PLUMBING RISERS & DETAILS
S1.00	STRUCTURAL NOTES

CIVIL ENGINEER

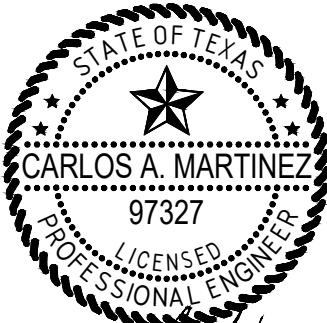
ARCHITECT

ELECTRICAL ENGINEER

MECHANICAL/PLUMBING ENGINEER



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020



07/02/2026

CARLOS A. MARTINEZ, PE #97327
ISSUE DATE: 07/02/2026
NMA PROJECT NO: 25-046
OWNER PROJECT NO: IFB2026-002
NOTES: IFC

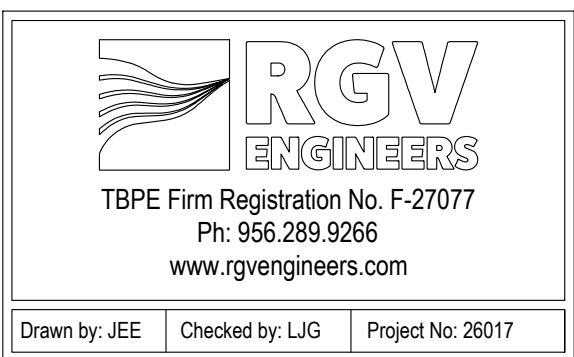
David E. Lewis

Architect

P.O. Box 1142
Portland, Texas 78374-1142
Telephone: 361.643.1714
Fax: 361.643.9882
Email: DELewis@DELArch.com

TJ Engineering

125 POESTA DR, PORTLAND, TX 78374
TX ENG FIRM # 12480
361.813.4949
TIMBO623@HOTMAIL.COM



TBPE Firm Registration No. F-27077
TX ENG FIRM # 12480
Ph: 956.289.9266
www.rgvengineers.com

Drawn by: JEE Checked by: LAG Project No: 26017



N. MARTINEZ & ASSOCIATES, INC.
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES-PORTLAND
SAN PATRICIO COUNTY
704 BUDDY GANEM, PORTLAND, TEXAS 78374

GENERAL NOTES & SPECIFICATIONS

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

A0.0

06 04 00 - ARCHITECTURAL MILLWORK:

- A. ARCHITECTURAL MILLWORK (CABINETS) SHALL HAVE PLASTIC LAMINATE FINISH ON ALL EXPOSED EXTERIOR SURFACES WITH WHITE MELAMINE ON EXPOSED INTERIOR INTERIOR SURFACES.
- B. COUNTER TOP: EXPOSED EDGES/ENDS & SPLASH SHALL BE PLASTIC LAMINATE (BASE BID) 3 CM QUARTZ (ADD ALTERNATE).
- C. PLASTIC LAMINATE SHALL COMPLY WITH THE REQUIREMENTS OF NEMA PUBLICATION NO LD3, LATEST EDITION, POST FORMED SURFACES: .040" HORIZONTAL & VERTICAL SURFACES GRADE .0625" GP50. E. FINISH EXPOSED EDGES WITH MATCHING PLASTIC LAMINATE UNLESS OTHERWISE SHOWN. EASE EDGES FORMED BY JUNCTION OF TWO (2) PLANES OF PLASTIC LAMINATE.
- D. CUT OPENINGS IN TOPS FOR SCHEDULED EQUIPMENT. VERIFY OPENING SIZE WITH ACTUAL EQUIPMENT TO BE USED PRIOR TO CUTTING. FORM INSIDE CORNERS TO BE NO LESS THAN 1/8". AFTER SAWING, ROUT AND FILE CUTOUTS TO ENSURE SMOOTH, CRACK FREE EDGES.
- F. WHERE OPENINGS WILL BE EXPOSED TO WATER SPILLAGE (SINKS, BASINS, BEVERAGE EQUIPMENT AND SIMILAR CONDITIONS), SEAL EXPOSED EDGES OF CORE AND LAMINATE AFTER CUTTING WITH WATERPROOF MATERIAL RECOMMENDED BY LAMINATE MANUFACTURER.
- G. CORE MATERIAL, FOR ALL SINK TOPS SHALL BE APO HD0 EXTERIOR PULL HARDWARE, PARTICLE BOARD WILL NOT BE ACCEPTED.
- H. DRAWERS SHALL INCLUDE ADA APPROVED PULL HARDWARE, (2) RUBBER SILENCERS & FULL EXTENSION, SELF CLOSING HARDWARE.
- I. DOORS SHALL INCLUDE ADA APPROVED PULL HARDWARE, (2) RUBBER SILENCERS & FULL CLOSING HARDWARE.
- J. UPPER CABINETS SHALL HAVE ADJUSTABLE SHELVES.
- K. BOTTOM CABINETS SHALL HAVE FIXED SHELF.
- L. CORE CONSTRUCTION SHALL BE CONSTRUCTED OF WOOD SOLIDS, PLYWOOD, PARTICLE BOARD OR MEDIUM DENSITY FIBERBOARD (MDF).
- M. CABINET BACKS SHALL BE MELAMINE FINISHED (INTERIOR) 1/8" THICK HARDBOARD.
- N. ALL WORK SHALL BE IN FULL ACCORDANCE WITH THE GUIDELINES OF THE AMERICAN WOODWORKERS ASSOCIATION.
- O. COORDINATE PLASTIC LAMINATE COLOR SELECTION WITH ARCHITECT & OWNER.

07 21 00 THERMAL INSULATION:

- A. EXTERIOR WALLS - OWENS CORNING 5 1/2" THICK KRAFT PAPER FIBERGLASS BATT INSULATION, CONTINUOUS LENGTHS WITH NO AIR VOIDS.
- B. INTERIOR WALLS - REFER TO SOUND DEADENING ACOUSTICAL WALL SYSTEMS.
- C. SUPPORT TALL AREAS (OVER 8 FEET) WITH WIRE OR METAL STRAPS TO HOLD PRODUCT IN PLACE UNTIL INTERIOR FINISH IS APPLIED.

07 92 00 JOINT SEALANTS:

- A. CAULKING AND SEALANTS ARE TO PROVIDE A POSITIVE BARRIER AGAINST PENETRATION OF AIR AND MOISTURE AT JOINTS BETWEEN ELEMENTS.
- B. WORK SHALL BE PERFORMED BY PERSONNEL SKILLED AND TRAINED IN THE TECHNIQUES OF CAULKING AND COMPLETELY FAMILIAR WITH PUBLISHED RECOMMENDATIONS FOR MANUFACTURER OR THE MATERIALS BEING USED.
- C. LACK OF SKILL ON THE PART OF INSTALLERS SHALL BE SUFFICIENT GROUNDS TO REJECT INSTALLATION AND REQUIRE IMMEDIATE REMOVAL AND REINSTALLATION AT NO COST TO OWNER.
- D. PROTECT MATERIALS BEFORE, DURING AND AFTER INSTALLATION. PROTECT INSTALLED WORK AND MATERIALS OF OTHER TRADES.
- E. CAULKING AND SEALANTS, UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ARCHITECT SHALL BE SINGLE COMPONENT, POLYSULFIDE MATERIALS, NON-SAGGING TYPE IN NEUTRAL COLOR, OR OTHER APPROVED COLOR WHERE EXPOSED TO VIEW, AND SHALL BE ONE OF THE FOLLOWING MANUFACTURERS OR AN APPROVED EQUIVALENT.
- F. SEALANTS: DOW CORNING, BASF, GENERAL ELECTRIC, PECORA CORPORATION AT EXTERIOR DOORS, GLASS FRAMES, EXTERIOR LOUVERS, WINDOWS, EXTERIOR JOINTS IN WALL AND OTHER LOCATIONS WHERE INDICATED OR REQUIRED TO PROVIDE WEATHERTIGHT JOINTS.
- G. CAULKING: DAP OR TREMCO, BASF, PECORA CORPORATION INSTALLED AT INTERIOR LOCATIONS WHERE NOTED AS "CAULK" OR REQUIRED TO PROVIDE A NEAT JOINT.
- H. ACOUSTICAL SEALANT: AC-20 ACRYLIC LATEX CAULK, PECORA CORPORATION.
- I. FILLER MATERIAL SHALL BE NON-OILY AND NON-STAINING AND COMPLETELY COMPATIBLE WITH CAULKING OR SEALANT MATERIAL.

08 11 00 HOLLOW METAL DOORS & WINDOWS:

- A. HOLLOW METAL DOORS & FRAMES SHALL BE PRODUCT OF ONE MANUFACTURER.
- B. DOORS:
- C. METAL FRAMES:
1. NON-APPLICABLE.
 2. CUSTOM MADE, 16 GAUGE UNLESS OTHERWISE INDICATED, FULL-WEB WELDED AND SEAMLESS DESIGN UNITS (KNOCKDOWN UNITS NOT ACCEPTABLE), GRIND ALL EDGES SMOOTH.
 3. LABELED OR NON-LABELED AS REQUIRED FOR SCHEDULED DOOR.
 4. REINFORCE FOR FINISH HARDWARE.
 5. PROVIDE FRAMES WITH 3 HOLES AND 3 RUBBER BUMPERS IN STRIKE JAMB ON INTERIOR SINGLE DOORS.
- D. ANCHORS:
1. RIGIDLY ATTACH FRAMES TO CONSTRUCTION WITH STUD ANCHORS.

08 15 16 WOOD DOORS:

- A. HERITAGE COLLECTION HIGH PRESSURE DECORATIVE LAMINATED FACED DOORS AS MANUFACTURED BY VT INDUSTRIES OR APPROVED EQUIVALENT.
- B. HIGH PRESSURE DECORATIVE LAMINATES: NEMA LD3.
- C. FACE LAMINATE DOORS WITH HIGH PRESSURE DECORATIVE LAMINATES
- D. NOMINAL MINIMUM THICKNESS FOR FACES AND VERTICAL EDGES SHALL BE 1 1/8" INCH LAMINATE SELECTION: STANDARD PRODUCTS FROM FORMICA, NEVAMAR, PIONITE, WILSONART, OR EQUAL.
- E. STILES: EDGED WITH HIGH PRESSURE DECORATIVE LAMINATES BEFORE FACE LAMINATES.
- F. WARRANT SOLID CORE, INTERIOR DOORS FOR LIFE OF INSTALLATION AGAINST WARPAGE, DELAMINATION, AND DEFECTS IN MATERIALS AND WORKMANSHIP.
- G. IDENTIFYING LABEL: EACH DOOR SHALL BEAR IDENTIFYING LABEL INDICATING:
1. DOOR MANUFACTURER
 2. ORDER NUMBER
 3. DOOR NUMBER
 4. IRE RATING, IF APPLICABLE.
- H. MODEL: PC-HD03 - PARTICLEBOARD CORE, NON-RATED
- I. COMPLIANCE: WDMA 1.5.1-A
- J. SEVEN PLY AND NON-BANDED CORE CONSTRUCTION: NOT ACCEPTABLE
- K. DOOR THICKNESS: 1 3/4"
- L. STILES: EDGED WITH HIGH PRESSURE DECORATIVE LAMINATES BEFORE FACE LAMINATES.
- M. WARRANT SOLID CORE, INTERIOR DOORS FOR LIFE OF INSTALLATION AGAINST WARPAGE, DELAMINATION, AND DEFECTS IN MATERIALS AND WORKMANSHIP.
- N. USE ONLY SKILLED JOURNEYMEN CARPENTERS COMPLETELY FAMILIAR WITH METHODS OF INSTALLATION OF INSTALLING WOOD DOORS & FRAMES.

08 41 00 ENTRANCES & STOREFRONT:

- A. DRAWINGS AND SPECIFICATIONS ARE BASED UPON THE **KAWNEER IR-300** FRAMING SYSTEM AS MANUFACTURED BY KAWNEER COMPANY, INC. WHENEVER SUBSTITUTE PRODUCTS ARE TO BE CONSIDERED, SUPPORTING TECHNICAL LITERATURE, SAMPLES, DRAWINGS AND PERFORMANCE DATA MUST BE SUBMITTED 10 DAYS PRIOR TO BID IN ORDER TO MAKE A VALID COMPARISON OF THE PRODUCTS INVOLVED. TEST REPORTS CERTIFIED BY AN INDEPENDENT TEST LABORATORY MUST BE MADE AVAILABLE UPON REQUEST OF ARCHITECT.
- B. FRAMES SHALL BE BRONZE ANODIZED ALUMINUM TO MATCH COLOR OF STOREFRONT FRAMES ON EXISTING BUILDING.
- C. GLAZING SHALL BE 9/16" IMPACT RATED WITH BRONZE TINT TO MATCH COLOR OF WINDOW GLAZING ON EXISTING BUILDING.
- D. SUBMIT SHOP DRAWINGS FOR FABRICATION AND ERECTION OF ENTRANCES AND STOREFRONT BY BOTH FABRICATOR AND CONTRACTOR BEFORE SUBMISSION.
- E. SUBMIT FABRICATOR'S STANDARD WARRANTY AGAINST WATER PENETRATION, DEFECTIVE MATERIALS, FINISHES, DEFLECTION CAPABILITY AND WORKMANSHIP. TWO (2) YEAR MINIMUM.
- F. SUBMIT MAINTENANCE MANUAL WITH INSTRUCTIONS FOR CLEANING, SEALANT/GASKET REPAIR AND GLASS REPLACEMENT.
- G. **EXTRUSIONS SHALL BE 6063-T5 ALLOY AND TEMPER (ASTM B921 ALLOY G S. 10A-T5)**
- H. FASTENERS WHERE EXPOSED SHALL BE ALUMINUM, STAINLESS STEEL.
- I. PERIMETER ANCHORS SHALL BE ALUMINUM OR STEEL, PROVIDED STEEL IS PROPERLY ISOLATED FROM ALUMINUM.
- J. GLAZING GASKETS SHALL BE ELECTROMETRIC EXTRUSIONS.
- K. ALL JOINTS BETWEEN FRAMING AND THE BUILDING STRUCTURE SHALL BE SEALED IN ORDER TO SECURE A WATERTIGHT INSTALLATION.
- L. SEPARATE DISSIMILAR METALS AND METALS FROM OTHER CORROSIVE SURFACES WITH A 30 MIL COATING OF BITUMINOUS COMPOUND, SSPC PAINT 12 OR OTHER PERMANENT SEPARATION. APPLY TO CONCEALED METAL SURFACES OF WINDOW WALL WORK.

08 71 00 FINISH HARDWARE:

- A. PROVIDE CONSTRUCTION CYLINDERS DURING CONSTRUCTION. REPLACE WITH FINAL, REMOVABLE CYLINDERS PRIOR TO PROJECT CLOSEOUT.
- B. ALL HARDWARE SHALL BE SET UP & KEYS TO SARGENT MASTER KEY PROGRAM. COORDINATE WITH TENANT.
- C. ALL HARDWARE SHALL BE MANUFACTURED BY A COMPANY ACTIVELY INVOLVED IN THE DESIGN AND CONSTRUCTION OF FINISH HARDWARE WITH A MINIMUM OF FIVE YEARS EXPERIENCE.
- D. SUBMIT A DETAILED HARDWARE SCHEDULE FOR ARCHITECT'S REVIEW & APPROVAL.
- E. DELIVER SAMPLES AND/OR CUT SHEETS OF HARDWARE STATING PRODUCT MATERIALS, WARRANTY, LIFE EXPECTANCY OF PRODUCT AND SHEET OF INSTALLATION. ALL HARDWARE SHALL BE OIL SATIN NICKEL FINISH.
- F. TENANT SHALL PROVIDE & INSTALL CARD READER & PUSH BUTTON DOOR DEVICES IN CONTRACTOR PROVIDED CONDUIT & BOXES PER ELECTRICAL.
- G. EXISTING REAR ENTRY DOOR SHALL BE EQUIPPED WITH ELECTRIC DOOR STRIKE LOCK AND PUSH BUTTON/CARD READER BY TENANT. GENERAL CONTRACTOR TO PROVIDE CONDUIT & BOXES PER ELECTRICAL.

08 71 00 FINISH HARDWARE CONTINUED:

- G. HARDWARE SCHEDULE:

DOORS #1

STOREFRONT DOOR MANUFACTURER SHALL PROVIDE ALL HARDWARE FOR DOOR SYSTEM INCLUDING BUT NOT LIMITED TO KEYS ENTRY SYSTEM, DOOR CLOSER, WEATHER STRIPPING & FULL ADA/TAS COMPLIANT FEATURES INCLUDING THRESHOLD.

HARDWARE SET #2

DOORS #2, #3, & #4

EACH DOOR TO RECEIVE:

3 EACH HINGE	BB1191 4 1/2 X 4 1/2 X NRP X US26D	HAGER
1 EACH LOCKSET	65U15 KL US26D	SARGENT
1 EACH ELECT. DR. STRIKE LOCK	STANDARD DUTY 12V DC FAIL-SECURE	YUHANUS (BY TENANT)
1 EACH KEYPAD/READER	KEYPAD/CARD READER DEVICE	3 LOGIC (BY TENANT)
3 EACH SILENCERS	307D	HAGER
1 EACH WALL STOP	236W X US26D	HAGER
1 EACH DOOR CLOSER	4404XP X US26D	LCN

HARDWARE SET #3

DOORS #5, #6, #7 & #11

EACH DOOR TO RECEIVE:

3 EACH HINGE	BB1191 4 1/2 X 4 1/2 X NRP X US26D	HAGER
1 EACH LEVER LOCKSET	65U15 KL US26D	SARGENT
1 SET SILENCERS	307D	HAGER
1 EACH WALL STOP	236W X US26D	HAGER

HARDWARE SET #4

DOORS #8

EACH DOOR TO RECEIVE:

3 EACH HINGE	BB1191 4 1/2 X 4 1/2 X NRP X US26D	HAGER
1 EACH LEVER PASSAGE	65U15 KL US26D	SARGENT
3 EACH SILENCERS	307D	HAGER
1 EACH WALL STOP	236W X US26D	HAGER

HARDWARE SET #5

DOORS #9 & #10

EACH DOOR TO RECEIVE:

3 EACH HINGE	BB1191 4 1/2 X 4 1/2 X NRP X US26D	HAGER
1 EACH LEVER PRIVACY SET	65U15 KL US26D	SARGENT
3 EACH SILENCERS	307D	HAGER
1 EACH WALL STOP	236W X US26D	HAGER

08 81 00 GLASS & GLAZING:

- A. GLASS & GLAZING TO CONFORM WITH APPLICABLE PROVISIONS OF FEDERAL SPECIFICATIONS **DD-G-45 FOR ANNEALED GLASS AN DD-G-1403B FOR TEMPERED GLASS.**
- B. INTERIOR GLAZING: 1/4" TEMPERED CLEAR GLASS, UL LABELED AS REQUIRED BY CODE.
- C. PROVIDE ALL ACCESSORIES NECESSARY TO PROVIDE COMPLETE JOB IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THESE INCLUDE BUT ARE NOT LIMITED TO:
1. TAPE - BUTYL RUBBER GLAZING TAPE, SELF ADHESIVE, NON-STAINING
 2. GLAZING SEALANT - SINGLE COMPONENT POLYURETHANE, CHEMICAL CURING, NON-BLEEDING OR STAINING.
 3. SETTING BLOCKS - NEOPRENE, 70-90 DUROMETER HARDNESS, COMPATIBLE WITH SEALANTS USED.
 4. SPACERS - NEOPRENE, 40-50 DUROMETER HARDNESS, COMPATIBLE WITH SEALANTS USED.
 5. GLAZING CHANNELS & SEALS - PREFORMED OF SIZES AND TYPES AS RECOMMENDED BY MANUFACTURER.
- D. **EXTERIOR GLAZING: 1" IMPACT RATED** GLAZING WITH TINT TO MATCH COLOR OF WINDOW GLAZING ON EXISTING BUILDING.
- E. EXAMINE OPENINGS SCHEDULED TO RECEIVE GLAZING FOR CONDITIONS THAT WILL ADVERSELY EFFECT EXECUTION OR QUALITY OF FINISHED WORK.
- F. VERIFY THAT SIZE IS CORRECT FOR SCHEDULED OPENING. GLAZER IS RESPONSIBLE FOR INSTALLING GLASS PANELS WHICH PROVIDE THE NECESSARY MINIMUM BITE, EDGE CLEARANCES AND SEALANT THICKNESS, WITHIN TOLERANCES.
- G. FOLLOW GLAZING MANUAL OF F.G.M.A. FOR INSTALLATION PROCEDURE.

09 28 00 CEMENT BACKER BOARD:

- A. **DIUROCK BRAND CEMENT BOARD 5/8" THICKNESS**, 48" WIDTH X LENGTH OF 8' AT ALL LOCATIONS TO RECEIVE CERAMIC OR PORCELAIN TILE WORK.
- B. DUROCK BRAND INTERIOR JOINT TAPE (ALKALI-RESISTANT) 2" X 50', OR 2" X 250' WIDE (ALKALI RESISTANT) GLASS FIBER MESH TAPE.
- C. UNDERLAYMENT FASTENERS SHALL BE CORROSION RESISTANT
- D. MEMBRANE ADHESIVE:
1. DUROCK BRAND TILE MASTIC OR OTHER ANSI A136.1 ORGANIC ADHESIVE, USE 1/16" X 1/16" X 1/16" NOTCH TROWEL, WITH MINIMUM CURE TIME OF 4 HOURS BEFORE TILE APPLICATION.
 2. DUROCK BRAND LATEX-MODIFIED MORTAR, OR OTHER ANSI A118.4 LATEX-PORTLAND CEMENT MORTAR, USE 1/8" X 1/8" X 1/8" NOTCH TROWEL, WITH MINIMUM CURE TIME OF 24 HOURS BEFORE TILE APPLICATION.
- E. MORTAR:
1. ANSI A118.4 "A" PREMIUM LATEX PORTLAND CEMENT MORTAR USING 1/8" X 1/8" SQUARE NOTCHED TROWEL WITH MINIMUM PUBLISHED 28-DAY SHEAR STRENGTH OF:
 - GLAZED WALL TILE - 600 PSI
 - IMPERVIOUS CERAMIC TILE - 400 PSI
 - QUARRY TILE - 475 PSI

09 29 00 GYPSUM WALLBOARD:

- A. GYPSUM DRYWALL IS REQUIRED ON INTERIOR WALLS AND CEILING SURFACES IN THIS WORK WHERE SO SCHEDULED OR INDICATED IN THE DRAWINGS.
- B. MANUFACTURER'S RECOMMENDED METHODS OF INSTALLATION SHALL BE THE BASIS FOR ACCEPTANCE OR REJECTION OF ACTUAL INSTALLATION METHODS USED IN THIS WORK.
- C. INTERIOR GYPSUM PANELS:
1. REGULAR GYPSUM PANELS SHALL CONSIST OF TAPERED EDGE FOR FINISHED SURFACES AND BUTT EDGE FOR CONCEALED SURFACES. **5/8-INCH-THICK, TYPE 'X'** UNLESS OTHERWISE INDICATED. CONFORM TO ASTM C-36.
 2. MOISTURE RESISTANT PANELS (**TYPICAL ALL TOILET ROOMS**) **5/8-INCH-THICK, TYPE 'X'** PANELS LABELED AS MOISTURE RESISTANT TO TYPE C-430.
- D. JOINT SYSTEM SHALL BE COMPATIBLE WITH GYPSUM PANELS. A SINGLE COMPOUND MAY BE USED FOR EMBEDMENT OF TAPE, SKIM COATING AND FINISH IF RECOMMENDED BY GYPSUM PANEL MANUFACTURER.
- E. FASTENERS: ASTM C1002, USE FASTENERS OF LENGTH, TYPE AND PATTERN AS RECOMMENDED BY MANUFACTURER OR GYPSUM PANELS.
- F. TRIM ACCESSORIES: ASTM C1047 ZINC-COATED STEEL, NOT LIGHTER THAN 26 GAUGE WITH EXPANDED FLANGES
- G. CORNER REINFORCEMENT: GA-216, TYPE CB-100 X 100 OR USG "DUR-A-BEAD"
- H. CASING: GA-216, TYP LC OR USG TYPE 200 OR 800 SERIES FLOATABLE CASINGS.
- I. CONTROL JOINT: METAL, USG "CONTROL JOINT NO. 095". INSTALL AT EACH SIDE OF ALL DOORS FROM TOP OF DOOR FRAME TO TOP OF WALL. LOCATE CONTROL JOINTS VERTICALLY AT 30'-0" O.C. IN ALL STRAIGHT WALL SEGMENTS, OR AS INDICATED ON DRAWINGS.
- J. JOINT TREATMENT MATERIALS:
1. REINFORCING TAPE AND JOINT COMPOUND: ASTM C475
 2. SELF-ADHESIVE FIRE TAPE: EZ TAPING SYSTEMS, INC. "FLAME FIGHTER DRYWALL TAPE".
- K. TAPING & FINISHING:
1. ENVIRONMENTAL CONDITIONS: 55 DEGREES F MINIMUM TEMPERATURE.
 2. FIRST COAT: SPREAD COMPOUND EVENLY OVER JOINTS, FILL JOINT RECESSES AND METAL TRIM. CENTER REINFORCING TAPE ON JOINT AND PRESS INTO FRESH COMPOUND, WIPING DOWN WITH SUFFICIENT PRESSURE TO REMOVE EXCESS COMPOUND BUT LEAVING SUFFICIENT COMPOUND UNDER TAPE FOR PROPER BOND. FEATHER EDGES AND LEAVE SURFACE FREE FROM BLISTERS AND TAPE WRINKLES. APPLY COMPOUND TO FASTENER RECESSES, LEAVING FLUSH WITH ADJACENT SURFACES. FOLD REINFORCING TAPE ALONG ITS CENTERLINE AND APPLY TO INTERIOR ANGLES, FOLLOWING SAME PROCEDURE AS FOR JOINTS. TAPE AND FLOATING NOT REQUIRED WHERE GYPSUM WALLBOARD JOINTS ARE COVERED BY WALL PANELING.
 3. SECOND COAT: LIGHTLY SAND DRY COMPOUND WITH FINE SANDPAPER TO REMOVE IRREGULARITIES. APPLY SECOND COAT OF COMPOUND TO JOINTS, FEATHERING APPROXIMATELY THREE INCHES BEYOND EDGES OF TAPE. APPLY SECOND COAT TO FASTENER RECESSES; ALLOW TO DRY.
 4. THIRD COAT: LIGHTLY SAND DRY COMPOUND WITH FINE SANDPAPER TO REMOVE IRREGULARITIES. APPLY FINAL SKIM COAT, FEATHERING APPROXIMATELY TWO INCHES BEYOND SECOND COAT. APPLY THIRD COAT TO FASTENER RECESSES, METAL TRIM AND INTERIOR ANGLES, ALLOW TO DRY.

09 30 00 CERAMIC TILE:

- A. PERFORM THIS WORK WITH EXPERIENCED PERSONNEL (5 YEARS MINIMUM) AND IN ACCORDANCE WITH MATERIAL MANUFACTURER'S PRINTED INSTRUCTIONS.
- B. SUBMITTALS:
1. MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:
 - A. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.
 - B. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS
 - C. INSTALLATION METHODS.
 2. SHOP DRAWINGS INDICATING TILE LAYOUT, PATTERNS, COLOR ARRANGEMENT, PERIMETER CONDITIONS, JUNCTIONS WITH DISSIMILAR MATERIALS, CONTROL AND EXPANSION JOINTS, THRESHOLDS, CERAMIC ACCESSORIES AND SETTING DETAILS.
 3. COLOR CHARTS: ILLUSTRATING FULL RANGE OF COLORS AND PATTERNS.
 4. SELECTION SAMPLES: SAMPLES OF ACTUAL TILES FOR SELECTION.
 5. MANUFACTURER'S CERTIFICATE
 - A. CERTIFY THAT PRODUCTS MEET OR EXCEED THE SPECIFIED REQUIREMENTS.

09 30 00 CERAMIC TILE - CONTINUED:

- C. MANUFACTURERS:
1. **DAL TILE CORPORATION, DALLAS, TEXAS.**
 2. **EQUIVALENT SUBSTITUTIONS WILL BE CONSIDERED BY ARCHITECT.**
- D. TILE:
1. PROVIDE TILE THAT COMPLIES WITH ANSI A137.1 FOR TYPES, COMPOSITIONS AND OTHER CHARACTERISTICS INDICATED ON THE DRAWINGS AND IDENTIFIED IN THE SCHEDULED. TILE SHALL ALSO BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING:
 1. FACTORY BLENDING: FOR TILE EXHIBITING COLOR VARIATIONS WITHIN THE RANGES SELECTED UNDER SUBMITTAL OF SAMPLES, BLEND TILE IN THE FACTORY AND PACKAGE SO TILE TAKEN FROM ONE PACKAGE SHOWS THE SAME RANGE OF COLORS AS THOSE TAKEN FROM OTHER PACKAGES.
 2. MOUNTED: FOR FACTORY MOUNTED TILE, PROVIDE BACK OR EDGE MOUNTED TILE ASSEMBLIES AS STANDARD WITH THE MANUFACTURER, UNLESS OTHERWISE SPECIFIED.
 3. FACTORY APPLIED TEMPORARY PROTECTIVE COATINGS: WHERE INDICATED UNDER THE TILE TYPE, PROTECT EXPOSED SURFACES OF TILE AGAINST ADHERENCE OF MORTAR AND GROUT BY PRE-COATING WITH A CONTINUOUS FILM OF PETROLEUM PARAFFIN WAX APPLIED HOT. DO NOT COAT UNEXPOSED TILE SURFACES.
 4. **PRIMARY TILE 8" X 8" CERAMIC WALL TILE (GLOSS OR SEMI-GLOSS)**
 5. **HORIZONTAL BASE & BAND TILE 2" X 2" (KEYSTONES, GLOSS OR SEMI-GLOSS)**
- E. TRIM:
1. SCHLUTER COLOR COORDINATED EDGE AT ALL OUTSIDE CORNERS.
- F. SETTING MATERIALS: SEAL
1. USE SETTING MATERIALS AS RECOMMENDED BY TILE MANUFACTURER FOR SPECIFIC APPLICATION.
- G. STANDARD GROUT: CEMENT GROUT, SANDED OR UN-SANDED, AS SPECIFIED IN ANSI A118.6; COLOR AS SELECTED BY ARCHITECT.
- H. POLYMER MODIFIED CEMENT GROUT: SANDED OR UN-SANDED AS SPECIFIED BY ANSI A118.7; COLOR AS SELECTED BY ARCHITECT.
- I. EPOXY GROUT: ANSI A118.8, 100 PERCENT SOLIDS EPOXY GROUT, COLOR AS SELECTED BY ARCHITECT.
- J. CEMENTITIOUS BACKER BOARD: ANSI A118.9, HIGH DENSITY, CEMENTITIOUS, GLASS FIBER REINFORCED WITH **2" (50MM) WIDE COATED GLASS FIBER REINFORCED** IN COLOR, WITH NON-DIRECTION FIBRE, TEXTURE.
- K. INSTALL TILE AND GROUT IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF ANSI A108.1 THOUGH 108.13, MANUFACTURER'S INSTRUCTIONS, AND TCA HANDBOOK RECOMMENDATIONS.
- L. AT COMPLETION OF WORK CLEAN TILE AND GROUT SURFACES.

09 51 00 LAY-IN ACOUSTICAL CEILINGS:

- A. ACOUSTICAL CEILING GRID SYSTEM SHALL BE **2" X 2" TEE GRID LAYOUT OF COLD ROLLED STEEL WITH DOUBLE WEB SNAP GRID COMPONENTS**. MAIN AND CROSS TEES SHALL BE 0.20" MINIMUM THICKNESS, ELECTRO-ZINC COATED AND FACTORY PAINTED WITH LOW SHEEN FINISH. EXPOSED FLANGES TO BE 15/16" WIDE. EDGE MOLDING SHALL BE 0.20" STEEL, CHANNEL OR ANGLE SHAPE, WITH MINIMUM FLANGE WIDTH OF 15/16". ALL COMPONENTS OF SYSTEM TO BE ONE MANUFACTURER (DONN DX OR EQUIVALENT), COLOR TO BE 'WHITE' UNLESS SCHEDULED OTHERWISE.
- B. HANGERS AND/OR INSERTS SHALL BE OF SIZE AND TYPES RECOMMENDED BY MANUFACTURER. SOLE RESPONSIBILITY FOR TYPES AND CARRYING CAPACITY OF HANGERS AND/OR INSERTS TO REST WITH INSTALLER.
- C. ROUGH SUSPENSION HANGER WIRE SHALL BE 12 GA. GALVANIZED SOFT ANNEALED STEEL MINIMUM.
- D. LAY-IN CEILING TILE PANELS SHALL BE **24" X 24" TYPE A, CLASS A FLAME SPREAD, USG SQUARE EDGE** ACOUSTICAL TILE **WHITE** IN COLOR, WITH NON-DIRECTION FIBRE, TEXTURE.
- E. PROVIDE EDGE ANGLES, SPLICE CLIPS AND ALL OTHER ACCESSORIES REQUIRED TO PROVIDE A COMPLETE AND FINISHED INSTALLATION. ACCESSORIES TO MATCH GRID.
- F. INSTALL **HANGER WIRES 4'-0" (MAXIMUM) ON CENTERS** IN EACH DIRECTION. SUSPEND FROM BUILDING STRUCTURE ONLY.
- H. PROVIDE ADDITIONAL HANGERS AND/OR INSERTS AND HANGER WIRES WHERE MECHANICAL OR ELECTRICAL EQUIPMENT, DUCTS OR ANY OTHER ABOVE-CEILING ITEM PREVENTS REGULAR HANGER-WIRE SPACING.
- I. PROVIDE ADDITIONAL HANGERS AND/OR INSERTS TO SUPPORT LIGHT FIXTURES AND OTHER CEILING MOUNTED COMPONENTS. HANGERS TO CARRY FIXTURES INDEPENDENTLY.
- J. MTER ALL CORNERS WHERE WALL ANGLES INTERSECT, WHERE REQUIRED FOR STABILITY POP-RIVET UNITS TOGETHER. FINISH OF RIVETS TO MATCH GRID.
- K. INSTALL GRID AND MOUNT GRID SUPPORTED COMPONENTS IN SUCH A MANNER THAT DEFLECTION IS LIMITED TO 1/320"
- L. INSTALL CEILING TILE IN TRUE LEVEL PLANE AND STRAIGHT LINE COURSE. ALL TILE TO BE CLEAN AND FREE FROM SURFACE DEFECTS. DO NOT INSTALL DEFECTIVE UNITS. PLACE MATERIALS TO BEAR ALL AROUND ON SUSPENSION MEMBERS. SEAL JOINTS IN ACOUSTICAL UNITS AROUND PIPES, DUCTS AND ELECTRICAL OUTLETS WITH CAULKING COMPOUND.
- M. CAREFULLY CUT TILE TO SIZES REQUIRED FOR AN EXACT FIT. ALL CUTS SHALL BE EFFECTED IN SUCH A MANNER AS TO AVOID EDGE DAMAGE.
- N. INSTALL TILES WITH HOLD DOWN CLIPS AT ANY LOCATION REQUIRED TO PREVENT MOVEMENT OR DISPLACEMENT OF UNITS.

09 65 19 SOLID LUXURY VINYL TILE FLOORING & TRIM:

- A. PERFORM THIS WORK WITH EXPERIENCED PERSONNEL AND IN ACCORDANCE WITH MATERIAL MANUFACTURER'S PRINTED INSTRUCTIONS.
- B. VENTILATE SPACES WITH TEMPORARY EQUIPMENT DURING APPLICATION AND DRYING OF MATERIALS IF NOT NATURALLY VENTILATED.
- C. MAINTAIN SPACES TO RECEIVE RESILIENT FLOOR COVERING AT 70 DEGREES F MINIMUM AT FLOOR LEVEL FOR AT LEAST 48 HOURS AFTER INSTALLATION. ILLUMINATE TO AT LEAST 30 FOOT CANDLES IN AREAS WHERE WORK IS IN PROGRESS.
- D. MATERIALS:
1. VINYL PLANK FLOORING: **BHW FLOORS - 25012 SUMMIT VINYL PLANK FLOORING.**
 - A. CORE & WEAR LAYER: FOAMED LUXURY SPC CORE / 20MIL (0.5 mm) WEAR LAYER
 - B. PAD: 1mm DPE ATTACHED PAD
 - C. PLANK DIMENSIONS: 7" WIDTH X 80" LENGTH
 - D. EDGE PROFILE: 4-SIDED ROLLED EDGE WITH **UNILIC LOCKING SYSTEM**.
 - E. FINISH: 100% SHEEN, TEXTURED, ALUMINUM COATING (ALUMINUM OXIDE + SILICON CARBIDE) PROPRIETARY, 50-YEAR RESIDENTIAL WEAR-THROUGH.
 - F. ENVIRONMENTAL: FLOORSCORE CERTIFIED, 100% VIRGIN PVC, 100% WATERPROOF, SAFE FOR FULL BATHROOMS, LAUNDRY ROOMS AND MUDROOMS.
 - G. WATER PERFORMANCE: LOW TO MEDIUM
 - H. INSTALLATION: **FLOAT OR GLUE**
 - I. PACKAGING: BOX WEIGHT - 49 LBS, PLANKS PER BOX - 10, SQUARE FEET PER BOX 28.49, PALLET LOAD - 40 BOXES.
 - J. WARRANTY: FINISH - LIFETIME, STRUCTURE, LIFETIME
2. **RUBBER WALL BASE: ROPPE 4", 1/8" THICK**, SET-ON COVE BASE, MUST BE SUPPLIED IN 125' ROLLS.
3. ADHESIVE AS RECOMMENDED BY FLOORING AND BASE MANUFACTURER.
 4. PROVIDE AND INSTALL PRIMER AS RECOMMENDED BY ADHESIVE MANUFACTURER.
 5. LEVELING COMPOUND AND CRACK FILLER SHALL BE A MIXTURE OF NEOPRENE LATEX AND 'LUMINITE' CEMENT.
 6. IN AREAS TO RECEIVE RESILIENT FLOORING, CLEAN ALL CONCRETE SURFACES THOROUGHLY, REMOVING DIRT, OIL, GREASE, PAINT, DUST AND OTHER FOREIGN MATERIALS.
 7. GRIND HIGH SPOTS AND APPLY LEVELING COMPOUND AS REQUIRED. PRIME CONCRETE AS RECOMMENDED BY MANUFACTURER. ALLOW LEVELING COMPOUND TO PROPERLY CURE BEFORE PROCEEDING WITH INSTALLATION.
 8. IT IS THE INTENT OF THE ARCHITECT THAT THE PLANK FLOORING BE INSTALLED IN A MANNER THAT LAYOUT IS ONE OF CONTINUOUS PLANKS THROUGHOUT ALL SPACES. COORDINATE WITH ARCHITECT AS REQUIRED DURING INSTALLATION.

09 77.20 DECORATIVE FIBERGLASS REINFORCED WALL PANELS:

- A. PERFORM THIS WORK WITH EXPERIENCED PERSONNEL AND IN ACCORDANCE WITH MATERIAL MANUFACTURER'S PRINTED INSTRUCTIONS.
- B. VENTILATE SPACES WITH TEMPORARY EQUIPMENT DURING APPLICATION AND DRYING OF MATERIALS IF NOT NATURALLY VENTILATED.
- C. MAINTAIN SPACES TO RECEIVE RESILIENT FLOOR COVERING AT 70 DEGREES F MINIMUM AT FLOOR LEVEL FOR AT LEAST 48 HOURS AFTER INSTALLATION. ILLUMINATE TO AT LEAST 30 FOOT CANDLES IN AREAS WHERE WORK IS IN PROGRESS.
- D. ACCEPTABLE MANUFACTURER: **MARLITE (OR APPROVED EQUIVALENT)**
- E. PANELS:
1. **FIBERGLASS REINFORCED THERMOSETTING POLYESTER RESIN PANEL SHEETS COMPLYING WITH ASTM D 5319.**
 - A. COATING: MULTI-LAYER PRINT, PRIMER AND FINISH COATS OR APPLIED OVER-LAYER.
 - B. THICKNESS: 0.090" NOMINAL
 - C. WIDTH: 4'-0" NOMINAL
 - D. LENGTH: 8'-0" NOMINAL
 2. RESISTANT TO ROT, CORROSION, STAINING, DENTING, PEELING AND SPLINTERING.
- F. FRONT FINISH: PEBBLED
- G. BACK SURFACE: SMOOTH. IMPERFECTIONS WHICH DO NOT AFFECT FUNCTIONAL PROPERTY ARE NOT CAUSE FOR REJECTION.
- I. BASE: MARLITE V85 BASE. COVE MOLDING FOR FIBERGLASS REINFORCE PANELS.
- J. MOLDINGS:
- A. PVC TRIM: THIN-WALL SEMI-RIGID EXTRUDED PVC.
 1. M350 INSIDE CORNER X 8' LENGTH
 2. M360 OUTSIDE CORNER X 8' LENGTH
 3. M365 DIVISION X 8' LENGTH
 4. M370 EDGE X 8' LENGTH
 5. COLOR TO MATCH PANELS
- K. ACCESSORIES:
- A. FASTENERS: NON-STAINING NYLON DRIVE RIVETS
- B. MATCH PANEL COLORS
- C. LENGTH TO SUIT PROJECT CONDITIONS
- L. ADHESIVE: EITHER OF THE FOLLOWING CONSTRUCTION ADHESIVES COMPLYING WITH ASTM C 957.
- A. MARLITE C-551 FRP ADHESIVE - WATER RESISTANT, NON-FLAMMABLE ADHESIVE
 - B. MARLITE C-915 CONSTRUCTION ADHESIVE - FLEXIBLE, WATER RESISTANT, SOLVENT BASED ADHESIVE.
- M.
- A. MARLITE BRAND MS-250 CLEAR SILICONE SEALANT
 - B. MARLITE BRAND MS-251 WHITE SILICONE SEALANT
 - C. MARLITE BRAND COLOR MATCH SEALANT.

09 80 00 SOUND-DEADENING ACOUSTICAL WALL SYSTEMS:

- A. PROVIDE 3 1/2" THICK OWENS CORNING "PINK" NEXT GEN FIBERGLAS' SOUND ATTENUATION BATTS (SAB) FOR INTERIOR PARTITIONS AS INDICATED IN BUILDING PLANS.
- B. INSULATION SHALL EXTEND FULL WALL HEIGHT WITH NO SPLICES OR AIR VOIDS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- C. PROVIDE ONE (1) 24" WIDE LAYER OF SAB INSULATION ABOVE SUSPENDED ACOUSTICAL CEILING EACH SIDE OF SHARED INTERIOR OFFICE WALLS.
- D. HOMOSOTE 440 SOUND BARRIER PANELS: INSTALL 4" X 10' X 1/2" HOMOSOTE PANELS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION FOR STC SOUND RATING OF 54 ON METAL STUD FRAMING WHERE INDICATED IN BUILDING PLANS.

09 91 00 PAINTS & STAINS:

- A. REFER TO DRAWINGS FOR FINISH SCHEDULE.
- B. ALL MATERIALS TO BE DELIVERED IN SEALED, ORIGINAL PACKAGES OR CONTAINERS BEARING THE BRAND AND MANUFACTURER'S NAME, TYPE OF PAINT, INSTRUCTIONS FOR USE, ETC.
- C. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS REGARDING ENVIRONMENTAL CONDITIONS UNDER WHICH COATINGS AND COATING SYSTEMS MAY BE APPLIED.
- D. PROVIDE A MINIMUM OF 40 FOOT CANDLES ILLUMINATION ON TASK FOR SURFACES BEING PAINTED. PROVIDE ADEQUATE VENTILATION.
- E. PROVIDE THE BEST QUALITY GRADE OF THE VARIOUS TYPES OF COATINGS AS REGULARLY MANUFACTURED BY APPROVED PAINT MATERIAL MANUFACTURER.
- F. UNDERCOAT PAINTS TO BE PRODUCED BY SAME MANUFACTURER AS FINISH COAT UNLESS SPECIFIED BY THE MANUFACTURER TO THE CONTRARY.
- G. USE ONLY THINNERS APPROVED BY THE PAINT MANUFACTURER AND WITHIN THE RECOMMENDED LIMITS.
- H. PAINTS TO BE DELIVERED TO THE PROJECT SITE READY MIXED AND PROPERLY TINTED.
- I. PRE



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES-PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM, PORTLAND, TEXAS 78374

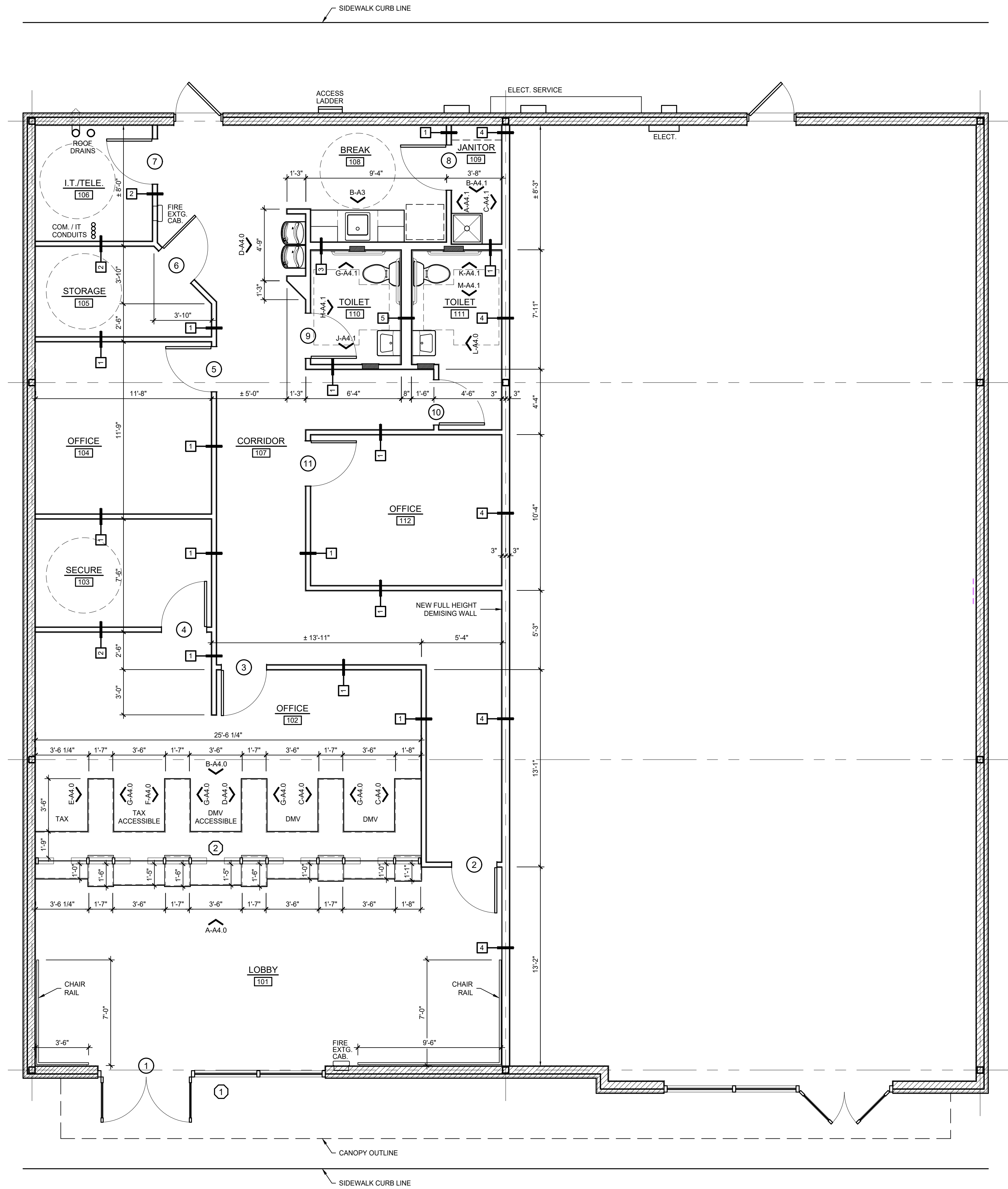
CONSTRUCTION FLOOR PLAN

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

A1.0



1 CONSTRUCTION FLOOR PLAN
SCALE: 1/4" = 1'-0"

STANDARD ARCH. SYMBOLS	
ROOM NAME	ROOM NAME & NUMBER
(100)	
①	DOOR NUMBER
①	WINDOW NUMBER
A-A1	ELEVATION
⊙	MINOR SECTION
1	WALL TYPE
---	EXISTING TO REMAIN
---	NEW CONSTRUCTION (REFER TO WALL TYPE)
---	EXISTING TO BE REMOVED
00	REVISION NUMBER

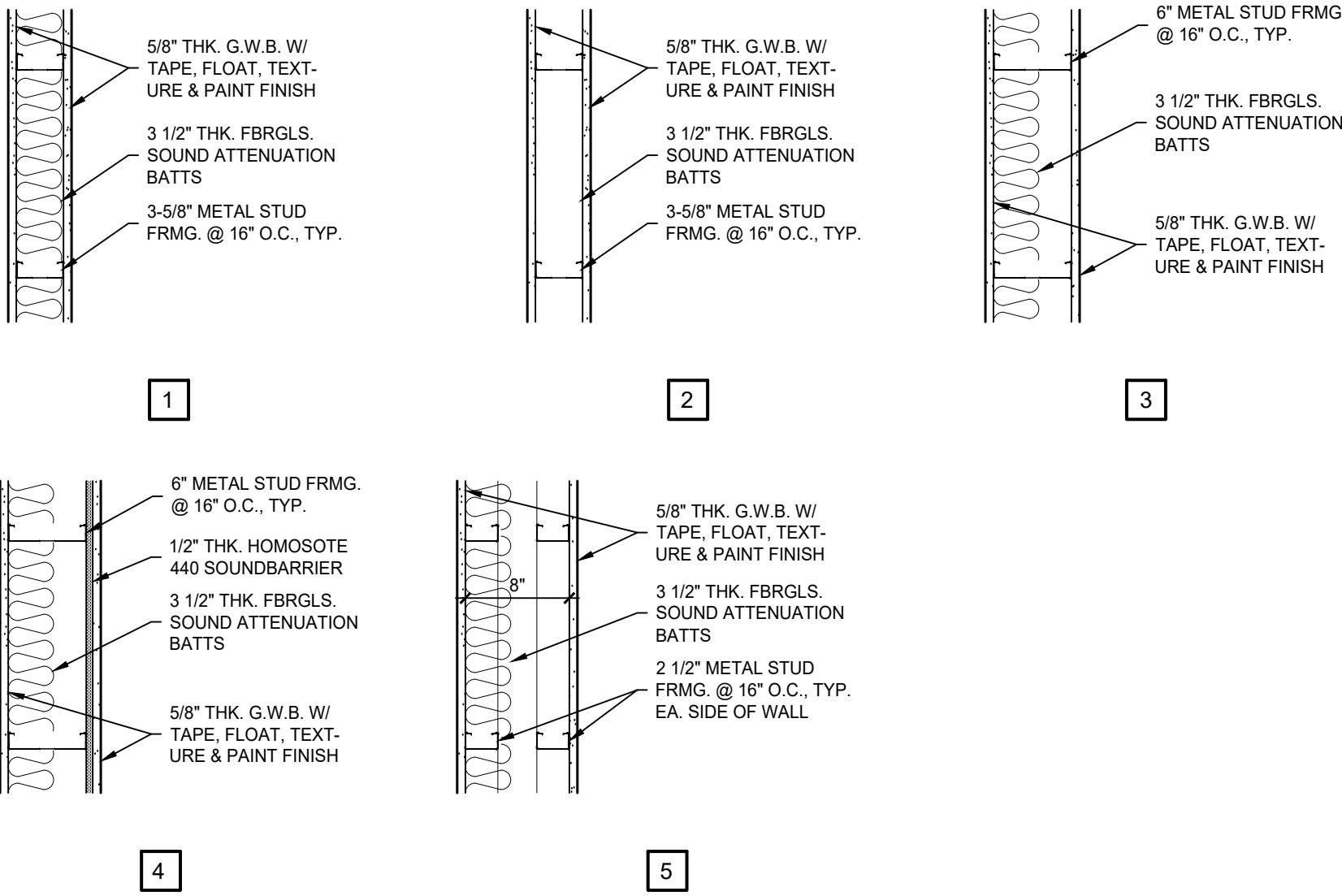
David E. Lewis

Architect

P.O. Box 1142
Portland, Texas 78374-1142
Telephone: 361.413.0123
Email: DELewis@DELArch.com

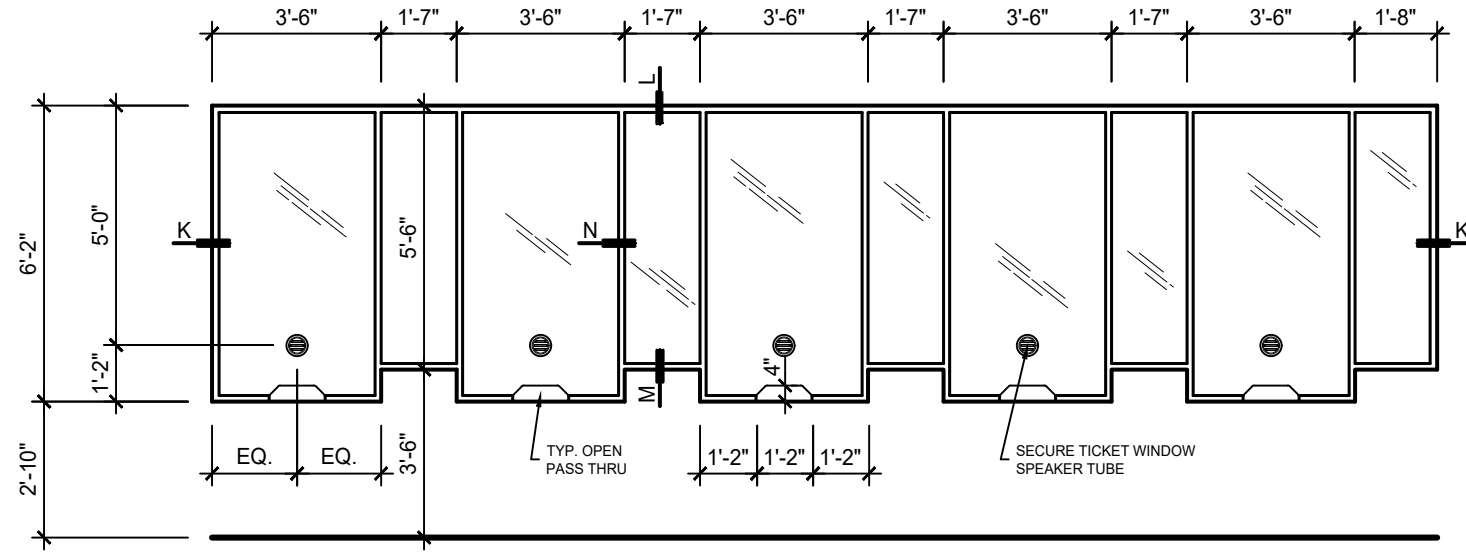
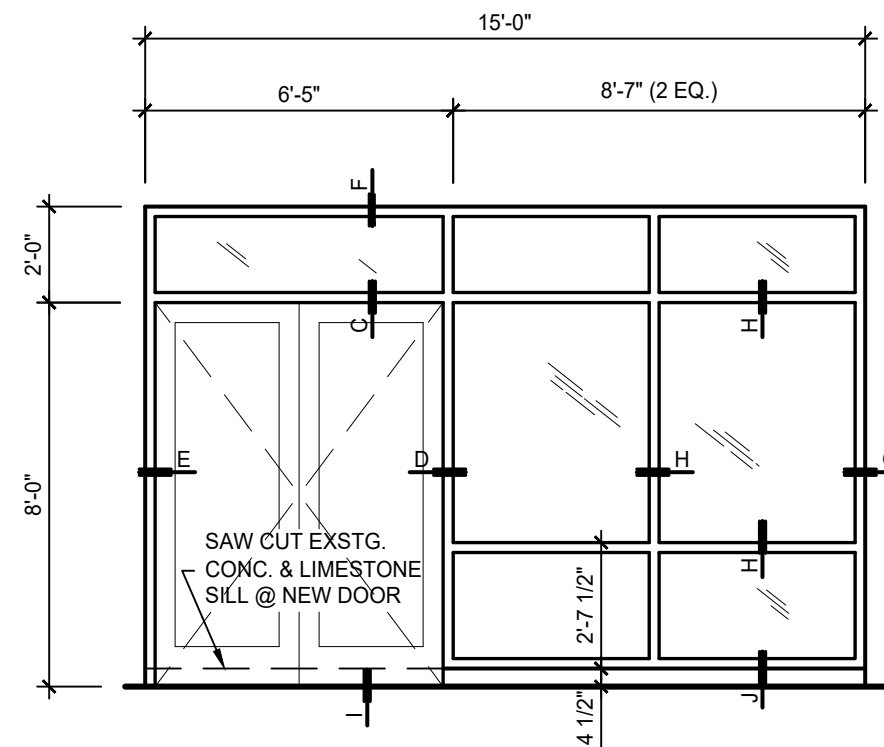
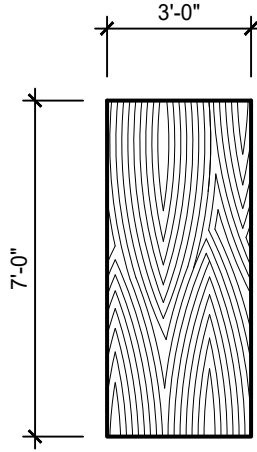
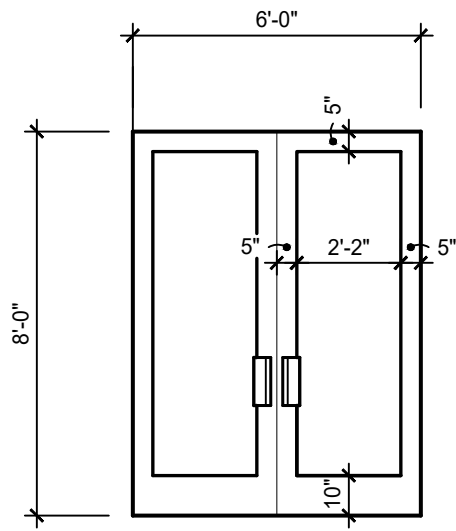


ROOM FINISH SCHEDULE						
RM.	NAME	FLOOR	BASE	WALL	CEILING	REMARKS
101	LOBBY	•	•	•	•	
102	OFFICE	•	•	•	•	
103	SECURE STOR.	•	•	•	•	
104	OFFICE	•	•	•	•	
105	STORAGE	•	•	•	•	
106	I.T. / TELEPHONE	•	•	•	•	
107	CORRIDOR	•	•	•	•	
108	BREAK ROOM	•	•	•	•	
109	JANITOR	•	•	•	•	
110	TOILET	•	•	•	•	
111	TOILET	•	•	•	•	
112	OFFICE	•	•	•	•	



2 WALL TYPES
SCALE: 1" = 1'-0"

DOOR SCHEDULE						
NO.	TYPE	HEAD	JAMB	T'HOLD	HARDWARE	
1.	1.	C	D & E	I	HARDWARE SET #1	
2.	2.	A	B	N/A	HARDWARE SET #2 (COORD. SECURE LOCKS W/ TENANT)	
3.					HARDWARE SET #2 (COORD. SECURE LOCKS W/ TENANT)	
4.					HARDWARE SET #2 (COORD. SECURE LOCKS W/ TENANT)	
5.					HARDWARE SET #3	
6.					HARDWARE SET #3	
7.					HARDWARE SET #3	
8.					HARDWARE SET #4	
9.					HARDWARE SET #5	
10.					HARDWARE SET #5	
11.	2.	A	B	N/A	HARDWARE SET #3	

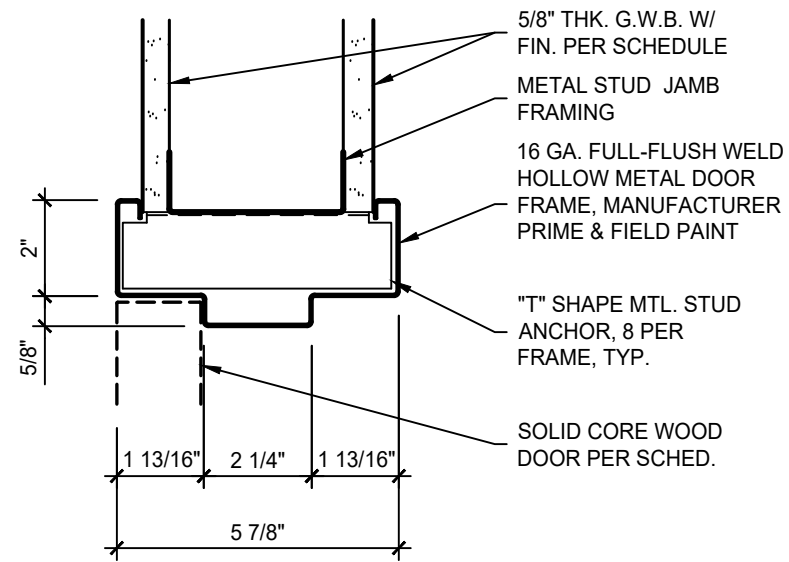


1 DOOR TYPES

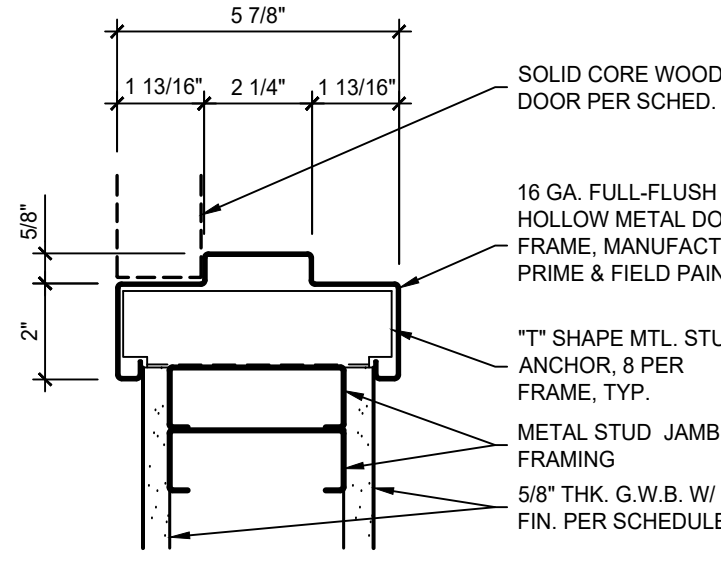
SCALE: 1/4" = 1'-0"

2 STOREFRONT TYPES

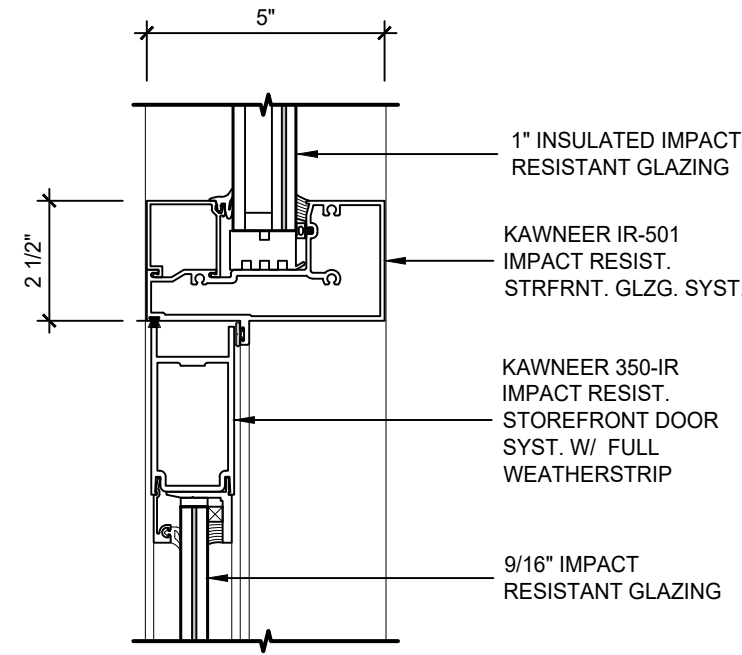
SCALE: 1/4" = 1'-0"



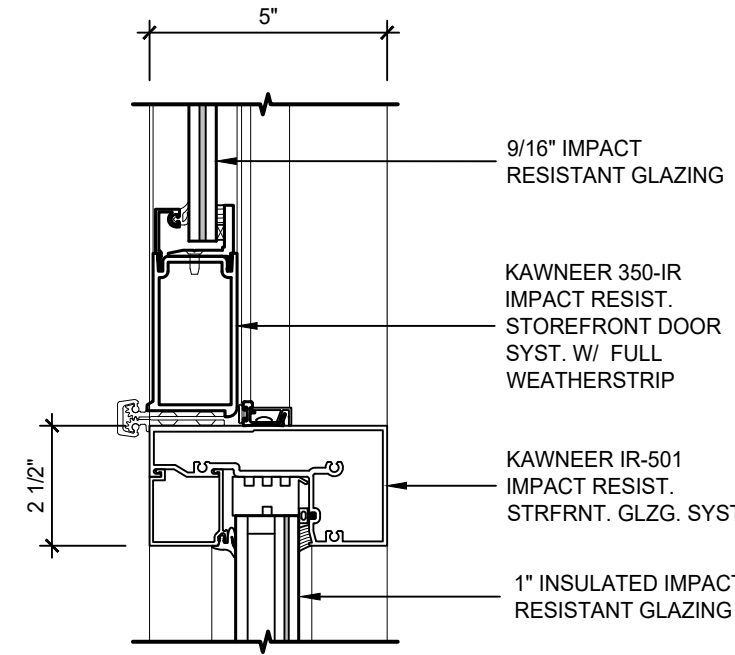
A H.M. DOOR FRAME HEAD
SCALE: 3" = 1'-0"



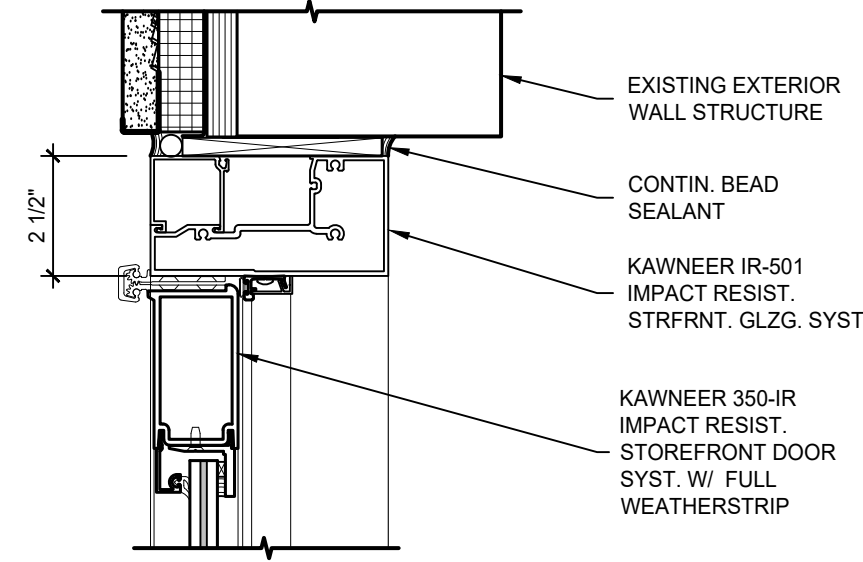
B H.M. DOOR FRAME JAMB
SCALE: 3" = 1'-0"



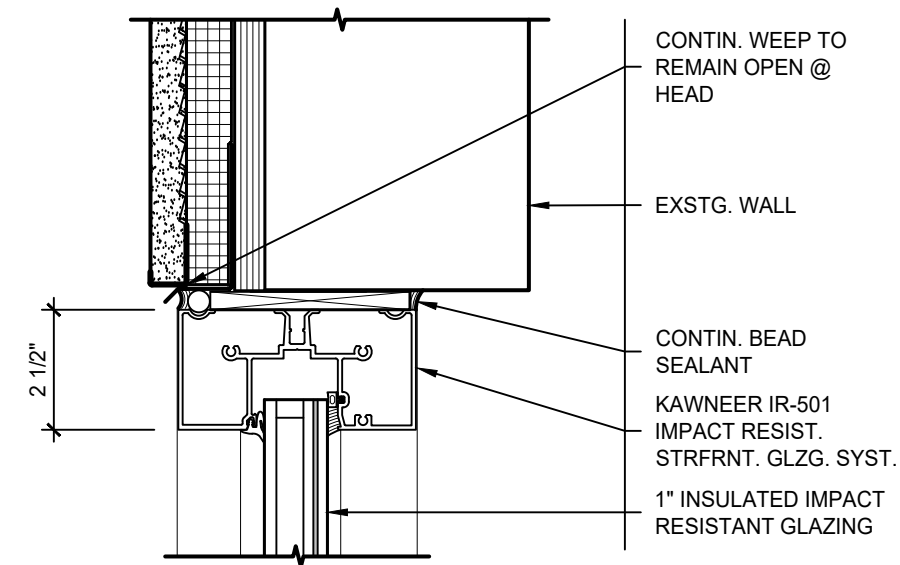
C STOREFRONT DOOR HEAD
SCALE: 3" = 1'-0"



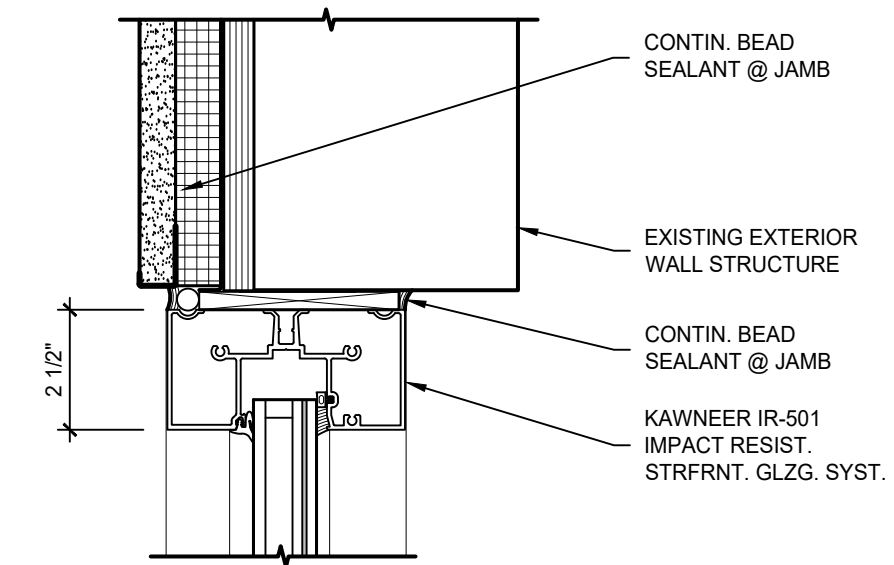
D STOREFRONT DOOR JAMB
SCALE: 3" = 1'-0"



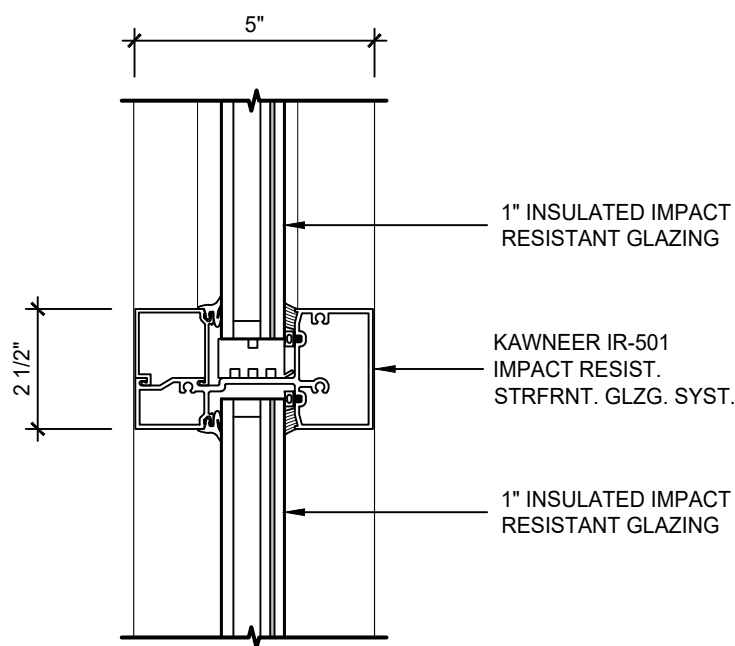
E STOREFRONT DOOR JAMB
SCALE: 3" = 1'-0"



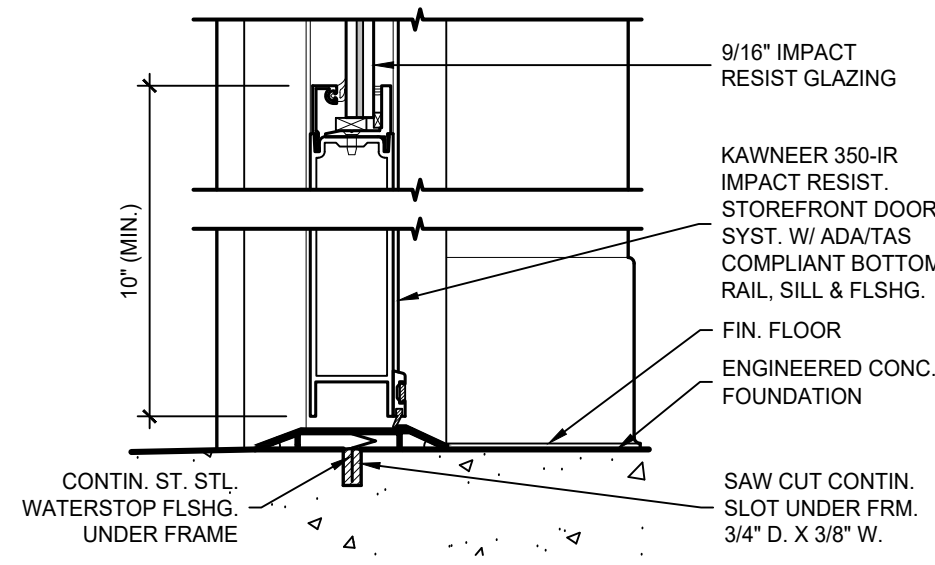
F STOREFRONT WINDOW HEAD
SCALE: 3" = 1'-0"



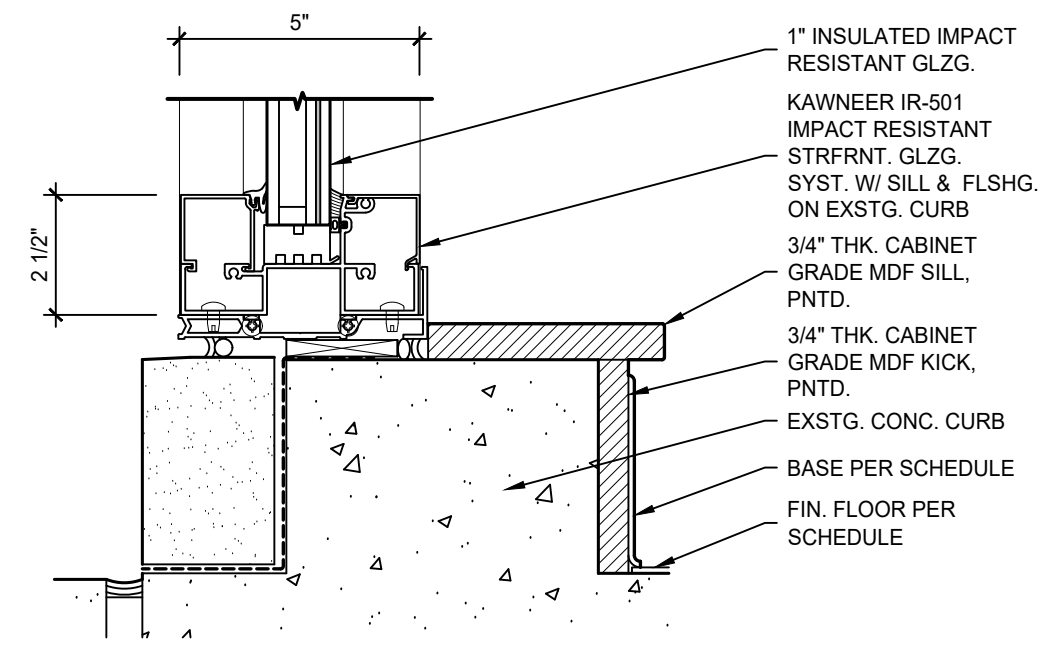
G STOREFRONT WINDOW JAMB
SCALE: 3" = 1'-0"



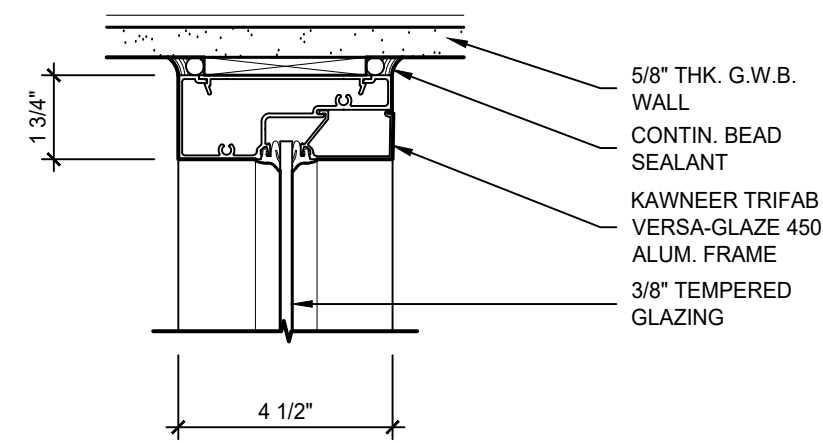
H STOREFRONT WINDOW MULLION
SCALE: 3" = 1'-0"



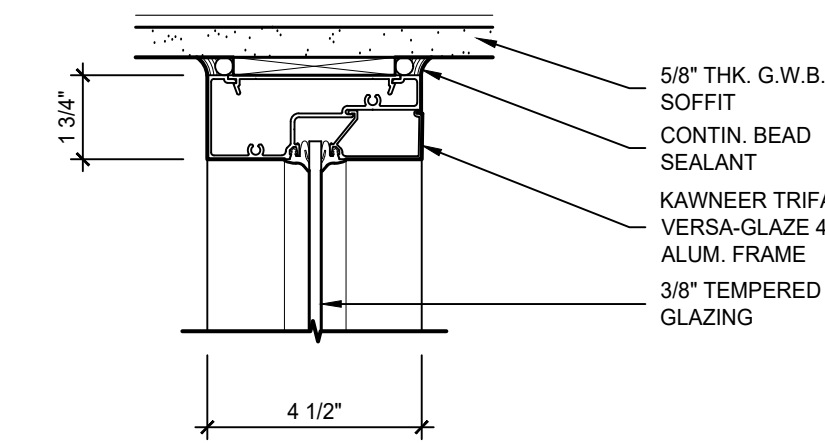
I STOREFRONT DOOR SILL
SCALE: 3" = 1'-0"



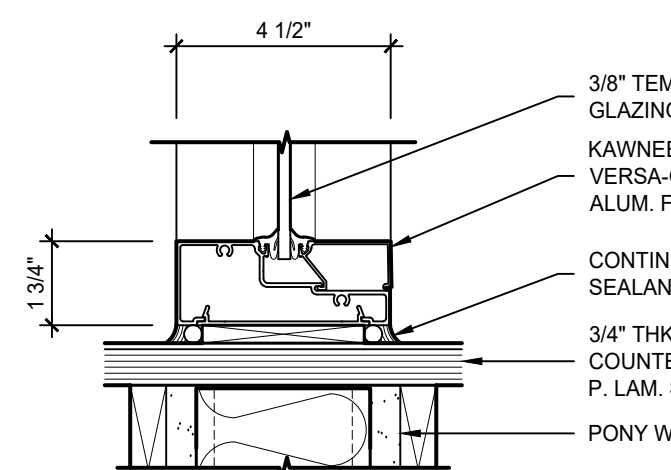
J STOREFRONT WINDOW SILL
SCALE: 3" = 1'-0"



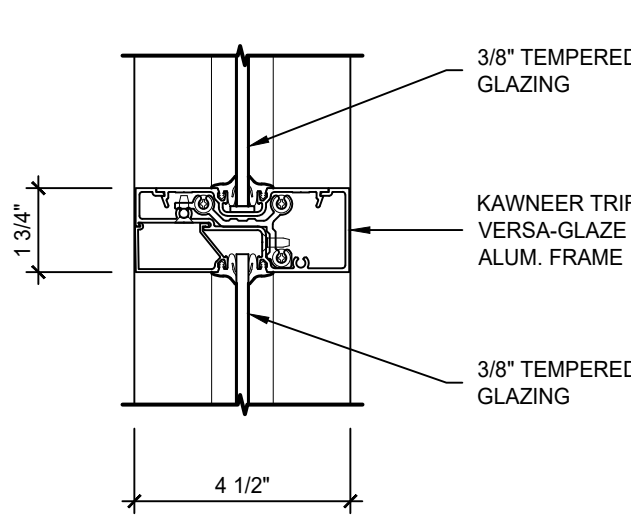
K STOREFRONT WINDOW JAMB
SCALE: 3" = 1'-0"



L STOREFRONT WINDOW HEAD
SCALE: 3" = 1'-0"



M STOREFRONT WINDOW SILL
SCALE: 3" = 1'-0"



N STOREFRONT WINDOW MULLION
SCALE: 3" = 1'-0"

David E. Lewis

Architect

P.O. Box 1142

Portland, Texas 78374-1142

Telephone: 361.413.0123

Email: DELewis@DELArch.com



SAN PATRICIO COUNTY OFFICES-PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM, PORTLAND, TEXAS 78374

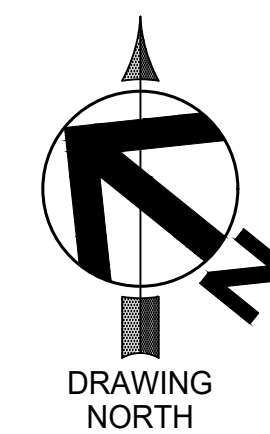
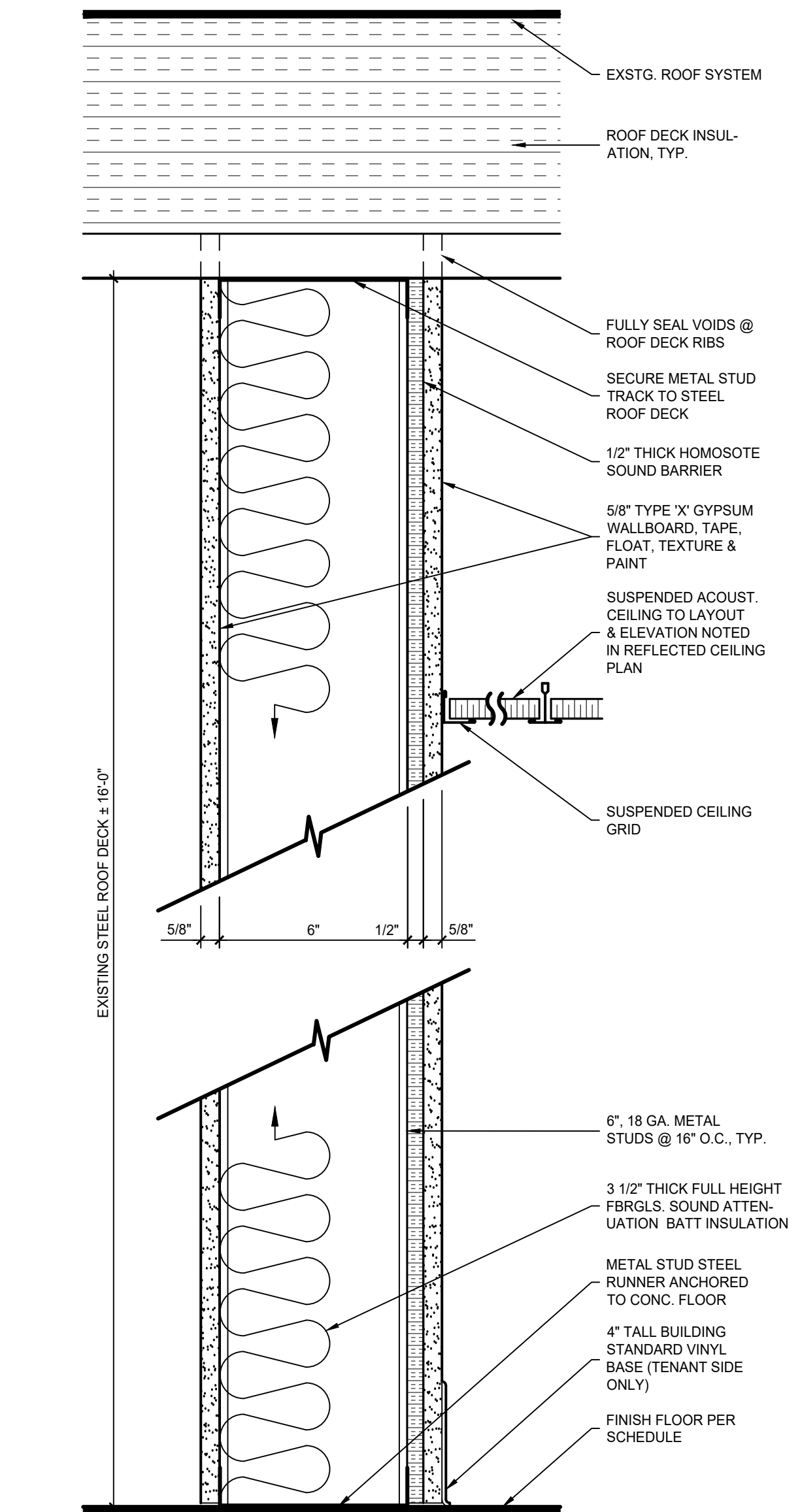
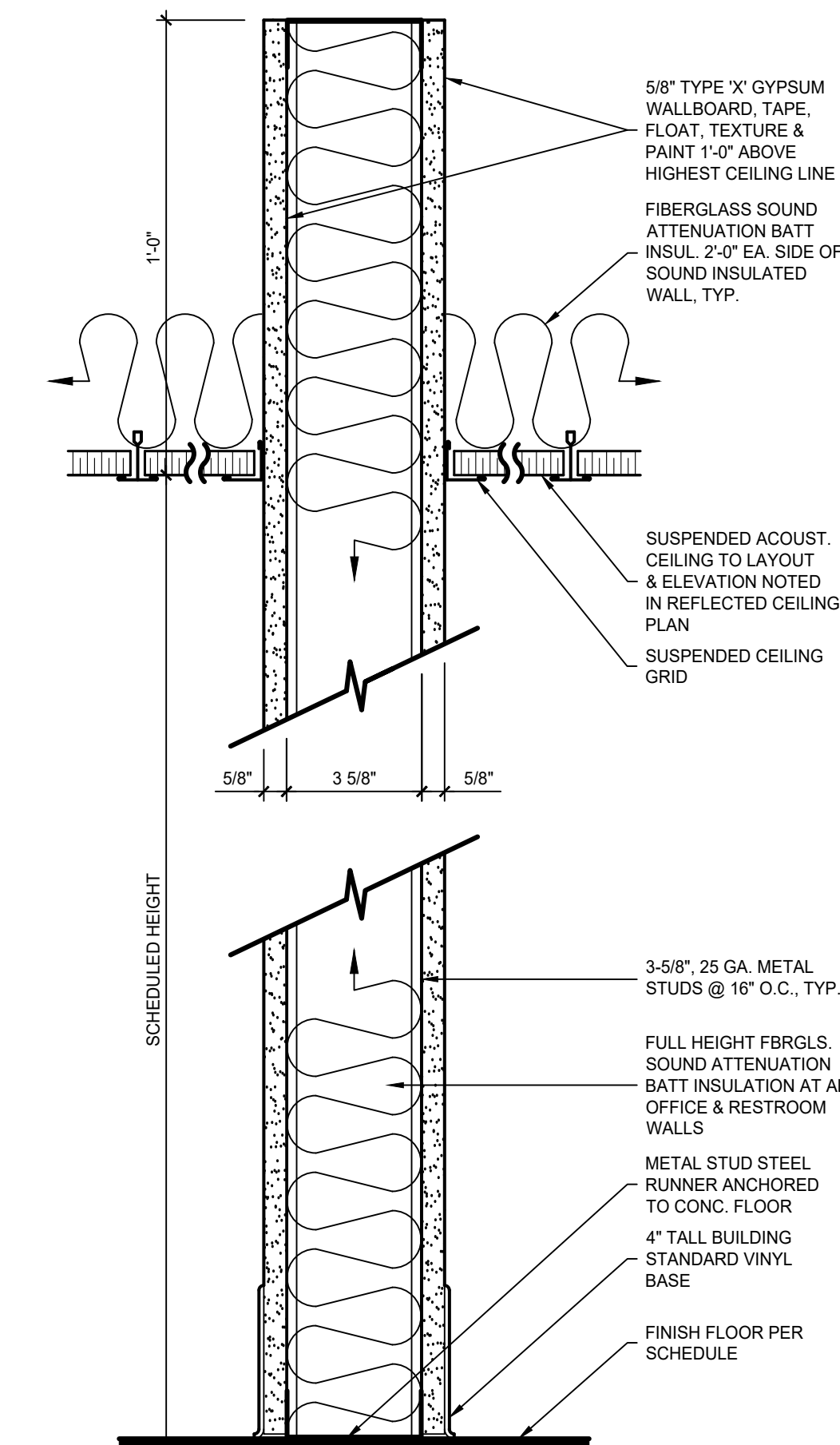
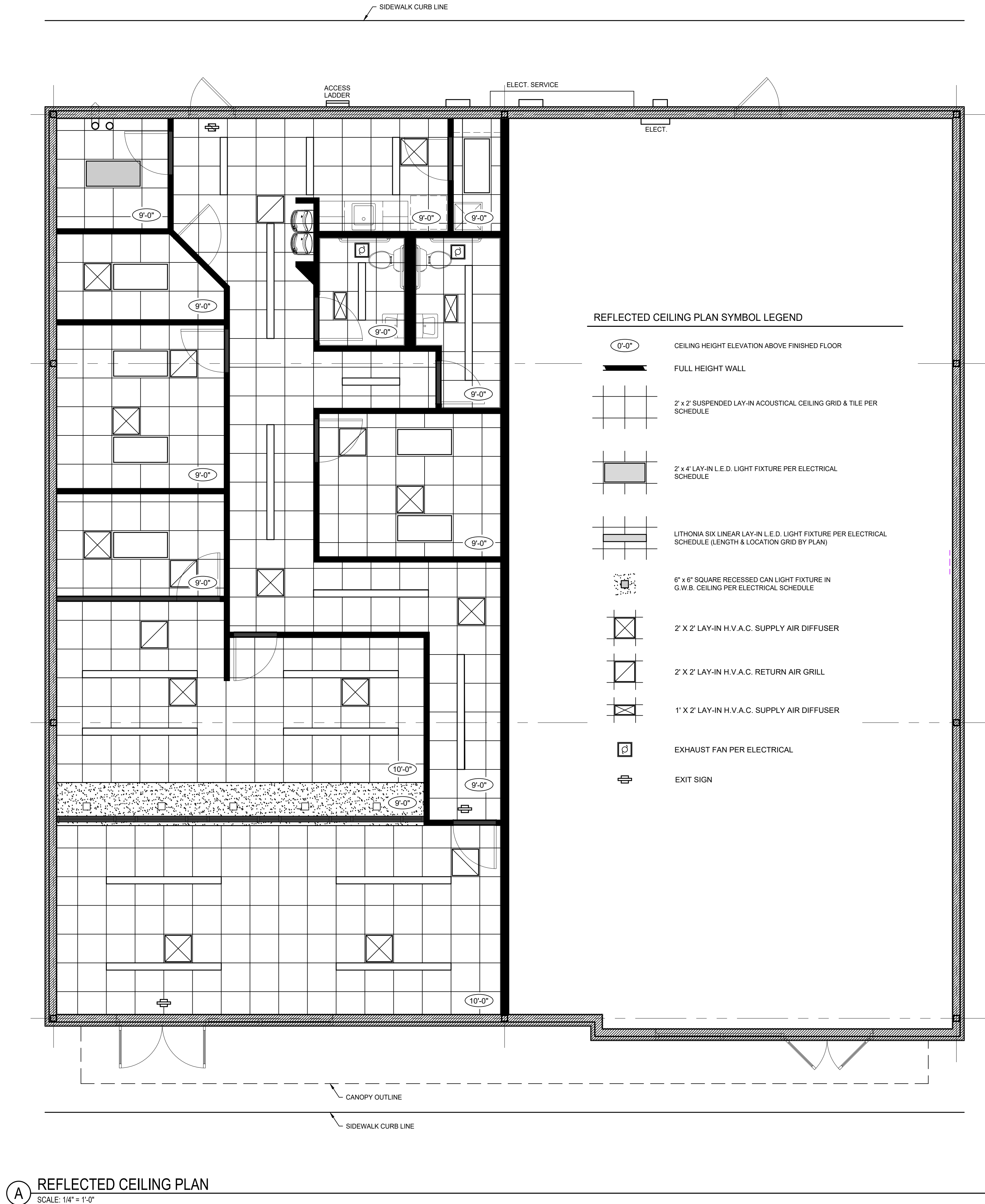
DOORS & WINDOWS

ISSUED FOR CONSTRUCTION
1 JULY 2026

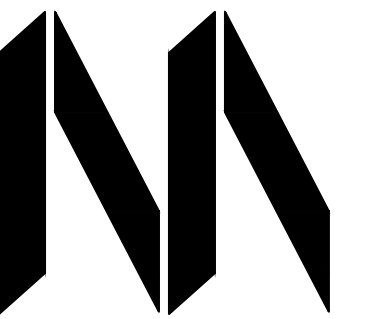
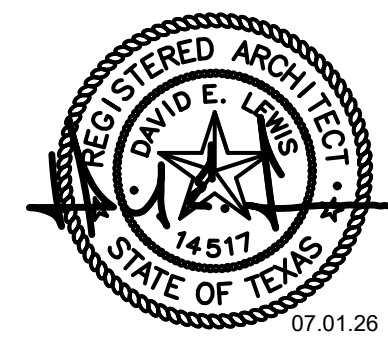
REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

A2.0



David E. Lewis
Architect
P.O. Box 1142
Portland, Texas 78374-1142
Telephone: 361.413.0123
Email: DELewis@DELArch.com



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

THIS DOCUMENT IS RELEASED
FOR THE PURPOSE OF
INTERIM REVIEW. IT IS NOT TO
BE USED FOR CONSTRUCTION,
BIDDING, OR PERMITTING
PURPOSES.

CARLOS A. MARTINEZ, PE #97327
ISSUE DATE: 00/00/0000
PROJECT NO: 00-000
NOTES: FOR REVIEW ONLY

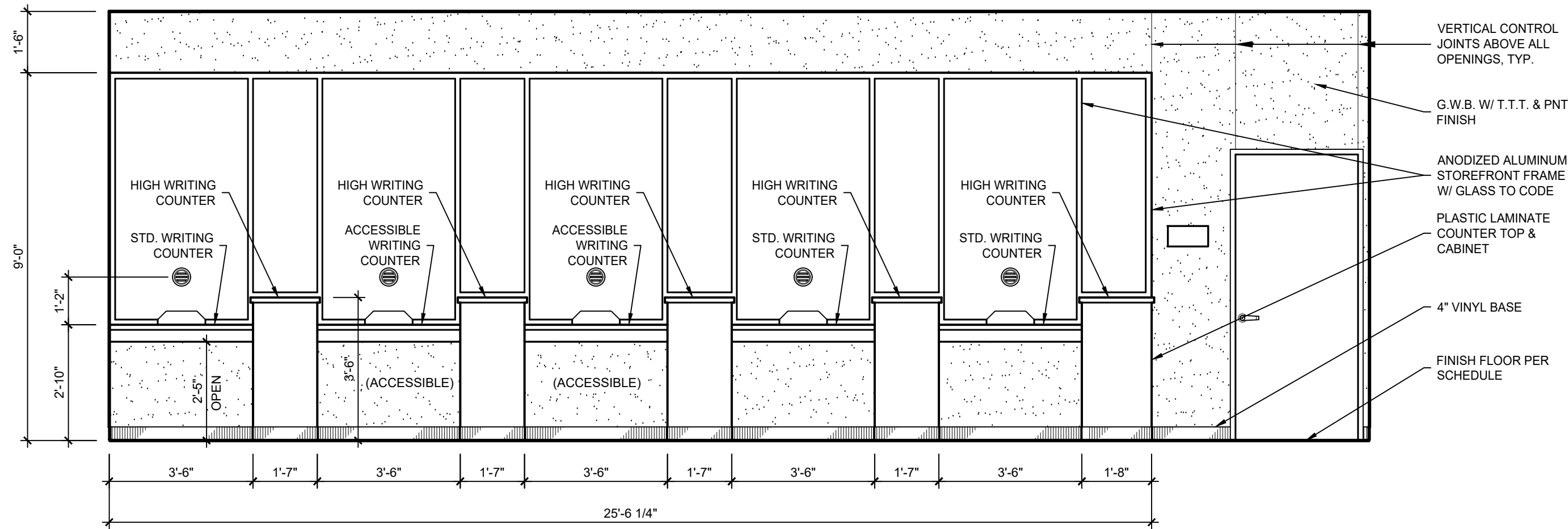
SAN PATRICIO COUNTY OFFICES-PORTLAND
SAN PATRICIO COUNTY
704 BUDDY GANEM, PORTLAND, TEXAS 78374
REFLECTED CEILING PLAN & TYP. WALL SECTIONS

ISSUED FOR CONSTRUCTION
1 JULY 2026

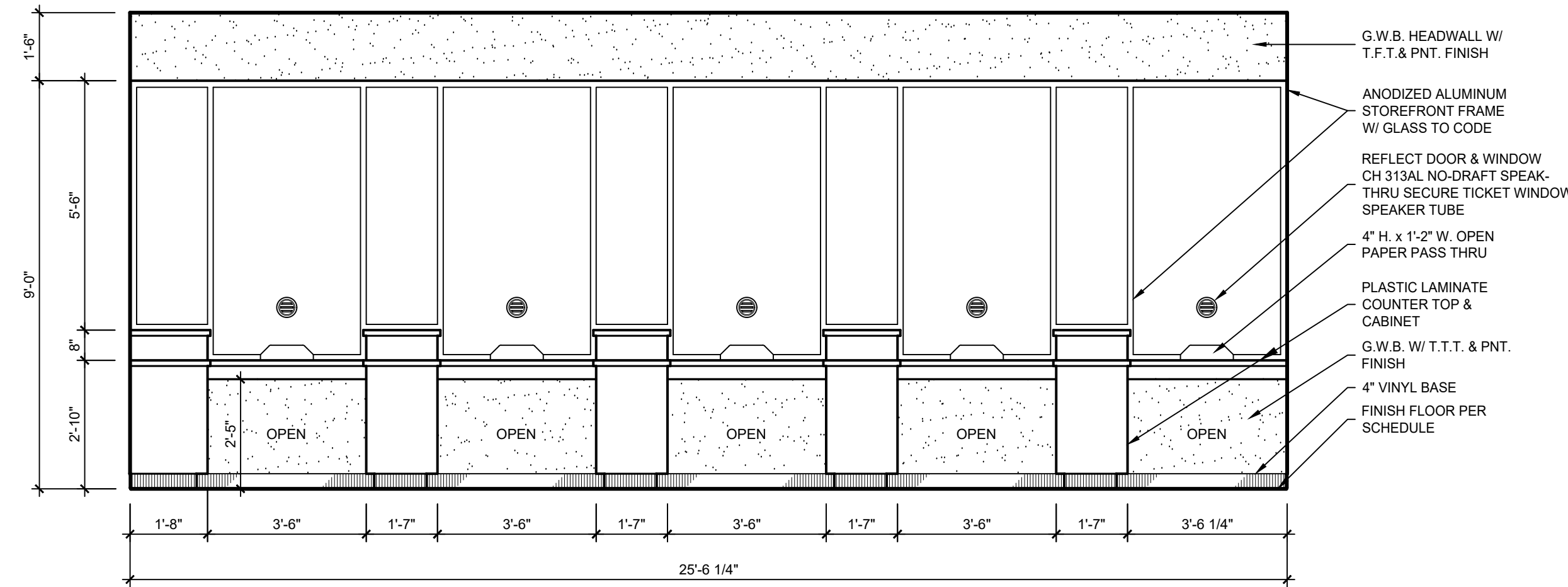
REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

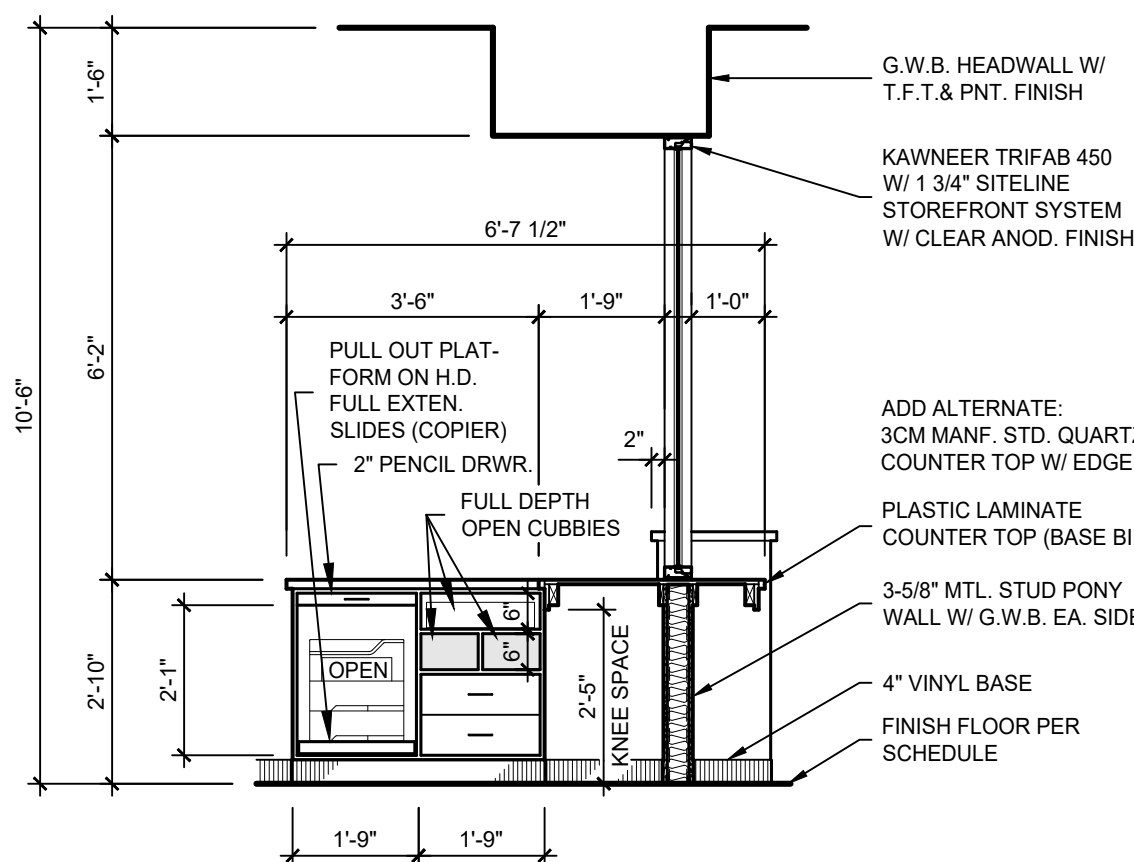
A3.0



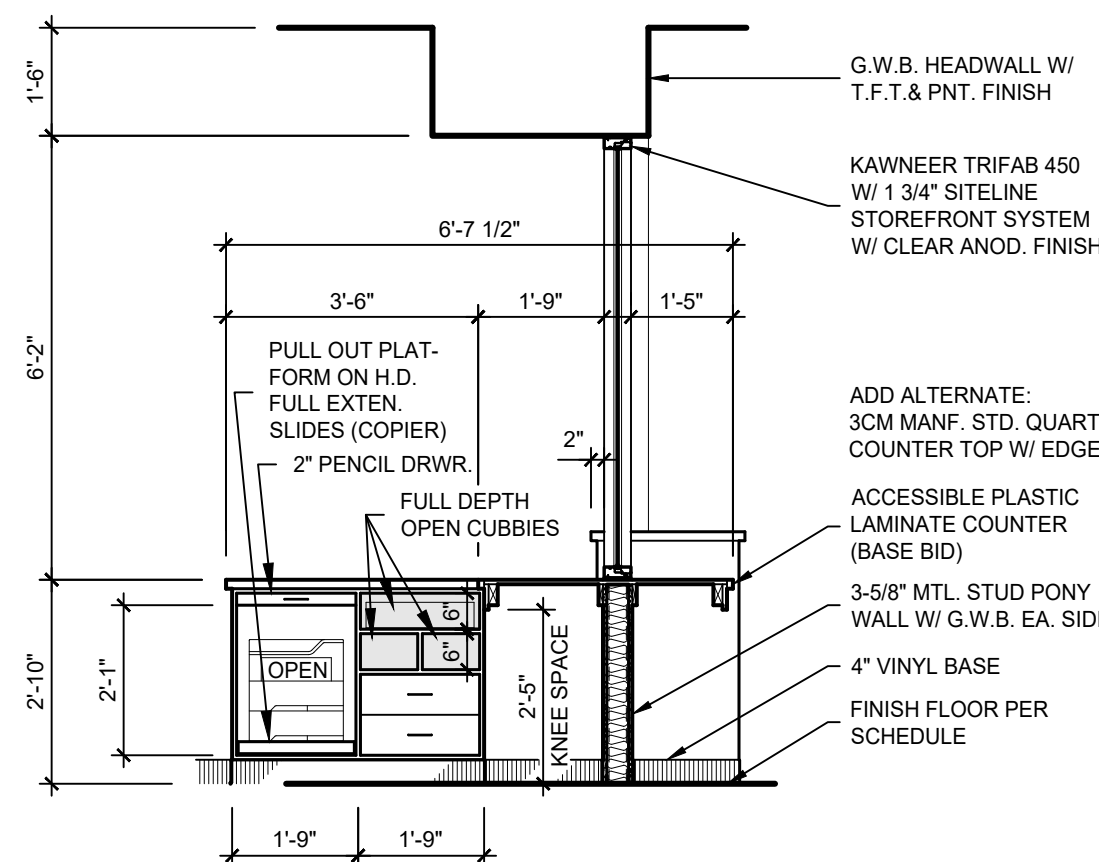
A TELLER COUNTER (LOBBY)
SCALE: 3/8" = 1'-0"



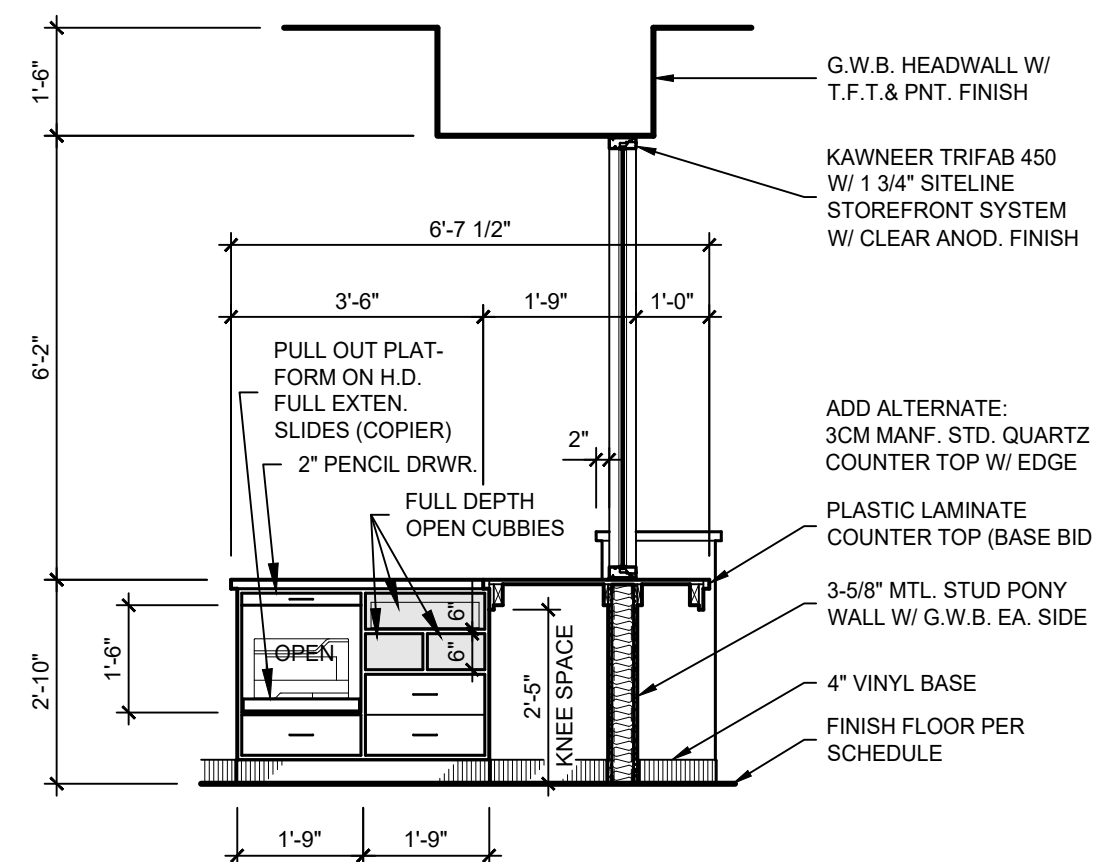
B TELLER COUNTER (LOBBY)
SCALE: 3/8" = 1'-0"



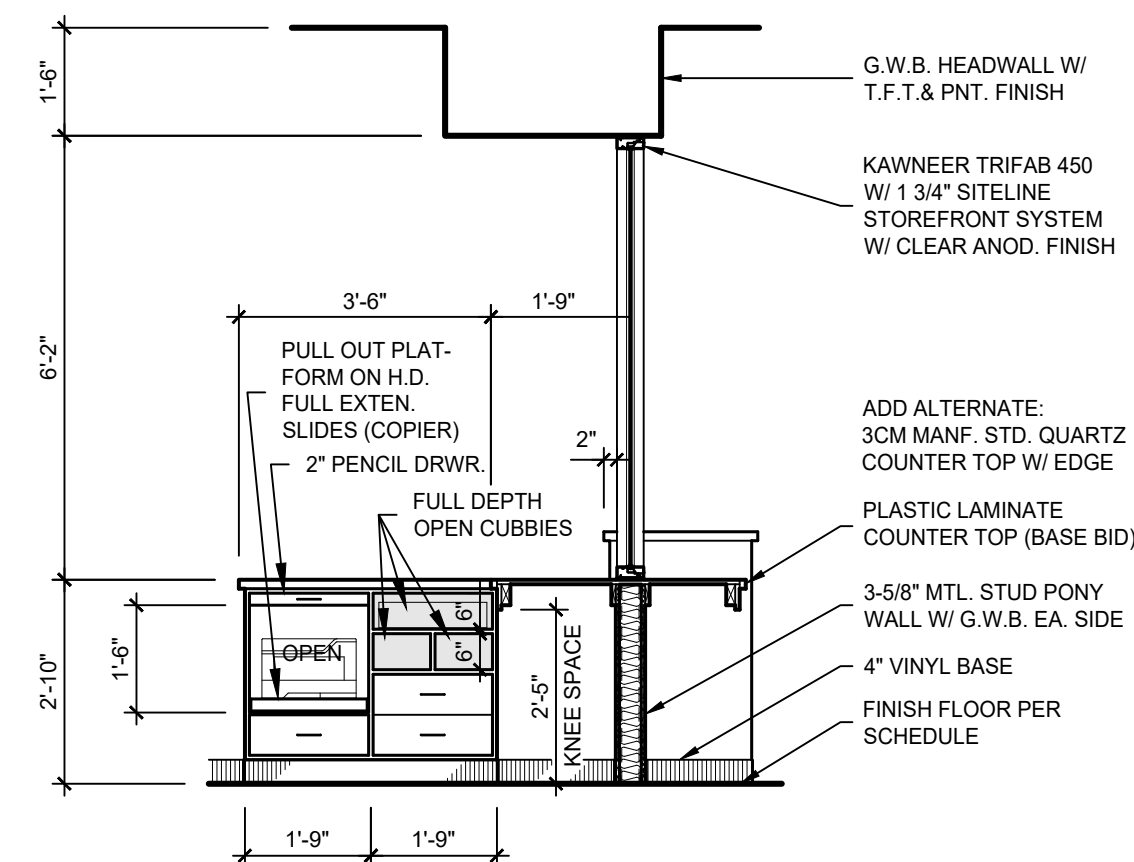
C DMV TELLER COUNTER
SCALE: 3/8" = 1'-0"



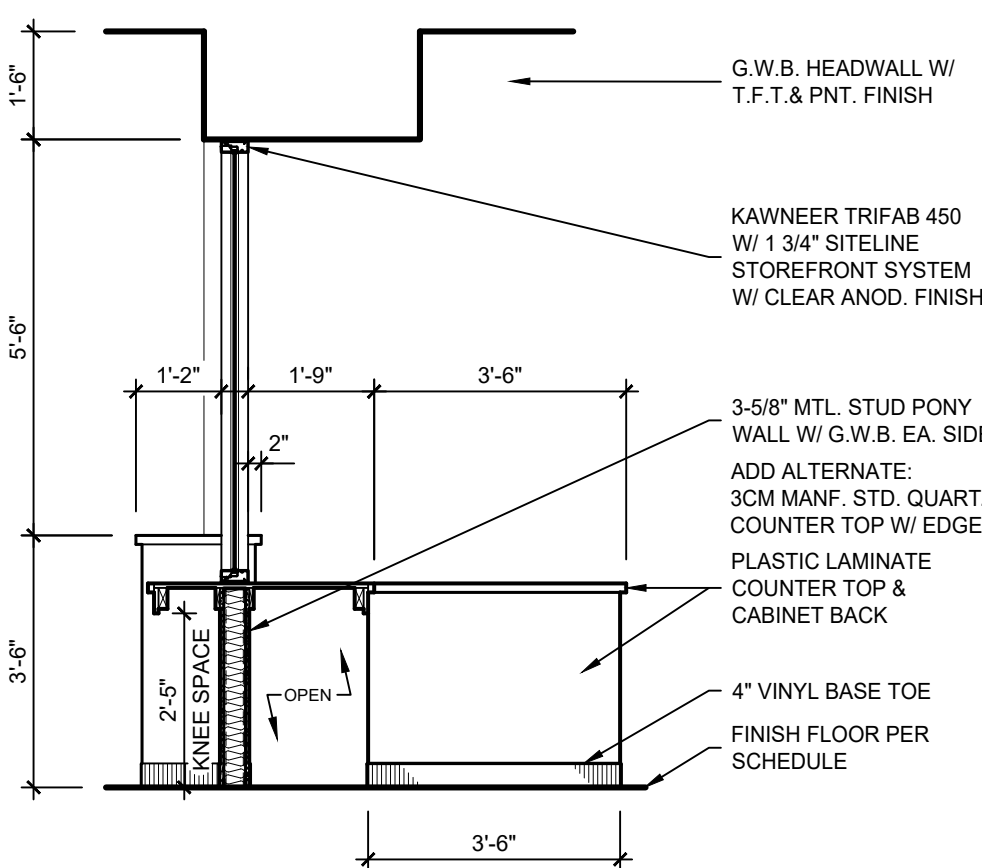
D DMV ACCESSIBLE TELLER COUNTER
SCALE: 3/8" = 1'-0"



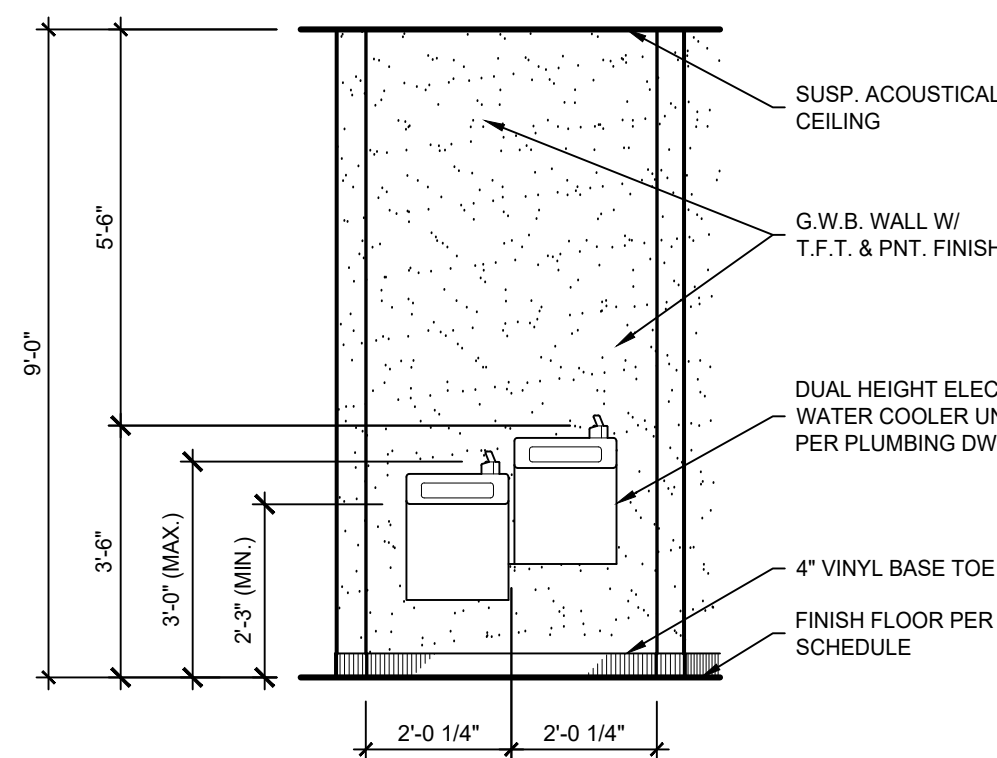
E TAX DEPT. TELLER COUNTER
SCALE: 3/8" = 1'-0"



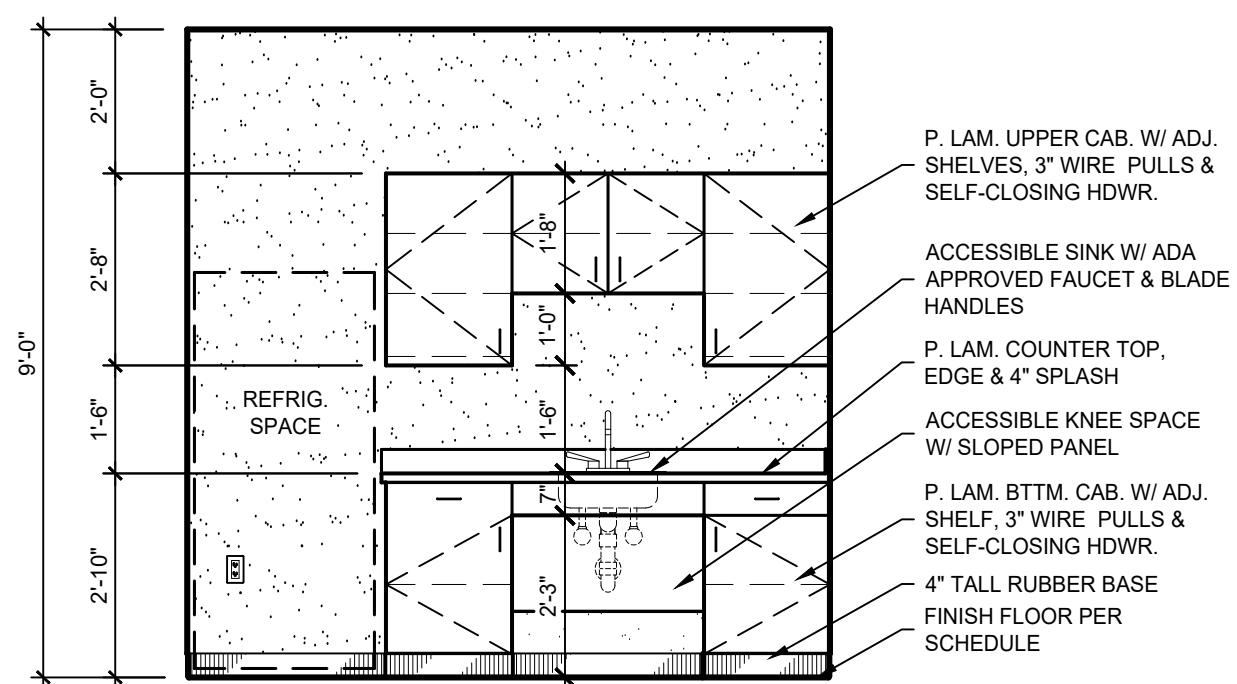
F TAX DEPT. ACCESSIBLE TELLER COUNTER
SCALE: 3/8" = 1'-0"



G TELLER COUNTER (LOBBY)
SCALE: 3/8" = 1'-0"



I DRINKING FOUNTAINS
SCALE: 3/8" = 1'-0"



H BREAK ROOM
SCALE: 3/8" = 1'-0"

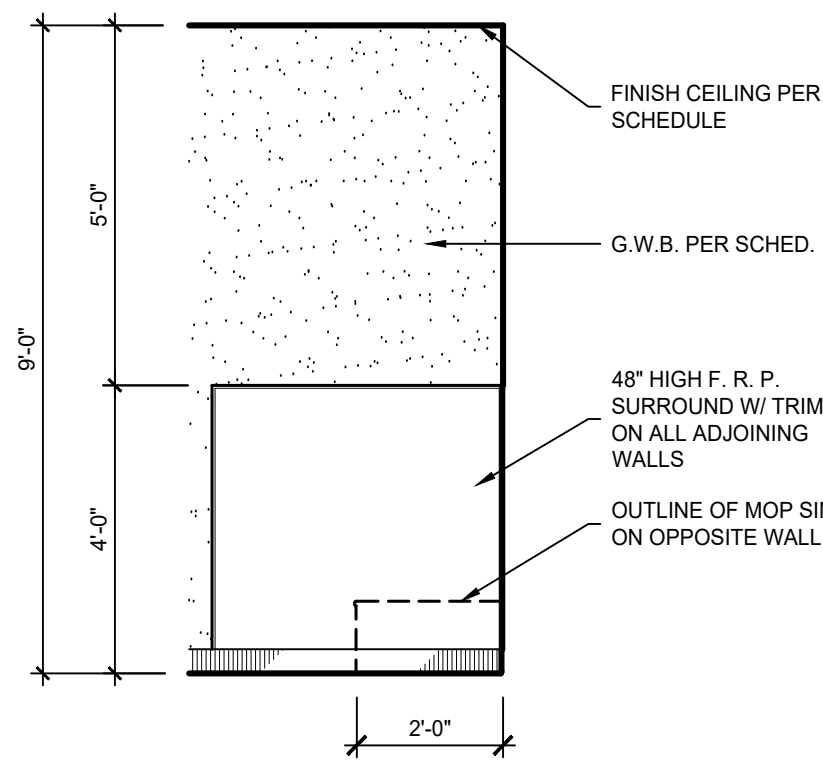
David E. Lewis
Architect
P.O. Box 1142
Portland, Texas 78374-1142
Telephone: 361.413.0123
Email: DELewis@DELArch.com



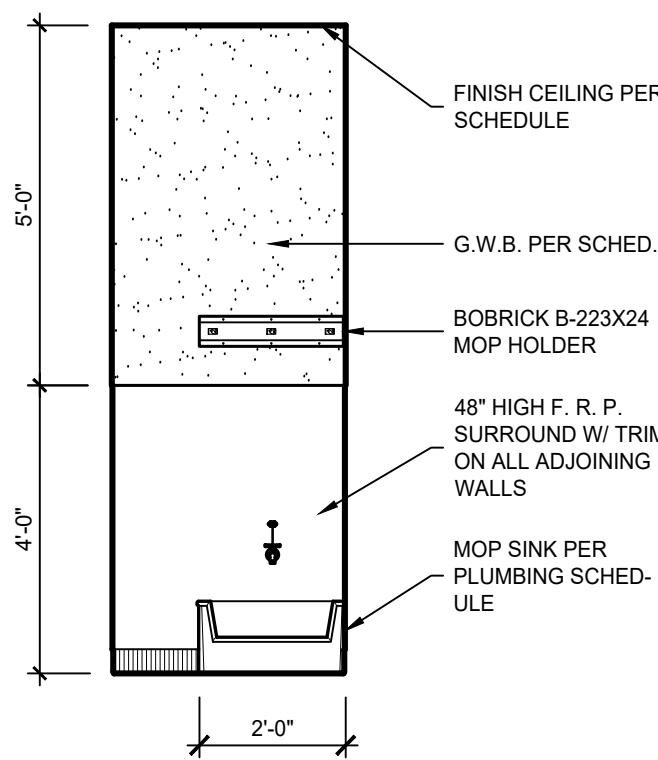
ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

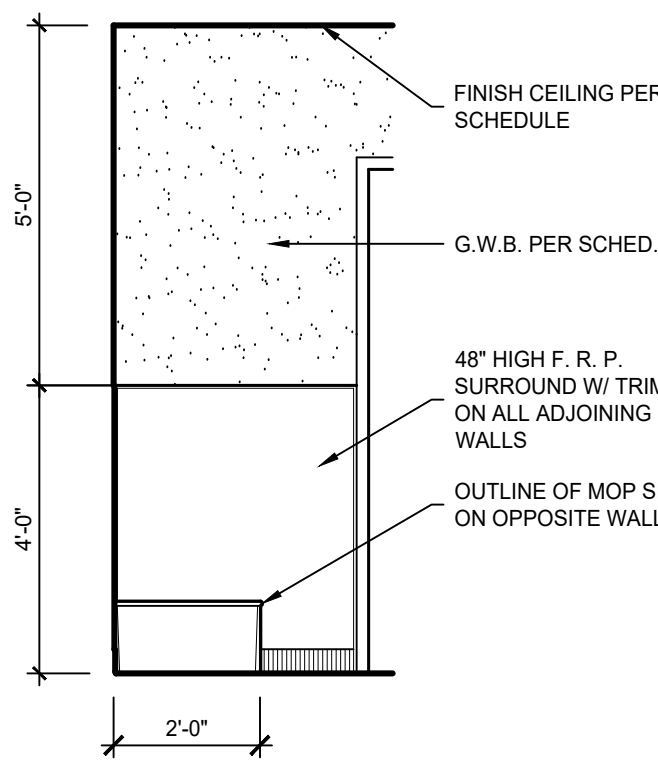
SHEET NO.



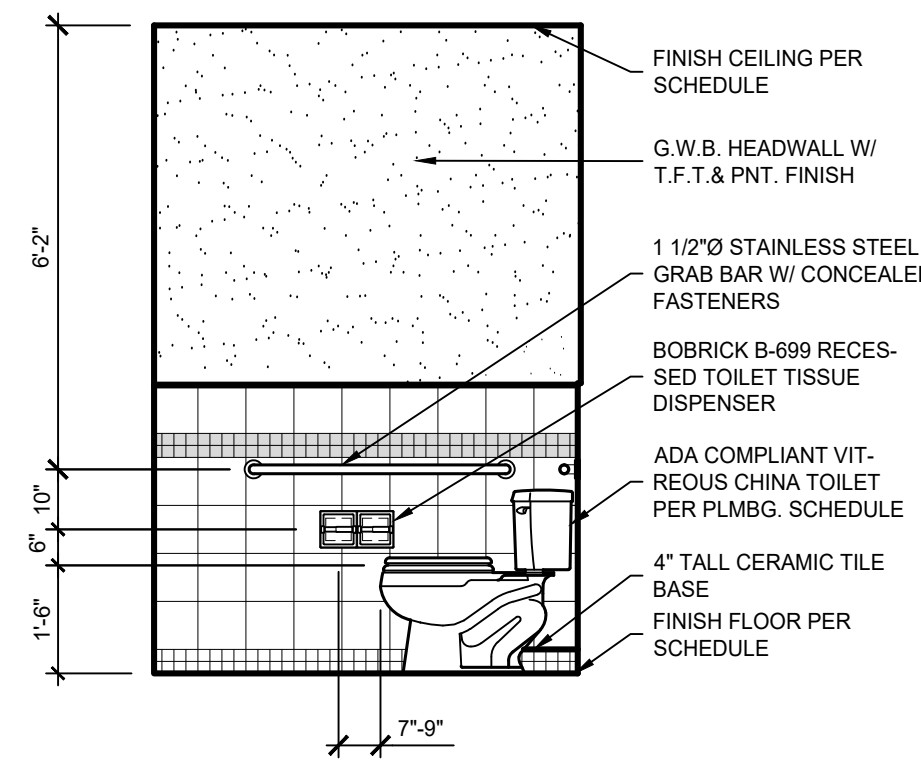
A 109 JANITOR CLOSET
SCALE: 3/8" = 1'-0"



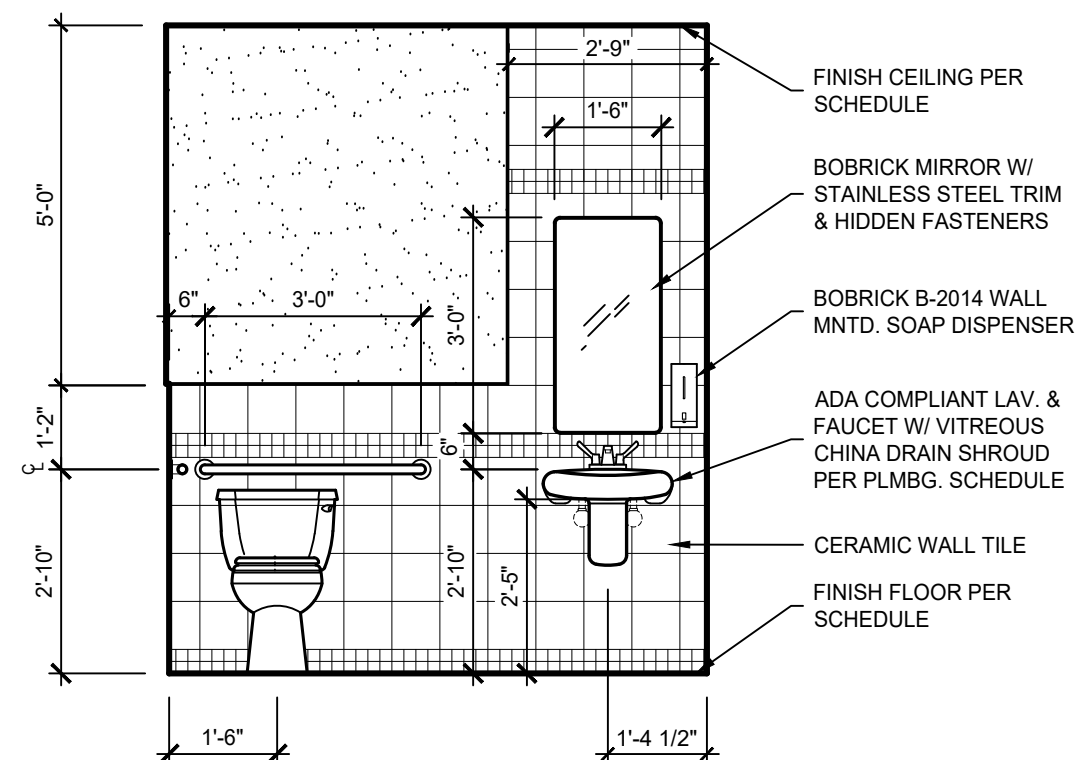
B 109 JANITOR CLOSET
SCALE: 3/8" = 1'-0"



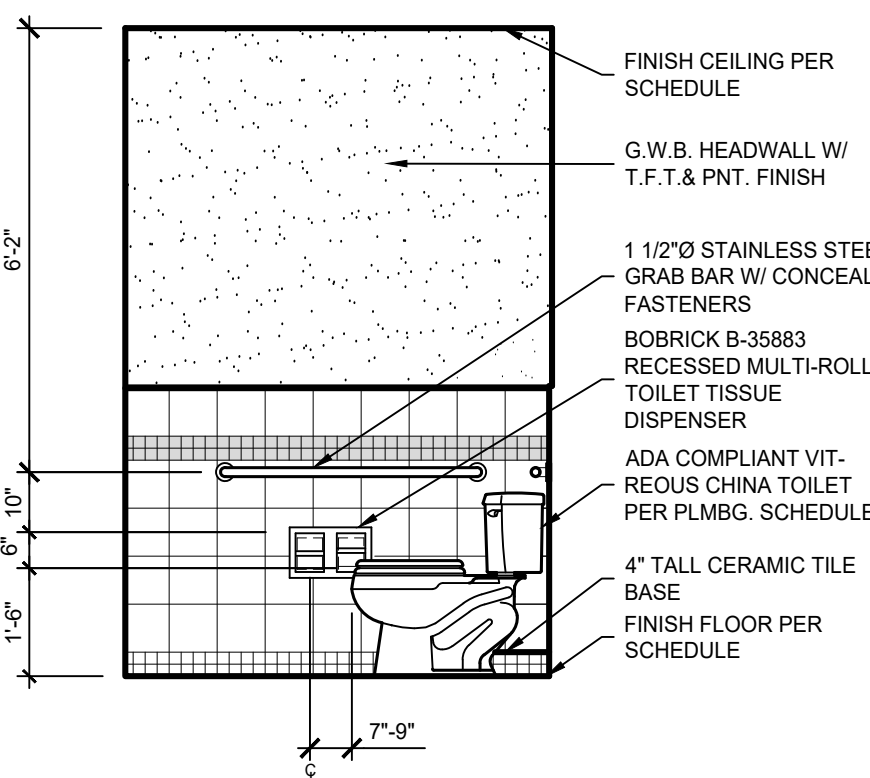
C 109 JANITOR CLOSET
SCALE: 3/8" = 1'-0"



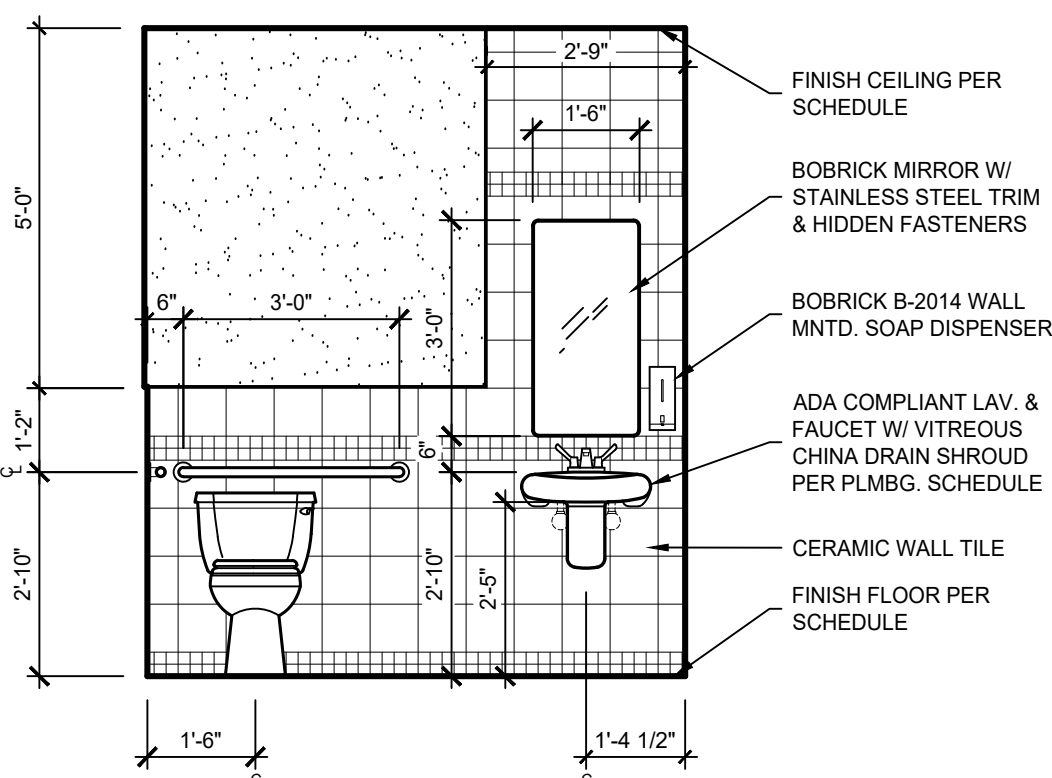
E TOILET 110
SCALE: 3/8" = 1'-0"



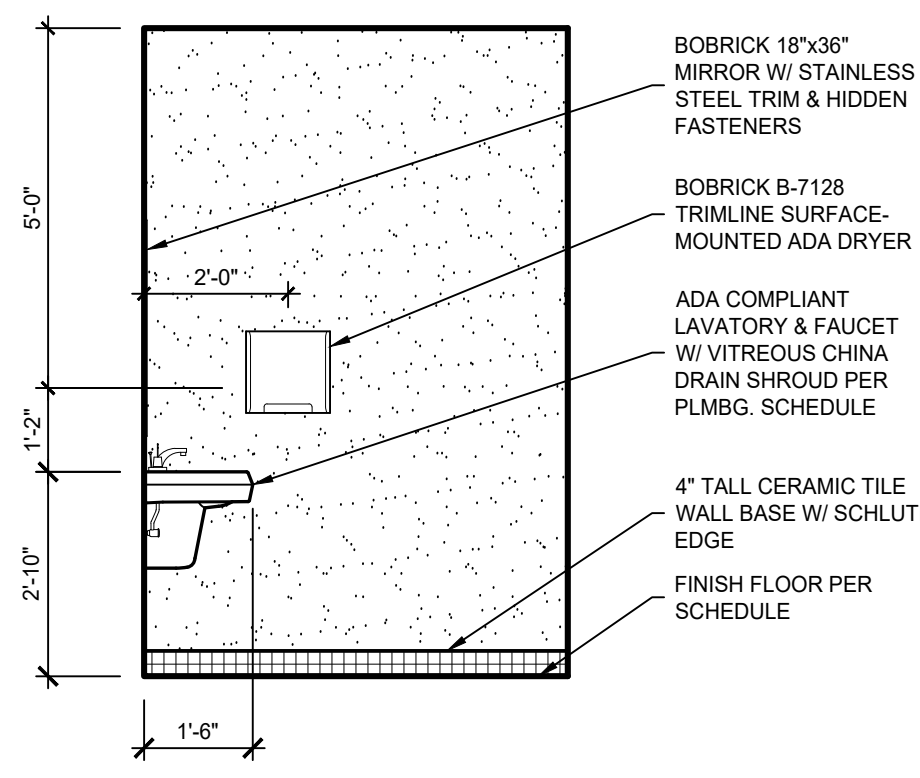
F TOILET 110
SCALE: 3/8" = 1'-0"



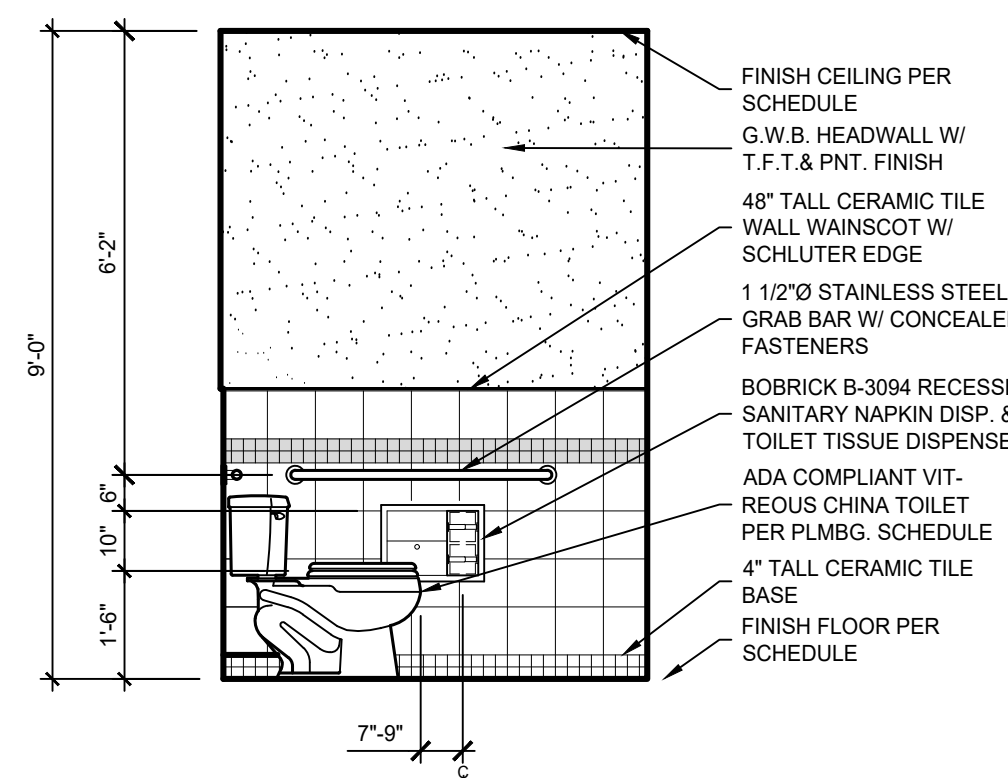
G TOILET 110
SCALE: 3/8" = 1'-0"



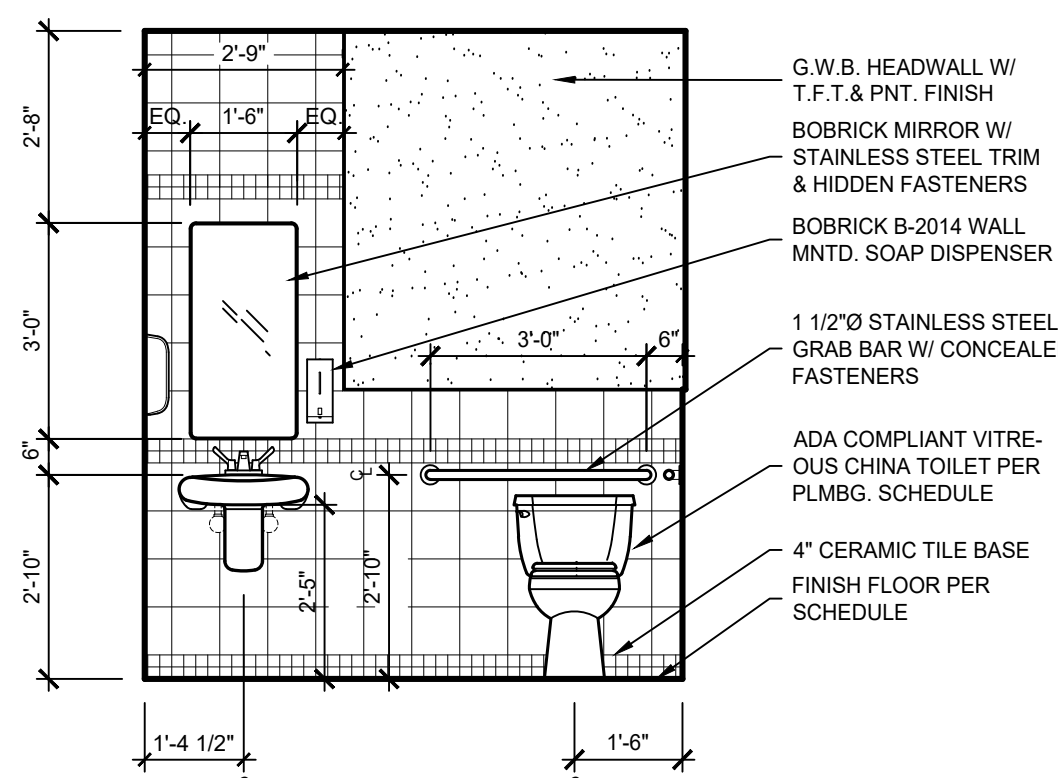
H TOILET 110
SCALE: 3/8" = 1'-0"



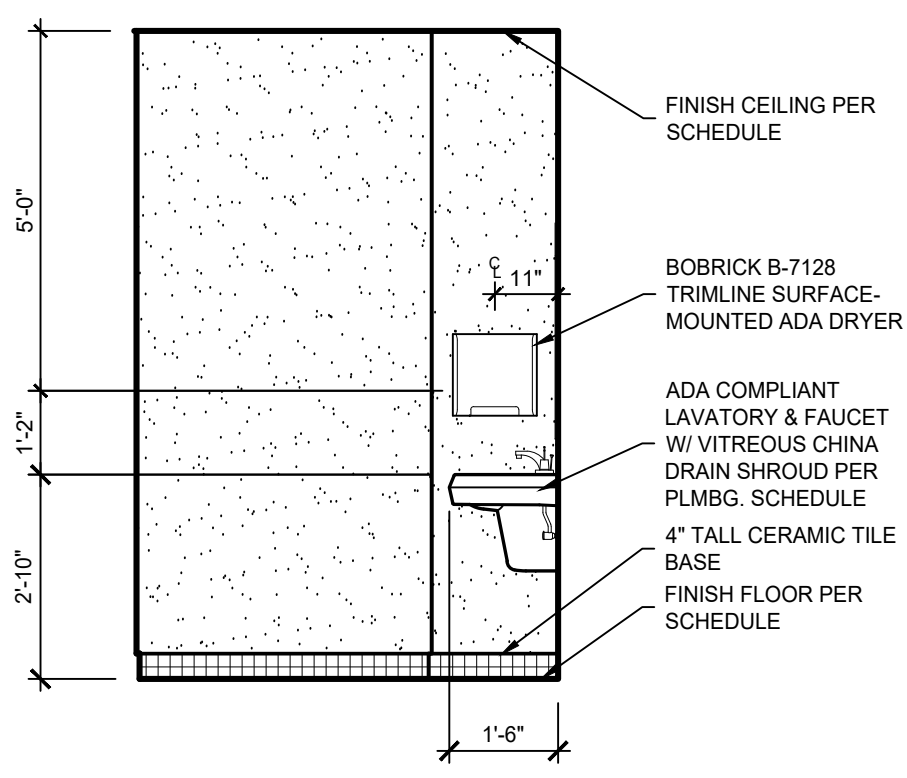
J TOILET 110
SCALE: 3/8" = 1'-0"



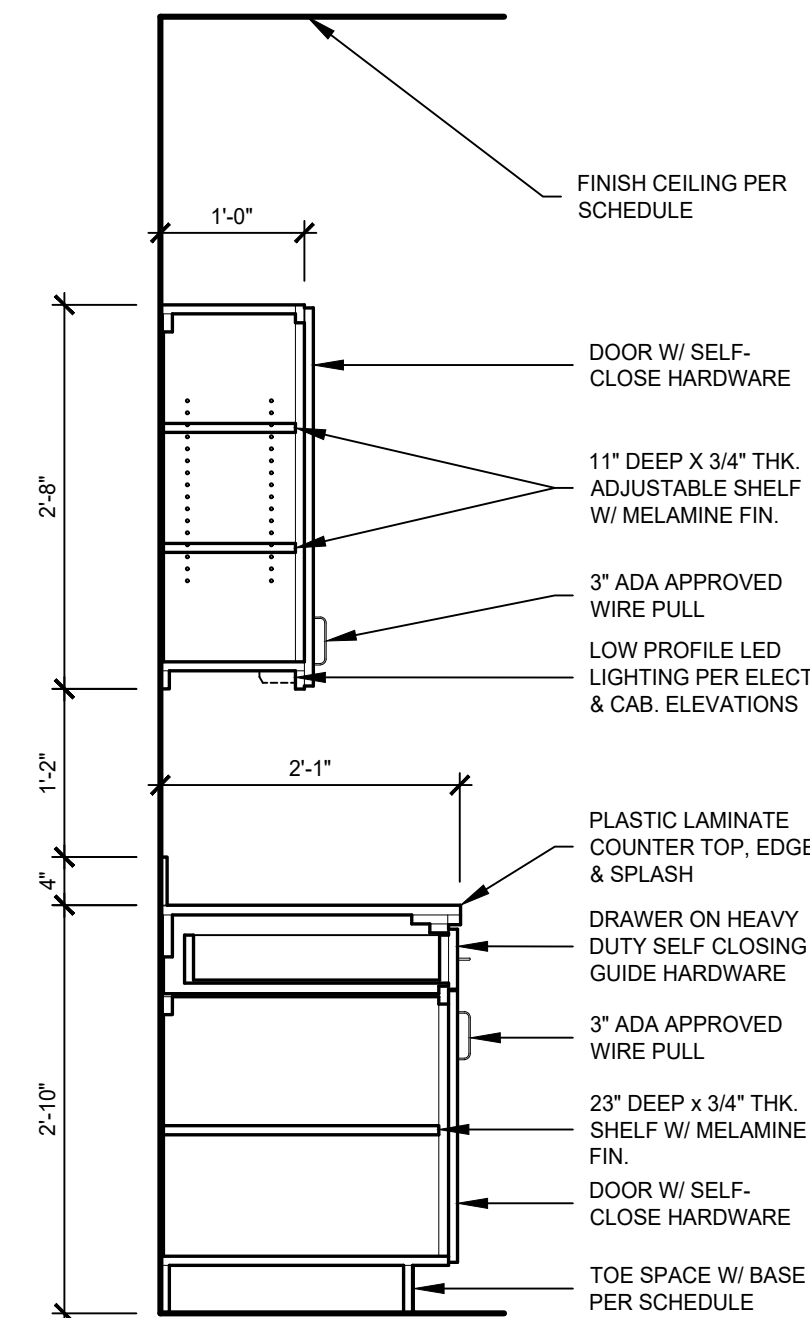
K TOILET 111
SCALE: 3/8" = 1'-0"



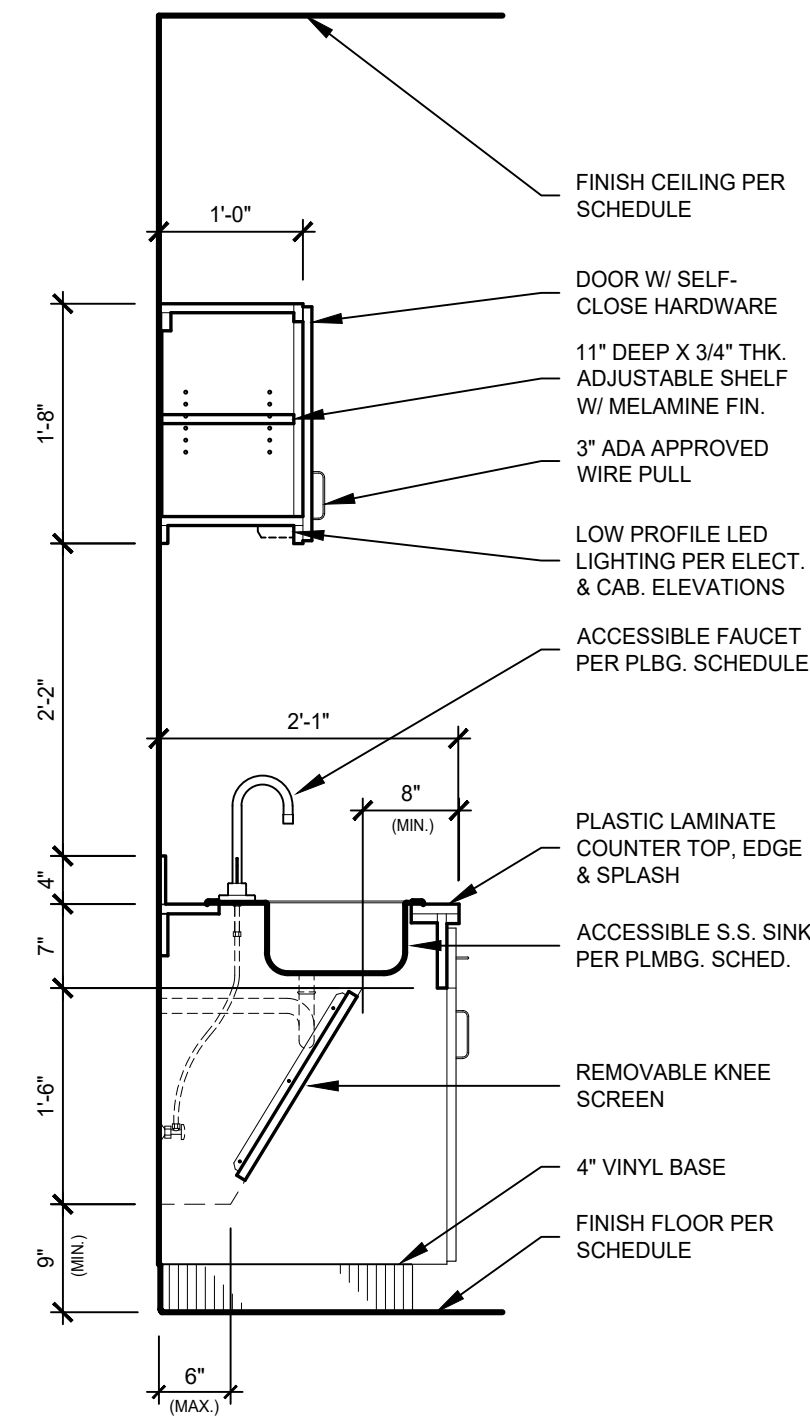
L TOILET 111
SCALE: 3/8" = 1'-0"



M TOILET 111
SCALE: 3/8" = 1'-0"



N TYP. CABINET SECTION
SCALE: 3/8" = 1'-0"



O TYP. ACCESSIBLE SINK CABINET
SCALE: 3/8" = 1'-0"

ARCHITECTURAL MILLWORK (CABINET) NOTES:

1. ARCHITECTURAL MILLWORK (CABINETS) SHALL HAVE PLASTIC LAMINATE FINISH ON ALL EXPOSED EXTERIOR SURFACES WITH WHITE MELAMINE ON EXPOSED INTERIOR SURFACES.
2. COUNTER TOP, EXPOSED EDGES/ENDS & SPLASH SHALL BE PLASTIC LAMINATE (BASE BID) OR 3 CM QUARTZ (ADD ALTERNATE).
3. PLASTIC LAMINATE SHALL COMPLY WITH THE REQUIREMENTS OF NEMA PUBLICATION NO. LD3, LATEST EDITION.
4. POST FORMED SURFACES: .040", HORIZONTAL & VERTICAL SURFACES GRADE .0625" GP50.
5. FINISH EXPOSED EDGES WITH MATCHING PLASTIC LAMINATE UNLESS OTHERWISE SHOWN. EASE EDGES FORMED BY JUNCTION OF TWO (2) PLANES OF PLASTIC LAMINATE.
6. CUT OPENINGS IN TOPS FOR SCHEDULED EQUIPMENT. VERIFY OPENING SIZE WITH ACTUAL EQUIPMENT TO BE USED PRIOR TO CUTTING. FORM INSIDE CORNERS TO BE NO LESS THAN 1/8". AFTER SAWING, ROUT AND FILE CUTOUTS TO ENSURE SMOOTH, CRACK FREE EDGES.
7. WHERE OPENINGS WILL BE EXPOSED TO WATER SPILLAGE (SINKS, BASINS, BEVERAGE EQUIPMENT AND SIMILAR CONDITIONS), SEAL EXPOSED EDGES OF CORE AND LAMINATE AFTER CUTTING WITH WATERPROOF MATERIAL RECOMMENDED BY LAMINATE MANUFACTURER.
8. CORE MATERIAL FOR ALL SINK TOPS SHALL BE APO HDO EXT PLYWOOD. PARTICLE BOARD WILL NOT BE ACCEPTED.
9. DRAWERS SHALL INCLUDE ADA APPROVED PULL HARDWARE, (2) RUBBER SILENCERS & FULL EXTENSION, SELF CLOSING HARDWARE.
10. DOORS SHALL INCLUDE ADA APPROVED PULL HARDWARE, (2) RUBBER SILENCERS & SELF CLOSING HARDWARE.
11. UPPER CABINETS SHALL HAVE ADJUSTABLE SHELVES.
12. BOTTOM CABINETS SHALL HAVE FIXED SHELF.
13. CORE CONSTRUCTION SHALL BE CONSTRUCTED OF WOOD SOLIDS, PLYWOOD, PARTICLE BOARD OR MEDIUM DENSITY FIBERBOARD (MDF).
14. CABINET BACKS SHALL BE MELAMINE FINISHED (INTERIOR) 1/8" THICK HARDBOARD.
15. ALL WORK SHALL BE IN FULL ACCORDANCE WITH THE GUIDELINES OF THE AMERICAN WOODWORKERS ASSOCIATION.
16. COORDINATE PLASTIC LAMINATE COLOR SELECTION WITH OWNER & TENANT.

David E. Lewis

Architect

P.O. Box 1142

Portland, Texas 78374-1142

Telephone: 361.413.0123

Email: DELewis@DELArch.com



SAN PATRICIO COUNTY OFFICES-PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM, PORTLAND, TEXAS 78374

INTERIOR ELEVATIONS

(OWNER SEAL)

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

A4.1



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES-PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM, PORTLAND, TEXAS 78374

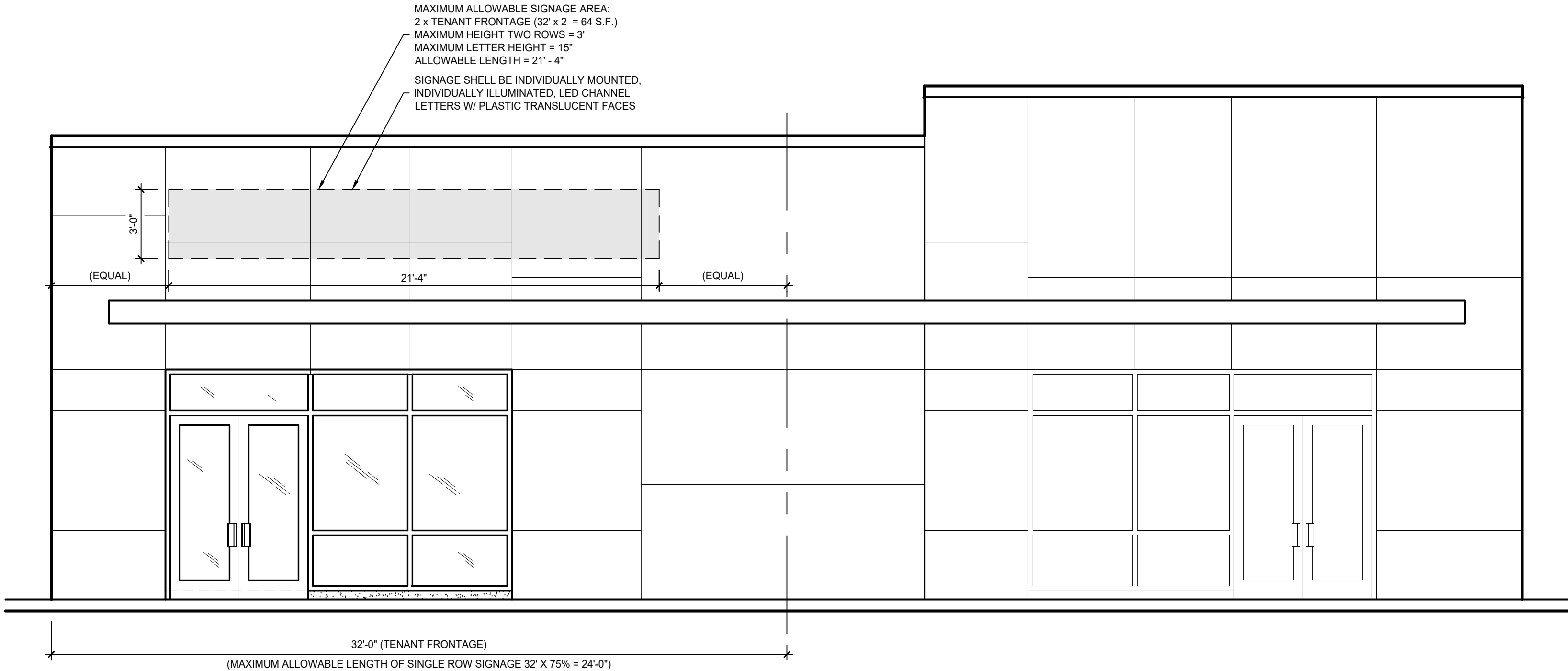
FRONT EXTERIOR SIGNAGE

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

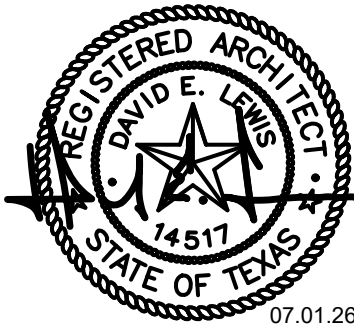
SHEET NO.

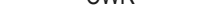
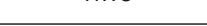
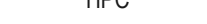
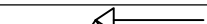
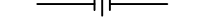
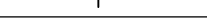
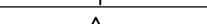
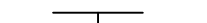
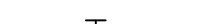
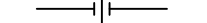
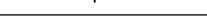
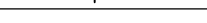
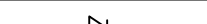
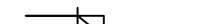
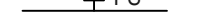
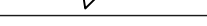
A5.0



1 FRONT EXTERIOR SIGNAGE
SCALE: 1/4" = 1'-0"

David E. Lewis
Architect
P.O. Box 1142
Portland, Texas 78374-1142
Telephone: 361.413.0123
Email: DELewis@DELArch.com

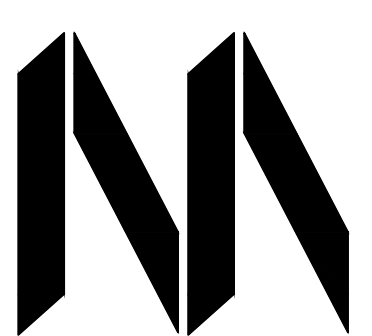
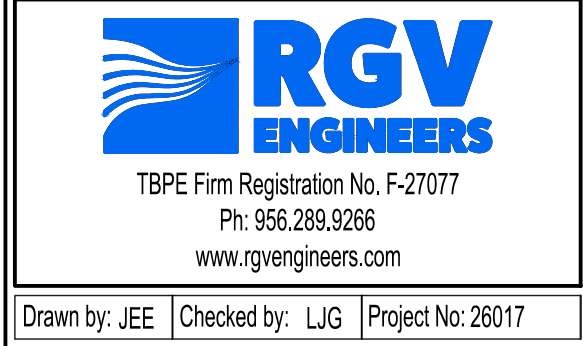
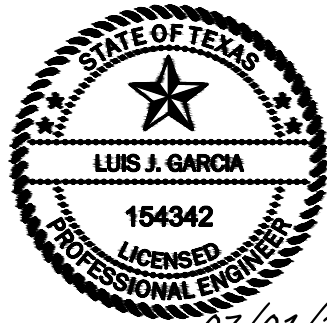


HVAC LEGEND (PIPING)		
SYMBOL	DESCRIPTION	ABBREVIATION
	CHILLED WATER SUPPLY	CHWS
	CHILLED WATER RETURN	CHWR
	CONDENSER WATER SUPPLY	CWS
	CONDENSER WATER RETURN	CWR
	HEATING WATER SUPPLY	HWS
	HEATING WATER RETURN	HWR
	TEMPERED WATER SUPPLY	TWS
	TEMPERED WATER RETURN	TWR
	GLYCOL WATER SUPPLY	GWS
	GLYCOL WATER RETURN	GWR
	CONDENSATE DRAIN	CD
	LOW PRESSURE STEAM (0-15 PSIG)	LPS
	MEDIUM PRESSURE STEAM (16 TO 100 PSIG)	MPS
	HIGH PRESSURE STEAM (ABOVE 100 PSIG)	HPS
	LOW PRESSURE STEAM CONDENSATE (0-15 PSIG)	LPC
	MEDIUM PRESSURE STEAM CONDENSATE (16 TO 100 PSIG)	MPC
	HIGH PRESSURE STEAM CONDENSATE (ABOVE 100 PSIG)	HPC
	FUEL OIL SUPPLY	FOS
	FUEL OIL RETURN	FOR
	FUEL OIL VENT	FOV
	GATE VALVE	---
	GLOBE VALVE	---
	ANGLE GATE VALVE	---
	THREE WAY VALVE	---
	CONTROL VALVE	---
	SWING CHECK VALVE	---
	NON SLAM (LIFT) CHECK VALVE	---
	TRIPLE DUTY VALVE	---
	SUCTION DIFFUSER	---
	BUTTERFLY VALVE	---
	BALANCING VALVE (CIRCUIT SETTER)	---
	INDEXED BALANCING VALVE	---
	BALL VALVE	---
	AUTOMATIC FLOW CONTROL VALVE	---
	RELIEF VALVE	---
	AUTOMATIC AIR VENT	AAV
	MANUAL AIR VENT	MAV
	HOSE END DRAIN VALVE	---
	COMBINATION PRESSURE/TEMP. TEST PORT (PETE'S PLUG)	---
	SOLENOID VALVE	---
	MOTORIZED VALVE	MOV
	UNION	---
	FLEXIBLE CONNECTION	---
	AIR SEPARATOR	---
	PRESSURE REDUCING VALVE	PRV
	BLIND FLANGE / CAP	---
	TEE FROM BOTTOM OF PIPE	---
	TEE FROM TOP OF PIPE	---
	ELBOW TURNED DOWN	---
	ELBOW TURNED UP	---
	REDUCER, CONCENTRIC	---
	REDUCER, ECCENTRIC (FLAT ON TOP)	---
	TEE	---
	ANCHOR	---
	ALIGNMENT GUIDE	---
	PRESSURE GAUGE AND GAUGE COCK	---
	PRESSURE SWITCH	---
	PUMP	---
	Y-TYPE STRAINER W/BLOWDOWN VALVE & HOSE CONN.	---
	BASKET STRAINER W/BLOWDOWN VALVE & HOSE CONN.	---
	THERMOMETER	---
	GUAGE COCK	---
	STEAM TRAP	---
	STEAM CONTROL VALVE	---

HVAC LEGEND						
SYMBOL		DESCRIPTION	ABBREVIATION	DESCRIPTION		ABBREVIATION
		AIR DEVICE TAG, TYPE "A", BALANCE FOR 100 CFM, 6"Ø NECK	---	1000 BTU/HR		MBH
		BACK DRAFT DAMPER	BDD	ABOVE CEILING		A/C
		CARBON MONOXIDE/NITROGEN DIOXIDE (CO/NO2) SENSOR	---	ABOVE FINISHED FLOOR		AFF
		CO/NO2 GAS DETECTION SYSTEM ALARM	---	ABOVE FINISHED GRADE		AFG
		CEILING RADIATION DAMPER IN DUCT/CEILING REGISTER	CRD	ACCESS DOOR		AD
		COMBINATION FIRE/SMOKE DAMPER (HORIZONTAL)	FSD	ACCESS PANEL (REFER TO ARCHITECTURAL DWGS.)		AP
		COMBINATION FIRE/SMOKE DAMPER (VERTICAL)	FSD	AIR CONDITIONER		AC
		DUCT DROP	---	AIR COOLED CONDENSING UNIT		CU
		DUCT RISE	---	AIR HANDLER		AH
		DUCT SIZE - RECTANGULAR (OR 12/10)	---	ALUMINIUM		ALUM
		DUCT SIZE - ROUND	---	AUTHORITY HAVING JURISDICTION		AHJ
		DUCT SMOKE DETECTOR	---	BYPASS DAMPER		BPD
		DUCT TRANSITION	---	CABINET UNIT HEATER		CUH
		DRYER VENT BOX	---	CEILING HEATER		CEH
		EQUIPMENT DESIGNATION	---	CEILING RADIATION DAMPER		CRD
		FIRE DAMPER (HORIZONTAL)	FD	CIRCULATION FAN		CF
		FIRE DAMPER (VERTICAL)	FD	CLEAN OUT		CO
		FLEXIBLE DUCT	---	COEFFICIENT OF PERFORMANCE		COP
		FLEXIBLE DUCT CONNECTOR	---	CONDENSATE DRAIN		CD
		LINED DUCT	---	DEW POINT		DP
		MANUAL VOLUME DAMPER (RECTANGULAR DUCT)	MVD	DOWN		DN
		MANUAL VOLUME DAMPER (ROUND DUCT)	MVD	DUCT ACCESS DOOR		AD
		MOTORIZED DAMPER	MD	DRY BULB		DB
		RETURN / EXHAUST AIR DUCT TURNED DOWN	---	ELECTRIC UNIT HEATER		EUH
		RETURN / EXHAUST AIR DUCT TURNED UP	---	ELECTRIC WALL HEATER		EWH
		RETURN / EXHAUST AIR GRILLE (CEILING)	---	ENTERING AIR TEMPERATURE		EAT
		ROUND CEILING DIFFUSER	---	ENTERING WATER TEMPERATURE		EWT
		SIDEWALL SUPPLY REGISTER OR GRILLE	---	EXHAUST AIR (ENVIRONMENTAL AIR)		EA
		SIDEWALL RETURN AIR REGISTER OR GRILLE	---	EXHAUST FAN		EF
		SLOT DIFFUSER	---	EXTERNAL STATIC PRESSURE		ESP
		SMOKE DAMPER	SD	FIRE FIGHTERS SMOKE CONTROL PANEL		FSCP
		SPIN IN FITTING W/ DAMPER & FLEX DUCTWORK	---	FREE AREA		FA
		SQUARE CEILING DIFFUSER	---	FURNACE		F
		SUPPLY AIR DUCT TURNED DOWN	---	GARAGE EXHAUST FAN		GEF
		SUPPLY AIR DUCT TURNED UP	---	GRILLE (AIR DEVICE WITHOUT A BALANCING DAMPER)		GR
		THERMOSTAT/TEMPERATURE SENSOR	TSTAT	HEAT PUMP		HP
		TURNING VANES	---	HEATING SEASONAL PERFORMANCE FACTOR		HSPF
		UNDER CUT DOOR	UCD	HEIGHT		HT
		WALL CAP (EA OR OA)	---	HIGH SIDEWALL		HSW
		WALL LOUVER (INTAKE)	WL	INCHES OF WATER COLUMN		IN WC
		WALL LOUVER (EXHAUST)	WL			
		MECHANICAL EQUIPMENT WITH SERVICE AND AIRFLOW CLEARANCES (AS REQUIRED BY THE MANUFACTURER)	---			

MECH/ELEC COORDINATION

THE MECHANICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL CHARACTERISTICS OF ALL HVAC EQUIPMENT (VOLTAGE, PHASE, MCA, MOCP, ETC.) WITH THE ELECTRICAL CONTRACTOR AND THE ELECTRICAL PLANS PRIOR TO SUBMITTING OR ORDERING ANY MECHANICAL EQUIPMENT. ANY SUBSEQUENT MISMATCH BETWEEN THE MECHANICAL EQUIPMENT ELECTRICAL REQUIREMENTS AND THE ELECTRICAL SERVICE, AS DESIGNED AND PROVIDED, SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR WITH NO ADDITIONS TO THE CONTRACT.



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

MECHANICAL LEGEND AND NOTES

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO.

M0.00



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

MECHANICAL PLAN

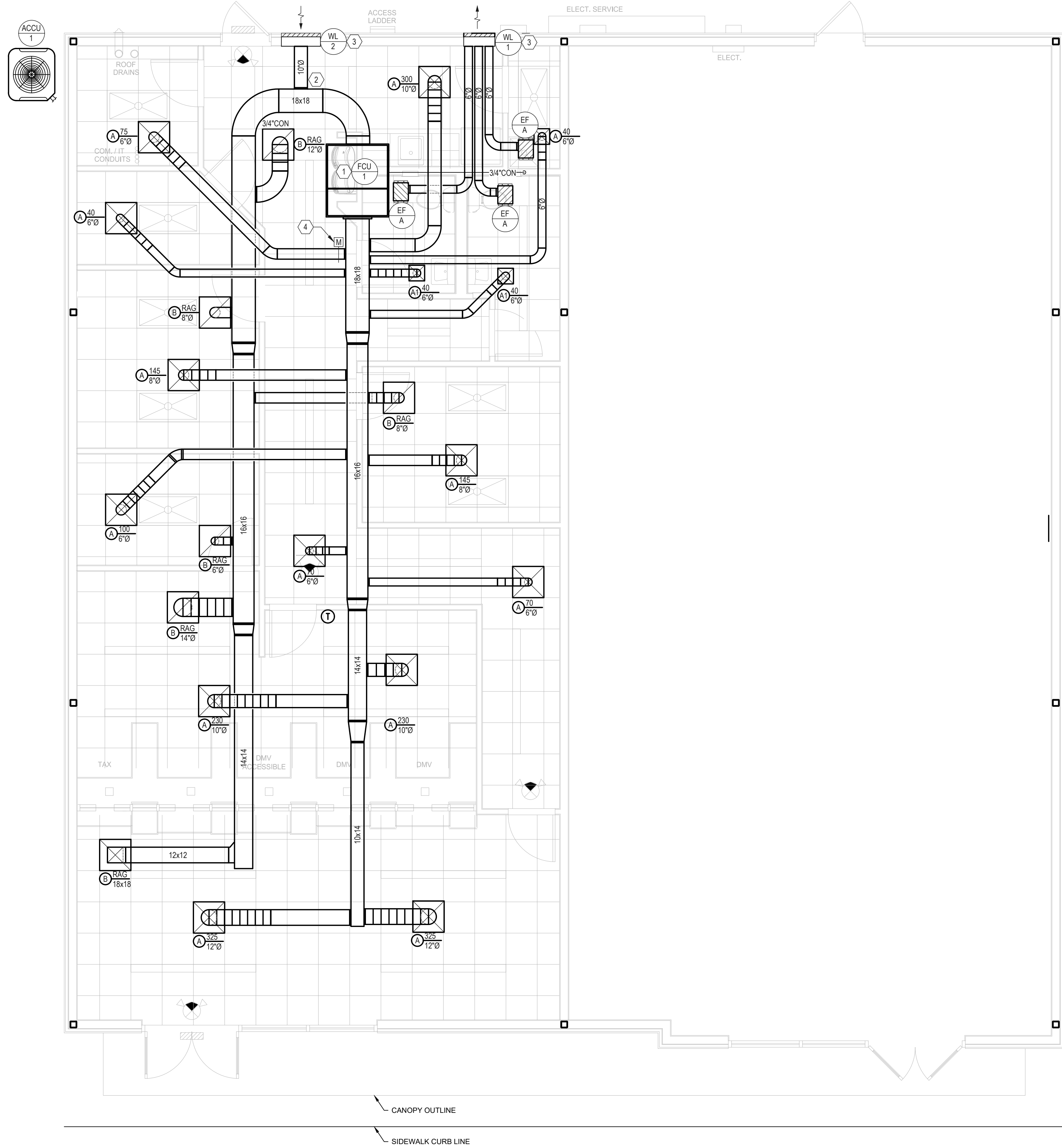
ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO.

M1.00



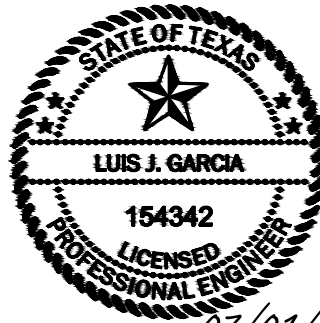
1 LEVEL 1 MECHANICAL PLAN
SCALE: 1/4" = 1'-0"

GENERAL PLAN NOTES

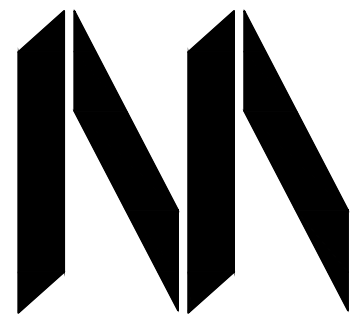
- HVAC SHALL BE DUCTED RETURN.
- PROVIDE 18" DEEP PLENUM BEHIND WALL LOUVER FOR DUCT CONNECTIONS.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE THE NUMBER OF ELBOWS, TRANSITIONS, FITTINGS, ETC. TO REDUCE THE DUCT SYSTEM STATIC PRESSURE.
- PROVIDE BALANCING DAMPERS AT ALL BRANCH TAKE-OFFS TO SUPPLY, RETURN, AND EXHAUST DUCTS THAT SERVE INDIVIDUAL GRILLES, REGISTERS, AND DIFFUSERS.
- OBSERVE ALL MANUFACTURER'S CLEARANCE AND INSTALLATION GUIDELINES FOR MECHANICAL EQUIPMENT.
- VOLUME DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS SHALL BE PROVIDED WITH A REMOTE DAMPER OPERATOR.
- SEAL ALL DUCT JOINTS, SEAMS, AND CONNECTIONS TO EQUIPMENT AIR-TIGHT PER THE GENERAL NOTES.
- COORDINATE WORK ON MECHANICAL SHEETS WITH ALL TRADES. WORK SHOWN ON THE DRAWINGS IS INTENDED TO PROVIDE THE OVERALL ENGINEERING DESIGN CONCEPT AND DOES NOT ACCOUNT FOR RELOCATIONS, OFFSETS, ETC. THAT ARE REQUIRED BY THE COORDINATION OF TRADES. RELOCATIONS, OFFSETS, ETC. SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
- THE LOCATIONS, ARRANGEMENT AND EXTENT OF EQUIPMENT, DEVICES, AND OTHER APPURTENANCES RELATED TO THE INSTALLATION OF MECHANICAL WORK SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY DEPICT EXACT CONDITIONS. THE LOCATION OF EQUIPMENT, DUCTWORK, ETC. IS APPROXIMATE ONLY.
- MATERIALS, EQUIPMENT OR LABOR NOT INDICATED BUT WHICH CAN BE REASONABLY INFERRED TO BE NECESSARY FOR A COMPLETE INSTALLATION SHALL BE PROVIDED. DRAWINGS AND SPECIFICATIONS DO NOT INDICATE EVERY ITEM OF MATERIAL, EQUIPMENT, OR LABOR REQUIRED TO PRODUCE A COMPLETE, SAFE, AND PROPERLY OPERATING INSTALLATION.
- COORDINATE ALL THERMOSTAT/SENSOR LOCATIONS IN THE FIELD AND WITH THE OWNERTENANT PRIOR TO CONSTRUCTION. MOUNT NO CLOSER THAN 8" FROM THE CORNER OR END OF A WALL. DO NOT LOCATE THERMOSTATS AT THE CENTER OR NEAR CENTER OF A WALL.
- ALL MECHANICAL EQUIPMENT, DAMPERS, VALVES, ETC. LOCATED ABOVE INACCESSIBLE CEILINGS SHALL HAVE A CEILING ACCESS PANEL (RE: ARCHITECTURAL DRAWINGS FOR SIZE AND TYPE) THAT IS PROVIDED BY THE GENERAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THE ACCESS PANEL(S) WITH THE GENERAL CONTRACTOR AND ARCHITECT PRIOR TO INSTALLATION.
- PROVIDE ALL OFFSETS AND TRANSITIONS IN DUCTWORK AND PIPING AS REQUIRED TO MAINTAIN CEILING HEIGHTS INDICATED ON THE ARCHITECTURAL DRAWINGS. INCLUDE OFFSETS AND TRANSITIONS OVER OR UNDER NEW DUCTWORK AND OTHER BUILDING SYSTEMS WHETHER INDICATED ON THE DRAWINGS OR NOT.
- PROVIDE CLEAN OUT AT ALL 90 DEGREE BENDS IN CONDENSATE PIPING.
- CONTRACTOR SHALL BUILD PLENUM BOXES AS REQUIRED TO CONNECT TO MECHANICAL EQUIPMENT SUPPLY AND RETURN OPENINGS AND PROVIDE FLEXIBLE CONNECTIONS.

KEY NOTES #

- TRAP AND ROUTE CONDENSATE TO MOP SINK. ROUTE DOWN WITHIN WALL AND DISCHARGE 1" ABOVE MOP SINK RIM.
- ROUTE INSULATED OUTSIDE AIR DUCT FROM EXTERIOR INTO RETURN AIR DUCT. DUCTWORK SHALL HAVE MANUAL VOLUME AND MOTORIZED DAMPER. BALANCE CFM TO VALUE SHOWN ON AIR HANDLER SCHEDULE. MOTORIZED DAMPER SHALL BE WIRED TO OPEN WHEN AH IS ON AND SHUT WHEN AH IS OFF.
- BUILD 18" PLENUM BOX BEHIND LOUVERS FRO DUCT CONNECTIONS.
- PROVIDE MOTORIZED DAMPER INTERLOCKED WITH HEATING MODE FOR FCU-1. DAMPER SHALL SHUT WHEN IN HEATING MODE ONLY TO PREVENT WARM AIR FROM ENTERING THE IT ROOM.



RGV ENGINEERS
TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com
Drawn by: JEE | Checked by: LIG | Project No: 26017



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND
SAN PATRICIO COUNTY
704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

MECHANICAL SCHEDULES

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

M2.00

FAN SCHEDULE	
MARK	EF-A
SERVES	RESTROOMS / JANITOR
TYPE/DRIVE	ROOF MOUNTED CENT/DIRECT
INTERLOCK	OCC SENSOR/LIGHTS
CFM (MIN./MAX.)	70
EXT. S.P. (IN. W.G.)	0.300
HORSE POWER	1/15
FAN SPEED (RPM)	650
SONES (MAX.)	2.5
VOLTS/PHASE/HERTZ	115/1/60
MANUFACTURER	GREENHECK
MODEL NUMBER	SP-B110ES
NOTES	1,4,5

- NOTES:
- EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO FILTERS, HOUSING, NOR ACCESSORIES.
 - PROVIDE WITH 12" PREFABRICATED ROOF CURB, WEATHERPROOF DISCONNECTSWITCH, AND ALUMINUM BIRD SCREEN.
 - PROVIDE WITH MOTORIZED DAMPER INTERLOCKED WITH FAN OPERATION SUCH THAT DAMPER SHALL OPEN WHEN FAN IS ENERGIZED AND SHUT WHEN FAN IS DE-ENERGIZED DAMPER SHALL BE INSTALLED IN ACCESSIBLE LOCATION.
 - PROVIDE WITH FAN MOUNTED SPEED CONTROLLER.
 - PROVIDE WITH BACK DRAFT DAMPER.

DX FAN COIL UNIT SCHEDULE			
MARK	FCU-1 (7.5T)	NA	NA
SERVES	OFFICE AREA	--	--
SUPPLY AIR (CFM)	2,100	--	--
OUTSIDE AIR (CFM)	330	--	--
EXT. S.P. (IN. W.G.)	0.7	--	--
FAN MOTOR HORSEPOWER	2.0	--	--
FAN STAGES	3	--	--
COOLING EAT DB/WB (°F)	78.6/66.5	--	--
COOLING LAT DB/WB (°F)	53.1/52.6	--	--
TOTAL COOLING CAPACITY (MBH)	84.8	--	--
SENSIBLE COOLING CAPACITY (MBH)	56.5	--	--
NO. OF COOLING STAGES	2	--	--
HEATING SOURCE	ELECTRIC	--	--
HEATING CFM	1900	--	--
HEATING CAPACITY KW	15	--	--
HEATING EAT DB (°F)	65	--	--
HEATING LAT DB (°F)	82	--	--
NO. OF HEATING STAGES	1	--	--
VOLTS/PHASE/HERTZ	208/3/60	--	--
MCA	49	--	--
MOCP	50	--	--
MANUFACTURER	LENNOX	--	--
MODEL NO.	EL090KA	--	--
NOTES	1,2,3,7,8	--	--

- NOTES:
- EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
 - UNIT SHALL BE SUSPENDED FROM STRUCTURE ABOVE. PROVIDE WITH VIBRATION ISOLATION PER SPECIFICATIONS.
 - PROVIDE UNIT WITH FLOAT SWITCH TO DE-ENERGIZE UNIT WHEN PRIMARY DRAIN BECOMES RESTRICTED.
 - UNIT SHALL BE VERTICALLY MOUNTED ON ANGLE IRON FRAME WITH DUCTED RETURN UNDERNEATH.
 - FAN SHALL RUN CONTINUOUSLY ON LOW SPEED WHEN COOLING CALL HAS BEEN SATISFIED.
 - UNIT SHALL BE VERTICALLY MOUNTED WITH OPEN ENDED RETURN WITHIN MECHANICAL CLOSET. CLOSET SHALL BE PLENUM RATED AND CONDENSATE PIPING SHALL BE COPPER.
 - UNIT SHALL BE PROVIDED WITH FILTER SECTION.
 - UNIT SHALL BE CONFIGURED TO HAVE A LOWER SUPPLY AIR VOLUME HWEN IN HEATING MODE AS SCHEDULED.

LOUVER SCHEDULE		
MARK	WL-1	WL-2
SERVES	EX-HAUST	OA INTAKE
SIZE (WIDTH X HEIGHT)	24x12	30x12
CFM	210	330
MAX. FREE AREA VELOCITY (FPM)	600	600
MIN. FREE AREA (SQ. FT.)	0.35	0.55
MAX. P.D. (IN. W.G.)	0.08	0.08
MODEL	ESD-635D	ESD-635D
MANUFACTURER	GREENHECK	GREENHECK
NOTES	1,2,4	1,2,4

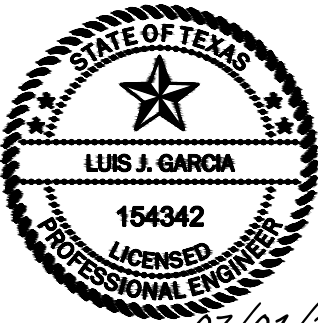
- NOTES:
- LOUVER PERFORMANCE SHALL BE RATED IN ACCORDANCE WITH AMCA PUBLICATION 511.
 - PROVIDE WITH BIRD SCREEN.
 - PROVIDE WITH BAROMETRIC RELIEF DAMPER SET TO 0.05 IN. W.G.
 - GREENHECK OR APPROVED EQUAL.

AIR DEVICE SCHEDULE			
MARK	MFR. & MODEL	TYPE	REMARKS
A	TITUS TMS-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR LAY-IN CEILING.
B	TITUS PAR-AA	PERFORATED FACE RETURN AIR GRILLE	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR LAY-IN CEILING. PROVIDE 22"x22" NECK UNLESS OTHERWISE NOTED. PROVIDE O.B.D. FOR DUCTED EXHAUST.
A1	TITUS TMS-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	12"x12" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT.
B1	TITUS PAR-AA	PERFORATED FACE RETURN AIR GRILLE	12"x12" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR GYP-BOARD CEILING. PROVIDE 10"x10" NECK UNLESS OTHERWISE NOTED. PROVIDE O.B.D. FOR DUCTED EXHAUST.

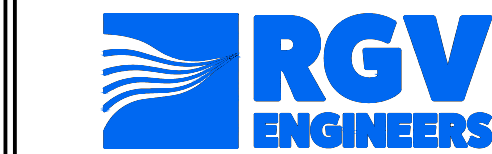
- NOTES:
- REFER TO ARCHITECTURAL DRAWINGS FOR FINISH.
 - REFER TO MECHANICAL FLOOR PLAN FOR NECK SIZES.

AIR COOLED CONDENSING UNIT SCHEDULE			
MARK	ACCU-1	NA	NA
SERVES	OFFICE AREA	--	--
TOTAL COOLING CAPACITY (MBH)	84.8	--	--
AMBIENT TEMP. (°F)	105	--	--
STEPS OF CAPACITY	2	--	--
SEER2	-	--	--
IEER	11.2	--	--
VOLTS/PHASE/HERTZ	208/3/60	--	--
MCA	36	--	--
MOCP	60	--	--
MANUFACTURER	LENNOX	--	--
MODEL NUMBER	EL090KC	--	--
OPERATING WEIGHT (LBS.)	345	--	--
NOTES	ALL	--	--

- NOTES:
- INSTALL PER MANUFACTURER'S SPECIFICATIONS.
 - REFRIGERANT LINES TO BE SIZED BY MANUFACTURER.
 - PROVIDE 5 YEAR PARTS AND LABOR WARRANTY ON CONDENSING UNITS.
 - PROVIDE WITH CONDENSER COIL HAIL GUARD.
 - PROVIDE WITH LOW AMBIENT HEAD PRESSURE CONTROL.



07/01/2026



TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com

Drawn by: JEE | Checked by: LIG | Project No: 26017



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

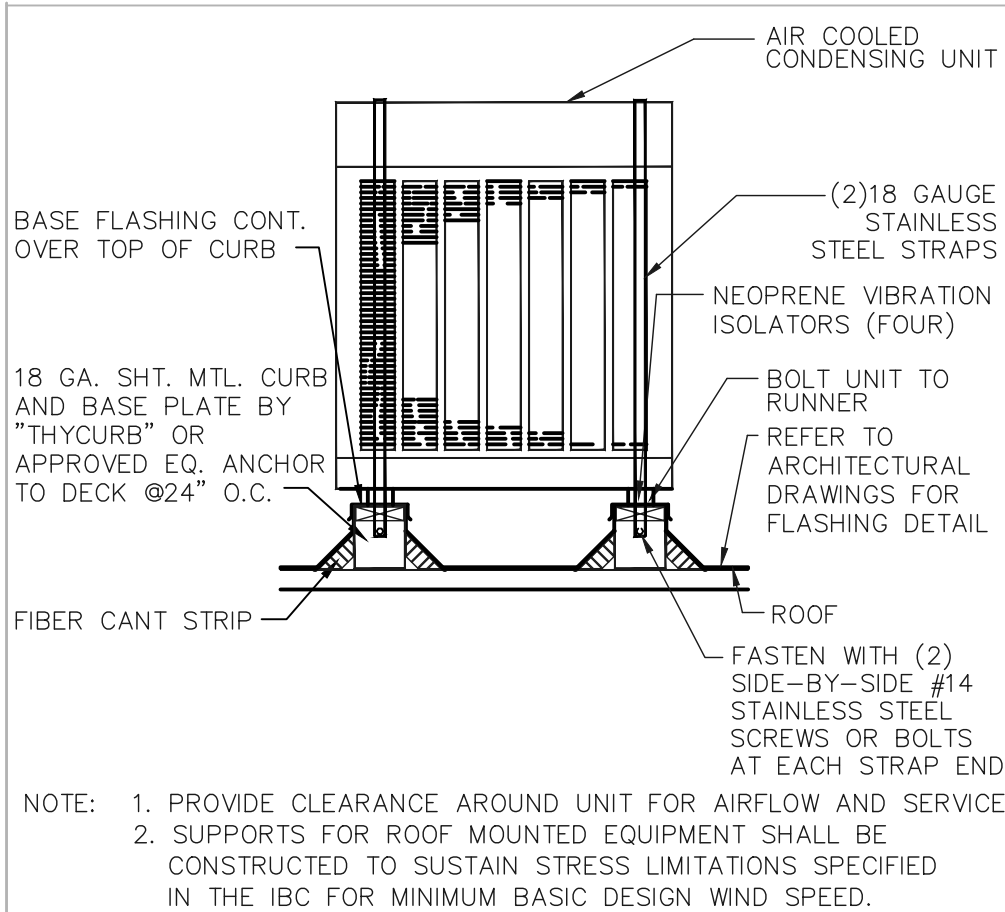
MECHANICAL DETAILS

ISSUED FOR CONSTRUCTION
1 JULY 2026

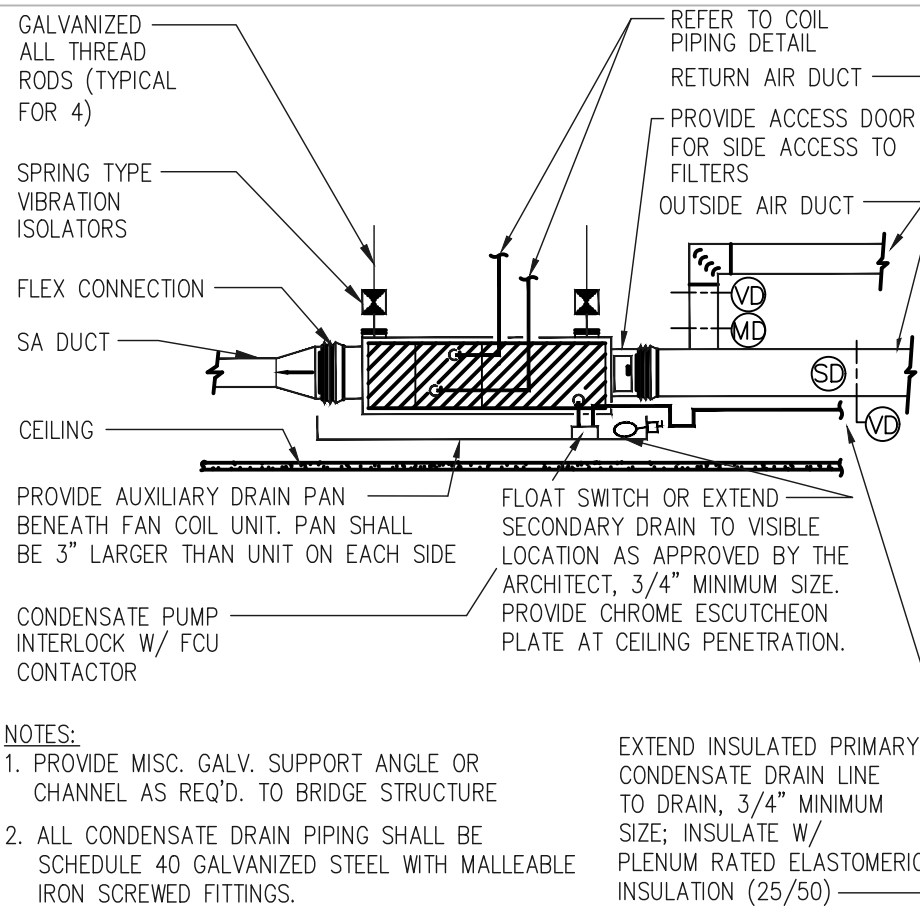
REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

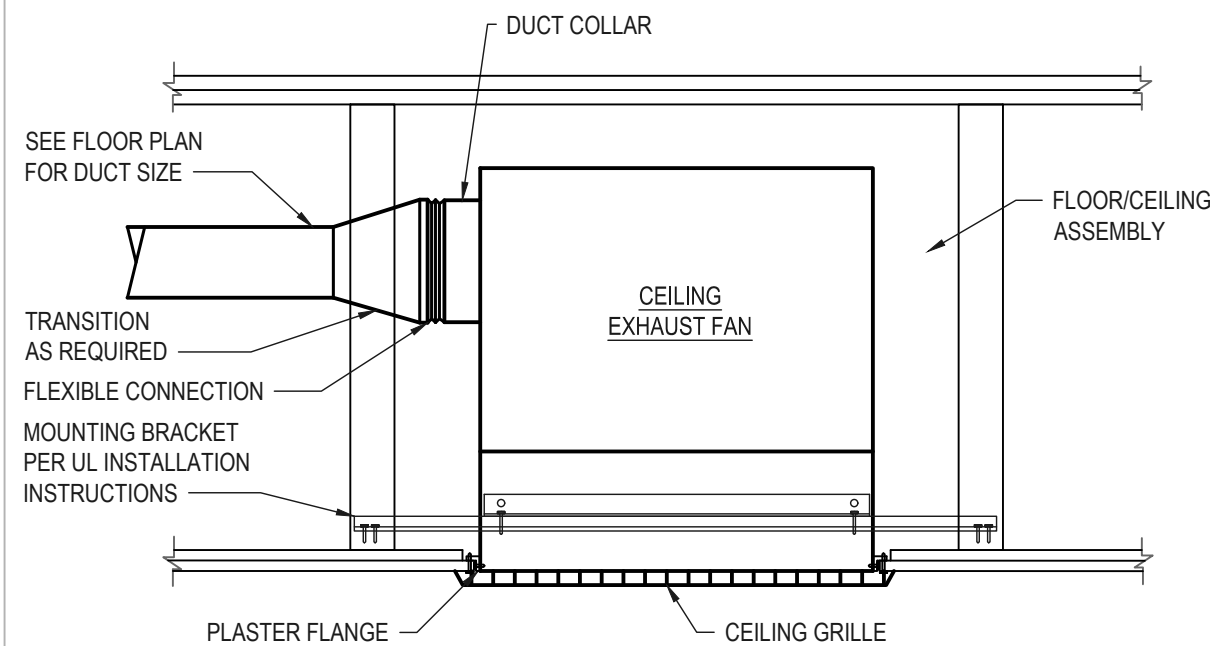
M3.00



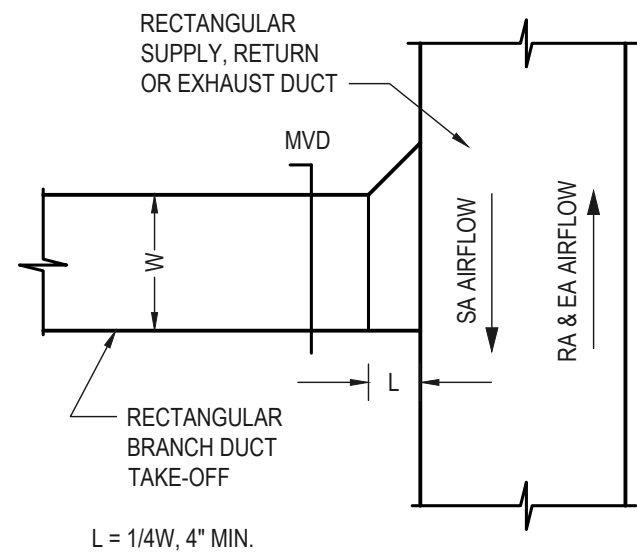
HIGH WIND - CONDENSING UNIT



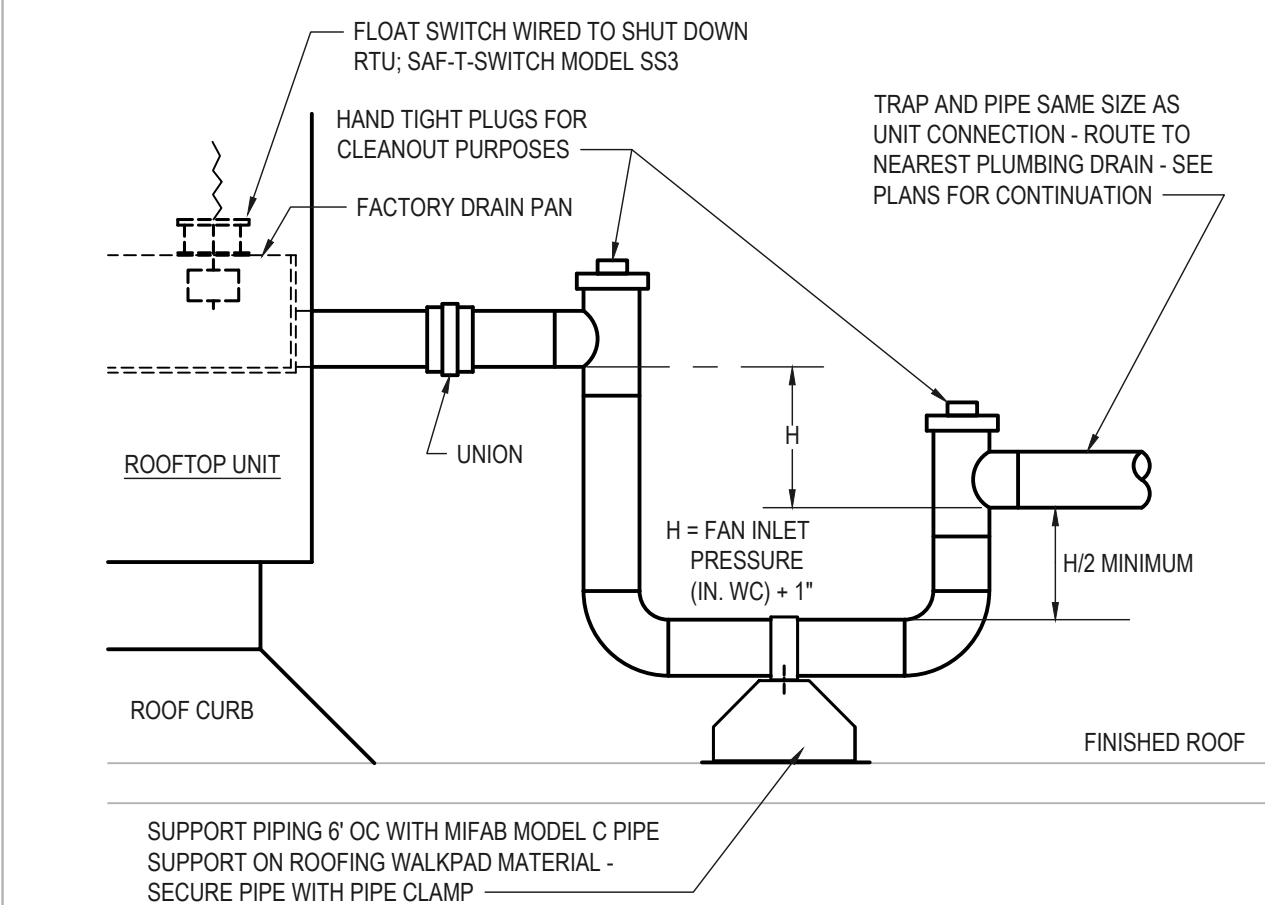
FAN COIL UNIT MOUNTING (2 PIPE)



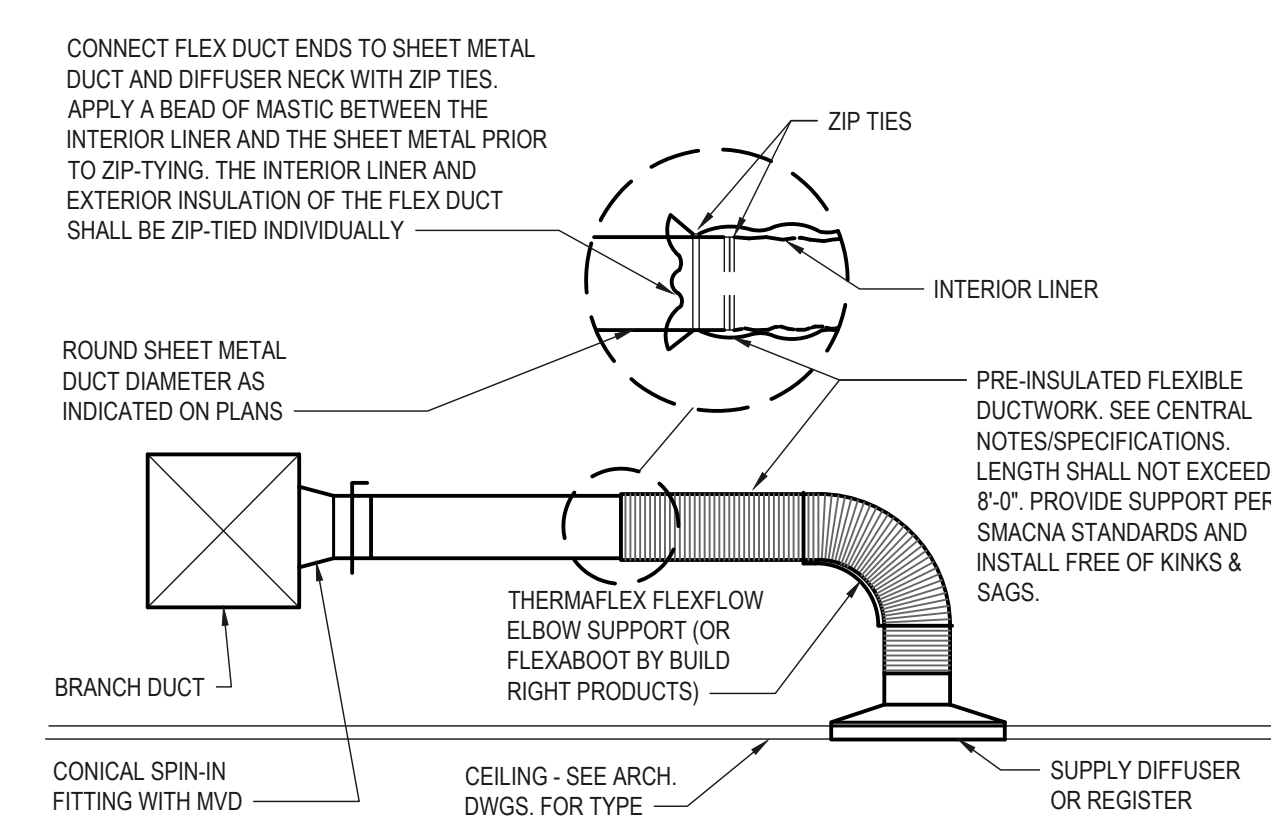
CEILING EXHAUST FAN
NOT TO SCALE



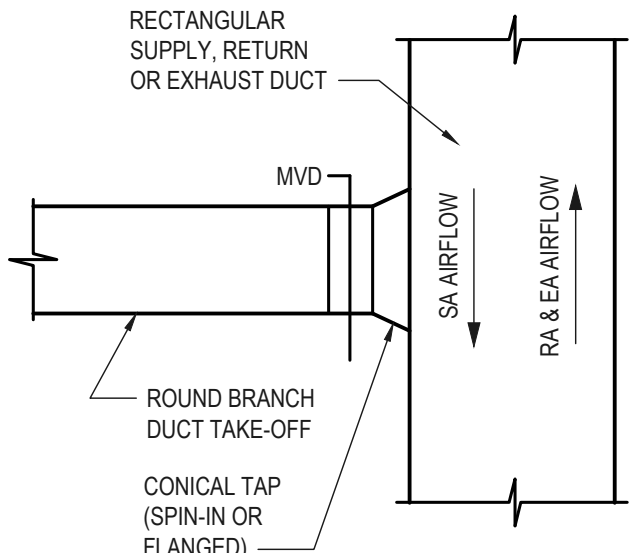
LOW PRESSURE
BRANCH DUCT TAKE-OFF
(RECTANGULAR 45° ENTRY)
NOT TO SCALE



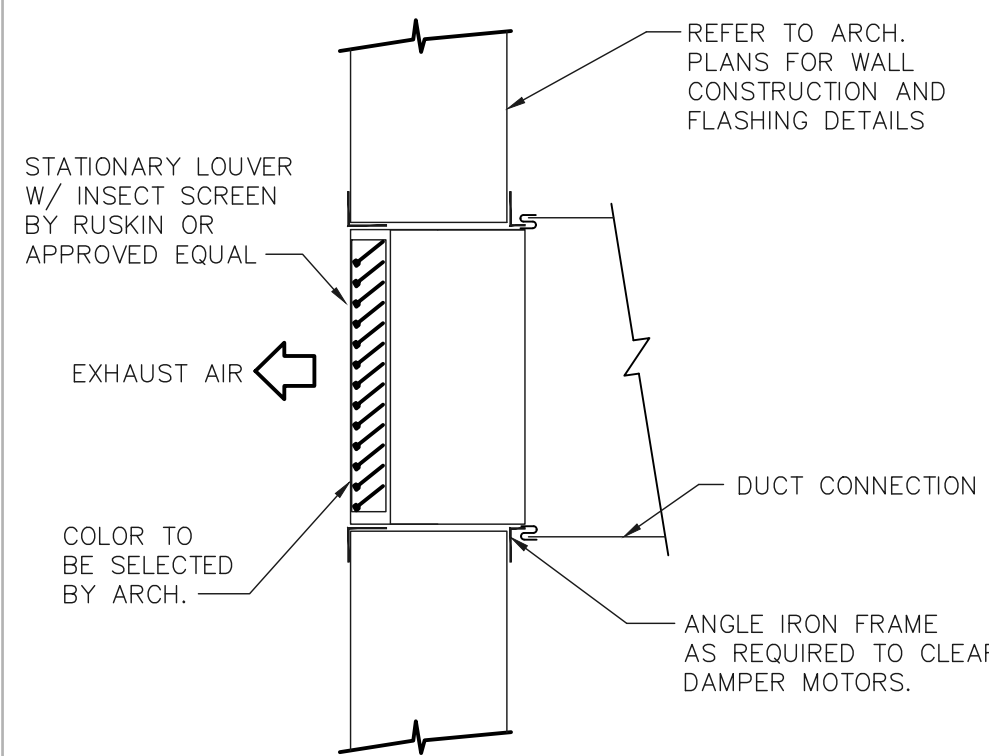
CONDENSATE DRAIN TRAP DETAIL
NOT TO SCALE



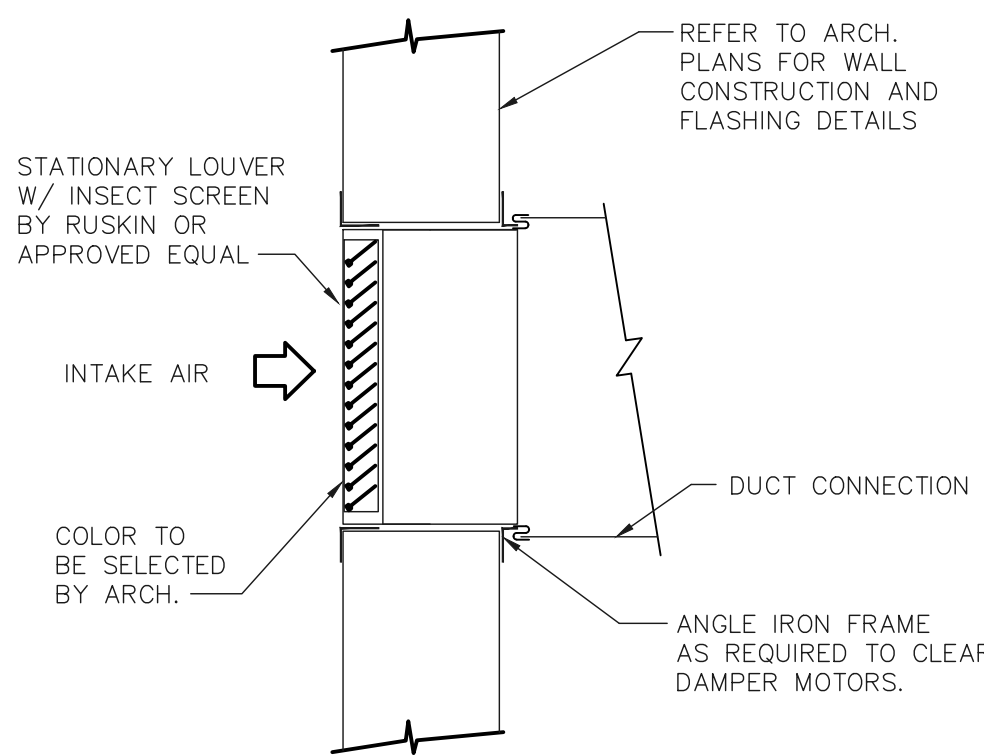
COMMERCIAL
FLEXIBLE DUCT TAKE-OFF DETAIL



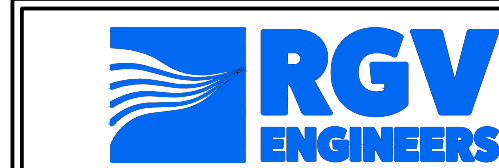
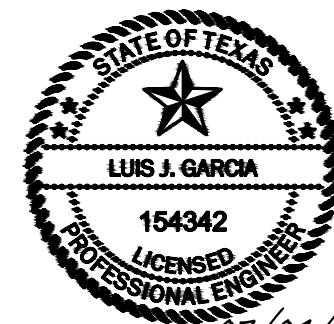
LOW PRESSURE
BRANCH DUCT TAKE-OFF
(ROUND BRANCH ENTRY)
NOT TO SCALE



EXHAUST LOUVER MOUNTING
NOT TO SCALE



INTAKE LOUVER MOUNTING
NOT TO SCALE



TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com

Drawn by: JEE | Checked by: LJS | Project No: 26017

AREA. SMOKE DETECTOR TROUBLE CONDITIONS SHALL BE IDENTIFIED AS AIR DUCT DETECTOR TROUBLE. THE SMOKE DETECTOR AND AUDIBLE/VISIBLE ALARM SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

19. INSTALL SMOKE DETECTOR. SMOKE RATED DETECTOR SHALL CARRY BOTH SMOKE AND HEAT SENSITIVE SHAFTS. THE

- A. FIRE, SMOKE DETECTOR TROUBLE CONDITIONS SHALL BE IDENTIFIED AS AIR DUCT DETECTOR TROUBLE. THE SMOKE DETECTOR AND AUDIBLE/VISIBLE ALARM SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
2. IF BUILDING HAS FIRE ALARM - THE SMOKE DETECTOR SHALL BE WIRED TO STOP THE FAN UPON DETECTION OF SMOKE, AND SIGNAL THE BUILDING FIRE ALARM CONTROL PANEL. THE SMOKE DETECTOR SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR, MOUNTED IN THE DUCT BY THE MECHANICAL CONTRACTOR, AND WIRED BY THE ELECTRICAL CONTRACTOR.
- AIR DISTRIBUTION:**
1. SUPPLY, RETURN AND O.A. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE, LATEST EDITION.
- a. SNAP-LOCK LONGITUDINAL SEAMS ARE NOT ALLOWED UNLESS SECURED WITH SHEET METAL FASTENING SCREWS AS RECOMMENDED BY SMACNA.
- b. LEASING, AMENITY AND COMMON AREA DUCTWORK IN MULTIFAMILY PROJECTS SHALL HAVE SHEET METAL DUCTWORK.
2. TAPES, SEALANTS AND MASTICS USED TO SEAL METALLIC AND FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED "181 B-FX" FOR PRESSURE-SENSITIVE TAPE OR "181 B-MF" FOR MASTIC/SEALANT.
3. SEAL THE ANNULAR SPACE AROUND ALL DUCT PENETRATIONS THROUGH WALLS, CEILINGS AND FLOORS ARTIGHT WITH AN APPROVED MATERIAL (RE: ARCHITECTURAL DRAWING FOR APPROVED MATERIALS).
4. MECHANICAL FASTENERS FOR USE WITH FLEXIBLE NONMETALLIC AIR DUCTS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED "181 B-C".
5. SHEETMETAL DUCT SEALING:
- a. ALL JOINTS AND SEAMS IN ALL SHEETMETAL DUCTWORK SHALL BE SEALED WITH DUCT SEALER.
- b. SEAL, INSPECT AND TEST SHEETMETAL DUCTWORK PRIOR TO INSULATING OR CONCEALING. SEAL ALL DUCTWORK AND PLENUMS TO MEET SMACNA CLASS A.
- c. SEAL ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS.
- d. PRESSURE-SENSITIVE TAPE SHALL NOT BE USED AS THE PRIMARY SEALANT, UNLESS IT HAS BEEN CERTIFIED TO COMPLY WITH UL-181A OR UL-181B BY AN INDEPENDENT TESTING LABORATORY AND THE TAPE IS USED IN ACCORDANCE WITH THAT CERTIFICATION.
- e. ALL CONNECTIONS SHALL BE SEALED, INCLUDING BUT NOT LIMITED TO SPIN-IN FITTINGS, TAPS, OTHER BRANCH CONNECTIONS, ACCESS DOORS, AND DUCT CONNECTIONS TO EQUIPMENT.
- f. SEALING THAT WOULD VOID PRODUCT LISTINGS IS NOT REQUIRED.
- g. SPIRAL LOCK SEAMS NEED NOT BE SEALED.
7. EXTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL (G 90 MINIMUM) WITH ALL SEAMS CAULKED AND SEALED WEATHERTIGHT AND COATED WITH A RUST PREVENTIVE COATING OVER THE ENTIRE DUCT SURFACE. RUST PREVENTATIVE COATING SHALL BE "RUST DESTROYER" BY ADVANCE PROTECTIVE PRODUCTS, INC., OR APPROVED EQUAL. SLOPE OR CROWN DUCTWORK AT 1/4" PER FOOT TRANSVERSELY TO PREVENT STANDING WATER ON TOP OF DUCTWORK. ALSO, REFER TO INSULATION NOTE 1e BELOW FOR INSULATION REQUIREMENTS.
8. ALL OPEN-ENDED DUCTS AND FAN OUTLETS SHALL HAVE 1/2" X 1/2" HARDWARE CLOTH (WMS) AFFIXED TO THE OPENING.
9. EXHAUST DUCTWORK SHALL BE GALVANIZED SHEET METAL (G 90 MINIMUM) CONSTRUCTED TO SMACNA STANDARDS AND SHALL NOT BE INSULATED UNLESS NOTED OTHERWISE.
10. ALL DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE PER SMACNA STANDARDS.
11. FLEXIBLE DUCTWORK SHALL BE THERMAX-FLEX (U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT) OR EQUAL. PROVIDE MINIMUM INSULATION VALUE OF R-6, R-8 WHEN LOCATED OUTSIDE THE THERMAL ENVELOPE OF THE BUILDING, OR GREATER WHERE REQUIRED BY APPLICABLE ENERGY CODE. AIR CONNECTORS ARE NOT ACCEPTABLE. FLEX DUCT DIAMETER SHALL MATCH DEVICE NECK DIAMETER. PROVIDE ROUND GALVANIZED STEEL DUCT RUNOUTS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 5' 0" (EXCEPT IN DWELLING UNITS, LENGTH SHALL AS INDICATED). FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED.
12. ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH A CONICAL TYPE SPIN-IN FITTING WITH MANUAL VOLUME DAMPER (EXCEPT WHERE INSTALLED ABOVE INACCESSIBLE CEILINGS. THE DAMPER SHALL BE OMITTED AND PROVIDED IN THE AIR DEVICE NECK.
13. ONLY IN RESIDENTIAL APPLICATIONS, ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK MAY BE CONNECTED TO MAIN DUCTS WITH A TAB TYPE FITTING.
14. TAPE, BED AND SEAL AIR-TIGHT ALL PENETRATIONS FROM RETURN AIR PLENUMS TO NON-RETURN AIR PLENUMS THAT ARE REQUIRED DUE TO DUCTWORK, PIPING OR OTHER ITEMS.
15. DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CIRCLE DIMENSIONS.
16. EXTERNAL STATIC PRESSURE (ESP) DOES NOT INCLUDE COIL, CASING OR FILTER PRESSURE DROP.
17. INSTALL FIRE, SMOKE, COMBINATION FIRE/SMOKE, AND CEILING RADIATION DAMPERS IN ACCORDANCE WITH MANUFACTURERS' UL INSTALLATION INSTRUCTIONS AND SMACNA'S FIRE, SMOKE AND RADIATION DAMPER INSTALLATION GUIDE FOR HVAC SYSTEMS.
18. INSTALL FIRE DAMPERS IN ALL RATED WALLS AND FLOOR PENETRATIONS. FIRE DAMPERS SHALL BE THE DYNAMIC TYPE WITH BLADES OUT OF THE AIRSTREAM WHERE POSSIBLE. ALL FIRE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF UL 555. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES.
19. INSTALL SMOKE DAMPERS IN ALL DUCT PENETRATIONS THROUGH SMOKE RATED WALLS. WHERE DUCTS PENETRATE WALLS THAT CARRY BOTH FIRE AND SMOKE RATINGS OR ARCHITECTURAL SHAFTS, THE DAMPERS INSTALLED SHALL BE COMBINATION FIRE AND SMOKE DAMPERS. ALL SMOKE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF UL 555S. ALL COMBINATION FIRE AND SMOKE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF UL 555 AND UL 555S. POWER WIRING TO TEST SWITCH AND ACTUATOR SHALL BE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
20. INSTALL CEILING RADIATION DAMPERS IN ALL MEMBRANE PENETRATIONS OF FIRE RATED FLOOR/CEILING AND ROOF/CeILING ASSEMBLIES WHERE NOT OTHERWISE PROTECTED WITH A RATED SHAF. ALL CEILING RADIATION DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF UL 555C. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES. WHERE NECESSARY, PROVIDE DUCT ACCESS DOOR AND CEILING ACCESS PANEL (RE: ARCH. DWGS. FOR RATED ACCESS PANEL SPECIFICATION).
21. DUCT ACCESS DOORS: PROVIDE ACCESS DOORS IN DUCTWORK AT EACH FIRE, COMBINATION FIRE/SMOKE AND SMOKE DAMPER LOCATION.
22. PROVIDE ALL OUTDOOR AIR INTAKES AND EXHAUST OPENINGS WITH MOTORIZED OR GRAVITY DAMPERS IN ACCORDANCE WITH THE LOCAL ENERGY CODE. DAMPERS SHALL CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING.
23. LOCATIONS OF GRILLES, REGISTERS, AND DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT LOCATIONS WITH LIGHTS, CEILING GRID, ETC. AND ARCHITECTURAL REFLECTED CEILING PLAN.
24. WHERE BALANCING DAMPERS CANNOT BE ACCESSED FROM BELOW THE CEILING, PROVIDE A REMOTE OPERATED ELECTRONIC DAMPER; YOUNG REGULATOR OR EQUAL.
25. DUCTWORK INSTALLED WITHIN OPEN ATTIC SPACES SHALL BE GALVANIZED STEEL, DUCTBOARD AND FLEX DUCT IS ALLOWABLE WHERE SERVING DWELLING UNIT SUPPLY AIR SYSTEMS.
26. FLEXIBLE DUCT CONNECTORS SHALL BE USED TO CONNECT DUCTWORK AND PLENUMS TO FAN-RATING EQUIPMENT. PROFFER BY DUCTMATE OR APPROVED EQUAL. INDOOR FLEXIBLE CONNECTORS SHALL BE 26 OZSQ. YD. GLASS FABRIC DOUBLE COATED WITH NEOPRENE. OUTDOOR FLEXIBLE CONNECTORS SHALL BE 24 OZSQ. YD. GLASS FABRIC DOUBLE COATED WITH WEATHERPROOF SYNTHETIC RUBBER RESISTANT TO UV RAYS AND OZONE. FABRICS, COATINGS AND ADHESIVES SHALL BE TESTED IN ACCORDANCE WITH ASTM D 720 AND HAVE A FLAME SPREAD/ SMOKE DEVELOPED RATING OF 25/50. FLEXIBLE DUCT CONNECTORS SHALL ALSO BE PROVIDED WHERE DUCTWORK CROSSES BUILDING EXPANSION JOINTS.
27. EXPOSED DUCTWORK - EXPOSED INTERIOR DUCTWORK TO BE PAINTED SHALL HAVE ALL EXPOSED SURFACES (INCLUDING HANGER STRAPS) COATED WITH A "PAINT GRIP" FINISH FOR FIELD PAINTING. AS AN OPTION, MILL PHOSPHATIZED STEEL DUCTWORK MAY BE USED. LINE OR INSULATE PER HVAC GENERAL NOTES OR SPECIFICATION.
28. EXPOSED DUCTWORK - EXPOSED DOUBLE-WALL, INSULATED ROUND OR FLAT OVAL DUCT AND FITTINGS SHALL BE BY MCGILL AIRFLOW LLC (OR EQUAL) BY LINX INDUSTRIES OR SEMCO, INC.). DUCT SYSTEM SHALL HAVE SPIRAL LOCKSEAMS (OR WELDED) GALVANIZED STEEL METAL OUTER SHELL, 1" THICK COATED ALUMINUM LINER, AND A PERFORATED STEEL METAL INNER LINER.
29. EXPOSED DUCTWORK - PROTECT DUCTS EXPOSED IN FINISHED SPACES FROM BEING DENTED, SCRATCHED, OR DAMAGED. TRIM DUCT SEALANTS FLUSH WITH METAL TO CREATE A SMOOTH AND UNIFORM UNIFORM SURFACE. TWO-PART TAPE SEALING SHALL NOT ALLOWED. REPAIR OR REPLACE DAMAGED DUCTWORK AND FINISH WORK THAT DOES NOT COMPLY WITH THESE REQUIREMENTS.
30. ROOF MOUNTED DUCTWORK - SUPPORT ROOF MOUNTED DUCTWORK AT 6 FT. OC (MAX) WITH MIFAB SERIES DA DUCT SUPPORT SYSTEM, UV RESISTANT RUBBER BASES SHALL BE PLACED ON ROOFING WALKPAD MATERIAL. COORDINATE WITH ROOFING INSTALLER.
31. WHERE DUCTWORK AND/OR EQUIPMENT IS EXPOSED AND COULD BE DAMAGED BY VEHICULAR TRAFFIC, FORKIFTS, ETC. PROTECTION MAY BE REQUIRED. COORDINATE THIS WITH THE ARCHITECT SO PROTECTIVE BOLLARDS OR OTHER PROTECTIVE MEASURES CAN BE NOTED ON THEIR DRAWINGS.
32. INSTALL DUCTWORK SUCH THAT LINE-OF-SIGHT IS ELIMINATED BETWEEN RETURN AIR REGISTERS/GRILLES AND AIR HANDLING UNITS, FAN COIL UNITS AND ROOFTOP UNITS.
33. DUCT INSULATION:
- a. DUCT WRAP SHALL BE UL LISTED FIBERGLASS BLANKET INSULATION WITH FOIL VAPOR BARRIER. JOHNS MANVILLE MICROTE EG FSK OR APPROVED EQUAL. PUNCTURES AND TEARS IN THE FOIL JACKET SHALL BE PATCHED WITH FOIL TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER. INSULATE SHEET METAL DUCTWORK IN THE THICKNESSES AND DENSITIES LISTED BELOW:
- i. SHEET METAL SUPPLY AND OUTSIDE AIR DUCTWORK: 2" THICK, 1 LB/FT³ DENSITY, R-6 MINIMUM INSTALLED.
- ii. SHEET METAL RETURN DUCTWORK IN NON-AIR-CONDITIONED AREAS (SUCH AS INTERSTITIAL SPACES AND FLOOR/CeILING ASSEMBLIES): 2" THICK, 1 LB/FT³ DENSITY, R-6 MINIMUM INSTALLED.
- iii. ALL SHEET METAL DUCTWORK LOCATED OUTSIDE OF THE THERMAL ENVELOPE OF THE BUILDING (INCLUDING CRAWL SPACES AND ATTIC SPACES): 3" THICK, 1/2" LB/FT³ DENSITY, R-8 MINIMUM INSTALLED.
- b. INDOOR EXPOSED RECTANGULAR SHEET METAL SUPPLY AND RETURN AIR DUCTWORK SHALL BE LINED WITH 1" THICK DUCT LINER (MINIMUM R-4). JOHNS MANVILLE UNACOUSTIC RC OR EQUAL.
- c. INDOOR EXPOSED ROUND, SPIRAL AND OVAL SUPPLY AND RETURN AIR DUCT SHALL BE LINED WITH 1" THICK ROUND DUCT LINER (MINIMUM R-4). JOHNS MANVILLE SPIRACOUSTIC PLUS OR EQUAL.
- d. INDOOR EXPOSED ROUND AND SPIRAL OUTSIDE AIR DUCT MAY ALSO BE INSULATED WITH 1" THICK PREFORMED FIBROUS GLASS PIPE INSULATION WITH VAPOR BARRIER JACKET [K-VALUE NOT TO EXCEED 0.23 BTU-in/R²-F (0.033 W/m K) WHEN TESTED IN ACCORDANCE WITH ASTM C 335 at 75°F (24°C); JOHNS MANVILLE MICRO-LOK OR APPROVED EQUAL.
- e. EXTERIOR DUCTWORK SHALL BE LINED WITH 2" THICK DUCT LINER BOARD (MINIMUM R-8 (R-12 IN CLIMATE ZONES 5 THRU 8). JOHNS MANVILLE PERMACOTE UNACOUSTIC R-300 OR EQUAL. COAT THE EXTERIOR OF THE ENTIRE DUCT SURFACE WITH A RUST INHIBITIVE PAINT. PAINTING BY MECHANICAL. SUBMIT COLOR CHART TO THE ARCHITECT DURING THE SUBMITTAL PHASE. ALTERNATE EXTERIOR INSULATION SYSTEMS:
- i. 1) THERMADUCT EXTERIOR DUCT SYSTEM HAVING A MINIMUM

WATER SUPPLY (HWS), AND HOT WATER RETURN (HWR) PIPING WITH SECTIONAL PERFORMED FIBERGLASS PIPE INSULATION (K FACTOR NOT TO EXCEED 0.23 BTU-IN/HR-FT²-F) WITH VAPOR BARRIER JACKET: JOINS MANVILLE MICRO-LOK™ OR APPROVED FITTINGS, ELBOWS AND PIPING. FITTINGS SHALL BE PROVIDED WITH AN INSULATED COVER. PROTO PIPING CORPORATION SEE SPECIFICATIONS FOR INSULATION THICKNESSES AND ADDITIONAL INFORMATION. ALL EXPOSED INSULATED PIPING BELOW 10' OF AFS SHALL BE PROTECTED BY A CORRUGATED ALUMINUM JACKET WITH ALUMINUM BANDS 3" O.D. INSULATE ALL EXTERIOR COOLING WATER PIPING WITH INSULATED COVER OR CORRUGATED ALUMINUM CORNERS, FOAMGLAS (OR APPROVED EQUAL) OVER ELECTRIC HEAT TRACING. COVER WITH VAPOR BARRIER AND A CORRUGATED ALUMINUM JACKET WITH BANDS 3" O.D. AND FORMED FITTING COVERS BY PROTO PVC CORPORATION.

1. GAS FLUE MATERIAL SHALL BE AS RECOMMENDED BY THE HEATING APPLIANCE MANUFACTURER EXCEPT THAT WHERE POLYVINYL CHLORIDE (PVC) IS ALLOWABLE FOR CATEGORY II AND IV APPLIANCES, PROVIDE A UL TESTED AND LISTED POLYPROPYLENE (PP) GAS VENTING SYSTEM; POLYFLUE, POLYPRO, INNOFLUE OR APPROVED EQUAL. PVC IS ACCEPTABLE FOR COMBUSTION AIR PIPING. CERTAIN APPLIANCES MAY REQUIRE AL29-4C VENTING MATERIAL IN CONFORMANCE WITH UL 1738.

- ## PIPING

- ## 2. PIPE INSULATION

9. IN WOOD FRAMED BUILDINGS, FERROX MODEL XJ EXPANSION JOINTS SHALL BE INSTALLED IN VERTICAL PVC AND COPPER CONDENSATE RISERS AT ALTERNATING FLOORS IN THE CEILING CAVITIES. PIPE CLAMPS SHALL BE INSTALLED AT THE SILL PLATE OF THE FLOOR ABOVE THE FITTING.

-



RGV
ENGINEERS

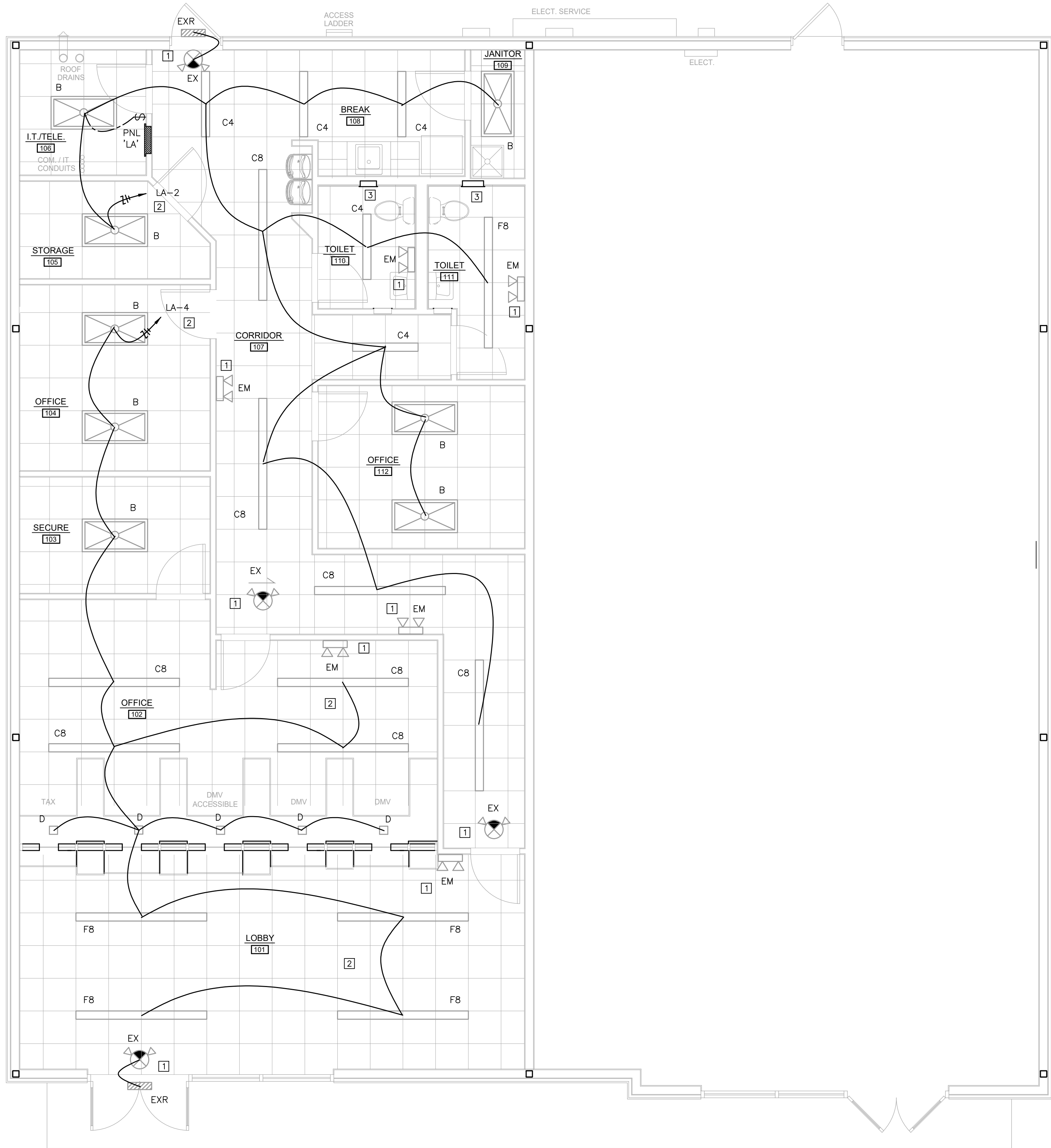
TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com

ISSUED FOR CONSTRUCTION

SHEET NO.

M4.00

NO.	DESCRIPTION	DATE



LIGHT FIXTURE SCHEDULE

TYPE	CATALOG NUMBER	LAMPS	VOLTAGE	MOUNTING	COMMENTS
B	LITHONIA #STAK 2X4 4000LM 80CRI 40K COLT 120	33W LED	120	RECESSED	2X4 LED TROFFER - 4000 LUMENS
D	LITHONIA #LBR6SQ AL01 (750LM) SWW1 (4000K) AR LSS MWD 80CRI	9W LED	120	RECESSED	6" SQUARE DOWNLIGHT - 750 LUMENS
C4	LITHONIA #LSIX 4FT 4000LM 80CRI 40K 120	33W LED	120	RECESSED	LINEAR LED - 4FT 4000 LUMENS
C8	LITHONIA #LSIX 8FT 4000LM 80CRI 40K 120	30W LED	120	RECESSED	LINEAR LED - 8FT 4000 LUMENS
F8	LITHONIA #LSIX 8FT 6000LM 80CRI 40K 120	44W LED	120	RECESSED	LINEAR LED - 8FT 6000 LUMENS
EM	LITHONIA #ELM6L UVOLT LTP HO	LED INCLUDED	120	UNIVERSAL	LED EMERGENCY EGRESS (2-HEAD) LIGHT W/BATTERY BACKUP
EX	LITHONIA #EDG 1 G EL SD BAA (POWERS REMOTE HEAD 'EXR')	LED INCLUDED	120	UNIVERSAL	LED EDGE LIT EXIT SIGN W/BATTERY BACKUP
EXR	LITHONIA #ERE GY T RD WP	LED INCLUDED	120	UNIVERSAL	REMOTE HEAD - EXTERIOR EGRESS - LED LAMPS

LIGHTING FLOOR PLAN KEY NOTES:

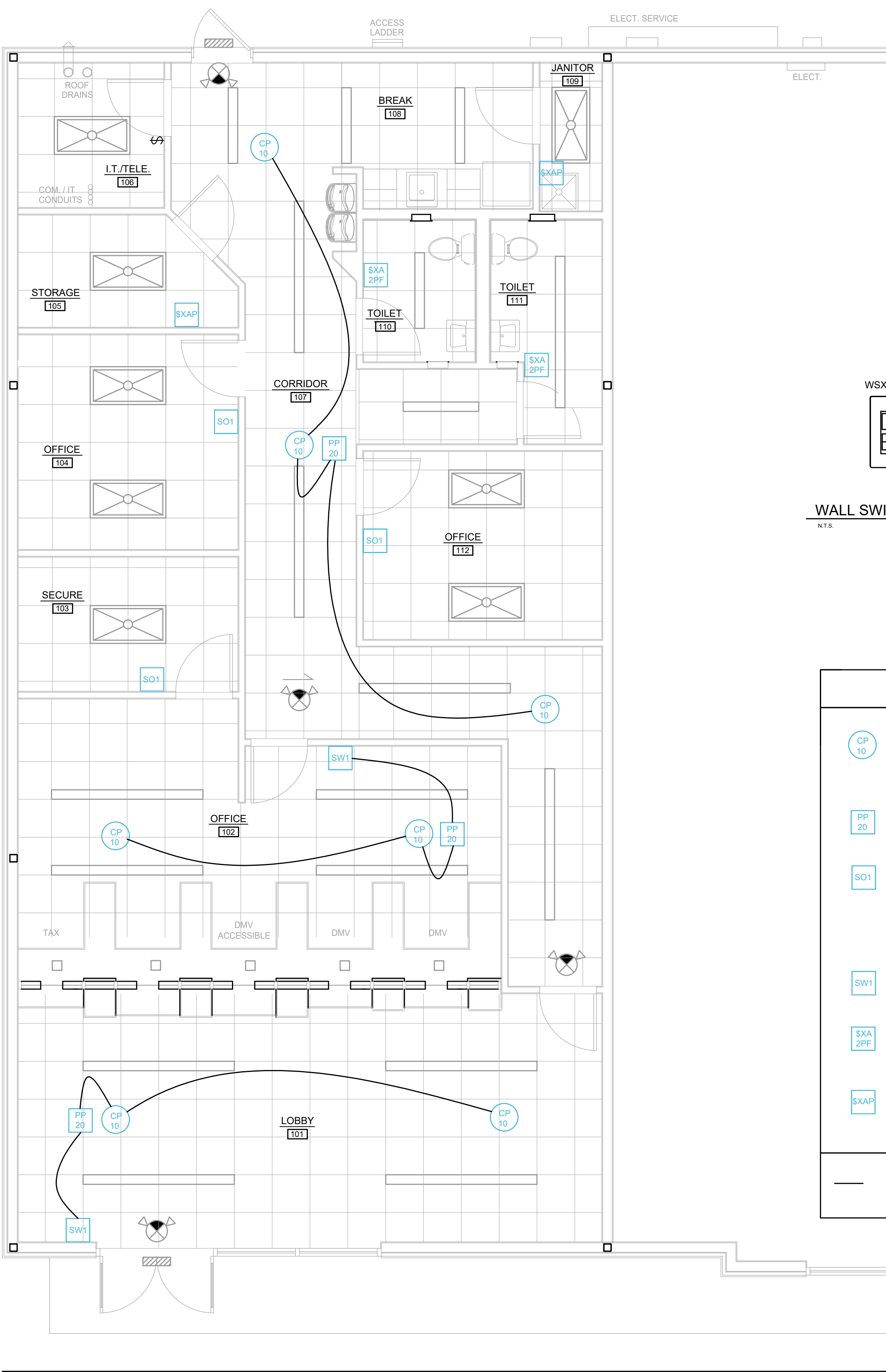
- 1 PROVIDE 120V (UNSWITCHED) TO EACH EXIT SIGN, EMERGENCY EGRESS (OUTDOOR) FIXTURE, NIGHT LIGHT, AND BATTERY BALLAST FIXTURE (IN ADDITION TO SWITCHED WHERE APPLICABLE).
- 2 PROVIDE LINE VOLTAGE CONNECTIONS TO EACH FIXTURE AS SHOWN, THEN HOMERUN TO CIRCUIT AS SHOWN. SEE LIGHTING CONTROL FLOOR PLAN (SHEET E1.1) FOR DEVICES AND WIRING (LOW VOLTAGE AND LINE VOLTAGE) CONNECTIONS. PROVIDE ALL NECESSARY COMPONENTS AND WIRING AS NECESSARY FOR A FULLY FUNCTIONING SYSTEM.
- 3 COORDINATE EXHAUST FAN CONTROL WITH MECHANICAL CONTRACTOR, PROVIDE ELECTRICAL FOR A COMPLETED INSTALLATION.

GENERAL NOTES:

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.
- CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, CIVIL, MECHANICAL & STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES.
- SEAL ALL WALL, ROOF, AND FLOOR PENETRATIONS WITH UL LISTED FIRE SEALANT. PROVIDE FIRE-RATED PATHWAYS WHERE REQUIRED.
- LABEL ALL JUNCTION BOXES & RECEPTACLE COVERPLATES WITH PANEL-CIRCUIT NUMBER.
- PROVIDE BONDING OF ALL METAL COMPONENTS OF ENTIRE ELECTRICAL SYSTEM TO BUILDING GROUND SYSTEM.
- PROVIDE TAMPER RESISTANT RECEPTACLES IN LOCATIONS AS REQUIRED BY NEC 406.12. PROVIDE ARC-FAULT RECEPTACLES IN AREAS AS REQUIRED BY NEC 210.12. GFCI RECEPTACLES SHALL BE PLACED IN ALL AREAS AS REQUIRED BY NEC 210.8 & 210.63.

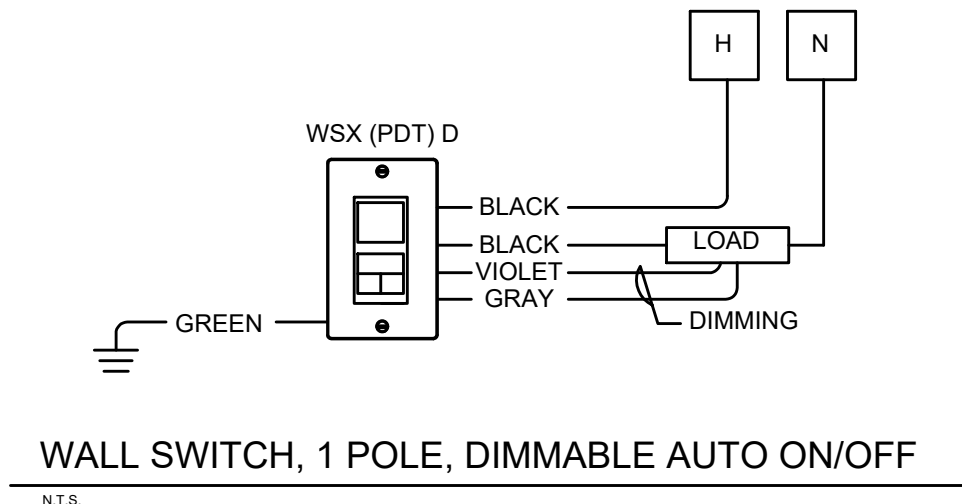
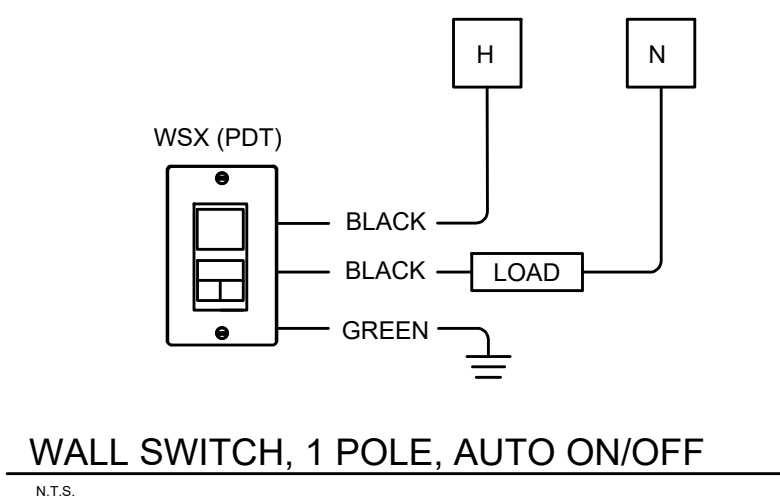
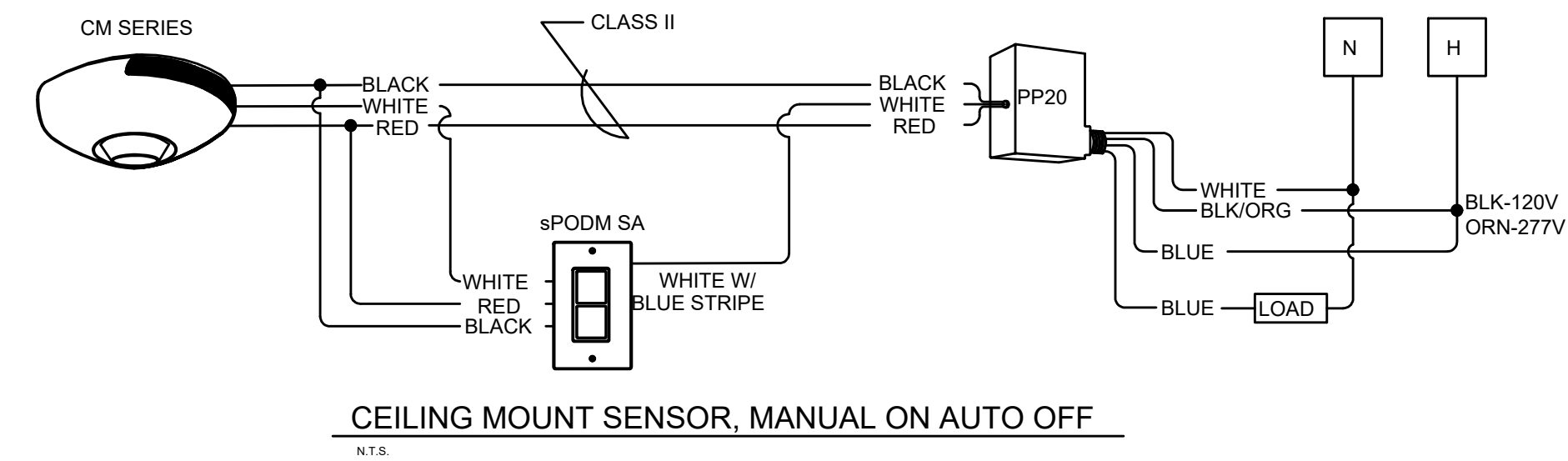


125 Poesta Dr., Portland, TX 78374
(361) 813-4948 timbo623@gmail.com
Texas Engineering Firm #12480

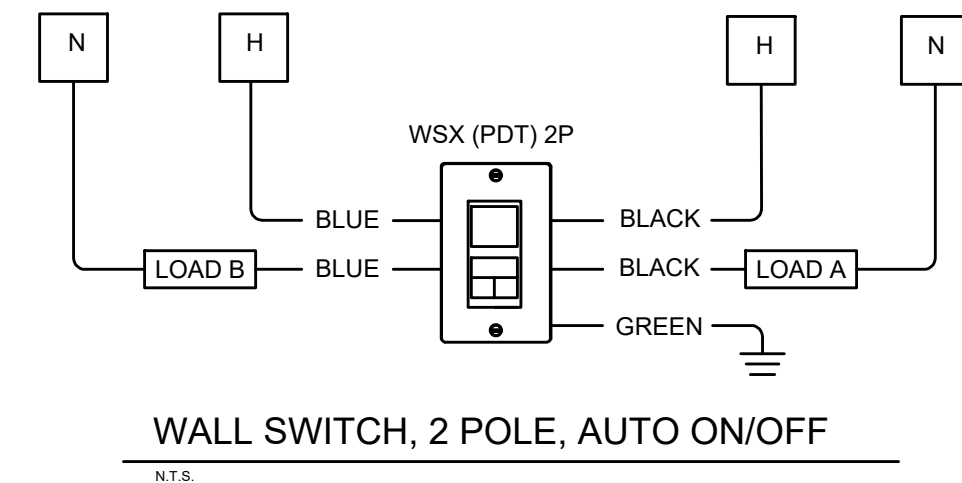


GRAPHIC SCALE
4' 2' 0' 4'
SCALE: 1/4" = 1'-0"

1 LIGHTING CONTROL FLOOR PLAN
E1.1 SCALE: 1/4" = 1'-0"



PRODUCT LEGEND LC1.0	
	CM PDT 10 Ceiling Mount Sensor, Passive Dual Technology, Large Motion / Extended Range 360° Lens
	PP20 Power Pack 20A, Relay Contact Protection, Powers Low Voltage Sensors
	WSXA PDT D SA XX Wall Switch Sensor, Passive Dual Technology, Dimming, Vacancy (default) or Auto-On
	SPODMRA D XX Aesthetic Dimming Switch-Pod, Dimming
	WSXA 2P FAN XX Wall Switch Sensor, 2-Pole, Minimum Fan Run Time
	WSXA PDT XX Wall Switch Sensor, Passive Dual Technology
LV Low Voltage Low voltage cable	



Timothy W. Johnson
STATE OF TEXAS
TIMOTHY W. JOHNSON
91524
01/01/2026
TJ Engineering
125 Poesta Dr., Portland, TX 78374
(361) 813-4948 timbo623g@hotmail.com
Texas Engineering Firm #12480

N
N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND
SAN PATRICIO COUNTY
704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374
LIGHTING CONTROL FLOOR PLAN

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

LIGHTING CONTROL
FLOOR PLAN

E1.1



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY
704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

POWER FLOOR PLAN

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO.

POWER
FLOOR PLAN

E2.0

ELECTRICAL LEGEND

NOTE: NOT ALL SYMBOLS MAY APPLY TO THIS PROJECT - SEE LIGHTING AND POWER FLOOR PLANS

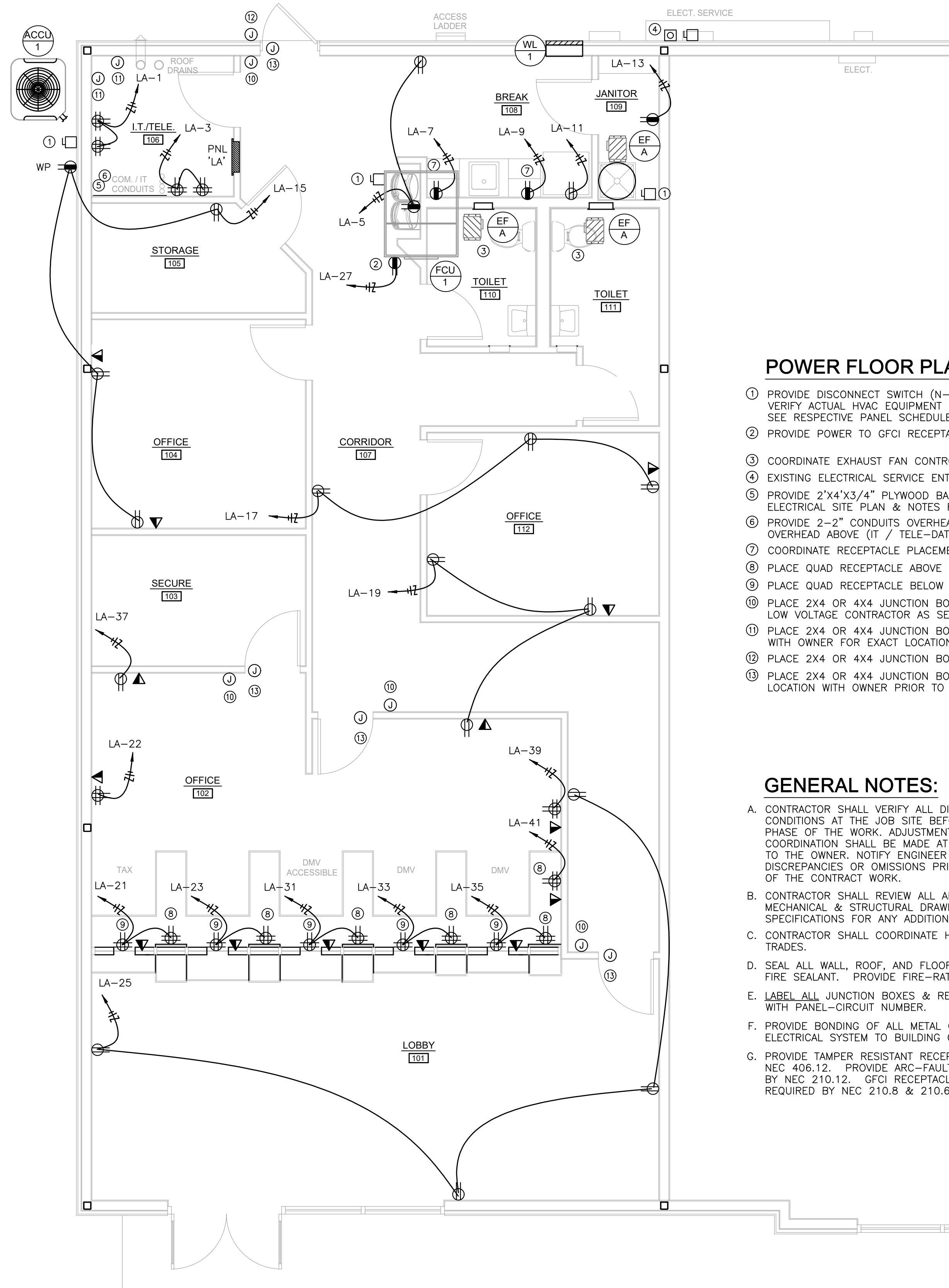
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
B-2	HOMERUN TO CIRCUIT AND PANEL INDICATED	⊖	SINGLE RECEPTACLE - 125V,20A,1P	T	DOOR BELL/BUZZER TRANSFORMER	AC	ABOVE COUNTER
—	NEUTRAL CONDUCTOR	⊖	ISOLATED GROUND SINGLE RECEPTACLE - 125V,20A,1P	C	CAMERA	EW	ELECTRIC WATER HEATER
—	HOT CONDUCTOR	⊖	DUPLEX RECEPTACLE - 125V,20A,1P (FLOOR MOUNTED)	F	FIRE ALARM PULL STATION	E.C.	ELECTRICAL CONTRACTOR
—	GROUNDING CONDUCTOR	⊖	JUNCTION BOX, SIZED PER N.E.C.	F	FIRE ALARM AUDIO/VISUAL SIGNAL	NL	NIGHT LIGHT - ON 24 HOURS
—	TRAVELER	⊖	SPEAKER	V	FIRE ALARM ADA VISUAL SIGNAL	⊖	120V, 1P EQUIPMENT CONNECTION
—	SWITCH LEG	⊖	HUMIDIFIER OUTLET BOX WITH 3/4"C. TO ACCESSIBLE LOCATION ABOVE CEILING	R	FIRE ALARM SHUT DOWN RELAY	⊖	240V, 1P EQUIPMENT CONNECTION
(2)	NUMBER IN PARENTHESIS INDICATES CIRCUIT TO WHICH DEVICE IS CONNECTED	⊖	THERMOSTAT OUTLET BOX WITH 3/4"C. TO ACCESSIBLE LOCATION ABOVE CEILING	S	SMOKE DETECTOR	⊖	240V, 3P EQUIPMENT CONNECTION
\$	TOGGLE SWITCH - 120/277V, 20A	⊖	CLOCK OUTLET	S	DUCT MTD. SMOKE DETECTOR	⊖	208V, 1P EQUIPMENT CONNECTION
\$3	THREEWAY SWITCH - 120/277V, 20A	⊖	TELEPHONE OUTLET BOX WITH 3/4"C. TO ACCESSIBLE LOCATION ABOVE CEILING	H	HEAT DETECTOR	⊖	208V, 3P EQUIPMENT CONNECTION
\$4	FOURWAY SWITCH - 120/277V, 20A	⊖	DATA/TELEPHONE OUTLET BOX WITH 3/4"C. TO ACCESSIBLE LOCATION ABOVE CEILING	F	FIRE ALARM PULL STATION W/STI 1100 STOPPER II W/HORN	⊖	277V, 1P EQUIPMENT CONNECTION
\$o	DIMMER SWITCH, WATTAGE AS SPECIFIED	⊖	DATA OUTLET BOX WITH 3/4"C. TO ACCESSIBLE LOCATION ABOVE CEILING	TS	TAMPER SWITCH	⊖	480V, 3P EQUIPMENT CONNECTION
\$k	KEY SWITCH - 120/277V, 20A	⊖	TELEVISION OUTLET BOX WITH 3/4"C. TO ACCESSIBLE LOCATION ABOVE CEILING	FS	FLOW SWITCH	⊖	480V, 1P EQUIPMENT CONNECTION
\$m	MANUAL MOTOR STARTER/1Ø DISCONNECT	⊖	PUSHBUTTON	A	ANSUL SUPPRESSION SYSTEM	⊖	DISCONNECT SWITCH - SIZE AND POLE AS NOTED
⊖	DUPLEX RECEPTACLE - 125V,20A,1P	⊖	DOOR BELL/BUZZER	DR	FIRE ALARM DOOR RELEASE	⊖	COMBINATION STARTER/DISCONNECT SWITCH
⊖	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE 125V,20A,1P	⊖	OCCUPANCY SENSOR - CEILING MOUNT	CC	DOOR CONTACTOR ROUGH-IN WITH 3/4" C TO ACCESSIBLE LOCATIONS ABOVE CEILING.	⊖	STARTER
⊖	ISOLATED GROUND RECEPTACLE - 125V,20A,1P	⊖	VACANCY SENSOR - CEILING MOUNT	GB	GLASS BREAK	⊖	PANELBOARD AS SPECIFIED
⊖	QUADRAPLEX RECEPTACLE - 125V,20A,1P	⊖	OCCUPANCY SENSOR - WALL MOUNT	K	KEYPAD (ROUGH-IN W/3/4"C TO ACCESSIBLE LOCATIONS ABOVE CEILING)	⊖	FIRE ALARM CONTROL PANEL
⊖	ISOLATED GROUND QUADRAPLEX RECEPTACLE - 125V,20A,1P	⊖	HAND DRYER	HD		⊖	EXHAUST FAN
							2-2" C WALL PENETRATION 1 FOR CURRENT USE 1 CAPPED FOR FUTURE USE

POWER FLOOR PLAN KEY NOTES:

- PROVIDE DISCONNECT SWITCH (N-1 INDOOR & N-3R OUTDOOR) SIZE AND POLES PER ACTUAL EQUIPMENT INSTALLED (MOCP). VERIFY ACTUAL HVAC EQUIPMENT INSTALLED - PROVIDE FEEDER AND OCPD TO MATCH REQUIREMENTS OF ACTUAL EQUIPMENT. SEE RESPECTIVE PANEL SCHEDULES FOR CIRCUIT, FEEDER AND OCPD. MOTOR RATED SWITCH MAY BE USED FOR 120V LOADS.
- PROVIDE POWER TO GFCI RECEPTACLE AT UNIT. PROVIDE MOUNTING HARDWARE AS NECESSARY FOR RECEPTACLE.
- COORDINATE EXHAUST FAN CONTROL WITH MECHANICAL CONTRACTOR, PROVIDE ELECTRICAL FOR A COMPLETED INSTALLATION.
- EXISTING ELECTRICAL SERVICE ENTRANCE EQUIPMENT & METERING, SEE ELECTRICAL SITE PLAN, RISER DIAGRAM & NOTES.
- PROVIDE 2"x4"x3/4" PLYWOOD BACKBOARD FOR TELE/DATA EQUIPMENT. PROVIDE COPPER GROUND BAR, SEE DETAIL THIS SHEET. SEE ELECTRICAL SITE PLAN & NOTES FOR LOW VOLTAGE WIRING CONDUITS (STUB-UP) LOCATIONS NEAR TELE/DATA BACKBOARD.
- PROVIDE 2-2" CONDUITS OVERHEAD WITH PULLCORD OR LOW VOLTAGE WIRING BY RESPECTIVE LOW VOLTAGE CONTRACTOR. STUB-OUT IN OVERHEAD ABOVE (IT / TELE-DATA) BACKBOARD. COORDINATE LOCATION OF TELE-DATA PEDESTAL ON BLDG EXTERIOR FOR TERMINATION.
- COORDINATE RECEPTACLE PLACEMENT AND MOUNTING HEIGHT WITH COUNTER / MILLWORK PRIOR TO ANY ELECTRICAL ROUGH-IN.
- PLACE QUAD RECEPTACLE ABOVE COUNTER FOR PRINTER AND ANY OTHER DEVICE FOR CONNECTION ABOVE COUNTER - COORDINATE WITH OWNER.
- PLACE QUAD RECEPTACLE BELOW COUNTER (GROMMETS) FOR CORD TO EQUIPMENT ON COUNTER ABOVE. COORDINATE WITH OWNER FOR QUAD PLACEMENT.
- PLACE 2X4 OR 4X4 JUNCTION BOX AT 48" AFF WITH CONDUIT & PULLCORD TO ABOVE ACCESSIBLE CEILING FOR LOW VOLTAGE WIRING BY RESPECTIVE LOW VOLTAGE CONTRACTOR AS SELECTED BY OWNER.
- PLACE 2X4 OR 4X4 JUNCTION BOX WITH CONDUIT & PULLCORD THROUGH WALL FOR EXTERIOR CAMERA OR OTHER LOW VOLTAGE DEVICE. COORDINATE WITH OWNER FOR EXACT LOCATION & MOUNTING HEIGHT OF JUNCTION BOX.
- PLACE 2X4 OR 4X4 JUNCTION BOX ON EXTERIOR WALL FOR KEYPAD OR OTHER LOW VOLTAGE DEVICE FOR DOOR ENTRY. COORDINATE PLACEMENT W/OWNER.
- PLACE 2X4 OR 4X4 JUNCTION BOX ABOVE DOOR FOR POWER TO MAG-LOCK OR OTHER DEVICE TO LOCKING/UNLOCKING DOOR, COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ANY ELECTRICAL ROUGH-IN.

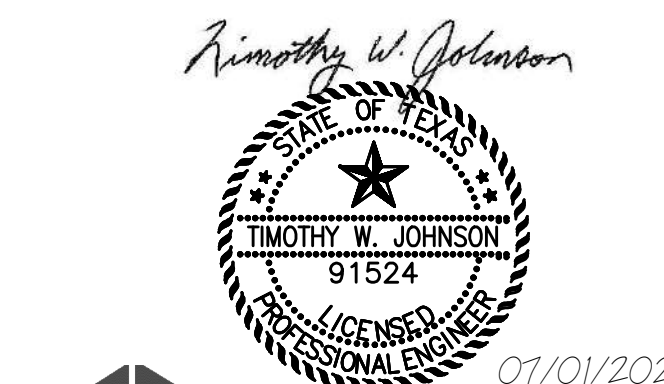
GENERAL NOTES:

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.
- CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, CIVIL, MECHANICAL & STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES.
- SEAL ALL WALL, ROOF, AND FLOOR PENETRATIONS WITH UL LISTED FIRE SEALANT. PROVIDE FIRE-RATED PATHWAYS WHERE REQUIRED.
- LABEL ALL JUNCTION BOXES & RECEPTACLE COVERPLATES WITH PANEL-CIRCUIT NUMBER.
- PROVIDE BONDING OF ALL METAL COMPONENTS OF ENTIRE ELECTRICAL SYSTEM TO BUILDING GROUND SYSTEM.
- PROVIDE TAMPER RESISTANT RECEPTACLES IN LOCATIONS AS REQUIRED BY NEC 406.12. PROVIDE ARC-FAULT RECEPTACLES IN AREAS AS REQUIRED BY NEC 210.12. GFCI RECEPTACLES SHALL BE PLACED IN ALL AREAS AS REQUIRED BY NEC 210.8 & 210.63.



GRAPHIC SCALE
4' 2' 0'
SCALE: 1/4" = 1'-0"

1
E2.0
POWER FLOOR PLAN
SCALE: 1/4" = 1'-0"



TJ Engineering

125 Poesta Dr., Portland, TX 78374
(361) 813-4948 timbo623g@hotmail.com
Texas Engineering Firm #12480



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY
704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

PB SCHEDULE, LOAD SUMM, & RISER

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS

SHEET NO.

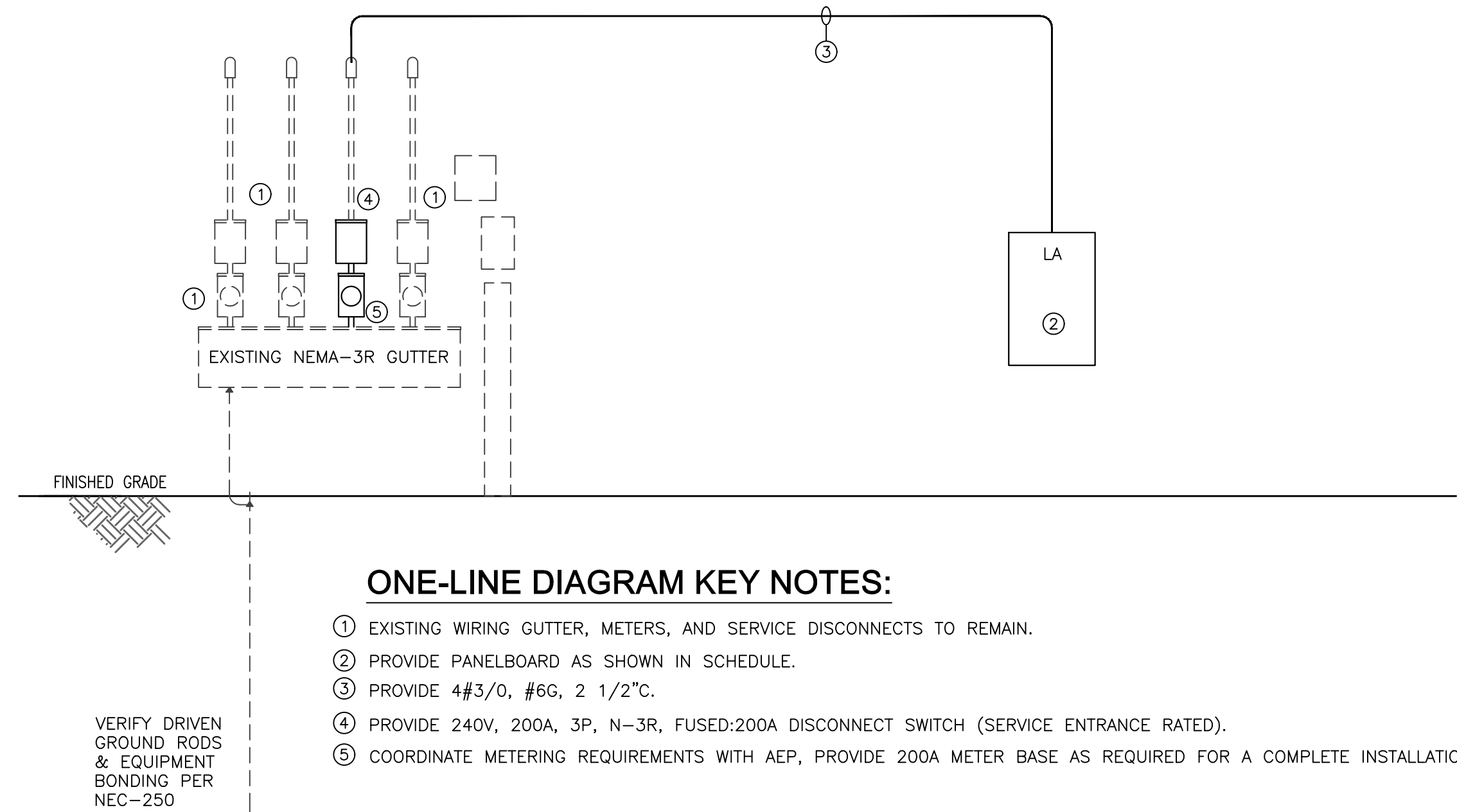
PANEL SCHEDULE, LOAD SUMMARY, & ELECTRICAL RISER

E3.0

ELECTRICAL LOAD SUMMARY			120/208V, 3PH, 4W
DESCRIPTION	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
LIGHTING	992	125%	1240
RECEPTACLES	12055	NEC 220-44	11028
KITCHEN EQUIPMENT	0	NEC 220.56	0
H.V.A.C. (HEATING)	18840	100%	18840
H.V.A.C. (COOLING)	11016	100%	0
LARGEST MOTOR	0	125%	0
MOTOR LOAD	0	100%	0
MISC. SINGLE PHASE LOADS	5115	100%	5115
TOTAL VOLT-AMPERES	48018		36223
DEMAND AMPS @208V 3 PHASE			101

PANEL 'LA'				200 AMP, M.L.O., 120/208V, 3 PH, 4W, S/N, SURFACE, NEMA 1, 22KAIC									
CKT #	LOAD SERVED	LOAD	CONDITT & WIRE SIZE	BKR SIZE	A	B	C	BKR SIZE	CONDITT & WIRE SIZE	LOAD	LOAD SERVED	CKT #	
1	IT QUAD	720	2#12, #12G, 3/4"C.	20/1	A	B		20/1	2#12, #12G, 3/4"C.	480	LIGHTING	2	
3	IT QUAD	720	2#12, #12G, 3/4"C.	20/1		B		20/1	2#12, #12G, 3/4"C.	512	LIGHTING	4	
5	EWIC + RECEPTACLE	775	2#12, #12G, 3/4"C.	20/1			C	20/1			SPARE	6	
7	BR RECEPTACLE	1500	2#12, #12G, 3/4"C.	20/1	A			20/1			SPARE	8	
9	BR RECEPTACLE	1500	2#12, #12G, 3/4"C.	20/1		B		20/1			SPARE	10	
11	REFRIGERATOR	675	2#12, #12G, 3/4"C.	20/1			C	20/1			SPARE	12	
13	GFCI @ JANITOR	180	2#12, #12G, 3/4"C.	20/1	A			20/1			SPARE	14	
15	RECEPTACLES	720	2#12, #12G, 3/4"C.	20/1		B		20/1			SPARE	16	
17	RECEPTACLES	540	2#12, #12G, 3/4"C.	20/1			C	20/1			SPARE	18	
19	RECEPTACLES	720	2#12, #12G, 3/4"C.	20/1	A			20/1			SPARE	20	
21	QUADS @ COUNTERS	540	2#12, #12G, 3/4"C.	20/1		B		20/1	2#12, #12G, 3/4"C.	360	QUAD IN OFFICE	22	
23	QUADS @ COUNTERS	540	2#12, #12G, 3/4"C.	20/1			C	20/1			SPARE	24	
25	RECEPTACLES	720	2#12, #12G, 3/4"C.	20/1	A			20/1			SPARE	26	
27	GFCI @ RTU (ROOF)	180	2#12, #12G, 3/4"C.	20/1				30/2	2#10, #12G, 3/4"C.	1500	WHE-1	28	
29	SPARE			20/1	B		C			1500		30	
31	QUADS @ COUNTERS	720	2#12, #12G, 3/4"C.	20/1	A					6280		32	
33	QUADS @ COUNTERS	720	2#12, #12G, 3/4"C.	20/1		B		50/3	4#8, #10G, 1"C.	6280	FCU-1	34	
35	QUADS @ COUNTERS	720	2#12, #12G, 3/4"C.	20/1			C			6280		36	
37	PRINTER/COPIER	1440	2#12, #12G, 3/4"C.	20/1	A					3672		38	
39	RECEPTACLES	180	2#12, #12G, 3/4"C.	20/1		B		60/3	4#6, #10G, 1 1/2"C.	3672	ACCU-1	40	
41	SPARE			20/1			C			3672		42	
CONNECTED LOAD = 48018 VA				PHASE A = 16432 VA				PHASE B = 16884 VA				PHASE C = 14702 VA	

1 PANEL SCHEDULE & LOAD SUMMARY



ONE-LINE DIAGRAM KEY NOTES:

- ① EXISTING WIRING GUTTER, METERS, AND SERVICE DISCONNECTS TO REMAIN.
- ② PROVIDE PANELBOARD AS SHOWN IN SCHEDULE.
- ③ PROVIDE 4#3/0, #6G, 2 1/2" C.
- ④ PROVIDE 240V, 200A, 3P, N-3R, FUSED:200A DISCONNECT SWITCH (SERVICE ENTRANCE RATED).
- ⑤ COORDINATE METERING REQUIREMENTS WITH AEP, PROVIDE 200A METER BASE AS REQUIRED FOR A COMPLETE INSTALLATION.

2 E3.0 ELECTRICAL RISER (ONE-LINE) DIAGRAM SCALE: NTS

SCALE: NTS

Timothy W. Johnson

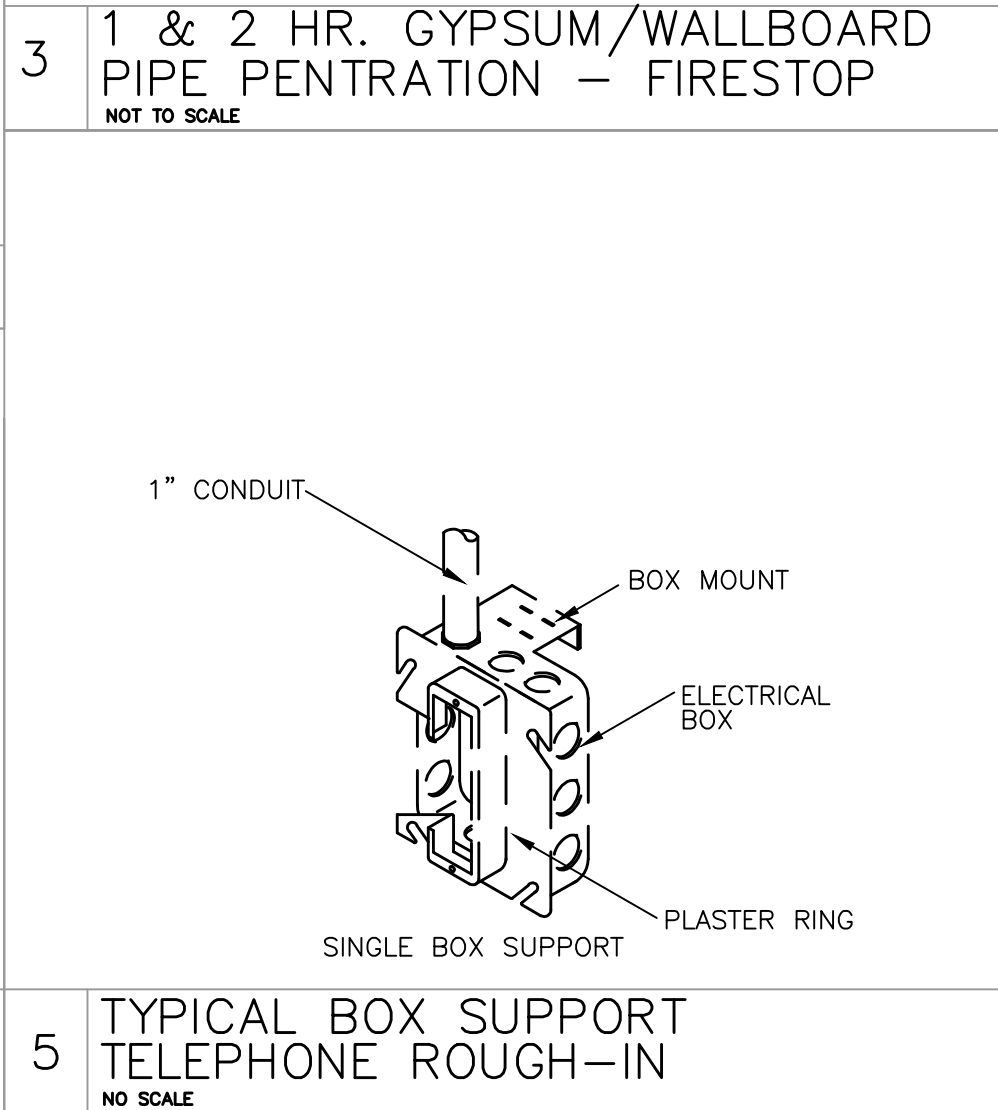
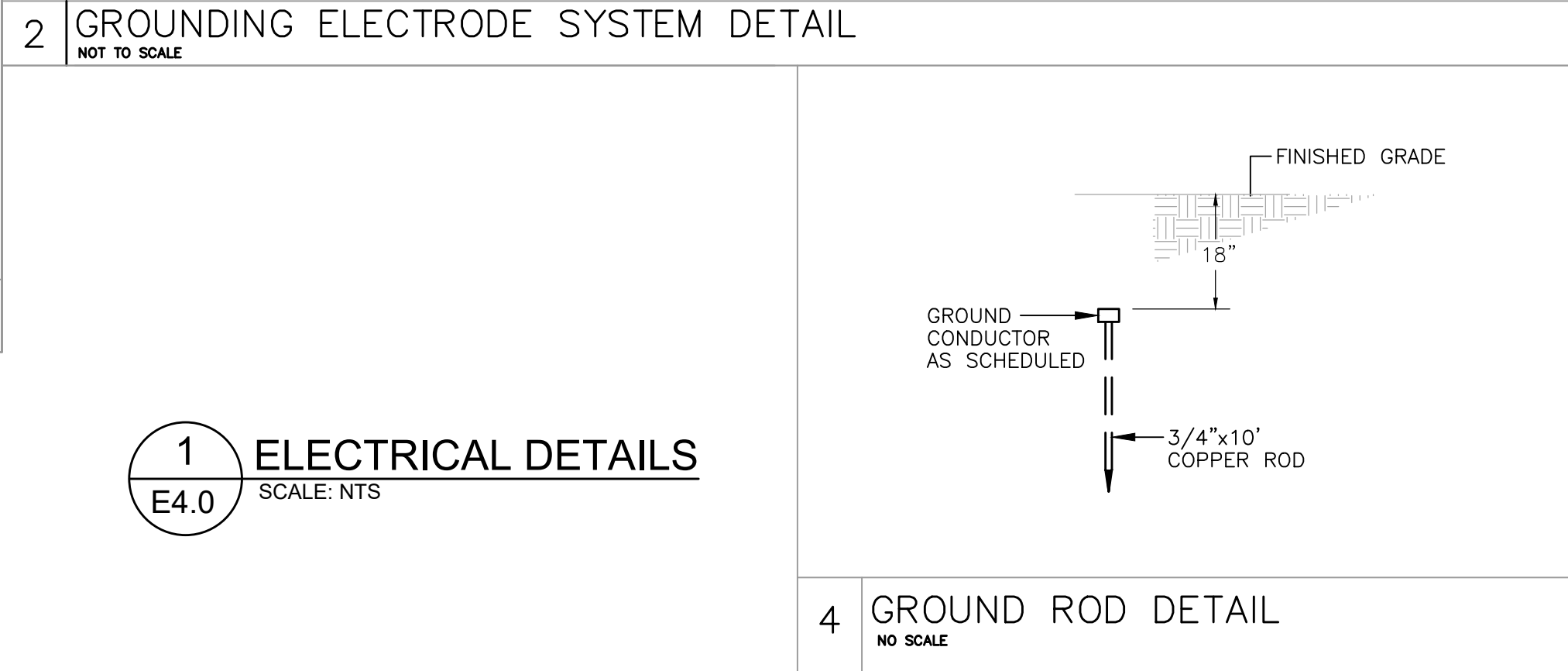
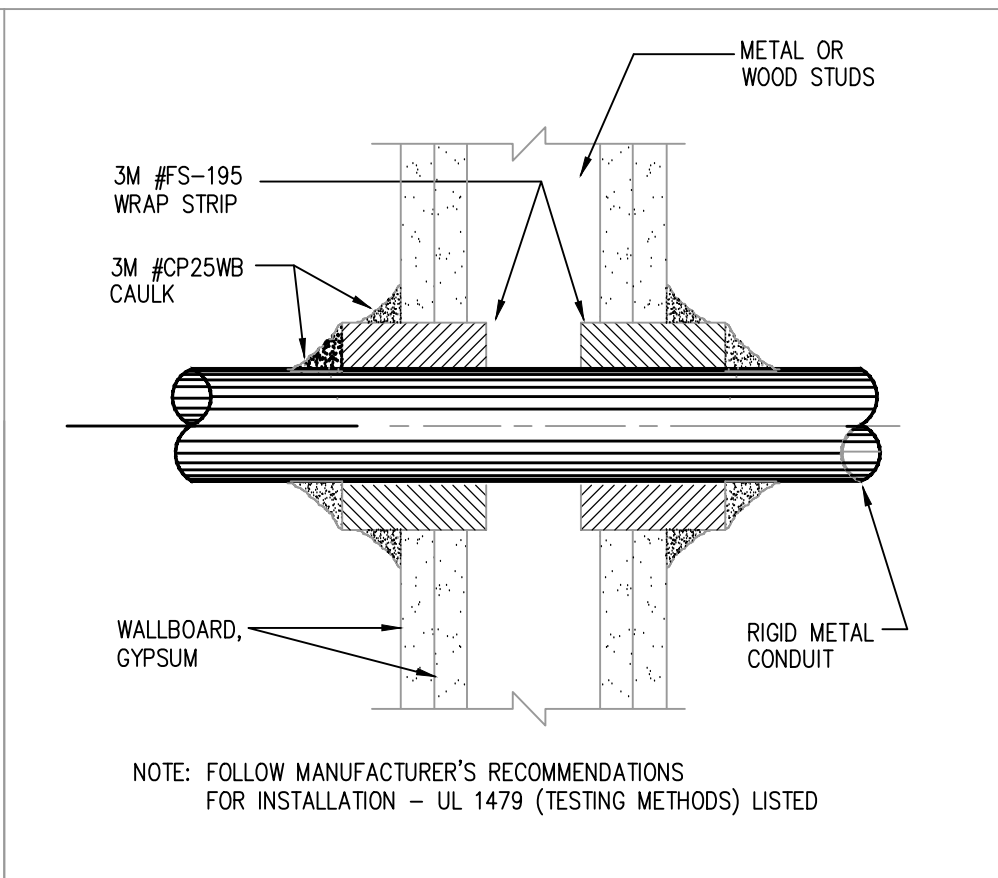
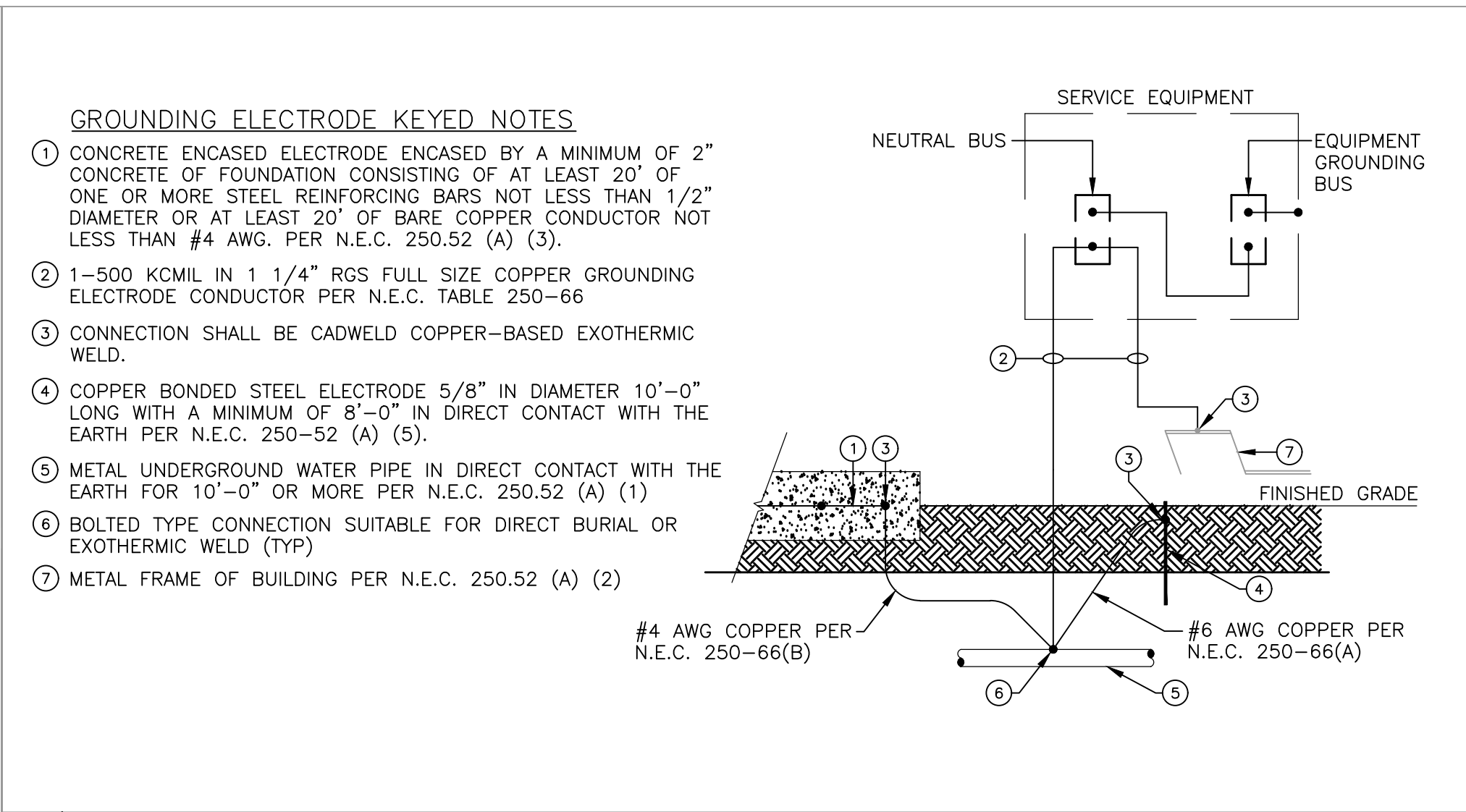
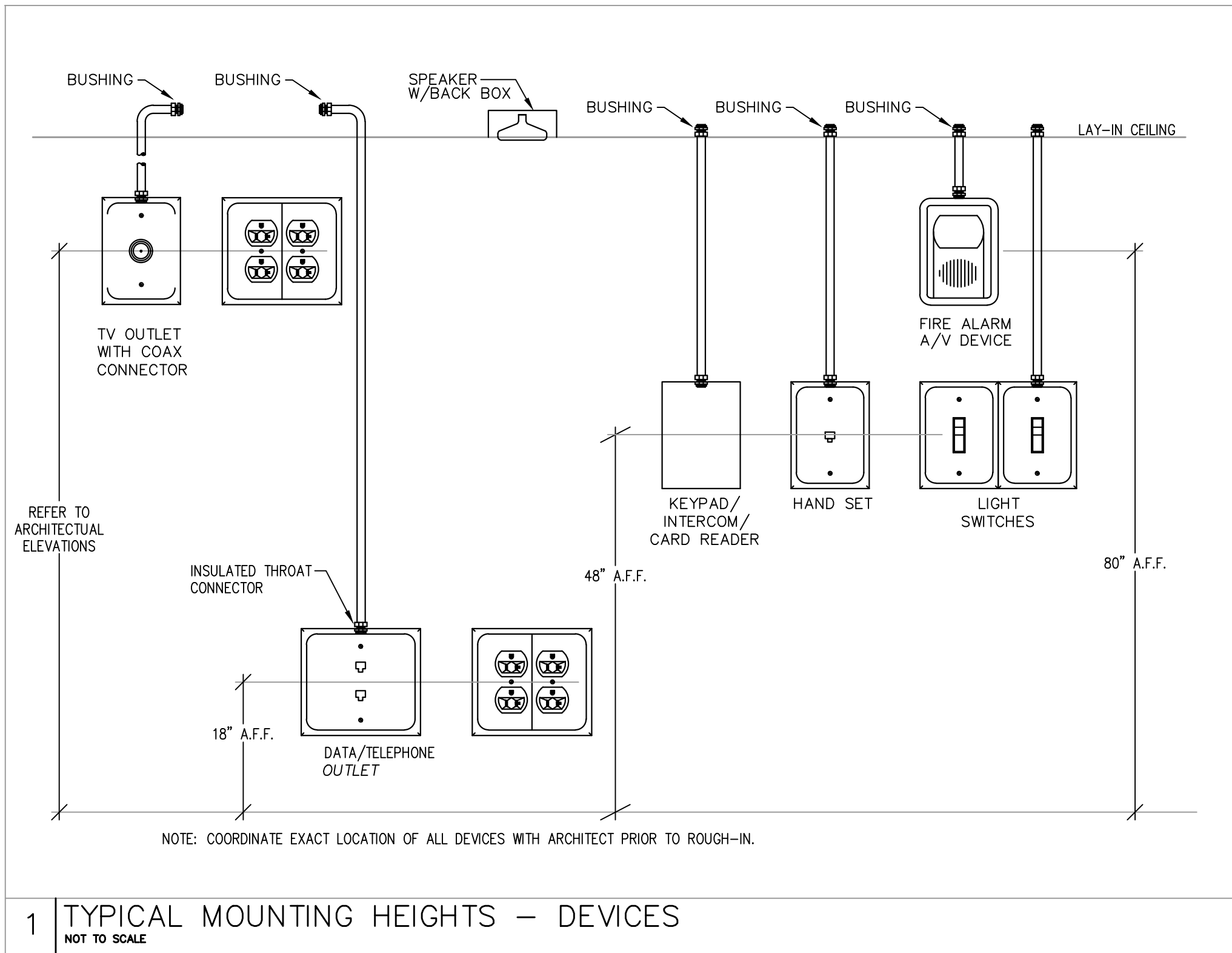


07/01/2026

TJ Engineering

125 Poesta Dr., Portland, TX 78374
(361) 813- 4948 timo623g@hotmail.com
Texas Engineering Firm #12480

NOTE: NOT ALL DETAILS MAY APPLY TO THIS PROJECT – SOME DETAILS MAY BE MODIFIED – VERIFY ON LIGHTING AND POWER FLOOR PLANS AS APPLICABLE



1 ELECTRICAL DETAILS
E4.0 SCALE: NTS

125 Poesta Dr., Portland, TX 78374
(361) 813-4948 timbo623g@hotmail.com
Texas Engineering Firm #12480

SAN PATRICIO COUNTY OFFICES - PORTLAND
SAN PATRICIO COUNTY
704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

ELECTRICAL DETAILS

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

ELECTRICAL
DETAILS

E4.0

ELECTRICAL SPECIFICATIONS

PART 1 GENERAL

- 1.1 WORK INCLUDED: THIS SECTION INCLUDES THE NECESSARY LABOR, MATERIALS, EQUIPMENT, ETC., TO COMPLETE THE ELECTRICAL WORK THAT IS INDICATED IN THE CONTRACT DOCUMENTS.
- 1.2 CONTRACTOR'S RESPONSIBILITY: REFER TO ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR CONSTRUCTION DETAILS AND COORDINATE WORK WITH THAT OF OTHER TRADES SO AS TO AVOID UNNECESSARY DELAYS OR DAMAGE TO ANY PART OF THE INSTALLATION. IF ANY OMISSIONS OR DISCREPANCIES ARE FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS OR CITY AND POWER COMPANY REGULATIONS, ADVISE THE ENGINEER PRIOR TO BID DUE DATE. VERIFY ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT EXACTLY AS FURNISHED AND MAKE ADJUSTMENTS IN ELECTRICAL SERVICE ACCORDINGLY BEFORE INSTALLATION OF POWER CIRCUITS.
- 1.3 EXAMINATION OF SITE: EXAMINE THE ACTUAL SITE AND COMPARE IT WITH DRAWINGS AND SPECIFICATIONS. CHECK LOCATION OF ALL EXISTING OBSTRUCTIONS AND CONDITIONS WHICH MAY AFFECT WORK BEFORE SUBMITTING A BID.
- 1.4 PERMITS, FEES AND CODE REGULATIONS: OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES AND POWER COMPANY CHARGES PERTAINING TO WORK UNDER THIS SECTION, AND COMPLY WITH ALL NATIONAL, STATE AND MUNICIPAL LAWS, CODES, ORDINANCES, AND REGULATIONS RELATING TO BUILDING AND PUBLIC SAFETY.
- 1.5 PROTECTION OF APPARATUS: TAKE SUCH PRECAUTIONS AS ARE NECESSARY TO PROTECT ALL APPARATUS AND MATERIALS FROM DAMAGE. FAILURE TO COMPLY SHALL BE SUFFICIENT CAUSE REJECTION OF THE APPARATUS OR MATERIAL IN QUESTION.
- 1.6 GUARANTEE: INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE AGAINST FAULTY WORKMANSHIP AND/OR MATERIALS. ALL SUCH DEFECTS SHALL BE MADE GOOD WITHIN THIS PERIOD UPON DEMAND OF OWNER. MATERIAL AND EQUIPMENT GUARANTEES AND WARRANTIES WHICH EXCEED THE ABOVE PERIOD SHALL BE PASSED TO THE OWNER. PAY ANY COST INCURRED TO PROVIDE THE FIRST YEAR'S WARRANTY ON ALL ELECTRICAL ITEMS.
- 1.7 DRAWINGS AND SPECIFICATIONS AT THE SITE: MAINTAIN AT THE JOB SITE, ONE COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA, APPROVED SHOP DRAWINGS, CHANGE ORDERS AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION.
- 1.8 DRAWINGS:
- 1.8.1 DRAWINGS ARE DIAGRAMMATIC, BUT SHALL BE FOLLOWED, AS CLOSELY AS ACTUAL CONSTRUCTION OF THE WORK WILL PERMIT. CHANGES FROM DRAWINGS NECESSARY TO FIT WORK OF VARIOUS TRADES, TO CONFORM TO EQUIPMENT ACTUALLY BEING INSTALLED, OR THE RULES OF AUTHORITIES HAVING JURISDICTION SHALL BE INCLUDED IN THE BID AND SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- 1.8.2 LINES INDICATING CIRCUITS ON THE DRAWINGS ARE INTENDED TO INDICATE ARRANGEMENT AND CONTROL.
- 1.8.3 ARCHITECT OR OWNER RESERVES THE RIGHT TO MAKE MINOR CHANGES IN OUTLET LOCATIONS INDICATED, AT NO ADDITIONAL COST TO THE OWNER.
- 1.8.4 AT CONCLUSION OF THE PROJECT, PROVIDE ONE SET OF COMPLETE LEGIBLE "AS BUILDS" ON CLEAN PRINTS.

- 1.9 SHOP DRAWINGS:
- 1.9.1 SUBMIT WITHIN 30 DAYS AFTER CONTRACT AWARDED, A COMPLETE SET OF SHOP DRAWINGS, OF ITEMS FURNISHED UNDER THIS SECTION. IF SUBMITTALS ARE NOT RECEIVED WITHIN TIME ALLOTTED, USE EXACT MATERIAL SPECIFIED WITH NO SUBSTITUTIONS. NO CONSIDERATION WILL BE GIVEN TO PARTIAL LISTS SUBMITTED FROM TIME TO TIME. SHOP DRAWINGS SHALL BE APPROVED BEFORE INSTALLATION OF THE MATERIAL UNDER CONSIDERATION. APPROVAL OF MATERIALS OR EQUIPMENT SHALL NOT BE CONSTRUED AS RELEASING THIS CONTRACTOR FROM FURTHER RESPONSIBILITY FOR CONFORMANCE TO CONTRACT DOCUMENTS, BUT RATHER AS A MEANS TO COORDINATE THE EQUIPMENT INSTALLATION.
- 1.9.2 SHOP DRAWINGS SHALL BE SUBMITTED ONLY BY THE CONTRACTOR; WHO SHALL INDICATE BY SIGNED STAMP THAT HE HAS CHECKED SHOP DRAWINGS AND THAT THEY ARE IN ACCORDANCE WITH CONTRACT REQUIREMENTS.
- 1.9.3 SHOP DRAWINGS SHALL CONSIST OF PUBLISHED RATINGS OR CAPACITY DATA, DETAILED EQUIPMENT DRAWINGS FOR FABRICATED ITEMS, AND OTHER PERTINENT DATA. WHERE LITERATURE IS SUBMITTED COVERING A GROUP OR SERIES OF SIMILAR ITEMS, ITEM UNDER CONSIDERATION SHALL BE CLEARLY INDICATED, OR SHOP DRAWINGS WILL BE DISAPPROVED.
- 1.9.4 SHOP DRAWINGS ARE REQUIRED FOR, BUT NOT LIMITED TO THE FOLLOWING ITEMS:
- (1) ALL WIRES

(10) ELECTRICAL PANELS

(2) WIRE CONNECTORS

(11) DISCONNECT SWITCHES

(3) CONDUIT

(12) FUSES

(4) WIRING DEVICES

(13) LAMPS

(5) DEVICE COVERPLATES

(14) TIME CLOCKS

(6) LIGHTING FIXTURES

(15) PHOTOCELLS

(7) BALLASTS

(16) CONTACTORS

- 1.10 SUBSTITUTIONS:
- 1.10.1 WHENEVER A SPECIFIC MANUFACTURER'S NAME AND/OR MODEL IS MENTIONED, IT IS ONLY TO SET A STANDARD OF DESIGN, PERFORMANCE, QUALITY AND SERVICEABILITY NOT TO LIMIT COMPETITION. OTHER MANUFACTURERS AND MODELS WILL BE CONSIDERED EQUAL IF THEY ARE EQUAL IN ALL RESPECTS IN THE OPINION OF THE ENGINEER. PROPOSED EQUIPMENT, NOT SHOWN ON LIST OF ACCEPTABLE ALTERNATE MANUFACTURERS SHALL BE RECEIVED BY ARCHITECT, FOR PRIOR APPROVAL, 10 DAYS BEFORE BID DUE DATE.
- 1.10.2 THE ENGINEER IS NOT REQUIRED TO PROVE THAT A SUBSTITUTE MATERIAL IS NOT EQUAL TO THE SPECIFIED MATERIAL, BUT IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVE THAT THE SUBSTITUTE MATERIAL IS EQUAL TO THE MATERIAL SPECIFIED. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY MATERIAL.

- 1.11 ELECTRICAL SERVICE:
- 1.11.1 THE ELECTRICAL SERVICE SHALL BE 120/208V, 3ø, 4W AS SHOWN ON RISER DIAGRAM.
- 1.11.2 PROVIDE TEMPORARY ELECTRICAL CONSTRUCTION POWER TO THE PROJECT DURING CONSTRUCTION SEPARATE FROM THE PERMANENT BUILDING SERVICE AND REMOVE ENTIRELY PRIOR TO REQUESTING THE ARCHITECT'S FINAL INSPECTION FOR ACCEPTANCE OF THE PROJECT. PAY ANY FEES REQUIRED BY THE POWER COMPANY.
- 1.11.3 TELEPHONE SERVICE: NETWORKING CONTRACTOR TO PROVIDE EXTENSION OF SERVICE FROM EXISTING TELEPHONE BACKBOARD (DEMARC) TO NEW LOCATION SHOWN ON PLANS. PROVIDE EMPTY BOXES AND CONDUIT RACEWAY STUBUPS, WITH PULLWIRES, TO INDIVIDUAL OUTLETS SHOWN ON THE DRAWINGS OR COORDINATE WITH OWNER FOR WIRED (CAT5E) SYSTEM.

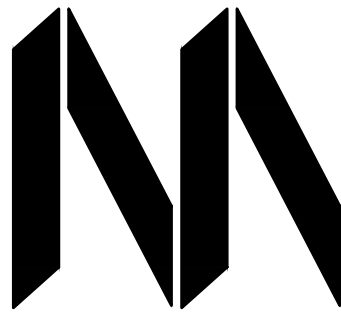
PART 2 BASIC MATERIALS AND METHODS

- 2.1 GENERAL: MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION. ALL MATERIALS FURNISHED AND INSTALLED, FOR WHICH UL STANDARDS HAVE BEEN ESTABLISHED, SHALL BE LISTED BY AND BEAR THE UL LABEL. ALL MATERIALS SHALL BE THE MANUFACTURER'S LATEST STANDARD DESIGN, UNLESS OTHERWISE SPECIFIED.
- 2.2 WIRE:
- 2.2.1 FURNISH AND INSTALL ALL WIRE INDICATED OR REQUIRED FOR A COMPLETE ELECTRICAL SYSTEM. ALL WIRE SHALL BE SOFT DRAWN ANNEALED COPPER WITH CONDUCTIVITY OF NOT LESS THAN 98% THAT OF PURE COPPER. ALL CONDUCTORS SHALL BE TYPE "THHN/THHW", EXCEPT UNDERGROUND WIRING SHALL BE TYPE XHHW. USE NO WIRE SMALLER THAN NO. 12AWG, EXCEPT CONTROL WIRE. RUN MAINS AND FEEDERS THE ENTIRE LENGTH CONTINUOUS WITHOUT JOINTS OR SPLICES. MAKE BRANCH CIRCUITS JOINTS OR SPLICES ELECTRICALLY AND MECHANICALLY SECURE WITH BUCHANAN PRESSURE CONNECTORS AND VINYL INSULATORS. ALL CONDUCTORS FOR LIGHTING AND RECEPTACLE CIRCUITS SHALL BE COLOR CODED TO INDICATE VARIOUS PHASES AND NEUTRALS.
- 2.2.2 PROVIDE PLENUM RATED CABLE, IF REQUIRED. VERIFY, BEFORE BID AND BEFORE ORDERING ANY CABLE RUN ABOVE THE CEILING AND NOT IN CONDUIT.
- 2.3 CONDUIT:
- 2.3.1 ALL SYSTEMS SHALL BE IN CONDUIT, EXCEPT SPECIAL SYSTEMS, UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE 3/4" MIN. SIZE, EXCEPT AS OTHERWISE NOTED ON PLANS. ALL CONDUIT SHALL BE HOT DIPPED GALVANIZED, EXCEPT CONDUIT IN SLAB AND UNDERGROUND MAY BE PVC CONFORMING TO NEC AND LOCAL CODES. RIGID ALUMINUM CONDUIT SHALL BE ALLOWED ABOVE GRADE WHERE OTHERWISE ALLOWED BY AHI.
- 2.3.2 ALL EXPOSED CONDUIT RUN ON THE EXTERIOR OF STRUCTURES SHALL BE RIGID THREADED HOT-DIPPED GALVANIZED STEEL. THREADLESS FITTINGS SHALL NOT BE USED.
- 2.3.3 ELECTRICAL METALLIC TUBING: ALL CONDUIT USED INSIDE THE BUILDING SHALL BE E.M.T. APPROVED AND LABELED FOR ELECTRICAL INSTALLATION. USE STEEL COMPRESSION TYPE FITTINGS FOR ALL METALLIC TUBING. SET-SCREW TYPE FITTINGS SHALL NOT BE USED.
- 2.3.4 FLEXIBLE CONDUIT: FLEXIBLE CONDUIT SHALL BE USED FOR RUNS NOT EXCEEDING 72" FROM JUNCTION BOXES TO LAY IN TYPE LIGHTING FIXTURES. NON-METALLIC LIQUIDTIGHT FLEXIBLE CONDUIT WITH APPROVED CONNECTORS MAY BE USED FOR CONNECTIONS TO ALL MOTORS AND MOVING EQUIPMENT. PROVIDE BONDING CONDUCTOR AROUND ALL FLEXIBLE CONNECTIONS.
- 2.3.5 ALL PVC CONDUIT SHALL BE SCHED. 40(HEAVY WALL).
- 2.4 CONDUIT SUPPORTS: ALL CONDUIT SUPPORTS SHALL BE APPROVED BY THE ARCHITECT. SUPPORTS SHALL BE KORNS CLAMPS, ONE HOLE MALLEABLE IRON CLAMPS, UNISTRUT AND UNISTRUT CLAMPS OR PIPE HANGERS. THE WIRE SUPPORTS AND PERFORATED STRAPS ARE NOT ACCEPTABLE.
- 2.5 CONDUIT FITTINGS:
- 2.5.1 CONDUIT FITTINGS SHALL BE CROUSE HINDS OR APPLETON CAST FITTINGS WITH CAST COVERS. GASKETS SHALL BE PROVIDED FOR ALL FITTINGS INSTALLED OUTDOORS OR ON THE ROOF. THREADLESS FITTINGS SHALL NOT BE USED.
- 2.5.2 ALL HUBS FOR PANELS AND DISCONNECT SWITCHES SHALL BE MYERS SCRUTTIE, GROUNDING TYPE.
- 2.6 WIRING DEVICES:
- 2.6.1 FURNISH AND INSTALL WIRING DEVICES, AS INDICATED ON DRAWINGS, FOR VOLTAGE AND AMP RATINGS, AS SHOWN. DEVICES SHALL BE WHITE, UNLESS OTHERWISE NOTED, COORDINATE WITH OWNER PRIOR TO PURCHASE.
- 2.6.2 TUMBLER SWITCHES SHALL BE HUBBELL 125 F1 OR EQUAL, 20A, 120/277V, AC ONLY, QUITE TYPE.
- 2.6.3 120 VOLT CONVENIENCE OUTLETS SHALL BE DUPLEX HUBBELL 2 POLE, 20AMP, 3 WIRE GROUNDING.
- 2.6.4 DEVICE PLATES SHALL BE BRUSHED STAINLESS.
- 2.6.5 RECEPTACLES SHOWN ON PLANS AS GFI SHALL BE GROUND FAULT INTERRUPTING TYPE, 20 AMP, 3 WIRE GROUNDING. CONTROLLING MORE THAN ONE RECEPTACLE FROM A SINGLE GFI RECEPTACLE IS NOT ACCEPTABLE, UNLESS NOTED OTHERWISE ON THE PLANS. GFI BREAKERS ARE NOT ACCEPTABLE.
- 2.7 LIGHTING FIXTURES:
- 2.7.1 LIGHTING FIXTURES SHALL BE AS SCHEDULED ON PLANS. INSTALL FIXTURES AT LOCATIONS SHOWN ON DRAWINGS. FIXTURES SHALL BE COMPLETELY WIRED AND LAMPS INSTALLED. FIXTURES SHALL BE IN PERFECT OPERATING CONDITION AT TIME OF ACCEPTANCE.
- 2.7.2 ALL FIXTURE LAMPS SHALL BE PROVIDED BY THE CONTRACTOR, UNLESS NOTED OTHERWISE. COORDINATE WITH TENANT; SEE LIGHTING FIXTURE SCHEDULE.
- 2.7.3 BALLASTS: BALLASTS FOR FLUORESCENT FIXTURES SHALL BE ELECTRONIC, THERMALLY PROTECTED, CLASS P AND CDM-EIT APPROVED. THE BALLASTS SHALL HAVE A CLASS A SOUND RATING AND HAVE LESS THAN 20% THD.
- 2.8 JUNCTION, OUTLET AND PULL BOXES: FURNISH AND INSTALL ALL JUNCTION BOXES AS SHOWN OR OTHERWISE REQUIRED FOR PULLING WIRE. BOXES SHALL BE MADE OF CODE GAUGE GALVANIZED STEEL AND SHALL BE OF PROPER SIZE FOR INTENDED SERVICE, PER THE NEC. OUTLET BOXES IN CEILINGS SHALL BE OCTAGONAL BOXES WITH SCREW COVERS, FIXTURE STUDS AND DEPTH AS REQUIRED. WALL OUTLET BOXES SHALL BE 4" SQUARE X 1-1/2" OR 1-1/8" DEEP AS REQUIRED. ALL OUTLET BOXES SHALL BE FURNISHED WITH PROPER EXTENSION RINGS AND START COVERS. WEATHERPROOF OUTLET BOXES SHALL BE CROUSE-HINDS TYPE FS OR FD WITH NEOPRENE GASKET AND CAST FERRALLOY COVER. EXPOSED SWITCH OUTLETS AND CONVENIENCE OUTLETS SHALL BE CAST IRON, EQUAL TO CROUSE-HINDS TYPE FS.
- 2.9 SLEEVES AND ESCUTCHEONS: PROVIDE ALL SLEEVES AND ESCUTCHEONS REQUIRED FOR THE INSTALLATION OF THE WORK. ALL PENETRATIONS THRU FIRE RATED CEILINGS OR WALLS SHALL BE CLOSED AND FIREPROOFED TO A RATING EQUAL TO THE SURROUNDING MATERIAL.
- 2.10 FLASHING: PROVIDE OR COORDINATE WITH ROOFING CONTRACTOR TO PROVIDE FLASHING FOR ALL CONDUIT THROUGH WALLS OR ROOF. SUBMIT METHOD TO ARCHITECT FOR APPROVAL BEFORE INSTALLATION.
- 2.11 PANELS: FURNISH AND INSTALL PANELBOARDS OF THE VOLTAGE AND RATINGS SHOWN ON DRAWINGS. PANELS SHALL BE OF THE DEAD FRONT TYPE AND SHALL HAVE THERMAL MAGNETIC (BOLT-ON) BRANCH BREAKERS WITH QUICK-MAKE, QUICK-BREAK ON MANUAL OR AUTOMATIC OPERATION. ALL MULTI-POLE BREAKERS SHALL HAVE COMMON TRIPS AND ONE HANDLE. BUS BARS SHALL BE COPPER. ALL PANELS WITH DOORS SHALL BE KEYS ALIKE. PANEL DIRECTORIES SHALL BE TYPED COMPLETE AND INSTALLED ON PANEL DOOR UPON COMPLETION OF JOB. PROVIDE THREE 1 INCH SPARE RACEWAYS FROM EACH FLUSH MOUNTED PANEL TO AN ACCESSIBLE LOCATION ABOVE THE CEILING. BREAKERS SERVING A/C EQUIPMENT SHALL BE RATED FOR THAT SERVICE. BREAKERS SERVING HID LIGHTING SHALL BE RATED FOR THAT SERVICE (HIGH MAGNETIC). ALL PANELS AND SWITCHGEAR SHOWN AS HAVING SPACES SHALL HAVE THE SPACES FULLY EQUIPPED TO RECEIVE A BREAKER OR SWITCH WITHOUT HAVING TO ADD ADDITIONAL PARTS. GROUND AND NEUTRAL BUSES SHALL HAVE SPACE TO LAND WIRING FOR EACH CIRCUIT AS PROVIDED IN THE PANELBOARD (SET SCREW CONNECTIONS). PROVIDE ALL PANEL MOUNTING HARDWARE & LABOR AS NECESSARY IN EACH CASE FOR A COMPLETE INSTALLATION.
- 2.12 DISCONNECT SWITCHES:
- 2.12.1 PROVIDE AND INSTALL ALL DISCONNECT SWITCHES REQUIRED TO CONFORM TO THE NEC, EVEN THOUGH NOT INDICATED ON THE DRAWINGS.
- 2.12.2 SERVICE DISCONNECT SWITCHES SHALL BE HEAVY DUTY AND NEMA-3R. DISCONNECT SWITCHES FOR EQUIPMENT SHALL BE GENERAL DUTY, HORSEPOWER RATED AS SHOWN ON THE DRAWINGS. ALL SWITCHES USED OUTDOORS SHALL BE NEMA 3R.
- 2.13 FUSES: FUSES SHALL BE RATED 240VAC OR 600VAC AND SHALL BE THE DUAL-ELEMENT TYPE WITH AN INTERRUPTING CAPACITY OF NOT LESS THAN 100,000 AMPERES.
- 2.14 MOTOR STARTER: MOTOR STARTERS SHALL BE FURNISHED WITH MOTOR OVERLOAD PROTECTION IN EACH UNGROUND CONDUCTOR. MOTOR STARTERS SHALL BE ACROSS THE LINE TYPE AND SHALL HAVE NEMA 1 ENCLOSURES FOR INTERIOR INSTALLATION AND NEMA 3R FOR EXTERIOR INSTALLATION. MOTOR STARTER NOT FURNISHED WITH EQUIPMENT SHALL BE SQUARE D CLASS 8536 OR EQUAL, SIZE 1 MINIMUM. OVERLOAD ELEMENTS SIZED FOR EQUIPMENT FURNISHED SHALL BE FURNISHED AND INSTALLED. PROVIDE AND INSTALL A CONTROL POWER TRANSFORMER AND HAND-OFF-AUTO SELECTOR SWITCH IN THE STARTER. COORDINATE VOLTAGE OF CPT WITH CONTROLS CONTRACTOR, BEFORE ORDERING.
- 2.15 LIST OF ACCEPTABLE ALTERNATE MANUFACTURERS:
- 2.15.1 600 VOLT WIRE: REYNOLDS, TRIANGLE, ROME, AMACONDA, GENERAL ELECTRIC.
- 2.15.2 CONDUIT: NATIONAL ELECTRIC, TRIANGLE.
- 2.15.3 WIRING DEVICES: P & S, HUBBELL, GENERAL ELECTRIC, BRYANT, LEVITON.
- 2.15.4 LIGHTING FIXTURES: WHEN REQUIRED, BIDS FOR FIXTURES MUST BE BASED ON FIXTURES SPECIFIED OR APPROVED SUBSTITUTIONS. SHOP DRAWINGS SHALL BE SUBMITTED ON ALL FIXTURES. IF FIXTURES ARE OTHER THAN SPECIFIED, CONTRACTOR MAY BE REQUIRED TO SUBMIT SAMPLES OF BOTH SPECIFIED AND ALTERNATE FIXTURES.
- 2.15.5 BALLASTS: ADVANCE
- 2.15.6 PANELS: SQUARE-D AND CUTLER HAMMER.
- 2.15.7 DISCONNECT SWITCHES: SQUARE D AND CUTLER HAMMER.
- 2.15.8 NONMETALLIC, LIQUID-TIGHT FLEXIBLE CONDUIT: CARLON, T&B, HUBBEL

PART 3 ELECTRICAL INSTALLATION

- 3.1 GENERAL: ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL, STATE AND LOCAL LAWS AND ORDINANCES AND POWER COMPANY HAVING JURISDICTION AT THE JOB SITE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS AND THE ABOVE LOCAL, STATE AND NATIONAL REQUIREMENTS, BEFORE INSTALLATION. THE ENGINEER WILL THEN ISSUE INSTRUCTIONS FOR ANY CHANGES REQUIRED. THE INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE. IF CODE CLEARANCE IS NOT AVAILABLE AS SHOWN ON THE PLANS, THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EQUIPMENT WITH THE ENGINEER OR ARCHITECT BEFORE INSTALLATION OF THE EQUIPMENT. SCHEDULE WORK AND PROVIDE NOTICE TO PERMIT INSPECTIONS BY THE ARCHITECT AND FOR AUTHORITIES HAVING JURISDICTION BEFORE THE WORK IS CONCEALED. LABOR SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY MECHANICS SKILLED IN THEIR PARTICULAR TRADE. INSTALLATIONS SHALL BE CONSISTENT IN COMPLETENESS AND APPEARANCE, WHETHER CONCEALED OR EXPOSED. ANY ITEM WHICH DOES NOT PRESENT A NEAT OR WORKMANLIKE APPEARANCE SHALL BE REPLACED AT NO ADDITIONAL COST. IF IN THE OPINION OF THE ARCHITECT, OBJECTIONABLE NOISE IS PRODUCED BY FIXTURE BALLASTS, TRANSFORMERS OR ANY ELECTRICAL EQUIPMENT, RECTIFY SUCH CONDITIONS AT NO ADDITIONAL COST.
- 3.2 WIRING:
- 3.2.1 NO WIRE SHALL BE PULLED INTO RACEWAY SYSTEMS UNTIL ALL CONSTRUCTION WHICH IS LIKELY TO DAMAGE THE WIRE IS COMPLETED. USE A COMMERCIAL WIRE PULLING COMPOUND, APPROVED BY THE UNDERWRITERS' LABORATORIES, INC., FOR PULLING ALL WIRE.
- 3.2.2 WIRING, INCLUDING GROUNDING, AT OUTLETS, THAT HAVE FEED THRU CIRCUITS, SHALL BE PIGTAILED IN THE OUTLET BOX, SO THAT THE OUTLET CAN BE REMOVED WITHOUT INTERRUPTING DOWNSTREAM OUTLETS.
- 3.3 RACEWAYS:
- 3.3.1 CONCEAL ALL RACEWAYS WHENEVER POSSIBLE. ROUTING OF ALL EXPOSED CONDUIT SHALL BE APPROVED BY THE ARCHITECT BEFORE INSTALLATION. RUN EXPOSED RACEWAYS PARALLEL AND PERPENDICULAR TO THE BUILDING STRUCTURE. CORK ALL CONDUIT AND KEEP IT DRY AND FREE OF RUBBISH UNTIL WIRES ARE INSTALLED. CONDUIT SHALL BE SECURELY SCREWED UP-TIGHT SO AS TO CONSTITUTE A CONTINUOUS CONDUCTIVE RACEWAY.
- 3.3.2 PROVIDE EXPANSION FITTINGS FOR ALL RACEWAYS CROSSING EXPANSION JOINTS.
- 3.3.3 FLASH AND COUNTER FLASH ALL RACEWAYS PASSING THROUGH BUILDING WALL AND ROOF TO PROVIDE WATERTIGHT CONSTRUCTION.
- 3.3.4 SECURE ALL RACEWAYS AT INTERVALS NOT EXCEEDING 5 FEET AND WITHIN 3 FEET OF ALL BOXES AND CONDUIT FITTINGS. ALL CONDUIT SHALL BE SECURELY SUPPORTED IN PLACE.
- 3.3.5 PROVIDE A #12 COPPER PULL WIRE IN ALL EMPTY CONDUIT.
- 3.3.6 TELEPHONE CONDUIT MAY BE IN THE SAME TRENCH AS THE ELECTRICAL CONDUIT WITH A 12" SEPARATION AND 24" COVERAGE.
- 3.3.7 INSTALL PRIMARY UNDERGROUND CONDUIT 48" BELOW FINISHED GRADE. SECONDARY CONDUIT SHALL BE 36" BELOW GRADE.
- 3.3.8 PVC CONDUIT STUBUPS IN SLAB SHALL NOT EXTEND MORE THAN 18" ABOVE FINISHED SLAB AND THEN MUST CHANGE TO STEEL CONDUIT. INSTALLATION MUST CONFORM TO NEC AND LOCAL CODES.
- 3.3.9 CONDUITS PASSING BETWEEN CONDITIONED AND UN-CONDITIONED SPACES SHALL HAVE CONDUIT SEALING FITTINGS FILLED WITH CHICO STUFFING AND CEMENT (OR EQUAL) TO PREVENT CONDENSATION AND RUST.

- 3.4 LIGHTING FIXTURES:
- 3.4.1 PRIOR TO LOCATING ANY LIGHT FIXTURE, CONFER WITH THE ARCHITECT AS TO THE DESIRED METHOD OF LOCATING THE LIGHT FIXTURES IN THE VARIOUS AREAS. IF THIS REQUIREMENT IS NOT MET, THE CONTRACTOR MAY BE REQUIRED TO RELOCATE THE LIGHT FIXTURES AT NO ADDITIONAL COST.
- 3.4.2 LAY-IN CEILING - SECURE ALL 4 CORNERS OF ALL LAY-IN LIGHT FIXTURES TO STRUCTURE - INDEPENDENT OF GRID.
- 3.4.3 EXIT LIGHTS SHALL BE WALL MOUNTED, WHERE POSSIBLE AND MOUNTED WITH 4 BOLTS OR SCREWS. WHERE THE FIXTURE CAN NOT BE WALL MOUNTED, PROVIDE SUPPORTS INDEPENDENT FROM THE CEILING GRID TO SECURE THE FIXTURE BY 4 SCREWS AND SECURELY HOLD THE FIXTURE PLUMB AND SQUARE.
- 3.5 ELECTRICAL OUTLETS:
- 3.5.1 REVIEW ALL ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS BEFORE THE INSTALLATION OF ALL ELECTRICAL OUTLETS. RELOCATE OUTLETS, AS APPROVED BY THE ARCHITECT TO COORDINATE WITH THE INSTALLATION OF THE OTHER TRADES AT NO ADDITIONAL COST. VERIFY, BEFORE INSTALLATION, THE EXACT LOCATION OF THE POWER ENTRANCE TO EQUIPMENT ACTUALLY FURNISHED AND MAKE ADJUSTMENTS, AS REQUIRED. COORDINATE LOCATION OF DISCONNECT SWITCHES TO PROVIDE CLEARANCES REQUIRED BY CODE AND REQUIRED FOR SERVING OF EQUIPMENT. PROVIDE GALVANIZED UNISTRUT SUPPORTS AS REQUIRED.
- 3.5.2 MOUNT TUMBLER SWITCHES IN SUITABLE STEEL BOXES 48" ABOVE FINISHED FLOOR, TO TOP OF BOX, UNLESS NOTED OTHERWISE ON PLANS. INSTALL SWITCHES ON STRIKE SIDE OF DOORS, AS NEAR AS POSSIBLE TO JAM AND IN UNIFORM POSITION SO THAT THE SAME DIRECTION WILL OPEN AND CLOSE THE CIRCUIT THROUGHOUT THE PROJECT. MOUNT RECEPTACLES 18" ABOVE FINISHED FLOOR, TO BOTTOM OF BOX, UNLESS NOTED OTHERWISE.
- 3.5.3 ALL OUTLET AND JUNCTION BOXES SHALL BE SECURELY AND RIGIDLY FASTENED IN PLACE PER NEC 314.23.
- 3.6 GROUNDING:
- 3.6.1 PERMANENTLY AND SECURELY GROUND THE NEUTRAL CONDUCTOR, CONDUIT SYSTEM, PANELBOARDS AND ALL OTHER COMPONENTS OF THE ELECTRICAL SYSTEM. THE GROUNDING SHALL BE IN ACCORDANCE WITH NEC AND LOCAL CODES, AND MADE WITH APPROVED GROUND CLAMPS. GROUNDING LUGS AND CLAMPS SHALL BE BRONZE. GROUND RODS SHALL BE COPPER-WELD, NO LESS THAN 5/8 INCH IN DIAMETER. PROVIDE A SEPARATE GROUND CONDUCTOR IN ALL FLEXIBLE CONDUIT CONNECTIONS.
- 3.6.2 ALL RECEPTACLES SHALL BE GROUNDED.
- 3.6.3 ALL POWER AND LIGHTING CIRCUITS SHALL HAVE A GREEN GROUND WIRE IN ALL CONDUIT.
- 3.6.4 GROUND METAL FRAME, ENCLOSURE, ETC., OF ALL EQUIPMENT CONNECTED UNDER THIS CONTRACT. USE GROUNDING LUGS AT ALL ENCLOSURES. WRAPPING WIRE UNDER BOLT OR SCREW IS NOT ACCEPTABLE. WHERE NECESSARY, FURNISH AND INSTALL GROUNDING CORDS AND CAPS TO ACCOMPLISH THIS GROUNDING.
- 3.7 EQUIPMENT MARKING: LABEL ALL DISCONNECT SWITCHES, PULLBOXES, MOTOR STARTERS, AND FEEDERS WITH DYMO VINYL EMBOSSING TAPE WITH ADHESIVE BACK TO IDENTIFY CIRCUIT NUMBER AND EQUIPMENT SERVED. IDENTIFY ALL PANELBOARDS, SWITCHGEAR, AND MAIN SERVICE DISCONNECT EQUIPMENT WITH A PHENOLIC NAMEPLATE. TAG ALL SPARE, EMPTY CONDUIT. INSTALL LABELS IN ALL FUSED DEVICES INDICATING PROPER SIZE FUSES.
- 3.8 RELATED WORK SPECIFIED IN OTHER TRADES:
- 3.8.1 FOR ANY ITEM PROVIDED UNDER THIS CONTRACT REQUIRING ELECTRICAL POWER, FURNISH AND INSTALL ALL DISCONNECT SWITCHES, MOTOR STARTERS, RELAYS, CONTROL SWITCHES, CONDUIT AND WIRE FOR POWER AND CONTROLS, AND OTHER NECESSARY ELECTRICAL ITEMS REQUIRED FOR PROPER OPERATION AND NOT FURNISHED WITH EQUIPMENT PROVIDED. PROVIDE ALL INTERLOCK WIRING AND OTHER CONTROL WIRING OF LINE VOLTAGE IN ACCORDANCE WITH THE WIRING DIAGRAM FURNISHED OR OBTAINED FROM THE EQUIPMENT MANUFACTURER. COORDINATE WITH MECHANICAL CONTRACTOR BEFORE BID. PROVIDE ALL LABOR AND MATERIAL REQUIRED TO CONNECT ALL VENDOR OPERATING ITEMS, SUCH AS LIGHTS AND SWITCHES, SUPPLIED WITH VENT OR SUPPLY HOODS, FOR A COMPLETE OPERATING SYSTEM.
- 3.9 EXCAVATION, CUTTING, BORING AND CHASING:
- 3.9.1 MAKE EXCAVATIONS AND DO BACKFILLING REQUIRED TO COMPLETE THIS WORK. COORDINATE EXCAVATION WITH THE WORK OF OTHER TRADES TO AVOID DELAY. WHERE TRENCHING OR EXCAVATION IS REQUIRED, COMPACT BACKFILL TO CONDITION EQUAL TO ADJACENT UNDISTURBED EARTH, AS APPROVED BY ARCHITECT.
- 3.9.2 BEFORE ANY CUTTING OR TRENCHING OPERATIONS ARE BEGUN, VERIFY WITH OWNER'S REPRESENTATIVE, UTILITY COMPANIES, MUNICIPALITIES, AND OTHER INTERESTED PARTIES THAT ALL AVAILABLE INFORMATION HAS BEEN PROVIDED, AND LOCATIONS VERIFIED.
- 3.9.3 DO CUTTING, BORING, CHASING AND PATCHING AS REQUIRED TO ACCOMPLISH THIS WORK. NO CUTTING OR NOTCHING OF STRUCTURAL MEMBERS SHALL BE DONE WITHOUT EXPRESS PERMISSION OF THE ARCHITECT.
- 3.10 TESTING: UPON COMPLETION OF THE INSTALLATION, TEST AND PROVE ALL CIRCUITS, MAKING WHATEVER ADJUSTMENTS THAT ARE NECESSARY. PROVIDE AND OPERATE ALL METERS AND OTHER TESTING DEVICES REQUIRED. MEGGER TEST ALL MAIN FEEDER AND TEST GROUND RODS AT 25 OHM OR BETTER. RECORD ALL TEST RESULTS AND INCLUDE IN FINAL DOCUMENTATION PACKAGE.
- 3.11 INSPECTION: UPON COMPLETION OF CONTRACT, THERE WILL BE A FINAL INSPECTION OF THE COMPLETE INSTALLATION. PRIOR TO THIS INSPECTION, ALL WORK UNDER THIS SECTION MUST BE COMPLETED, TESTED (WITH RECORDED RESULTS), ADJUSTED AND PUT IN PERFECT OPERATING CONDITION.
- 3.12 INSTRUCTIONS: FURNISH WRITTEN INSTRUCTIONS IN DUPLICATE FOR OPERATIONS AND MAINTENANCE OF ALL EQUIPMENT FURNISHED UNDER THIS SECTION. FURNISH TO THE OWNER, ALL PARTS LISTS, SPECIAL SERVICING TOOLS AND KEYS TO ANY EQUIPMENT.
- 3.13 REMOVAL OF RUBBISH, CLEAN-UP, AND PAINTING:
- 3.13.1 KEEP AREA OF OPERATIONS FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH AT ALL TIMES. AT THE COMPLETION OF THE WORK, REMOVE ALL RUBBISH, TOOLS, SCAFFOLDING AND SURPLUS MATERIALS FROM THE AREA OF OPERATION. LEAVE ALL AREAS "BROOM" CLEAN.
- 3.13.2 CLEAN ALL EQUIPMENT PROVIDED BY THE ELECTRICAL CONTRACTOR. REMOVE ALL LABELS, DIRT, PAINT, GREASE AND STAINS FROM ALL EXPOSED DEVICES, EQUIPMENT AND FIXTURES INSTALLED UNDER THIS CONTRACT TO PRESENT A FIRST CLASS JOB SUITABLE FOR OCCUPANCY.



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

ELECTRICAL SPECIFICATIONS

ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS	
NO.	DESCRIPTION
DATE	

SHEET NO.



125 Poesta Dr., Portland, TX 78374
(361) 813- 4948 tmb0623@gmail.com
Texas Engineering Firm #12480

ELECTRICAL
SPECIFICATIONS

E5.0

PRICING NOTES

THE INFORMATION CONTAINED WITHIN THESE DOCUMENTS IS GENERAL IN NATURE AND, AS SUCH, MAY NOT DESCRIBE ALL COMPONENTS OR CONDITIONS NECESSARY FOR THE COMPLETED PROJECT. THE CONTRACTOR, BY USING THESE DOCUMENTS AS PART OF ANY EFFORT TO ESTABLISH A GUARANTEED MAXIMUM PRICE (GMP) FOR CONSTRUCTION, ACKNOWLEDGES THE INCOMPLETE NATURE OF THE INFORMATION CONTAINED HEREIN, AND WILL THEREFORE, INCORPORATE REASONABLE AMOUNTS AND ASSUMPTIONS IN THEIR ESTIMATE NECESSARY TO PROVIDE A COMPLETE PROJECT THAT IS CONSISTENT WITH THE DESIGN INTENT OF THESE DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION FEATURES INDICATED IN THE DOCUMENTS AS COMPLETE, SAFE, AND WORKING SYSTEMS. ANY FEATURE INDICATED IN ONE DISCIPLINE'S DESIGN IS ASSUMED TO BE INCLUDED AND INCORPORATED IN ALL DISCIPLINES AND SHOULD BE COORDINATED BETWEEN SUB-CONTRACTORS AS NECESSARY AND REQUIRED FOR FULLY FUNCTIONING SYSTEMS. SHOULD THE CONTRACTOR NOTE ANY CONFLICTING OR CONTRADICTORY INFORMATION IN THESE DOCUMENTS, THEY ARE INSTRUCTED TO NOTIFY THE ARCHITECT IMMEDIATELY OR IDENTIFY THE ITEM AS A SEPARATE LINE ITEM AND PRICE THE MORE COSTLY OF THE DIFFERING CONDITIONS.

PROVIDE COMPLETE, SAFE, AND WORKING CODE COMPLIANT SYSTEMS, INCLUDING DUCTWORK, PIPING, INSULATION, EQUIPMENT, DRAINS, CONTROLS, BALANCING DAMPERS, BALANCING VALVES, ETC. WITH THE ELECTRICAL SERVICE COORDINATED AND PROVIDED BY THE ELECTRICAL CONTRACTOR.

PROVIDE CEILING OR WALL ACCESS PANELS AS REQUIRED FOR REMOVAL, REPLACEMENT, INSPECTION AND GENERAL ACCESS FOR ALL EQUIPMENT AND ACCESSORIES INSTALLED ABOVE CEILINGS OR BEHIND WALLS, INCLUDING ZONE VALVES, AUTOMATIC BALANCING VALVES, STRAINERS, ETC. COORDINATE THE TYPE AND STYLE OF ACCESS PANELS REQUIRED WITH THE ARCHITECTURAL DOCUMENTS.

PIPING SYSTEMS SHALL BE COMPLETE AND OPERATING SYSTEMS INCLUDING MANUAL SHUT-OFF VALVES FOR EACH PIECE OF EQUIPMENT, AUTOMATIC BALANCING VALVES WITH STRAINERS, AIR RELIEF VALVES FOR OPEN AND CLOSED SYSTEMS, MAKEUP WATER CONNECTIONS WITH BACKFLOW PREVENTION, DRAINS, PRESSURE RELIEF, ETC. THE SYSTEMS SHALL BE TESTED AND BALANCED AND MADE READY FOR USE AS PER SPECIFICATIONS.

PROVIDE SHUT/OFF VALVES AT EACH MAJOR BRANCH PIPING TAKE-OFF. ROUTE PIPING SO VALVES ARE LOCATED ABOVE ACCESSIBLE CEILINGS WHEREVER POSSIBLE. WHERE VALVES ARE LOCATED ABOVE INACCESSIBLE CEILINGS, PROVIDE ACCESS PANELS TO ACCESS EACH VALVE.

INSULATE ALL COLD AND HOT WATER PIPING 3/4" AND LARGER AND ALL EXTERIOR WATER PIPING. HEAT TRACE ALL EXTERIOR PIPING.

NON-FREEZE WALL HYDRANTS SHALL BE PROVIDED AT 75'-0" INTERVALS AROUND THE OUTSIDE OF THE BUILDING AND WITHIN INTERIOR COURTYARDS.

ALL EQUIPMENT AND ACCESSORIES REQUIRING ELECTRICAL CONNECTIONS SHALL BE PROVIDED WITH ELECTRICAL SERVICE, WITH ELECTRICAL NEEDS AND SERVICE REQUIREMENTS COORDINATED WITH THE ELECTRICAL CONTRACTOR. ELECTRICAL SERVICE SHALL BE INCLUDED IN THE GMP PRICING.

ALL WATER LINES SUBJECT TO FREEZING SHALL BE HEAT TRACED AND INSULATED. ALL SANITARY LINES AND TRAPS SUBJECT TO FREEZING SHALL BE HEAT TRACED AND INSULATED.

PLUMBING MATERIALS

- DOMESTIC HOT & COLD WATER PIPING ABOVE GRADE SHALL BE TYPE L HARD DRAWN COPPER TUBING CONFORMING TO ASTM B-88 WITH SWEAT JOINTS AND CAST OR WROUGHT FITTINGS. ALL JOINTS SHALL BE MADE WITH LEAD FREE SOLDER.
- SANITARY WASTE & STORM DRAIN PIPING BELOW GROUND SHALL BE SCHEDULE 40 DWV PVC WITH SOLVENT JOINTS. PVC PIPING SHALL NOT RECEIVE WASTES OVER 130°F. FOAM CORE PIPING SHALL BE NOT INSTALLED - NO EXCEPTIONS.
- SANITARY WASTE & VENT, AND STORM DRAIN PIPING ABOVE GROUND SHALL BE NO-HUB CAST-IRON WITH STAINLESS STEEL COUPLINGS. SCHEDULE 40 DWV PVC WITH SOLVENT JOINTS MAY BE SUBMITTED FOR OWNER APPROVAL AS A DEDUCTIVE ALTERNATE WHERE NOT LOCATED IN A RETURN PLENUM. PVC PIPING SHALL NOT RECEIVE WASTES OVER 130°F AND SHALL NOT BE LOCATED IN RETURN AIR PLENUM SPACES. FOAM CORE PIPING SHALL BE NOT INSTALLED - NO EXCEPTIONS.
- PIPING INSULATION SHALL COMPLY WITH IECC FOR CONDUCTIVITY AND MEAN RATING TEMPERATURE, HAVE A VAPOR BARRIER JACKET, AND A SELF-SEALING ALL SERVICE JACKET. ALL ABOVE GRADE HOT AND COLD DOMESTIC WATER, AND HOT WATER RECIRCULATION PIPING SHALL BE INSULATED FROM HEAT SOURCE TO INDIVIDUAL PLUMBING FIXTURES. ALL HOT WATER AND HOT WATER RECIRCULATION PIPING ABOVE GRADE 1-1/4 INCH AND SMALLER SHALL BE INSULATED WITH 1.5 INCH NOMINAL THICKNESS PIPE INSULATION AND PIPING 1-1/2 INCH AND LARGER SHALL BE INSULATED WITH 2 INCH NOMINAL THICKNESS PIPE INSULATION. ALL COLD WATER PIPING ABOVE GRADE SHALL BE INSULATED WITH 1/2 INCH THICKNESS INSULATION ON PIPING SMALLER THAN 1 INCH AND 1 INCH THICK INSULATION ON PIPING 2 1/2 INCH AND LARGER. ALL HORIZONTAL STORM DRAIN PIPING AND ROOF DRAIN BODIES SHALL BE INSULATED WITH 1 INCH THICK FIBERGLASS. PVC SANITARY AND STORM DRAINAGE PIPING ABOVE AMENITY AND PUBLIC SPACES, GUESTROOMS, DWELLING UNIT BEDROOMS, AND LIVING SPACES SHALL BE PROVIDED WITH NETWELL NETLAG ACOUSTICAL INSULATION. MATERIALS AS MANUFACTURED BY ARMSTRONG, CERTAINTED, KNAUF OR EQUAL, CLOSED CELL ELASTOMERIC PIPE INSULATION MANUFACTURER BY ARMACELL, IS AN APPROVED EQUAL.

PLUMBING/ELECTRICAL COORDINATION

THE PLUMBING CONTRACTOR SHALL COORDINATE THE ELECTRICAL CHARACTERISTICS OF ALL PLUMBING EQUIPMENT (VOLTAGE, PHASE, MCA, MOCP, ETC.) WITH THE ELECTRICAL CONTRACTOR AND THE ELECTRICAL PLANS PRIOR TO SUBMITTING OR ORDERING ANY PLUMBING EQUIPMENT. ANY SUBSEQUENT MISMATCH BETWEEN THE PLUMBING EQUIPMENT ELECTRICAL REQUIREMENTS AND THE ELECTRICAL SERVICE, AS DESIGNED AND PROVIDED, SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR WITH NO ADDITIONS TO THE CONTRACT.

PLUMBING GENERAL NOTES

- THE PLUMBING SYSTEMS INSTALLATION SHALL CONFORM WITH THE REQUIREMENTS OF THE 2021 UNIFORM PLUMBING CODE, THE 2021 INTERNATIONAL BUILDING CODE, THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE, STATE AND LOCAL AMENDMENTS, NFPA 54, NFPA 101, UNDERWRITERS LABORATORIES (OR ETI) AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND ELEVATIONS OF ALL PLUMBING FIXTURES.
- ALL PIPING ABOVE GRADE SHALL BE PROPERLY SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL NOT REST ON OR BE SUPPORTED FROM CEILING TILES. NON-CORROSIVE HANGERS SHALL BE PROVIDED IN DAMP ENVIRONMENTS, SUCH AS PUMP ROOMS AND POOL EQUIPMENT ROOMS.
- WATER PIPING ROUTED ABOVE CEILING AND IN EXTERIOR WALLS SHALL BE ROUTED ON HEATED SIDE (UNDERSIDE) OF CEILING INSULATION AND HEATED SIDE (INSIDE) OF WALL INSULATION.
- ALL PIPING, P-TRAPS, AND CONDENSATE DRAINAGE SUBJECT TO FREEZING SHALL BE INSULATED AND HEAT TRACED.
- ALL PLUMBING EQUIPMENT, CONDENSATE DRAINAGE, SANITARY, STORM, AND WATER PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE LOCAL AHJ REQUIREMENTS.
- SANITARY DRAINAGE PIPING SHALL BE SLOPED AS REQUIRED BY CODE. VENT PIPING SHALL BE GRADED BACK TO DRAINAGE PIPE IT SERVES.
- TOPS OF ALL FLOOR DRAINS AND CLEANOUTS SHALL BE SET FLUSH WITH FINISHED FLOOR.
- TRAP PRIMERS ARE TO BE PROVIDED ON ALL FLOOR DRAINS AND HUB DRAINS. TP "A" AUTOMATIC TRAP PRIMERS ARE TO BE PROVIDED IN ALL REQUIRED LOCATIONS. TRAP GUARDS COMPLYING TO ASSE 1072, AS MANUFACTURED BY SURSEAL OR EQUAL, MAY BE USED IN LIEU OF TRAP PRIMERS IF ALLOWABLE BY THE AHJ AND IF SPECIFIED ON PLANS.
- PLUMBING PIPING SHALL NOT TO BE INSTALLED IN ELECTRICAL ROOMS, CLOSETS, TELEPHONE ROOMS, OR ELEVATOR EQUIPMENT ROOMS EXCEPT PIPING SERVING THAT SPECIFIC ROOM, ELECTRICAL EQUIPMENT, ETC. PER THE NATIONAL ELECTRICAL CODE ARTICLE 110.
- ROUTING OF PIPING SHALL BE COORDINATED WITH THE ELECTRICAL CONTRACTOR AND ALL OTHER TRADES DURING THE SUBMITTAL AND LAYOUT PHASE. PIPING SHALL NOT BE ROUTED THROUGH THE DEDICATED ELECTRICAL SPACE ABOVE EACH LOAD CENTER.
- PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEMS. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR NECESSARY TO ACCESS VALVES, WATER HAMMER ARRESTORS, TRAP PRIMERS, STRAINERS, ETC. COORDINATE EXACT LOCATION OF ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.
- LOCATE ALL SECTIONAL OR MAIN CONTROL VALVES WITHIN 1'-0" FROM ACCESS PANELS, CEILING TILES, OR OTHER POINTS OF ACCESS.
- ALL COLD WATER, HOT WATER AND DRAIN PIPING AT HANDICAPPED FIXTURES SHALL BE INSULATED WITH ASME A112.18.9 COMPLIANT INSULATION KITS, PLUMBEREX HANDY SHIELD MAXX INSULATION KITS OR EQUAL.
- PROVIDE ASSE 1010 COMPLIANT WATER HAMMER ARRESTORS SIZED PER PDI STANDARD WH201 ON ALL DOMESTIC WATER SUPPLIES SERVING FLUSH VALVE FIXTURES, WASHING MACHINES SUPPLIES, ICE MAKER SUPPLIES, PRV STATIONS, AND OTHER INSTALLATIONS WITH QUICK CLOSING VALVES. PROVIDE ACCESS PANELS AS REQUIRED. AIR CHAMBERS ARE UNACCEPTABLE.
- PROVIDE A BASE CLEANOUT AT THE LOWEST LEVEL OF ALL SANITARY AND WASTE STACKS. BASE CLEANOUTS ON SOVENT STACKS SHALL BE LOCATED CONCEALED BEHIND THE WATER CLOSET TANK.
- ALL ICE MAKER BOXES SHALL BE KEPT OUT OF RATED WALLS WHERE PRACTICAL. IF BOXES ARE IN RATED WALLS, THE CONTRACTOR SHALL INSTALL FIRE RATED BOXES.
- PROVIDE REDUCED PRESSURE BACKFLOW PREVENTORS AT ALL DOMESTIC WATER CONNECTIONS TO MECHANICAL EQUIPMENT AND ICE MACHINES CONNECTIONS AS REQUIRED BY CODE AND AUTHORITIES HAVING JURISDICTION. BACKFLOW PREVENTORS SHALL BE LOCATED WITH A MINIMUM OF 1'-0" CLEARANCE AT THE LOWEST POINT AND AT NO MORE THAN 5'-0" ABOVE FINISHED FLOOR AT THE HIGHEST POINT OF THE DEVICE.
- PROVIDE MANUFACTURED EXPANSION DEVICES EQUAL TO METRAFLEX METRALOOP OR FABRICATED EXPANSION LOOPS ON ALL PIPING SYSTEMS CROSSING BUILDING EXPANSION JOINTS.
- THERMAL EXPANSION AND CONTRACTION IN ALL DOMESTIC WATER PIPING SYSTEMS SHALL BE COMPENSATED FOR USING U-BENDS, Z-BENDS OR EXPANSION JOINTS AS INDICATED. U-BENDS (LOOPS) AND Z-BENDS SHALL BE COMPLETE WITH PIPE GUIDES AND ANCHORS. EXPANSION COMPENSATION IN PIPING RISERS OVER 100 FEET IN LENGTH SHALL BE MADE WITH ENGINEERED SYSTEMS, EITHER SPRING TYPE ISOLATORS AND CENTRAL ANCHOR SYSTEM (BY MASON INDUSTRIES) OR FLEXIBLE HOSE EXPANSION LOOPS (METRALOOP AS MANUFACTURED BY THE METRAFLEX COMPANY), REFER TO SPECIFICATION SECTION 22 05 16 FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE THE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL DRAWINGS AND SHALL FURNISH EQUIPMENT SELECTED FOR THE VOLTAGES SHOWN THEREIN. THE VOLTAGE COORDINATION STATEMENT IS TO BE COMPLETED AND SUBMITTED WITH THE SHOP DRAWING SUBMITTAL. FAILURE TO SUBMIT THE VOLTAGE COORDINATION STATEMENT WILL BE CAUSE FOR REJECTION.
- ALL PLUMBING EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH ELECTRICAL DRAWINGS.
- ALL PLUMBING EQUIPMENT, PIPING, INSULATION, ETC. INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR FLAME SPREAD AND SMOKE DEVELOPED.
- ALL PLUMBING EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE OWNER.
- ALL PIPE PENETRATIONS OF FIRE AND/OR SMOKE RATED ASSEMBLIES SHALL BE FIRE STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY 3M COMPANY, CP25 CAULK, CS195 COMPOSITE PANEL, FS195 WRAP/SINK, TREMCO, HILTI, METACALULK, NELSON, OR PSS 7900 SERIES SYSTEMS AS RECOMMENDED BY MANUFACTURER FOR PARTICULAR APPLICATIONS, OR EQUIVALENT SYSTEM AS APPROVED BY LOCAL CODE OFFICIALS. T-RATINGS SHALL BE MAINTAINED BY DOUBLE WRAPPING PENETRATIONS 4'-0" ABOVE FLOOR PENETRATIONS WITH A FIRE WRAP. WRAP MUST EQUAL T-RATING.
- PROVIDE AN INLINE FILTER ON THE DOMESTIC WATER SUPPLY TO ALL ICE MACHINES; FILTRINE MODEL TM OR ENGINEER APPROVED EQUAL.
- ALL VENT THRU ROOF PENETRATIONS SHALL BE ROUTED TO TERMINATE AT THE LEAST VISIBLE LOCATION FROM THE ENTRY VIEW. VTR'S SHALL BE LOCATED A MINIMUM 10'-0" AWAY FROM FRESH AIR INTAKES AND OPERABLE WINDOWS.
- PROVIDE AN ASSE 1070 THERMOSTATIC MIXING VALVE FOR EACH PUBLIC AND EMPLOYEE LAVATORY AND HAND SINK SET AT 110°F EQUAL TO LEONARD MODEL 170-LF THERMOSTATIC MIXING VALVE.
- ALL COMPONENTS OF THE DOMESTIC WATER SYSTEM SHALL COMPLY WITH ANSISNF 61, NSF 372, AND NSF 61-G LEAD FREE REQUIREMENTS.
- APPLIANCE AND LINE GAS PRESSURE REGULATORS SHALL BE ACCESSIBLE AND PROVIDED WITH VENT LIMITERS CONFORMING WITH ANSI Z21.80 PER NFPA 54. OVERPRESSURE PROTECTION DEVICES SHALL BE INSTALLED ON GAS PIPING WITH AN OPERATING PRESSURE GREATER THAN 2 PSI SERVING APPLIANCES DESIGNED TO OPERATE AT 14" W.C. OR LESS.
- CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS AS CONSTRUCTION PROGRESSES. CONTRACTOR SHALL SUBMIT AS-BUILTS TO ARCHITECT/ENGINEER FOR REVIEW AFTER THE FINAL CERTIFICATE OF OCCUPANCY HAS BEEN OBTAINED.
- CONTRACTOR SHALL PROVIDE SUBMITTALS ON ALL PLUMBING SYSTEM COMPONENTS THAT ARE TO BE INSTALLED.
- CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WITH FINAL GRADING TO ASCERTAIN THE CONDITIONS AND MAKE PROVISIONS BEFORE IMPLEMENTING WORK. THE CONTRACTOR'S COST ESTIMATE SHALL COVER ALL NECESSARY LABOR FOR MATERIALS. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL NOT BE CONSIDERED JUSTIFICATION FOR OMISSIONS OR FAULTY WORK OR FOR THE PAYMENT OF ADDITIONAL COMPENSATION.
- BEFORE BEGINNING EXCAVATIONS OR DEMOLITION OF ANY NATURE WHATSOEVER, THE CONTRACTOR SHALL LOCATE ALL SERVICES AND UTILITIES OCCURRING WITHIN THE BOUNDS OF THE PROJECT. PROCEED WITH CAUTION SO THAT NO UTILITY OR LINE SERVING AREAS THAT ARE TO REMAIN BE DAMAGED WITH A RESULTANT LOSS OF SERVICE. VERIFY THE SOURCE AND SERVICE OF EACH AND EVERY LINE ENCOUNTERED AND RECORD SERVICE, SIZE AND LOCATION ON THE RECORD DRAWINGS.
- CONTRACTOR TO VERIFY ALL INVERT ELEVATIONS FOR NEW PIPING CONNECTING TO CIVIL. NOTIFY ENGINEER OF ANY DISCREPANCIES.
- COORDINATE INTERRUPTION OF SERVICES AND UTILITIES WITH THE OWNER OR OWNER'S REPRESENTATIVE, FIRE DEPARTMENT AND UTILITY COMPANIES TO ENSURE MINIMUM SHUTDOWN TIMES THAT ARE ACCEPTABLE TO THE OWNER AND AUTHORITIES.
- FURNISH AND INSTALL ALL NECESSARY VALVES, TRAPS, GAUGES, STRAINERS, UNIONS, ETC. FOR EACH PIECE OF EQUIPMENT HAVING PLUMBING CONNECTIONS TO FACILITATE PROPER FUNCTIONING AND SERVICING. DO NOT INSTALL PIPING AT LOCATIONS THAT INTERFERE WITH SERVICE ACCESSIBILITY TO EQUIPMENT.
- VERIFY EXACT LOCATION OF EQUIPMENT PRIOR TO INSTALLATION OF FLOOR DRAINS, FLOOR SINKS AND OTHER RECEPTORS. RELOCATION DUE TO MISPLACEMENT SHALL BE AT NO ADDITIONAL COST.
- SEAL ALL PIPE PENETRATIONS THROUGH BUILDING GRADE BEAMS AND EXTERIOR WALLS WATERTIGHT.
- CONTRACTOR SHALL NOT ABANDON PLUMBING SYSTEMS IN PLACE, UNLESS SPECIFICALLY NOTED.
- PROVIDE ALL MATERIAL, EQUIPMENT, LABOR, SUPERVISION, COSTS AND SERVICES REQUIRED TO INSTALL COMPLETE AND WORKING SYSTEMS, INCLUDING ALL ITEMS AND APPURTENANCES NECESSARY, INCIDENTAL, REASONABLE OR CUSTOMARILY INCLUDED.
- ALL UTILITIES TO VENDOR EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- COORDINATE ALL FLOOR DRAIN, FLOOR SINK, HUB DRAIN, WALL AND FLOOR CLEANOUT LOCATIONS WITH ARCHITECT, OWNER, AND EQUIPMENT VENDOR PRIOR TO INSTALLATION.
- PROVIDE CHECK VALVES ON THE HOT AND COLD WATER INLETS AT THERMOSTATIC MIXING VALVES.
- EXTERIOR GAS PIPING SHALL BE GALVANIZED OR PAINTED. REFER TO ARCHITECT FOR COLOR AND TYPE OF PAINT.
- FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET AND SHALL BE EITHER HAND OPERATED OR AUTOMATIC.

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
—	A/C	ABOVE CEILING
	AD	AREA DRAIN
—	AFF	ABOVE FINISHED FLOOR
—	AFG	ABOVE FINISHED GRADE
—	A/F	ABOVE FLOOR
	AP	ACCESS PANEL
—	B/F	BELOW FLOOR
—	B/G	BELOW GRADE
	BFP	BACKFLOW PREVENTOR
—	BV	BALANCING VALVE
	CV	CHECK VALVE
	CO	CLEANOUT PLUG
— CA —	CA	COMPRESSED AIR
— CD —	CD	CONDENSATE DRAIN
— — —	CW	COLD WATER PIPING
— CWV —	CWV	COMBINATION WASTE & VENT
	DCO	DOUBLE (2-WAY) CLEANOUT
	DSN	DOWNSPOUT NOZZLE
	ERD	EMERGENCY ROOF DRAIN
— ERL —	ERL	EMERGENCY RAIN LEADER
	FCO	FLOOR CLEANOUT
	FD	FLOOR DRAIN
	FS	FLOOR SINK
— G —	G	GAS PIPING - LOW PRESSURE
— MG —	MG	GAS PIPING - MEDIUM PRESSURE
— GW —	GW	GREASE WASTE PIPING
—	HC	HANDICAPPED
	HT	HEAT TRACED PIPING
— HZ —	HZ	HIGH ZONE (BOOSTED) WATER PIPING
	HBNFHB	HOSE BIBB/NON-FREEZE HOSE BIBB
— — —	HW	HOT WATER PIPING
— — — —	HWR	HOT WATER RETURN PIPING
—	HWRP	HOT WATER RETURN PUMP
	HD	HUB DRAIN
— LPG —	LPG	LIQUEFIED PETROLEUM GAS
— LZ —	LZ	LOW ZONE (STREET PRESSURE) WATER PIPING
	M	METER (WATER/GAS)
—	NC	NORMALLY CLOSED
—	OH	OVER HEAD
	—	PIPING TEE
	DN	PIPING TURNING DOWN
	UP	PIPING TURNING UP
	POC	POINT OF CONNECTION NEW TO EXISTING
	PRV	PRESSURE REDUCING VALVE
— PD —	PD	PUMPED DISCHARGE
	—	P-TRAP
	RPZ	REDUCED PRESSURE BACKFLOW PREVENTOR
	—	RISER VALVE
	RD	ROOF DRAIN
	—	SHUT OFF VALVE
— S —	S,SAN,W	SOIL, SANITARY, WASTE PIPING (ABOVE GROUND)
— — S — —	S,SAN,W	SOIL, SANITARY, WASTE PIPING (BELOW GROUND)
— ST —	ST	STORM DRAINAGE PIPING (ABOVE GROUND)
— — ST — —	ST	STORM DRAINAGE PIPING (BELOW GROUND)
	—	STRAINER
	TMV	THERMOSTATIC MIXING VALVE
—	TP	TRAP PRIMER
—	U/C	UNDER COUNTER
	—	UNION
— — — —	V	VENT PIPING
—	VTR	VENT THRU ROOF
	WCO	WALL CLEANOUT
	WH/NFHW	WALL HYDRANT/NON-FREEZE WALL HYDRANT
—	WSV	WASTE STACK VENT
	WHA	WATER HAMMER ARRESTOR
	YCO	YARD CLEANOUT

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

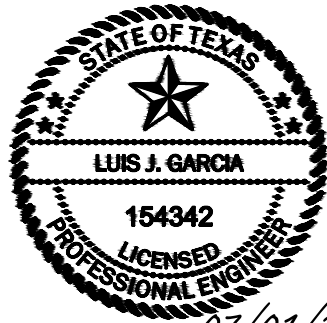
PLUMBING LEGENDS AND NOTES

ISSUED FOR CONSTRUCTION
1 JULY 2026

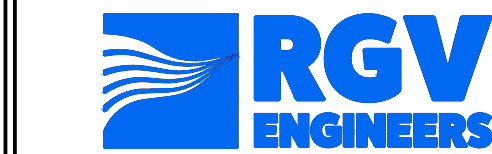
REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

P0.00



07/01/2026



TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com

Drawn by: JEE | Checked by: LJG | Project No: 26017



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

SANITARY PLAN

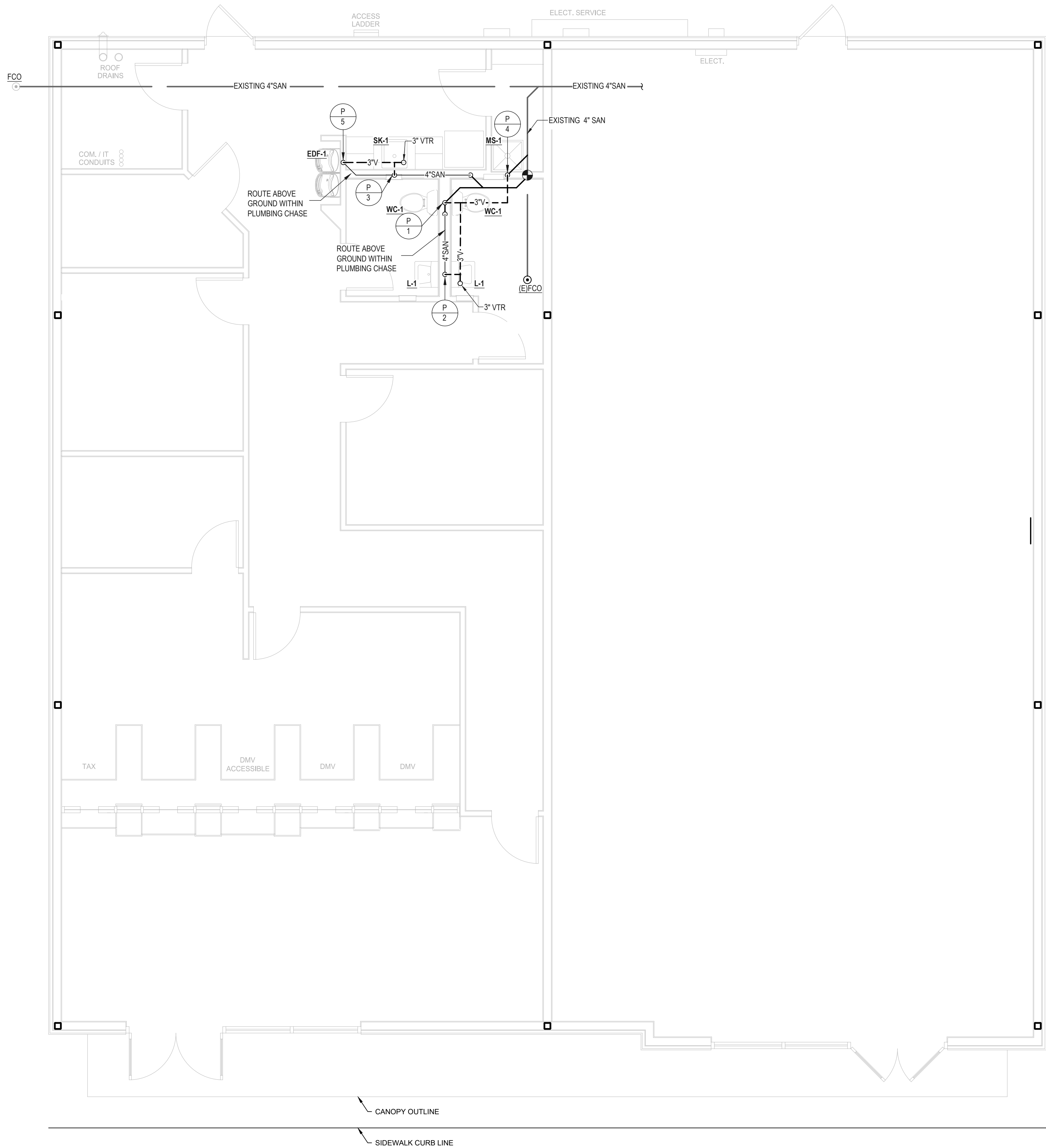
ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO.

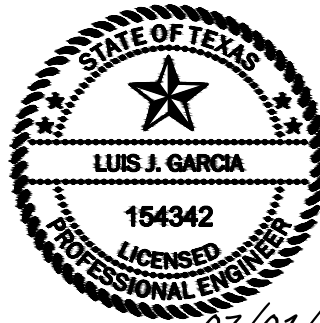
P1.00



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

PLAN NOTES

- A. CONTRACTOR SHALL VERIFY WHICH WAY THE EXISTING SANITARY LINE IS SLOPING AND CONNECT Y-FITTINGS SO THAT THE NEW CONNECTIONS TO THE EXISTING LINE ARE DISCHARGING IN THE DIRECTION OF THE PIPE SLOPE.
- B. PLUMBING FIXTURES TO BE CONFIRMED BY OWNER PRIOR TO PURCHASE.
- C. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UG SANITARY BEFORE TRENCHING AND ROUTING NEW SANITARY PIPE. EXISTING PIPING LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE.



07/01/2026



RGV ENGINEERS
TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com

Drawn by: JEE | Checked by: LIG | Project No: 26017



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020

SAN PATRICIO COUNTY OFFICES - PORTLAND

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

DOMESTIC WATER PLAN

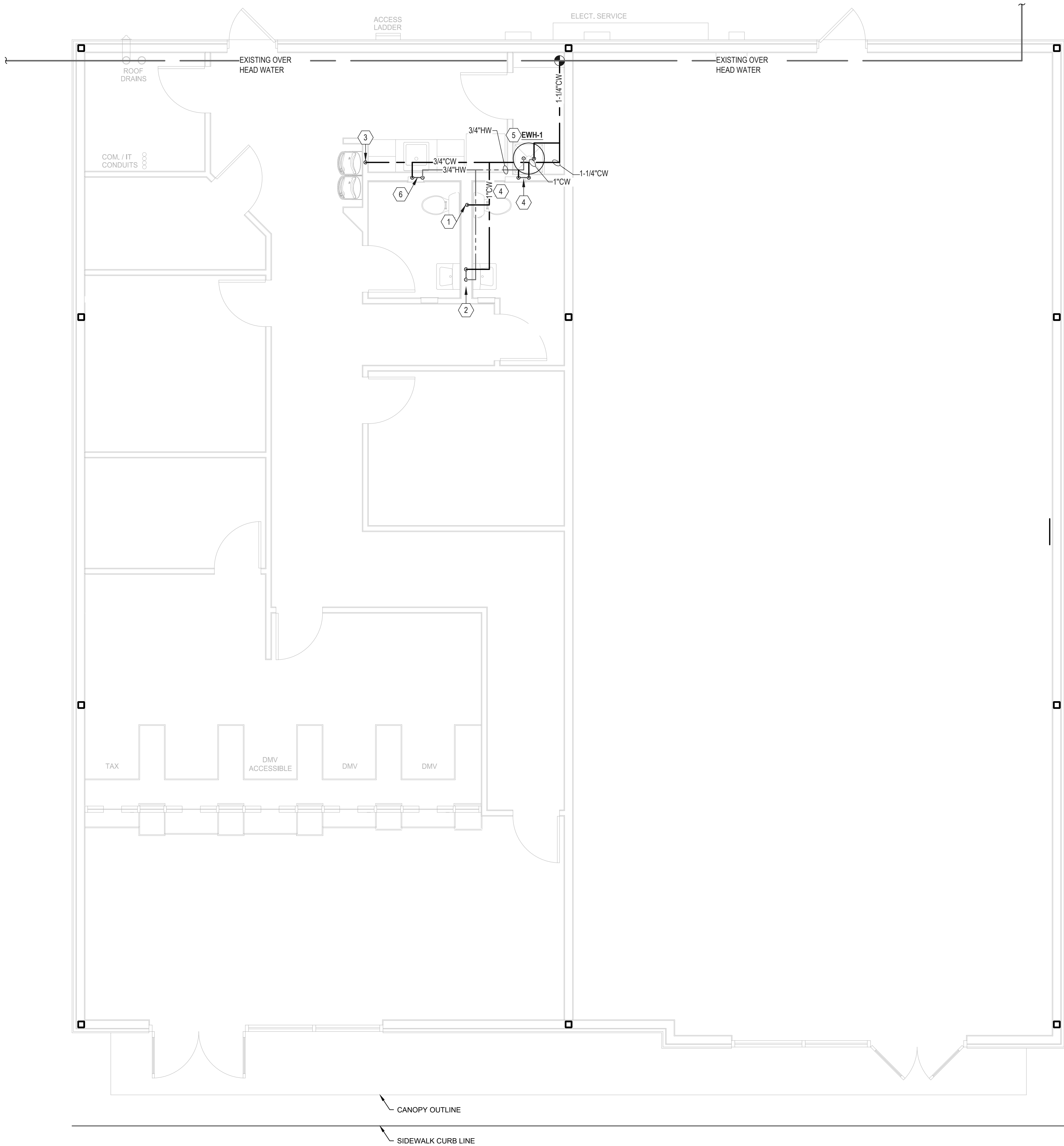
ISSUED FOR CONSTRUCTION
1 JULY 2026

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO.

P2.00



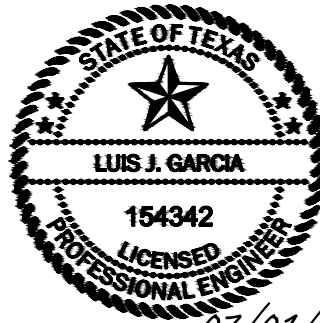
1 LEVEL 1 DOMESTIC WATER PLAN
SCALE: 1/4" = 1'-0"

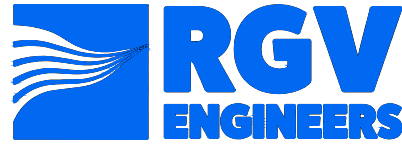
GENERAL NOTES

- A. PIPING IS SIZED FRO FLUSH TANK TYPE WATER CLOSETS.

KEY NOTES [#]

- ROUTE 1" COLD WATER DOWN WITHIN WALL/CHASE TO FEED BACK TO BACK TANK TYPE WATER CLOSET.
- ROUTE 3/4" COLD AND HOT WATER DOWN WITHIN WALL/CHASE TO FEED BACK TO BACK LAVATORIES.
- ROUTE 1/2" COLD WATER DOWN WITH IN WALL CHASE TO EACH DRINKING FOUNTAIN
- ROUTE 3/4" COLD WATER AND HOT WATER DOWN WITH IN WALL CHASE TO EACH MOP SINK
- 3/4" CW SUPPLY WITH SHUT OFF VALVE AND CHECK VALVE TO WATER HEATER. 3/4" HOT WATER TO SERVE FIXTURES.
- ROUTE 1/2" COLD AND HOT WATER DOWN WITHIN WALL/CHASE TO TYP SINK.





TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com

Drawn by: JEE | Checked by: LIG | Project No: 26017

FIXTURE SCHEDULE					
			MINIMUM SIZE UTILITY		
FIXTURE#	FIXTURE TYPE	FLOW RATE	WASTE CONNECTION	HOT WATER SUPPLY	COLD WATER SUPPLY
WC-1	WATER CLOSET - RESIDENTIAL	1.28 (GPF)	4"	---	1/2"
L-1	LAVATORY - RESIDENTIAL	0.50 (GPM)	1 1/4"	1/2"	1/2"
MS-1	MOP SINK	5.00 (GPM)	3"	1/2"	1/2"
SK-1	BREAK ROOM SINK	1.50 (GPM)	1 1/2"	1/2"	1/2"
EDF-1	ELECTRIC DRINKING FOUNTAIN	1.00 (GPM)	1-1/2"	--	1/2"

NOTES:

- ALL PLUMBING FIXTURES ARE CONTRACTOR PROVIDED AND INSTALLED.
- CONTRACTOR SHALL REFER TO OWNER / ARCHITECT FOR EXACT PLUMBING FIXTURE SELECTIONS. SUBMITTALS OF EACH SHALL BE SUBMITTED TO EOR FOR VERIFICATION AND APPROVAL.

ELECTRIC STORAGE WATER HEATER SCHEDULE									
SYMBOL	LOCATION	MANUFACTURER/ MODEL NO.	STORAGE CAPACITY GALLONS	GPH RECOVERY/ TEMP. RISE	OUTLET TEMPERATURE	Electrical Criteria	FIRST HOUR CAPACITY	UNIFORM ENERGY FACTOR (UEF)	NOTES
						KW INPUT			
WHE-1	JANITOR'S CLOSET	A.O. SMITH ENLB 30	28	21/90*	120°F	3.0	40	0.92	1, 2, 3, 4
NOTES: 1. PROVIDE T&P RELIEF VALVE AND VACUUM RELIEF VALVE 2. PROVIDE SHUTOFF VALVES WITH UNIONS AND DIELECTRIC FITTINGS ON WATER INLET AND OUTLET CONNECTIONS. 3. ALL UNITS SHALL MEET ASHRAE 90.1-2013, 2015 NAECA, ICC CODE AND ALL LOCAL CODE REQUIREMENTS. 4. ASME RATING NOT REQUIRED. ALL MODELS EQUIPPED WITH HEAT TRAPS. 5. RESIDENTIAL HYBRID ELEC./HEAT, VOLTEX SERIES, ASME RATING NOT REQ'D. SUPPLY AND PROVIDE INLET AND OUTLET AIR DUCT KITS.									
GENERAL REQUIREMENTS: A. ALL WATER HEATER ELEMENTS SHALL OPERATE AT THE FULL KW AND RECOVERY SCHEDULED WHEN OPERATING AT THE BUILDING VOLTAGE INDICATED ON THE ELECTRICAL DRAWINGS (I.E. 208V, 220V, 240V, ETC.). B. DUAL ELEMENT NON-SIMULTANEOUS OPERATION. C. PROVIDE THERMAL EXPANSION TANK WATTS PLT-5. D. APPROVED EQUALS SHALL BE BRADFORD WHITE, LOCHINVAR, RHEEM, AND STATE.									

PLUMBING FIXTURE SCHEDULE						
TAG / DESCRIPTION	FLOW/FLUSH RATE	ROUGH-IN CONNECTIONS				SPECIFICATION
		WASTE	VENT	CW	HW	
TMV-1 THERMOSTATIC MIXING VALVE	--	--	--	--	--	LEONARD NO. 170-LF POINT-OF-USE MIXING VALVE WITH INLET CHECKS INSTALLED IN CONCEALED AREA BELOW FIXTURE TO LIMIT HOT WATER TO MAXIMUM 105° F. AT FAUCET OUTLET. SUPPLY CW TO MIXING VALVE FROM CW RISER TO FACET. INSTALL ALL AS HIGH AS POSSIBLE TO PROVIDE NEAT AND CLEAN APPEARANCE.
TG-1 TRAP GRAB	--	--	--	--	--	RECTORSOLE SURESEAL MODEL SS2009 WATERLESS INLINE DRAIN TRAP SEAL. HDPE (HIGH DENSITY POLYETHYLENE) HOUSING WITH HEAVY DUTY PROPRIETARY SILICONE DIAPHRAGM AND SOFT EPDM RUBBER SEALING GASKET. FLOOR RATING ASSNE 1072 AF GW.
NOTES:						
1. CONTRACTOR SHALL VERIFY MOUNTING HEIGHTS AND LOCATIONS AND ACCESSIBLE FIXTURE LOCATIONS WITH ARCHITECTURAL PLANS.						
2. LAVATORY SUPPLIES AND STOPS: MCGUIRE LF216SLK 1/2" O.D x3/8" O.D. CHROME PLATED BRASS ANGLED STOP. LOOSE KEY, S.S. BRAIDED RISERS AND SHALLOW BRASS WALL FLANGE.						
3. LAVATORY P-TRAP: MCGUIRE 8902 1-1/4"x1-1/2" CHROME PLATED 17 GA. CAST BRASS P-TRAP WITH C.O. PLUG AND SHALLOW BRASS WALL FLANGE.						
4. LAVATORY DRAIN: MCGUIRE 155WC 1-1/4" CHROME PLATED 17 GA. CAST BRASS OFFSET GRID DRAIN.						
5. LAVATORY DRAIN: MCGUIRE 155B 1-1/4" CHROME PLATED 17 GA. CAST BRASS GRID DRAIN.						
6. PROVIDE ADEQ INSULATION KIT, PLUMBEREX HANDY SHIELD MAXX ON ALL ACCESSIBLE LAVATORIES AND SINKS.						
7. WATER CLOSET FLUSH LEVER SHALL BE LOCATED ON THE APPROACH SIDE OF THE TANK AT ACCESSIBLE INSTALLATIONS.						
8. ALL FAUCETS AND FLUSH VALVES SHALL BE WATERSENE CERTIFIED.						
9. ALL PLUMBING FIXTURES NOT SCHEDULED ARE PROVIDED BY THE OWNER. VERIFY WITH OWNER PRIOR TO PURCHASING ALL PLUMBING FIXTURES SCHEDULED AND NON SCHEDULED..						

DRAINAGE PRODUCTS/SPECIALTIES

UNLESS OTHERWISE INDICATED MODEL NUMBERS ARE JAY R. SMITH. APPROVED EQUAL PRODUCTS:
ZURN, JOSAM, MIFAB, WADE, WATTS, SIOUX CHIEF, PRECISION PLUMBING PRODUCTS.

FCQ - TILE FLOORS
JAY R. SMITH FIG. 4151 CAST IRON CLEANOUT WITH GASKET SEAL THREADED PLUG FOR EASY REMOVAL,
ADJUSTABLE ROUND NICKEL BRONZE TOP RECESSED FOR TILE WITH SECURING SCREW, SPEEDI-SET OUTLET
CONNECTION.

WCO - WALL CLEANOUT - FINISHED AREAS
JAY R. SMITH FIG. 4436 CAST IRON FERRULE FOR NO HUB OR SERVICE WEIGHT PIPE, NICKEL BRONZE ROUND
FRAME AND COVER WITH SECURING SCREWS.

FD-G - FLOOR DRAINS-GENERAL/RESTROOMS
JAY R. SMITH FIG. 2005-86 SERIES CAST IRON FLOOR DRAIN WITH 6" SQUARE NICKEL BRONZE STRAINER,
SPEEDI-SET OUTLET CONNECTION AND TRAP PRIMER CONNECTION UNLESS OTHERWISE NOTED.

TP-L - WATER SAVER TRAP PRIMER
ZURN 21021 CHROME PLATED 1-1/2" POLISHED CAST BRASS P-TRAP WITH CLEANOUT, WALL ARM, GROUND
JUNT ELBOW, SLIP NUT AND WASHERS, 1-1/4" SLIP NUT, WASHERS AND LAV/SINK TAILPIECE, ESCUTCHEONS,
FLEXIBLE PRIMER TUBING, AND COMPRESSION FITTINGS, ASSE 1044 COMPLIANT.

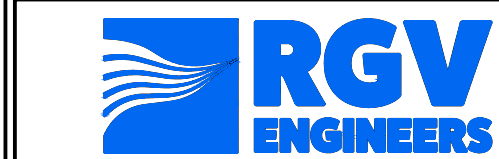
NFBH - NON-FREEZE EXTERIOR HOSE BIBB
JAY R. SMITH FIG. 5609-QT NON FREEZE 3/4" CAST BRONZE EXPOSED HYDRANT INTEGRAL VACUUM BREAKER,
NICKEL BRONZE FACE, AND SIZED IN ACCORDANCE WITH WALL THICKNESS.

FS-1 FLOOR SINK
WATTS FS-730 12" SQUARE, 6" DEEP WHITE PORCELAIN ENAMEL COATED INTERIOR, LOOSE SET PORCELAIN
ENAMEL COATED CAST IRON 12" GRATE, ALUMINUM DOME BOTTOM STRAINER, NO HUB OUTLET.

WHA - WATER HAMMER ARRESTORS
PRECISION PLUMBING PRODUCTS SYSTEM RATED PLUS SERIES COPPER WATER HAMMER ARRESTOR. INSTALL
IN AN UPRIGHT POSITION AT ALL FLUSH VALVES, WASHING MACHINE SUPPLIES, DISHWASHERS, PRV STATIONS,
AND OTHER QUICK CLOSING VALVES, SOLENOIDS AND PLUMBING FIXTURES. LOCATE AND SIZE AS INDICATED
ON DRAWINGS. WHERE NOT SHOWN ON DRAWINGS, LOCATE AND SIZE IN ACCORDANCE WITH PDI STANDARD
WH-201.

YCO - EXTERIOR PAVED/CONCRETE AREAS
JAY R. SMITH FIG. 4261 CAST IRON FLANGED HOUSING WITH HEAVY DUTY C.I. COVER, LIFTING DEVICE, GASKET
SEAL THREADED PLUG, V.P. SCREWS IN COVER.

NOTE: NOT ALL MAY BE USED.



TBPE Firm Registration No. F-27077
 Ph: 956.289.9266
 www.rgvengineers.com

Drawn by: JEE	Checked by: LJG	Project No: 26017
---------------	-----------------	-------------------

SAN PATRICIO COUNTY OFFICES - PORTLAND
SAN PATRICIO COUNTY

SAN PATRICIO COUNTY

704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374

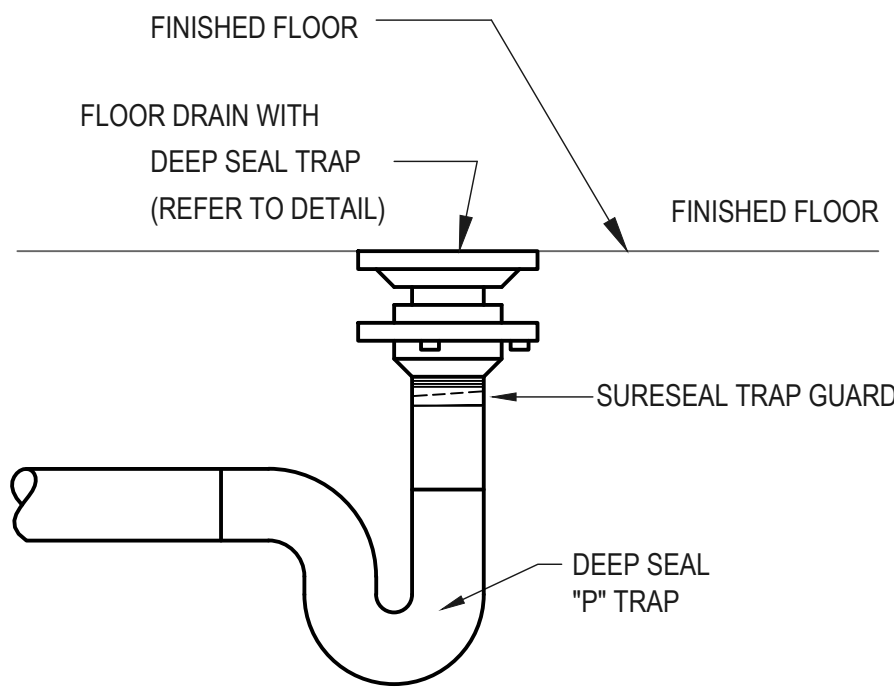
PLUMBING SCHEDULES

ISSUED FOR CONSTRUCTION
1 JULY 2026

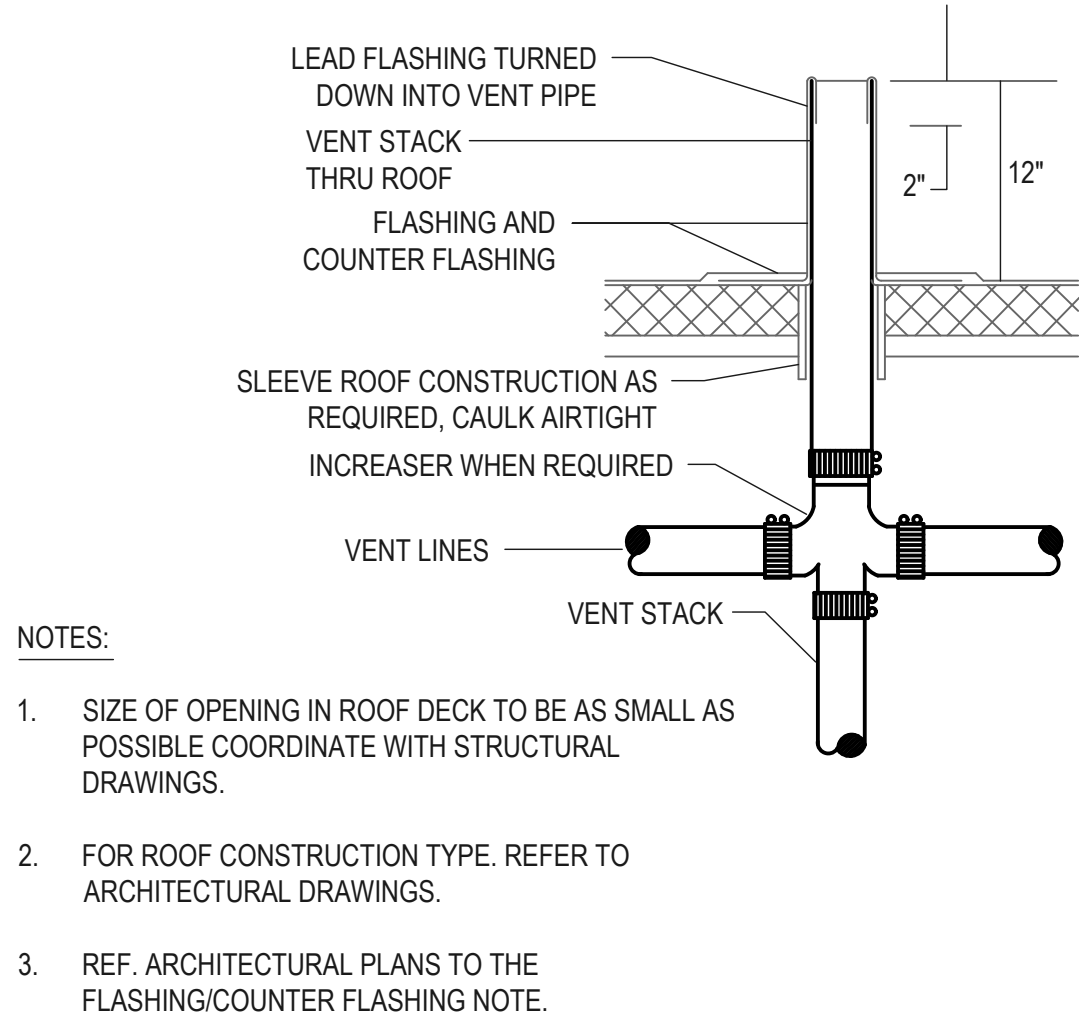
[illegible]

SHEET NO.

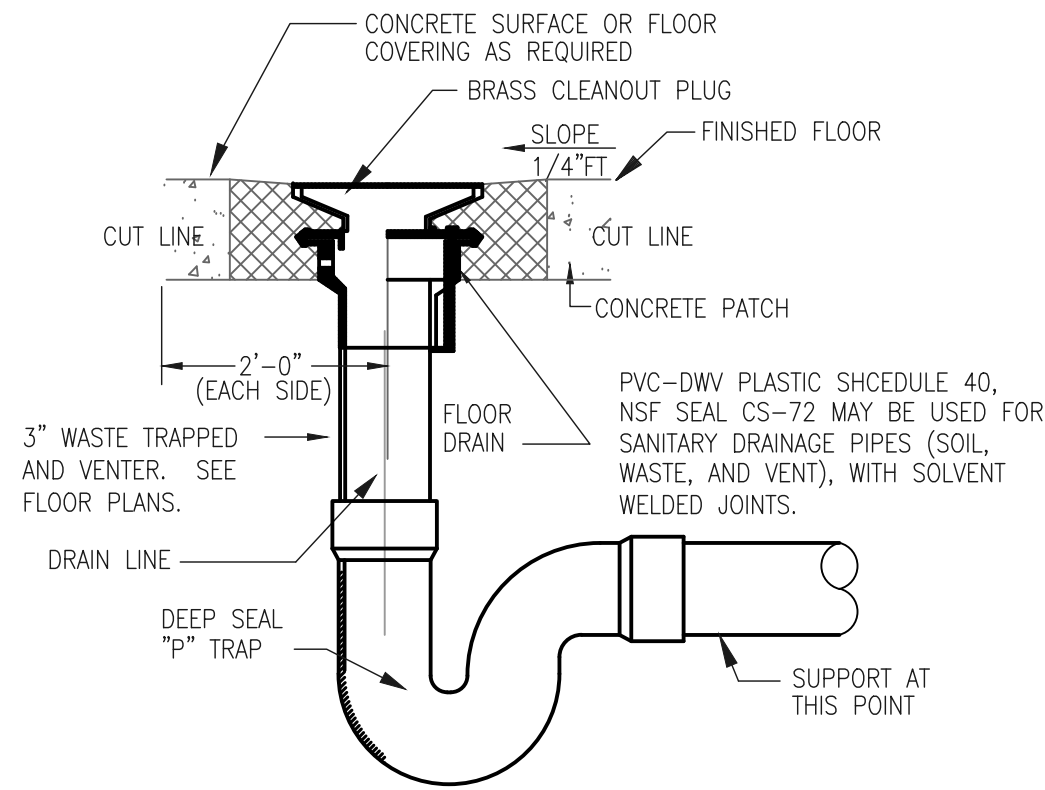
P3.00



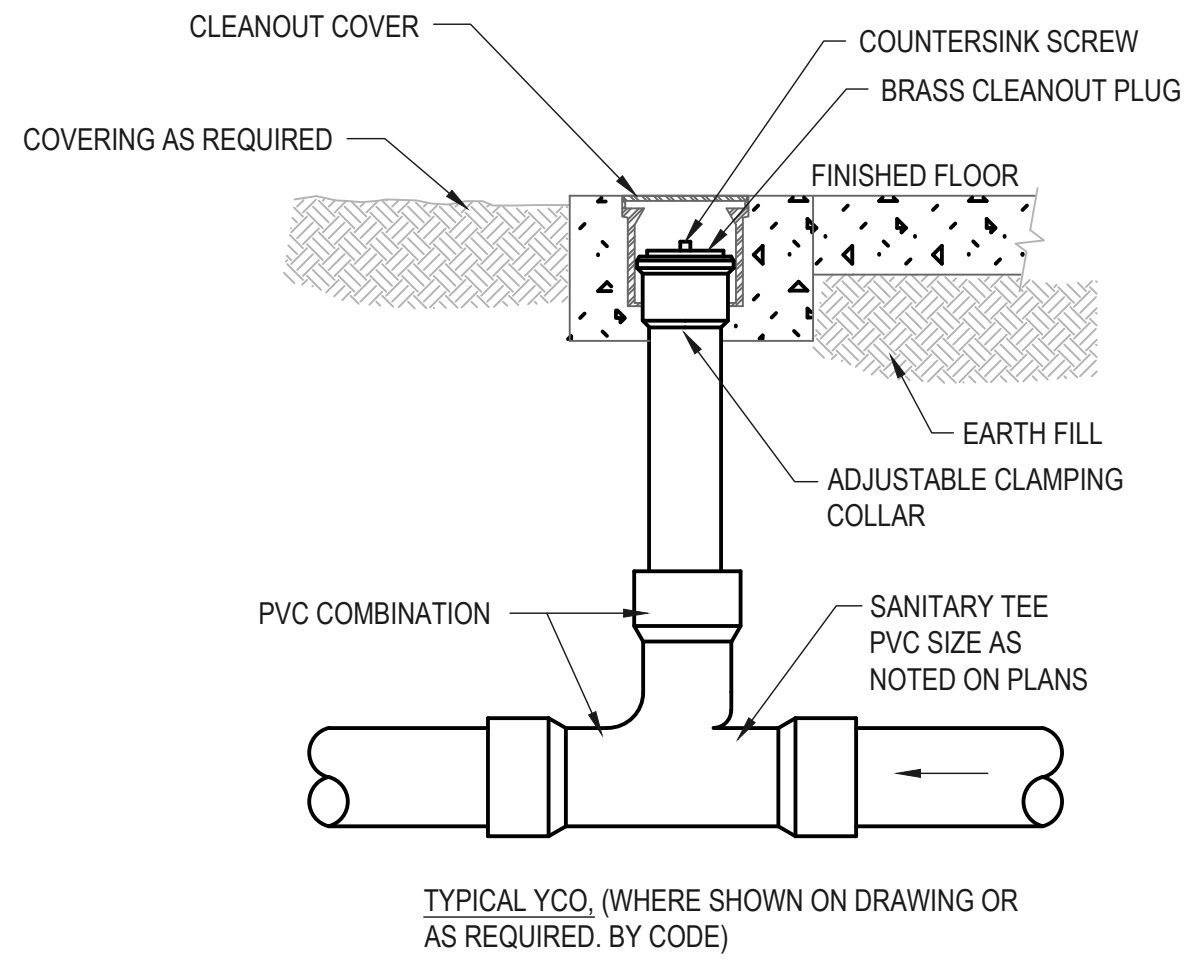
4 TRAP GUARD DETAIL
SCALE: NO SCALE



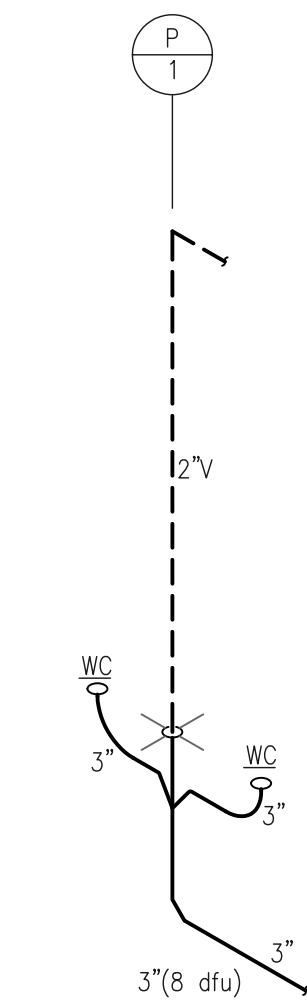
3 VENT STACK
SCALE: NO SCALE



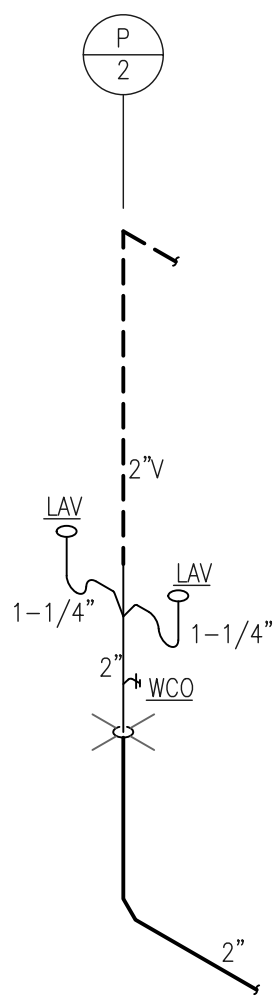
2 FLOOR DRAIN DETAIL
SCALE: NO SCALE



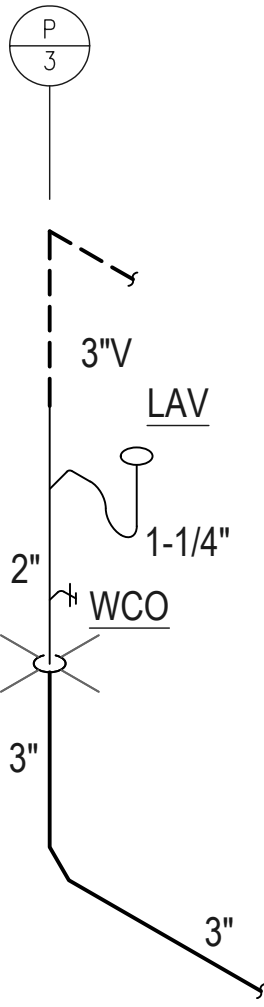
1 FLOOR CLEANOUT DETAIL
SCALE: NO SCALE



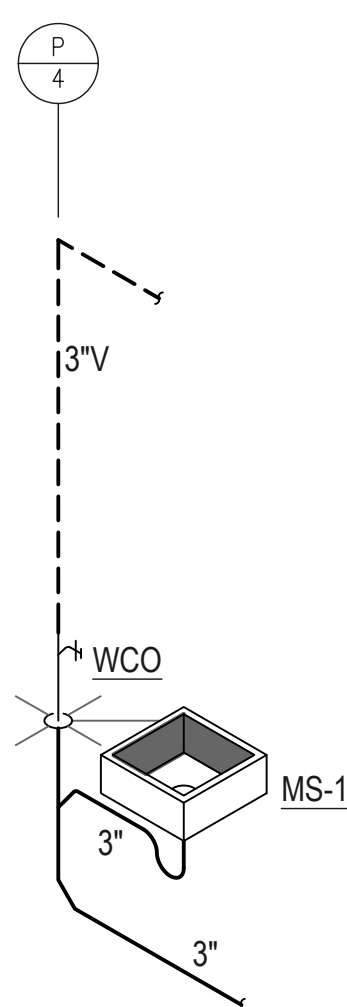
TYPICAL BACK TO BACK WC



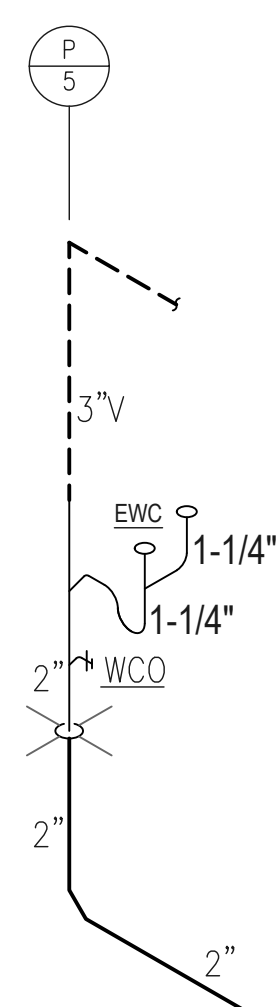
TYPICAL BACK TO BACK LAV



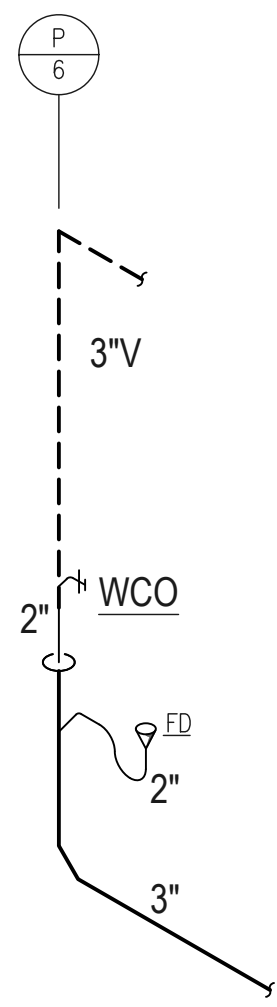
TYPICAL SINK



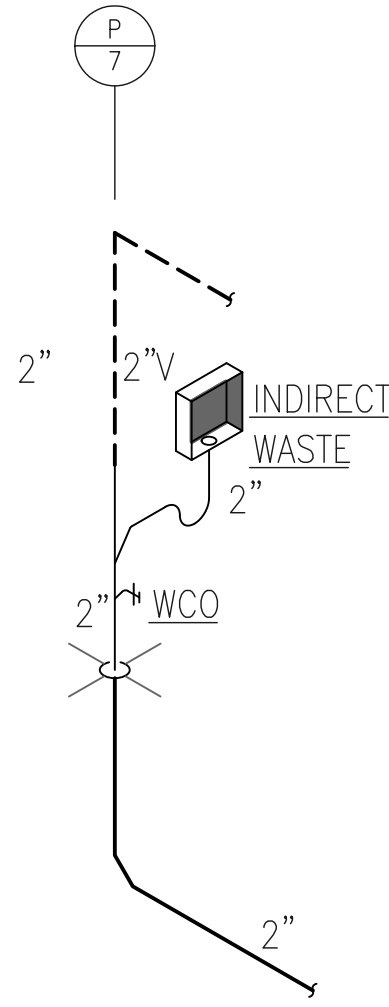
TYPICAL MOP SINK



TYPICAL DRINKING FOUNTAIN

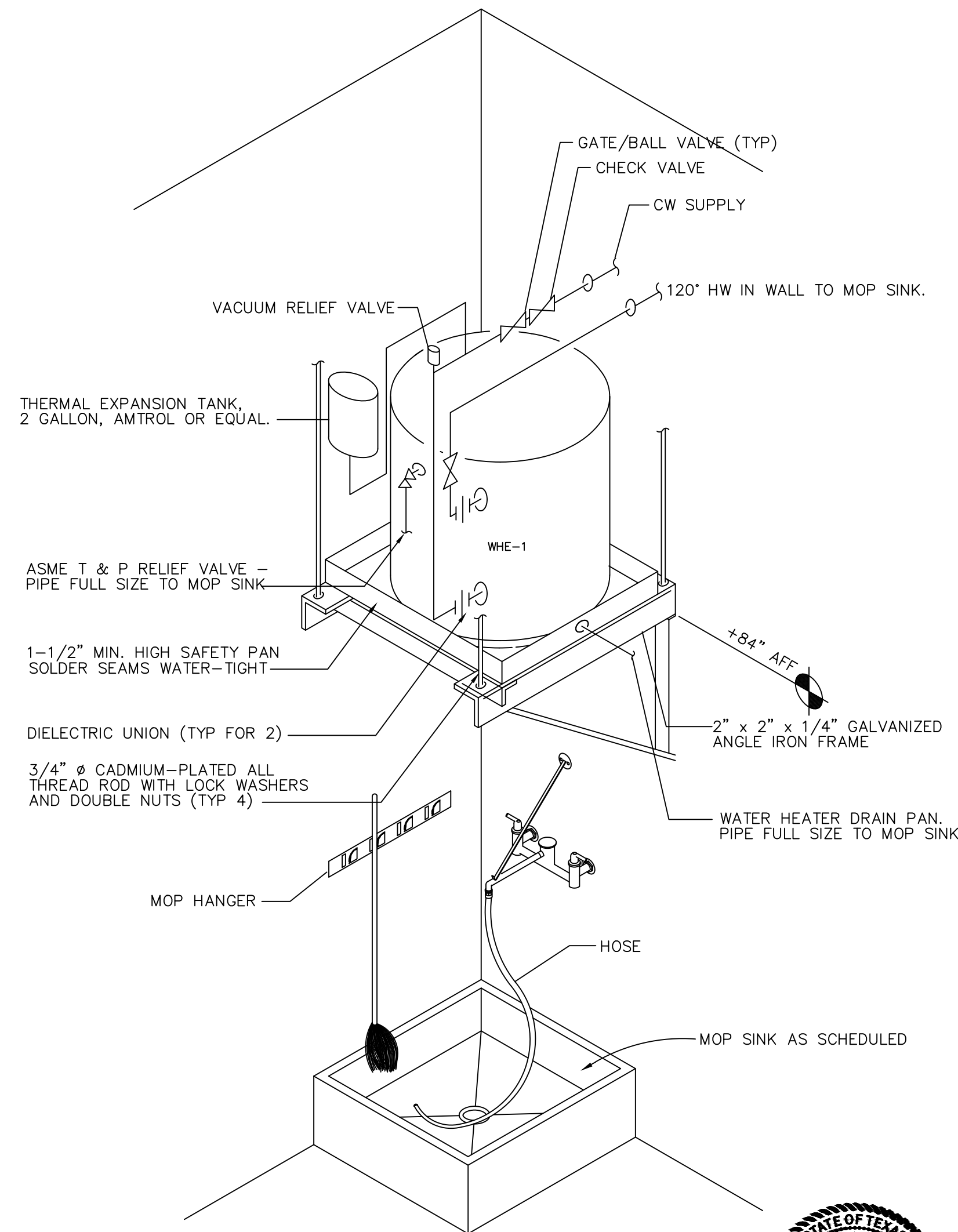


TYPICAL FLOOR DRAIN

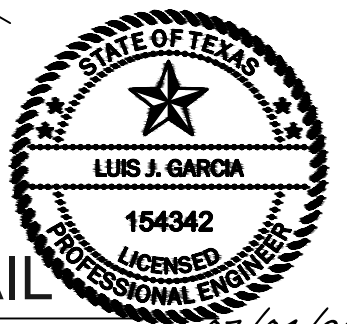


TYPICAL INDIRECT WASTE

5 TYPICAL RISERS
SCALE: NO SCALE



6 ELECTRIC WATER HEATER DETAIL
SCALE: NO SCALE



RGV ENGINEERS
TBPE Firm Registration No. F-27077
Ph: 956.289.9266
www.rgvengineers.com
Drawn by: JEE | Checked by: LIG | Project No: 26017

SAN PATRICIO COUNTY OFFICES - PORTLAND
SAN PATRICIO COUNTY
704 BUDDY GANEM DRIVE, PORTLAND, TEXAS 78374
PLUMBING RISERS & DETAILS

ISSUED FOR CONSTRUCTION 1 JULY 2026		
REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.
P4.00



STOREFRONT EXTERIOR VIEW
LOOKING NORTH



STOREFRONT INTERIOR VIEW
LOOKING SOUTH

GENERAL NOTES

BUILDING CODES

- 1. BUILDING CODE: 2024 IRC / 2024 IBC
- 2. WIND DESIGN LOADS: ASCE 7-22
- 3. CONCRETE: ACI 318-19

DESIGN LOADS

- 1. BASIC WIND SPEED: 150 MPH, 3 - SECOND GUST
- 2. EXPOSURE CATEGORY: C
- 3. RISK CATEGORY: II, h < 30 ft.

SITE INFORMATION

ADDRESS: 704 BUDDY GANEM, PORTLAND, TEXAS 78374
COUNTY: SAN PATRICIO
SHUTTER REQUIREMENT: YES

DOORS, WINDOWS, AND SKYLIGHTS

IMPACT RESISTANT PERFORMANCE REQUIREMENTS:

AAMA / WDMA / CSA 101 / I.S. 2 / A440
ASTM E 1886, ASTM E 1996, AAMA 506.
AS AN OPTION, SIDE HINGED DOORS MAY BE TESTED TO ASTM E330 OR TAS 201, TAS 202, TAS 203.
INDICATE MISSILE LEVEL

NOTE: THE FOLLOWING MATERIAL PRODUCT SUBMITTALS AND TESTING REPORTS ARE REQUIRED:

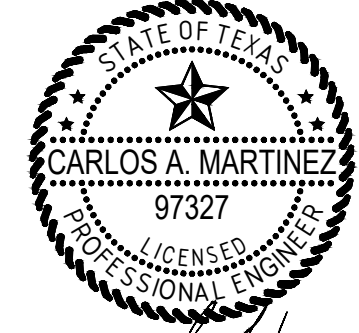
- ANCHOR BOLTS
- FASTENERS
- DOORS
- WINDOWS
- SHUTTER HARDWARE, COMPONENTS INSTALLATION INSTRUCTIONS

DESCRIPTION OF WORK

- 1. REMOVE AND DISPOSE EXISTING STOREFRONT SYSTEM.
- 2. REMOVE AND DISPOSE EXISTING CONCRETE CURB AT DOOR WAY TO MATCH FINISHED FLOOR.
- 3. FURNISH AND INSTALL WINDSTORM IMPACT RATED STOREFRONT SYSTEM TO MATCH ADJACENT STOREFRONT LAYOUT: DOUBLE DOOR, GLAZING TINT, RAIL FINISH AND COLOR. KAWNEER IR OR APPROVED EQUAL.
- 4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND PROVIDE PRODUCT SUBMITTAL FOR ENGINEER REVIEW.
- 5. DOOR / STOREFRONT SYSTEM PRESSURE: +/- 55 PSF, IMPACT RATED LARGE MISSILE ASTM E1996.
- 6. ALL COMPONENTS TO BE INSTALLED ACCORDING TO THE WIND PROVISIONS OF 2024 IBC. ALL OTHER PROVISIONS SHALL BE INSTALLED TO THE ADOPTED CODE AMENDMENT OF THE CITY OF PORTLAND.



N. MARTINEZ & ASSOCIATES, INC.
TX ENG FIRM # F-23355
2110 MEADOWWALK DR 78414
361-739-1020



07/02/2026
CARLOS A. MARTINEZ, PE #97327
ISSUE DATE: 07/02/2026
NMA PROJECT NO: 25-046
OWNER PROJECT NO: IFB2026-002
NOTES: IFC

SAN PATRICIO COUNTY OFFICES - PORTLAND
SAN PATRICIO COUNTY
704 BUDDY GANEM, PORTLAND, TEXAS 78374

STRUCTURAL NOTES

ISSUED FOR CONSTRUCTION

REVISIONS		
NO.	DESCRIPTION	DATE

SHEET NO.

S1.0