VILLA MARIA GAS STATION

1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

CODES TO BE USED :-

1- 2021 INTERNATIONAL BUILDING CODE (IBC)
2- 2021 INTERNATIONAL PLUMBING CODE (IPC)
3- 2021 INTERNATIONAL FUEL GAS CODE (IFGC)
4- 2021 INTERNATIONAL FIRE CODE (IFC)
5- 2021 INTERNATIONAL MECHANICAL CODE (IMC)
6- 2020 INTERNATIONAL ELECTRIC CODE (NEC)
7- 2012 TEXAS ACCESSIBILITY STANDARDS (TAS)
8- 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
WITH BRYAN'S AMENDMENTS TO THE ADOPTED CODES.

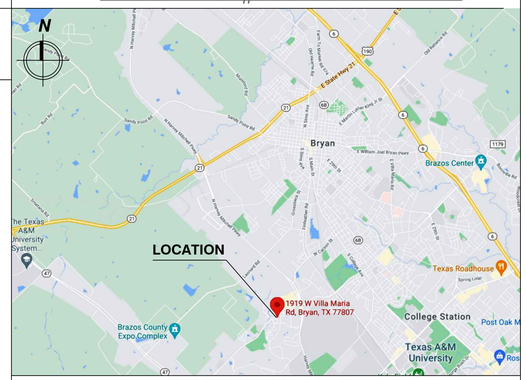
NOTE :-

ANY CHANGE TO THE PLANS DURING CONSTRUCTION NEED TO BE APPROVED BY THE ARCHITECT AND/OR ENGINEER OF RECORD AND THE CITY.

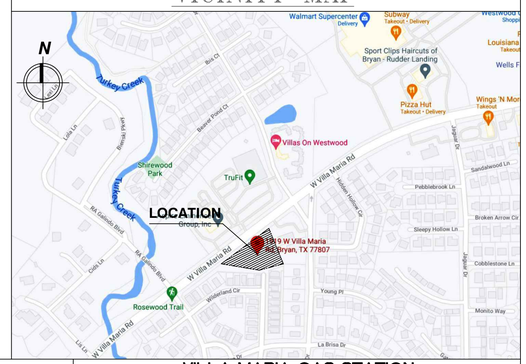
DEFERRED SUBMITTALS :-

1- FUEL CANOPY
2- UNDER GROUND FUEL TANK
3- WALK IN COOLERS
4- TYPE -I KITCHEN HOOD
5- SECURITY CAMERAS
6- SECURITY DOORS (SHUTTERS)
7- PYLON SIGN

KEY MAP # 48027C 0295E



VICINITY MAP



INDEX TO DRAWINGS

ARCHITECTURAL

CIVIL

STRUCTURAL

PLUMBING

MECHANICAL

ELECTRICAL

NONE

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
-	-	-
-	-	-
-	-	-
-	-	-

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VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
COVER SHEET, INDEX & VICINITY MAPS

DRAWN BY: BM	DATE: 9-15-2021	SHEET: **A-00** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

OUTLINE SPECIFICATIONS

BIDDING REQUIREMENTS

00005 INTRODUCTORY NOTES

A. FOR BREVITY PURPOSES, WORK WHICH MAY OCCUR IN TWO OR MORE SECTIONS OF THE FINAL PROJECT MANUAL IS, IN SOME INSTANCES, INCORPORATED INTO ONE BROAD-SCOPE SECTION.
B. THE INTENT BEHIND THIS PACKAGE IS TO:
   1. IDENTIFY, TO THE EXTENT POSSIBLE, THE MATERIALS AND METHODS OF CONSTRUCTION INTENDED FOR THE PROJECT AND TO GIVE THE DESIGN TEAM THE OPPORTUNITY TO CONFIRM BUDGET PRICING.
   2. SELECT A GENERAL CONTRACTOR TO BECOME A MEMBER OF THE DESIGN TEAM AS A BUDGET CONFIRMATION RESOURCE AND ULTIMATELY FOR DEVELOPMENT OF A GMP CONTRACT. OWNER RESERVES THE RIGHT TO SOLICIT COMPETITIVE BIDS AT FINAL COMPLETION OF CONSTRUCTION DOCUMENTS IN THE EVENT THE NEGOTIATING G.C. IS UNABLE TO DEVELOP A GMP WITHIN THE OWNER'S ACCEPTABLE RANGE.
C. A LISTING OF A SINGLE MANUFACTURER OR PRODUCT IS NOT NECESSARILY INTENDED TO RESTRICT COMPETITIVE BIDDING.
D. GENERAL CONDITIONS AND EXECUTION STATEMENTS ARE GENERALLY EITHER OMITTED OR ABBREVIATED AT THIS LEVEL UNLESS THEY BEAR UNIQUELY ON THIS PROJECT.

00700 GENERAL CONDITIONS

A. THE GENERAL CONDITIONS FOR THIS CONTRACT ARE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AIA DOCUMENT A201, FOURTEENTH EDITION, 1987, AND ARE INCORPORATED HEREIN AS IF REPRODUCED IN TOTAL.

00800 SUPPLEMENTARY CONDITIONS

A. SUPPLEMENTARY CONDITIONS MODIFYING THE GENERAL CONDITIONS MAY BE ISSUED WITH THE CONTRACT DOCUMENTS.

DIVISION 1 - GENERAL REQUIREMENTS

01010 SUMMARY OF WORK

A. THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, SERVICES, EQUIPMENT REQUIRED IN CONJUNCTION WITH OR PROPERLY INCIDENTAL TO ALL CONSTRUCTION WORK, INCLUDING GENERAL CONSTRUCTION, ALL SITEWORK, PLUMBING, HEATING, VENTILATING, AIR CONDITIONING, AND ELECTRICAL WORK.
B. WORK BY OTHERS: WORK ON PROJECT WHICH WILL BE EXECUTED ALONG WITH WORK OF THIS CONTRACT AND WHICH IS SPECIFICALLY EXCLUDED FROM THIS CONTRACT IS AS FOLLOWS:
   1. FURNITURE, FIXTURES AND EQUIPMENT AS SPECIFIED IN THE EQUIPMENT LIST.
   2. FUTURE LEASE SPACE BUILDOUT
   3. FUEL GAS TANKS, GAS PUMPS, AND CANOPY
   4. ALL EXTERIOR SIGNAGE .

01020 ALLOWANCES

A. PRODUCTS & SERVICES WHICH SPECIFIED BY ALLOWANCE INCLUDE:
   1. LANDSCAPING: $25,000.

DIVISION 2 - SITEWORK

02220 EARTHWORK FOR BUILDINGS

A. REFERENCE STRUCTURAL DRAWING BY CONTRACTOR.

DIVISION 3 - CONCRETE

REFER TO CIVIL & STRUCTURAL DRAWINGS.

DIVISION 4 - MASONRY

04100 MORTAR

A. Mortar:
   1. ASTM C 270, TYPE M, 1800 PSI FOR LOAD BEARING WALLS.
   2. MORTAR COLOR SHALL BE EARTH-TONE TO MATCH COLOR OF CMU.
B. Grout:
   1. AGGREGATE: ASTM C404.
   2. 2,500 PSI AT 28 DAYS, 9-1/2" SLUMP, FOR BOND BEAMS AND FILLED CELLS OF CONCRETE MASONRY.

04200 UNIT MASONRY

A. CONCRETE MASONRY UNITS:
   1. TYPE: HOLLOW LOAD BEARING, ASTM C90, TYPE I, GRADE N.
   2. Sizes/Style:
      A. SPLIT-FACED BLOCK: 8"X8"X16" NOMINAL, EARTH-TONE.
   3. BOND: RUNNING.
   4. SPECIAL SHAPES: BOND BEAMS AND LINTELS.
B. REINFORCING AND ACCESSORIES:
   1. HORIZONTAL JOINT REINFORCEMENT: COMPLY WITH ASTM A 82, TRUSS OR LADDER DESIGN.
C. RE: STRUCTURAL DRAWINGS FOR ADDL. REQUIREMENTS.

DIVISION 5 - METALS

05120 STRUCTURAL STEEL

RE: STRUCTURAL DRAWINGS.

DIVISION 6 - WOOD AND PLASTICS

06100 ROUGH CARPENTRY

A. WORK INCLUDED: WOOD NAILERS, BLOCKING, FURRING, CURBS, ANCHORS AND ACCESSORIES.

B. MATERIALS:
   1. LUMBER: NO. 2 GRADE SOUTHERN YELLOW PINE OR EQUIVALENT GRADE WEST COAST DOUGLAS FIR, SURFACED S4S NOMINAL SIZES; CONFORMING TO PRODUCT STANDARD PS-20.
   2. PLYWOOD: COMPLY WITH PRODUCT STANDARD PS 1-74.
   3. Anchor bolts: Conform to ASTM A 307, galvanized FINISH, COMPLETE WITH NUTS AND WASHERS.
   4. NAILS: COMPLY WITH FS FF-N-105 HOT-DIP GALVANIZED OR ALUMINUM FOR EXTERIOR LOCATIONS; PLAIN FINISH FOR INTERIOR; SIZE AND TYPE TO SUIT APPLICATION.
   5. MOISTURE PRESERVATIVE TREATMENT: WATER-BORNE PRESERVATIVE TREATMENT COMPLYING WITH AWPB LP-2 REQ'D FOR MEMBERS IN CONTACT WITH CONC. OR MASONRY.

06200 FINISH CARPENTRY

A. AWI CUSTOM GRADE FOR EXPOSED CONSTRUCTION (PUBLIC AREAS), AND ECONOMY FOR STORAGE AND OTHER UTILITY AREAS.

B. COUNTER TOPS: LAMINATED PLASTIC, COMPLETE WITH APRONS AND BACKSPLASHES AND CUTOUTS.

C. Materials:
   1. INDUSTRIAL PARTICLEBOARD: 45 TO 47 PCF DENSITY, GRADED TO COMPLY WITH AWI STANDARDS.
   2. PLASTIC LAMINATE:
      A. NEMA LD 3 0.050" PLUS OR MINUS 0.005", GENERAL PURPOSE GRADE.
      B. COLOR, TEXTURE AND PATTERNS: AS SELECTED BY OWNER FROM ANY MAJOR MANUFACTURER.
   3. UTILITY SHELVING: A/B GRADE FIR VENEER PLYWOOD WITH FIR OR PINE EDGING.

DIVISION 7 - THERMAL & MOUNTING PROTECTION

06410 CUSTOM CASEWORK

A. COUNTER TOPS: LAMINATED PLASTIC, COMPLETE WITH APRONS
B. TO BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. AND BACKSPLASHES AND CUTOUTS.

07213 BATT AND BLANKET INSULATION

A. THERMAL INSULATION:
   1. GLASS FIBER COMPLYING WITH ASTM C 665, FRICTION FIT, TYPE WITH ALUMINUM FOIL VAPOR BARRIER WITH FLAME SPREAD OF 25 OR LESS.
   2. R FACTOR: 19 AT EXTERIOR WALLS.
   3. ACCEPTABLE PRODUCTS: OWENS CORNING FIBERGLAS, MANVILLE CO.
B. SAFING: MINERAL FIBER SAFING INSULATION WITH FLAME SPREAD OF 25 SHALL BE USED TO FILL VOIDS BETWEEN FLOORS AND ROOF OF STOREFRONT SYSTEM.

07530 BUILT-UP ROOFING SYSTEM

A. TPO, TWENTY (20) YEAR BONDABLE-TYPE, ROOF, FLASHINGS, ACCESSORIES AND RELATED ITEMS, MINIMUM, SPECIFIED AND INSTALLED IN ACCORDANCE WITH A ROOFING MATERIALS OVER 4" RIGID INSULATION (R VALUE 25).

07535 SHEET METAL ROOF

A. STANDING SEAM METAL ROOF: ULTRA-DEK 124 AS MANUFACTURED BY MBCI (OR EQUAL).

C. COLOR: BY OWNER (MATCH BUILDING)

07600 SHEET METAL FLASHINGS AND TRIM

A. Products
   1. SHEET METAL FLASHING AND TRIM:
      A. ZINC-COATED STEEL: ASTM A 526, G90 HOT-DIP GALVANIZED, 26 GAUGE.
   2. FLEXIBLE SHEET MEMBRANE FLASHING: NON REINFORCED FLEXIBLE BLACK ELASTIC SHEET, 50 TO 65 MILS THICK, NEOPRENE SYNTHETIC RUBBER SHEET.

07900 JOINT SEALANTS

A. VERTICAL JOINTS SUBJECT TO MOVEMENT: TWO-PART NON-SAG GRADE POLYURETHANE. MATCH COLOR OF SUBSTRATES.
B. INTERIOR JOINTS NOT SUBJECT TO MOVEMENT: ACRYLIC LATEX OF SOLVENT CURE ACRYLIC.
C. PROVIDE NECESSARY BACK RODS, BOND BREAKER TAPES AND CLOSED CELL POLYETHYLENE EXPANSION JOINT FILLERS.

DIVISION 8 - DOORS AND WINDOWS

08100 STEEL DOORS AND FRAMES

A. Hollow Metal Doors:
   1. 18 GA. COLD-ROLLED STRETCHER-LEVEL STEEL SHEETS INTERIOR DOORS AND 16 GA. GALVANIZED SHEETS FOR EXTERIOR DOORS.
   2. SIZE: 1-3/4" X 3'-0" X 7'-0"
B. PRESSED STEEL FRAMES:
   1. WELDED CONSTRUCTION, 14 GA. GALVANIZED STEEL FOR EXTERIOR AND 16 GA. PRIMED FOR INTERIOR.

08410 ALUMINUM ENTRANCES, STOREFRONTS, AND WINDOWS

A. STOREFRONT SYSTEM:
   1. ALUMINUM FRAMED GLAZING SYSTEM, FRONT LOADED, FLUSH GLAZING SYSTEM, SIMILAR TO KAWNEER TRIFAB 450.
   2. WIND LOAD: 20 PSF (EXTERIOR); 5 PSF (INTERIOR).
   3. GLASS: 1" CLEAR INSULATING GLASS, DOUBLE PANE WITH LOW E (SHGC 0.41,U=491).
B. ALUMINUM ENTRANCE DOORS:
   1. TUBULAR FRAME MEMBERS, 1-3/4" DEEP, MEDIUM STILE DESIGN, COMPLYING WITH NAAMM ENTRANCE MANUAL.
   2. PROVIDE OFFSET PIVOTS, CLOSER, PULL BARS, EXIT DEVICES, THRESHOLDS 1/2" MAX, WEATHER-STRIPPING AND LATCH LOCKS MUST MEET (TAS) SECTION 4.13.8 & 4.13.9
   3. GLASS: SAME AS STOREFRONTS. TEMPERED
C. FINISHES
   1. COATING: KYNAR 500 (70% RESIN) FINISH
   2. COLOR: BY OWNER

08710 HARDWARE

A. FINISH HARDWARE:
   1. LOCKSETS: COMMERCIAL GRADE WITH LEVERS.
   2. PROVIDE BALL BEARING HINGES, LOCKSETS AND FLOOR STOPS ON ALL DOORS.
   3. PROVIDE THREE SILENCERS FOR SINGLE DOORS.
   4. PROVIDE STAINLESS STEEL KICK PLATES ON KITCHEN AND OTHER SERVICE DOORS.
   5. FINISH: US 32D UNLESS NOTED OTHERWISE.
B. EXTERIOR HOLLOW METAL DOORS WILL BE PROVIDED WITH ALUMINUM WEATHER-STRIPPING AND THRESHOLDS.

08800 GLAZING

A. SAFETY GLASS: ASTM A1036, TEMPERED TO ASTM C1048 GLAZING SELECT QUALITY, FULLY TEMPERED, 1/4" THICK MINIMUM. INSTALL AT ALL ALUM. AND GLASS DOORS AND THE LIGHT AT EACH SIDE OF DOORS AS PER CODE.
B. OTHER GLASS: 1/4" FLOAT
C. UNFRAMED MIRRORS: 1/4" CLEAR FLOAT INSTALLED WITH MASTIC AND SETTING CLIPS.
D. GLAZING GASKETS: NEOPRENE, VINYL OR COMPATIBLE WITH GLAZING SYSTEM.

DIVISION 9 - INTERIOR FINISHES

09250 GYPSUM BOARD SYSTEMS

A. METAL SUPPORT MATERIALS
   1. INSTALL IN ACCORDANCE WITH ASTM C 754 AND GYPSUM ASSOCIATION SPECIFICATION GA-203 "INSTALLATION OF SCREW-TYPE STEEL MEMBERS TO RECEIVE GYPSUM BOARD"
   2. INTERIOR WALL FRAMING: 25 GA. LIGHT-GAUGE FRAMING,ING STUDS, "C" SHAPED, CONFORMING TO ASTM C 645 OF REQUIRED DEPTHS.

B. GYPSUM BOARD PRODUCTS:
   1. COMPLY WITH GA-216.
   2. GYPSUM WALLBOARD: ASTM C 36, 5/8" THICK
   3. MOISTURE RESISTANT GYPSUM WALLBOARD AS BACKING FOR CERAMIC WALL TILE: ASTM C 630, 5/8" THICK.

09300 TILE

A. GENERAL:
   1. COMPLY WITH ANSI/ASTM A118.4 FOR MORTAL AND ANSI/ASTM A118.6 FOR GROUT MATERIALS. INSTALL IN ACCORDANCE WITH A108.5 AND A108.10.
B. PORCELAIN TYPE CERAMIC MOSAIC TILE (UNGLAZED): LOCATION AND SIZE

09511 SUSPENDED ACOUSTICAL CEILINGS

A. SUSPENSION SYSTEM
   1. INTERMEDIATE DUTY SYSTEM, COMPLYING WITH ASTM C 635, non-fire rated.
B. ACOUSTIC UNITS
   1. 3/4" THICK, MINERAL FIBER
   2. 3/4" WASHABLE VINYL FACED UNIT OVER FOOD PREP areas.

09650 RESILIENT FLOORING

A. VINYL COMPOSITION TILE: 1/8" X 12" X 12"; PREMIUM PATTERN AS SELECTED BY OWNER.
B. BASE: 4" HIGH RUBBER
C. REDUCER STRIPS: CENTERED UNDER DOORS AT TRANSITION BETWEEN VINYL COMPOSITION FLOOR AND EXPOSED CONCRETE FLOORS.

09800 STUCCO FINISHES
FINESTONE EXTERIOR WALL SURFACING SYSTEMS

A. REFER TO SECTION AND ARCHITECTURAL DETAILS

09900 Painting

A. EXTERIOR SURFACES:
   1. EXPOSED FERROUS MEAL SURFACES:
      A. APPLY PRIMER AND TWO COATS IN INDUSTRIAL ENAMEL (ALKYD PAINT).
   2. EXPOSED GALVANIZED STEEL SURFACES:
      A. WASH SURFACES WITH GALVAPREP AND APPLY PRIME COAT AND TWO COATS OF INDUSTRIAL ENAMEL (ALKYD PAINT).
B. INTERIOR SURFACES:
   1. WOOD - PAINTED: TWO COATS LATEX SEMIGLOSS ENAMEL.
   2. WOOD - NATURAL FINISH: TWO COATS OIL BASED VARNISH.
   3. WOOD - STAINED: ONE COAT EACH INTERIOR WIPING STAIN AND TWO COATS VARNISH.
   4. GYPSUM BOARD WALLS: TWO COATS LATEX SEMIGLOSS ENAMEL PAINT.
   5. CONCRETE AND CONCRETE BLOCK MASONRY: BLOCK FILLER AND TWO COATS SEMI-GLOSS LATEX ENAMEL.
   6. EXPOSED FERROUS METAL: PRIMER AND TWO COATS OF SEMI-GLOSS LATEX ENAMEL.
   7. EXPOSED GALVANIZED STEEL: WASH WITH GALVAPRED AND APPLY PRIME COAT AND TWO COATS OF SEMI-GLOSS LATEX ENAMEL.

DIVISION 10 - SPECIALTIES

NOT USED

DIVISION 11 - EQUIPMENT

CONTRACTOR SHALL PROVIDE BLOCKING BEHIND ALL FIXTURES AND TV.

DIVISION 12 - FURNISHINGS

DIVISION 13 - SPECIAL CONSTRUCTION

LIGHT POLE CONCRETE BASE TO BE PROVIDED BY GENERAL CONTRACTOR.

DIVISION 14 - ELEVATORS

NOT USED

DIVISION 15 - MECHANICAL

SEE MECHANICAL & PLUMBING DRAWINGS

DIVISION 16 - ELECTRICAL

SEE ELECTRICAL DRAWINGS

ACCESSIBILITY

SEE SHEET A-002, A-003, A-004 FOR ACCESSIBILITY REQUIREMENTS

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED
PROFESSIONAL ENGINEER
12/14/2022

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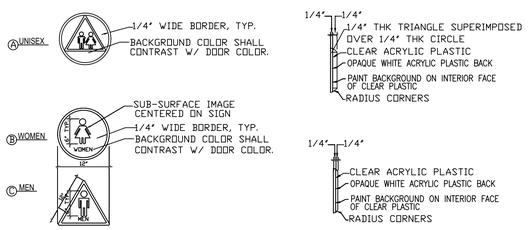
SPECIFICATIONS & GENERAL NOTES

DRAWN BY: BM	DATE: 9-15-2021	SHEET: A-001 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

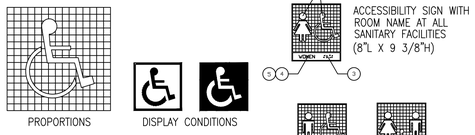
ACCESSIBILITY NOTES

ACCESSIBLE SIGN LEGEND

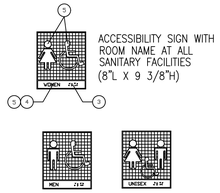


NOTE: WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595B, AND IN BRAILLE.

ATTACH SIGN USING (3) THREE FLATHEAD WOOD SCREWS, COUNTERSUNK,BE CENTERED ON DOOR & ADHESIVE. SIGN SHALL ABOVE THE FLOOR.



PROPORTIONS DISPLAY CONDITIONS



ACCESSIBILITY SIGN WITH ROOM NAME AT ALL SANITARY FACILITIES (8"L X 9 3/8"H)

D INTERNATIONAL SYMBOL OF ACCESSIBILITY

E LISTENING SIGN

ACCESSIBLE SIGNS AND IDENTIFICATION:

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USEABLE BY PERSONS WITH DISABILITIES AS SET FORTH IN THESE BUILDING STANDARDS AND AS SPECIFICALLY REQUIRED IN THIS SECTION.
   NOTE: SEE FIGURE BELOW.
2. COLOR OF SYMBOL: THE SYMBOL SPECIFIED ABOVE SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595B
   EXCEPTION: THE APPROPRIATE ENFORCEMENT AGENCY MAY APPROVE SPECIAL SIGNS AND IDENTIFICATION NECCESSARY TO COMPLEMENT DECOR OR UNIQUE DESIGN WHEN IT IS DETERMINED THAT SUCH SIGNS AND IDENTIFICATION PROVIDES ADEQUATE DIRECTION TO PERSONS WITH DISABILITIES.
3. BRAILLE SYMBOLS: CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE SYMBOLS ARE SPECIFICALLY REQUIRED IN OTHER PORTIONS OF THESE STANDARDS. DOTS SHALL BE 1/10-INCH ON CENTERS IN EACH CELL WITH 2/10-INCH SPACE BETWEEN CELLS. DOTS SHALL BE RAISED A MINIMUM OF 1/40-INCH ABOVE THE BACKGROUND.
4. LETTER SIZE: LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH TO HEIGHT RATIO BETWEEN 1:5 AND 1:10.
5. CONTRAST OF SYMBOL: CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

   RAISED AND RECESSED CHARACTERS: WHEN RAISED OR RECESSED CHARACTERS OR SYMBOLS ARE USED, THEY SHALL CONFORM TO THE FOLLOWING:
   A. LETTER TYPE: LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED OR RECESSED 1/32-INCH MINIMUM AND SHALL BE SANS-SERIF CHARACTERS.
   B. SYMBOL SIZE: RAISED CHARACTERS OR SYMBOLS SHALL BE A MINIMUM OF 5/8-INCH HIGH. RECESSED CHARACTERS OR SYMBOLS SHALL HAVE A 1/4-INCH MINIMUM STROKE WIDTH.

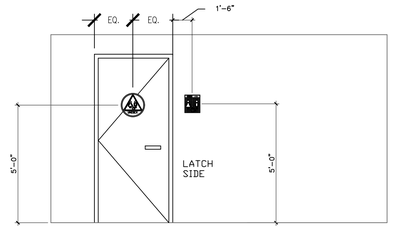
   ENTRANCE SIGNS: ALL BUILDING ENTRANCES THAT ARE ACCESSIBLE TO AND USEABLE BY PERSONS WITH DISABILITIES SHALL BE IDENTIFIED WITH AT LEAST ONE STANDARD SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, TO BE VISIBLE TO PERSONS ALONG APPROACHING PEDESTRIAN WAYS.
6. INFORMATION POSTED: BUILDINGS THAT HAVE BEEN REMODELED TO PROVIDE SPECIFIC SANITARY FACILITIES FOR PUBLIC USE THAT CONFORM TO THESE BUILDING STANDARDS SHALL HAVE THIS INFORMATION POSTED IN THE BUILDING LOBBY, PREFERABLY AS PART OF THE BUILDING DIRECTORY.

ACCESSIBILITY SIGN SCHEDULE

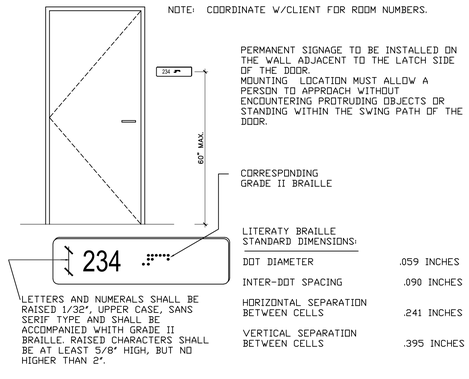
MALE: DOORS BLDG A 09; BLDG B 46, 130; BLDG C 41, 49, 92; BLDG E 12, 20; 546

FEMALE: DOORS BLDG A 05, BLDG B 52, 27, 29; BLDG C 42, 48, 91; BLDG F 15, 16, 545

UNISEX: DOORS BLDG A 19; BLDG C 8;



2 T0.2 ACCESSIBLE SIGNS
NOT SCALE



1 T0.2 TYPICAL ACCESSIBLE SIGNS @ DOORS
NOT SCALE

TOILET SIGNS

IDENTIFICATION SYMBOLS: ON DOORWAYS LEADING TO MENS' SANITARY FACILITIES, AN EQUILATERAL TRIANGLE 1/4" THICK WITH EDGES 12" LONG AND A VERTEX POINTING UPWARD AND ON WOMENS' SANITARY FACILITIES A CIRCLE 1/4" THICK AND 12" IN DIAMETER. THESE GEOMETRIC SYMBOLS SHALL BE CENTERED ON THE DOOR AT A HEIGHT OF 60" AND THEIR COLOR AND CONTRAST SHALL BE DISTINCTLY DIFFERENT FROM THE COLOR AND CONTRAST OF THE DOOR.

BRAILLE ROOM NUMBERS

REMOVE EXISTING ROOM NUMBER SIGNS. PROVIDE AND INSTALL NEW BRAILLE TYPE ROOM NUMBER SIGNS TO REPLACE EXISTING. NOTE: ROOM NUMBERS ON PLANS ARE FOR CONSTRUCTION PURPOSE ONLY. DO NOT USE ROOM NUMBERS ON PLANS. VERIFY NEW ROOM NUMBER SIGNS WITH DISTRICT BEFORE INSTALLING. LETTERS AND NUMERALS SHALL BE RAISED 1/32" UPPER CASE, SANS SERIF TYPE AND SHALL BE ACCOMPANIED WITH GRADE II BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" HIGH, BUT NO HIGHER THAN 2"

GENERAL NOTES

1. – INTERPRETATION OF CONSTRUCTION DOCUMENTS

   A. ALL INFORMATION DEPICTED IN THESE DRAWINGS AND RELATIVE TO EXISTING CONDITIONS IS BASED ON THE BEST AVAILABLE DATA AT THE TIME THESE CONSTRUCTION DOCUMENTS WERE BEING EXECUTED, BUT WITHOUT GUARANTEE OF ACCURACY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND SHALL REPORT ANY DISCREPANCIES TO ENGINEER OF RECORD (E.O.R) PRIOR TO COMMENCING ANY WORK.

   B. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED RESULTING FROM THE REMOVAL OR REPLACEMENT OF WORK INSTALLED WITHOUT PROPER COORDINATION TO ALL OTHER TRADES, AND OR PRIOR TO OBTAINING CLARIFICATION FROM THE ENGINEER OF RECORD (E.O.R) WHERE CONFLICTING INFORMATION EXISTS ON THE DRAWINGS.

   C. THE CONTRACTOR SHALL FURNISH ALL BIDDERS WITH A COMPLETE SET OF CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO DRAWINGS, SPECIFICATIONS AND ADDENDUMS.

   D. ALL BIDS AND LINE ITEM COSTS SUBMITTED BY THE CONTRACTOR IN CONJUNCTION WITH HIS SUBCONTRACTORS ARE CONSIDERED TO INCLUDE COMPLETE COORDINATION BETWEEN THE VARIOUS DISCIPLINES AS WELL AS ALL OTHER REQUIREMENTS OF THESE CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO BUILDING CODE AND ORDINANCE & PUBLIC UTILITY REQUIREMENTS.

   FURTHER, WHERE THERE ARE CONFLICTING SOLUTIONS IN THE CONSTRUCTION DOCUMENTS AND A BID OR LINE ITEM COST IS SUBMITTED BY THE CONTRACTOR WITHOUT ANY FORMAL WRITTEN REQUEST FOR CLARIFICATION PRIOR TO BID OPENING, ALL SUCH ITEMS WILL BE CONSIDERED TO INCLUDE THE MOST EXPENSIVE OF THE POSSIBLE SOLUTIONS DEPICTED IN THE CONSTRUCTION DOCUMENTS.

   E. MODIFICATIONS OF DETAILS OF CONSTRUCTION SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE (E.O.R) AND CITY.

2. – DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE.
3. – CEILING HEIGHT DIMENSIONS ARE FROM FINISH FLOOR TO FINISH FACE OF CEILING.
4. – PROVIDE ALL NECESSARY BLOCKING, BACKING AND FRAMING FOR LIGHT FIXTURES, ELECTRICAL UNITS, A/C EQUIPMENT, TOILET FIXTURES & ACCESSORIES, RAILINGS, GRAB BARS, AND ALL OTHERS REQUIRING SAME.
5. – INSULATE HOT WATER SUPPLY AND TRAP AT LAVATORIES IF HOT WATER IS PROVIDED. THERE SHALL BE NO SHARP EDGES OR ABRASIVE SURFACES.
6. – SEE INTERNATIONAL FIRE CODE (IFC) 2021 CHAPTER 33 FOR FIRE SAFETY REQUIREMENTS DURING CONSTRUCTION. STRICTLY ADHERE TO THE REQUIREMENTS IN THIS SECTION. REVIEW THE WORK ON AN ON-GOING BASIS FOR COMPLIANCE.

REF:

1. – (E.O.R) ENGINEER OF RECORD: RAWHI KHALIFEH LIC # 79452
2. – BUILDING CODE TO COMPLY WITH 2021 IBC & 2020 NEC & BRYAN'S AMENDMENTS TO THE ADOPTED CODES.

ACCESSIBILITY STANDARD NOTES (TAS)

TAS SECTION 4.13--DOORS

SECTION 4.13.4– DOUBLE-LEAF DOORWAYS

A. DOORWAYS WITH TWO INDEPENDENTLY OPERATED LEAVES SHALL HAVE AT LEAST ONE LEAF THAT MEETS THE REQUIREMENTS IN 4.13.5 AND 4.13.6.

SECTION 4.13.5– CLEAR WIDTH

A. DOORWAYS SHALL PROVIDE A CLEAR OPENING OF 32" MINIMUM, WTH THE DOOR OPEN 90°.
   1. CLEAR OPENING SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND STOP.
   2. OPENINGS MORE THAN 24" IN DEPTH SHALL PROVIDE A CLEAR OPENING OF 36" MINIMUM.

EXCEPTION: DOORS NOT REQUIRING FULL USER PASSAGE, SUCH AS SHALLOW CLOSETS, SHALL HAVE A CLEAR OPENING OF 20" MINIMUM.

SECTION 4.13.6– MANEUVERING CLEARANCES AT DOORS

A. PROVIDE LEVEL AND CLEAR MANEUVERING AREA AT DOORS AS FOLLOWS:
   FRONT APPROACH PULL SIDE –18" MIN. BESIDE STRIKE EDGE.
   FRONT APPROACH PUSH SIDE–0" BESIDE STRIKE EDGE. 12" IF DOOR HAS BOTH A CLOSER AND A LATCH.

   HINGE SIDE APPROACH PULL SIDE –60" MIN. WIDTH 36" MIN. BESIDE STRIKE EDGE.
   HINGE SIDE APPROACH PUSH SIDE–42" MIN. WIDTH. 42" MIN. WIDTH IF DOOR HAS BOTH A CLOSER AND A LATCH.

   LATCH SIDE APPROACH PULL SIDE –48" MIN. WIDTH AND 24" MIN. BESIDES STRIKE EDGE. 54" MIN. WIDTH IF DOOR HAS A CLOSER.

   LATCH SIDE APPROACH PUSH SIDE–42" MIN. WIDTH AND 42" MIN. BESIDES STRIKE EDGE. 54" MIN. WIDTH IF DOOR HAS A CLOSER.

SECTION 4.13.8– THRESHOLDS AT DOORWAYS

A. MAXIMUM THRESHOLD HEIGHT:1/2"(s"AT EXTERIOR SLIDING DOOR).RAISED THRESHOLDS AND FLOOR LEVEL CHANGES SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.

SECTION 4.13.9– DOOR HARDWARE

A. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
   1. LEVER-OPERATED MECHANISMS, PUSH-TYPE MECHANISMS, AND U-SHAPE HANDLES ARE ACCEPTABLE DESIGNS.
   2. WHEN SLIDING DOORS ARE FULLY OPEN, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.
   3. HARDWARE REQUIRED FOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISHED FLOOR.

SECTION 4.13.11– DOOR OPENING FORCE

A. THE MAXIMUM FORCE FOR PUSHING OR PULLING OPEN A DOOR SHALL BE AS FOLLOWS:
   1. FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATION AUTHORITY.
   2. OTHER DOORS:
   A. EXTERIOR HINGED DOORS: NOT REQUIRED
   B. INTERIOR HINGED DOORS: 5 LBF.
   C. SLIDING OR FOLDING DOORS: 5 LBF.

THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT MAY HOLD THE DOOR IN A CLOSED POSITION.

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

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VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

ACCESSIBILITY DETAILS AND NOTES

DRAWN BY: BM	DATE: 9-15-2021	SHEET: A-002
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	REV.0

NOTES;

1.) TOILET FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND, AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. CONTROLS FOR THE FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREAS NO MORE THAN THE TABLE OF DEVIATED DIMENSION SCHEDULE ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5–POUNDS.

2.) FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5–POUNDS PER FOOT.

3.) HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVERATORIES.

4.) FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5–POUNDS. LEVER OPERATED, PUSH TYPE* AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

5.) A GRAB BAR OR ANY WALL OR OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS.

6.) GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

7.) EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8 INCH.

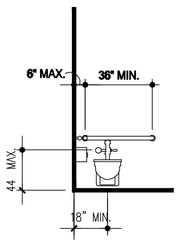
8.) A FLEXIBLE HAND HELD SHOWER UNIT WITH A HOSE AT LEAST 60–INCHES LONG SHALL BE PROVIDED WITH A HEAD MOUNTING HEIGHT OF 48–INCHES ABOVE THE SHOWER FLOOR.

9.) WHERE LOCKERS ARE PROVIDED FOR PUBLIC, CLIENTS, EMPLOYEES, MEMBERS OR PARTICIPANTS, AT LEAST ONE AND NOT LESS THAN ONE PERCENT OF ALL LOCKERS SHALL BE MADE ACCESSIBLE TO PERSONS WITH DISABILITIES. A PATH OF TRAVEL NOT LESS THAN 44–INCHES IN CLEAR WIDTH SHALL BE PROVIDED TO THESE LOCKERS.

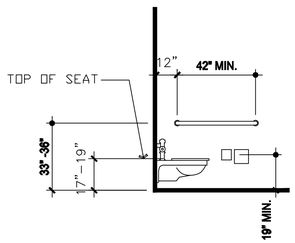
10.) ANY WOOD FOR ANY WALL BLOCKING MUST BE TREATED WITH A FIRE RETARDANT.

ACCESSIBLITY NOTES

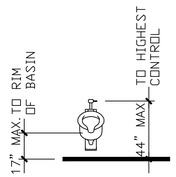
TOILET ACCESSORIES	A (ADULT)
TOILET CENTER LINE FROM WALL	18"
TOILET SEAT HEIGHT	17"–19"
GRAB BAR HEIGHT (SIDE)	33"
TOILET PAPER IN FRONT OF TOILET	15"–48"
DISPENSER OR MIRROR	40" MAX.
LAVATORY/SINK TOP HEIGHT	34" MAX.
LAVATORY/SINK KNEE CLEARANCE	29" MIN.
URINAL LIP HEIGHT	17" MAX.
URINAL FLUSH HANDLE HEIGHT	44" MAX.



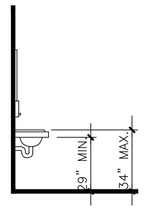
ACCESSIBLE TOILET
W/ GRAB BARS,



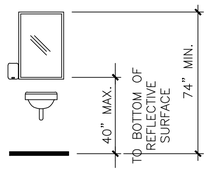
ACCESSIBLE TOILET W/ GRAB BARS
TOILET PAPER DISPENSER, SANITARY



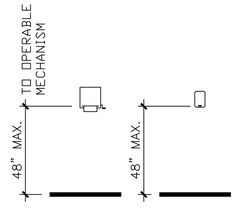
ACCESSIBLE URINAL



ACCESSIBLE LAVATORY

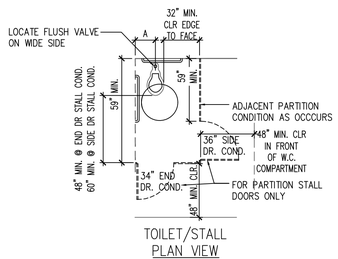


ACCESSIBLE MIRROR



ACCESSIBLE
PAPER TOWEL
DISPENSER

ACCESSIBLE
SOAP
DISPENSER



TOILET/STALL
PLAN VIEW

1.PROVIDE FLOOR DRAIN IN EACH RESTROOMS. SLOPE SHALL NOT EXCEED 1:50

2. ALL RESTROOMS FLOOR AND WALL FINISHES ARE TILES, COLOR AND DESIGN WILL BE SELECTED BY ARCHITECT AND OWNER. TILES WILL BE MULTIPLE COLORS.

3. ALL GYP BOARD USED IN THE RESTROOM AND WET AREA SHALL BE MOISTURE RESISTANT.

4. PROVIDE TOILET ACCESSORY IN EACH OF THE RESTROOM INCLUDING SOAP DISPENSER, MIRROR, TOILET PAPER DISPENSER, PAPER TOWEL DISPENSER , HAND DRYER, & HOOKS. ADDITIONAL SANITARY NAPKIN DISPENSER AND SANITARY NAPKIN DISPOSAL SHALL BE PROVIDED IN GIRLS RESTROOMS.

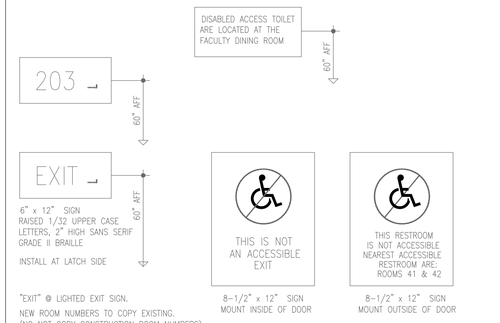
5. PROVIDE GRAB BARS IN ALL ACCESSIBLE RESTROOM AS SHOWN IN THE PLAN.

6. TOILET ACCESSORY MANUFACTURER:
BRADLY CORP, BOBRICK OR AMERICAN SPECIALITIES INC.
MODEL WILL BE SELECTED BY OWNER

7. ALL DIMENSIONAL REQUIREMENTS FOR PLUMBING EQUIPMENT AND MOUNTING HEIGHT TO COMPLY WITH TAS REQUIREMENTS.

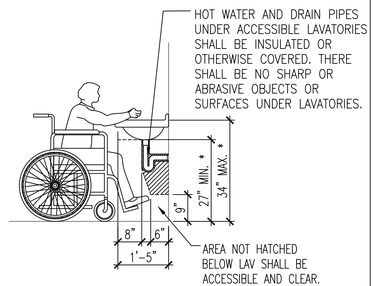
9. All TOILET PARTITIONS, SHOWER COMPARTMENTS SHALL BE SOLID POLYMER FLOOR MOUNTED OVERHEAD BRACED WITH NON CORROSIVE PANEL DOORS

FOR ADDITIONAL DETAILS REFER TO A–004



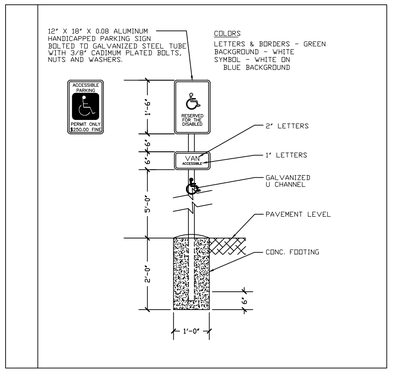
DOOR SIGN 8C T0.3 NOT TO SCALE
DOOR SIGN 8B T0.3 NOT TO SCALE
DOOR SIGN 8A T0.3 NOT TO SCALE

DOOR SIGNS N.T.S



LAVATORY CLEARANCES A T0.3
SCALE: 1/2"=1'-0"

LAVATORY CLEARANCES N.T.S



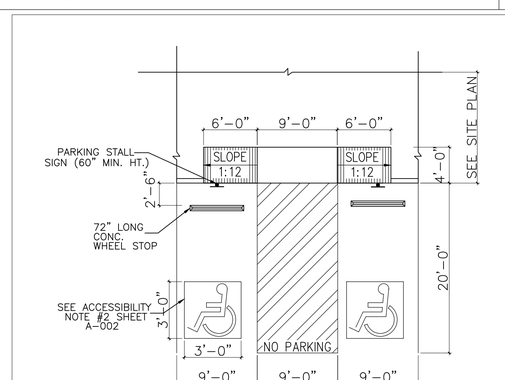
THIS SIGN SHALL READ IN 1" MIN LETTERS:

" UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES MAY BE TOWED AWAY AT OWNER'S EXPENSE.

SIGN TO BE POSTED IN A CONSPICUOUS PLACE, AT EACH ENTRANCE TO THE OFFSTREET PARKING FACILITY. 5 LOCATIONS.

SIGN SHALL BE PROVIDED IN ACCORDANCE WITH CHAPTER 216 OF 2012 TEXAS ACCESSIBILITY STANDARDS AND SHALL COMPLY WITH CHAPTER 703.
INFORMATION SHALL BE PERMANENT PART OF THE SIGN.

DISABLED ACCESS SIGN AND DISABLED ACCESS ENTRY SIGN N.T.S



ACCESSIBLE RAMP NO.3

TYPICAL PLUMBING FIXTURES & ACCESSORIES INFORMATON N.T.S

90° ACCESSIBLE PARKING N.T.S

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5–16–22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

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1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
ACCESSIBILITY DETAILS AND NOTES

DRAWN BY: BM	DATE: 9–15–2021	SHEET:
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	**A-003** Rev.0

603 Toilet and Bathing Rooms

603.2 Clearances. Clearances shall comply with 603.2.

603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room.

603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.

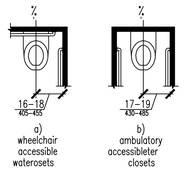


Figure 604.2 Water Closet Location

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.

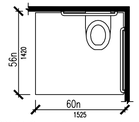


Figure 604.3.1 Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

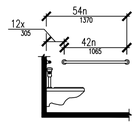


Figure 604.5.1 Side Wall Grab Bar at Water Closets

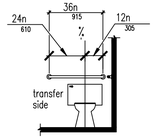


Figure 604.5.2 Rear Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

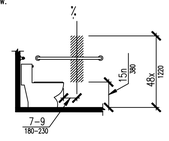


Figure 604.7 Dispenser Outlet Location

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall com with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted wc closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

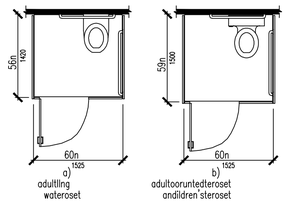


Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

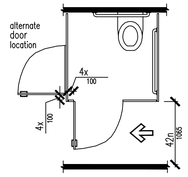


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm)deep

Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

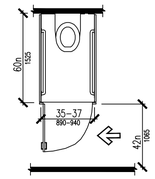


Figure 604.8.2 Ambulatory Accessible Toilet Compartment

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.

604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.

604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5.

604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605 Urinals

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

Figure 605.2 Height and Depth of Urinals

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided.

605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

705 Detectable Warnings

705.1 General. Detectable warnings shall consist of a surface of truncated domes and shall comply with 705.

705.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inches (36 mm) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch (5.1 mm).

705.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inch (17 mm) minimum, measured between the most adjacent domes on a square grid.

705.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

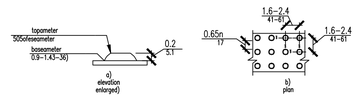


Figure 705.1 Size and Spacing of Truncated Domes

705.2 Platform Edges. Detectable warning surfaces at platform boarding edges shall be 24 inches (610 mm) wide and shall extend the full length of the public use areas of the platform.

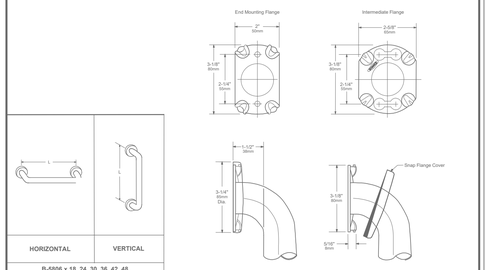
BOBRICK Technical Data

1¼" (32mm) DIAMETER STAINLESS STEEL GRAB BARS WITH SNAP FLANGE

B-580616 SERIES

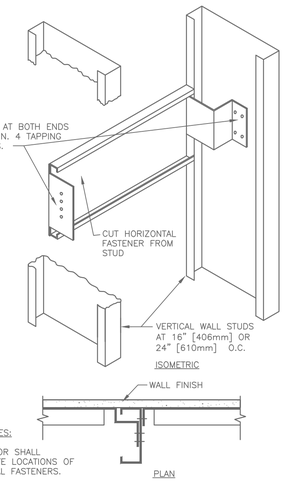
Specify Finish Required: ☐ Satin finish ☐ Satin finish with peened gripping surface; add suffix .99 to model number

NOTE: GRAB BARS IS DESIGNED FOR 250 IB IN CONCENTRATED LOAD IN ANY DIRECTION AS PER IBC 2021 SECTION 1607.7.2.



continued . . .

ANCHORAGE GRAB BARS AND CABINET



GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE LOCATIONS OF HORIZONTAL FASTENERS.

ANCHORAGE - GRAB BARS AND CABINETS

NTS

Department of Veterans Affairs

DETAIL TITLE / ANCHORAGE – GRAB BARS AND CABINETS

SCALE :NONE

DATE ISSUED: DECEMBER 2008 CAD DETAIL NO.: SD055000-02.DWG

GRAPHIC SCALE

STATE OF TEXAS RAWHI KHALIFEH 79452 REGISTERED PROFESSIONAL ENGINEER 12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

ACCESSIBILITY DETAILS AND NOTES

DRAWN BY: BM | DATE: 9-15-2021 | SHEET: **A-004** Rev.0

CHECKED BY: RSK | PROJ. NO.: VR151003.317.4

1 BUILDING PLANNING & DESCRIPTION

- [X] NEW CONSTRUCTION
- [ ] LEASE SPACE BUILD-OUT (LSBO)
- [ ] SUBSTANTIAL IMPROVEMENT
- [X] SHELL BUILDING
- [ ] CHANGE OF OCCUPANCY
- [ ] OTHER: _____

MIXED OCCUPANCY		
[X] SINGLE OCCUPANCY	[ ] SEPARATED USE	[ ] NON-SEPARATED USE

(SECTION 508.3 OR 508.4 IBC 2021)

TYPE OF CONSTRUCTION: II B *(CHAPTER 6 IBC 2021)*

HEIGHT LIMITATION: 55' AREA LIMITATION: 12,500 *(TABLE 504.3 IBC 2021)*

FRONTAGE INCREASE CALCULATIONS ARE SHOWN ON SHEET: _____

BUILDING VALUATION

BUILDING NUMBER: 1 OF 1

ADDRESS: 1919 WEST VILLA MARIA ROAD

CITY, ST: BRYAN , TX ZIP CODE: 77807 SUITE: _____

CALL CENTERPOINT ENERGY AHEAD OF TIME, AT 713-207-4460, TO OBTAIN AN ADDRESS

HCAD #. OR PROPERTY TAX #: TABS2022000994 (13 DIGITS)
(http://www.hcad.org)

BUILDING LOCATED IN FLOODPLAIN: YES [X] NO [ ]

GROSS SQUARE FOOTAGE: 3,971.3 #OF FLOORS: 1 HEIGHT: 32 FT.

ESTIMATED COST OF CONSTRUCTION: $ $600,000

T.D.L.R #: 0000000 *(REQUIRED FOR CONSTRUCTION OVER $50,000)*
TEXAS DEPARTMENT OF LICENSING AND REGULATIONS
(https://www.tdlr.texas.gov/ab/ab.htm)
TELEPHONE: (512) 463-6599 TOLL FREE (IN TEXAS): 800-803-9202
FAX: (512) 475-2871 RELAY TEXAS-TDD: 800-735-2989

SHELL BUILDING PERMIT #: _____ CIVIL PROJECT #: _____

PUBLIC UTILITIES: YES [X] NO [ ]

OSSF : YES [ ] NO [X] PROJECT/PERMIT #: _____

LIST BELOW THE PURPOSE/USE OF THE BUILDING OR AREA BEING REVIEWED. INCLUDE DETAILS ON THE PRODUCTS/MATERIALS BEING STORED/FABRICATED AND NOTE HOW THEY ARE BEING PACKAGED.

3,971.3 S.F ONE STORY RETAIL GAS STATION WITH 4 GAS PUMPS .

2 OCCUPANCY TYPE AND LOAD
CHAPTER 2, 3 & TABLE 1004.5 IBC 2021

OCCUPANCY CLASSIFICATION TYPES

A-1	A-2	A-3	A-4	A-5	(B)	E
F-1	F-2	H-1	H-2	H-3	H-4	H-5
I-1	I-2	I-3	I-4	(M)	R-1	R-2
	R-3	R-4	S-1	S-2	U	

	RBC-8A	RBC-8B	RBC-16A	RBC-16B	

BREAK DOWN AREAS AND OCCUPANT LOADS PER FLOOR

OCCUPANCY CLASSIFICATION	SPECIFIC USE	SQUARE FOOTAGE	SF PER OCCUPANT	DESIGN OCCUPANTS
M	SALE AREA	1,247	60	21
M	SEATING AREA	265	15	18
B	OFFICE/CASHIER	287.8	100	3
B	KITCHEN	606	200	3
S-2	COOLERS/MAINTENANCE	821.7	300	3
	CORRIDOR/RESTROOMS/ MISC.	743.8	0	0
TOTAL		3,971.3		48

3 MEANS OF EGRESS
CHAPTER 10 IBC 2021

MEANS OF EGRESS	# OF REQUIRED EXITS	# OF EXITS PROVIDED	SHEET #
STAIRWAYS (PER FLOOR)	0	0	
EGRESS @ 1ST FL OR LSBO	1	1	A-103

(SECTION 1005.3 IBC 2021)

PANIC HARDWARE ON EXIT DOORS? YES [X] NO [ ] *(SECTION 1008.1.9 IBC 2021)*

STAIRWAYS *(SECTION 1011 IBC 2021)* N/A

MINIMUM CLEAR WIDTH SHOWN ON: _____ *(EACH STAIRWELL)*

EGRESS WIDTHS ARE SHOWN ON: _____

ACCESSIBLE AREAS OF REFUGE & 2-WAY COMMUNICATIONS SHOWN ON: _____
(SECTION 1009.3 TO 1009.8 IBC 2021)

EXIT SIGNS/EGRESS ILLUMINATION *(SECTION 1008 & 1013 IBC 2021)*

REQUIRED AND SHOWN ON: A-103 *(HIGHLIGHT ON PLANS)*

EXTERIOR MEANS OF EGRESS LIGHTING PROVIDED? YES [X] *(SECTION 1008 IBC 2021)*

EXIT TRAVEL DISTANCE *(TABLE 1017.2 IBC 2021)*

OCCUPANCY TYPE	MAX TRAVEL DISTANCE	PROVIDE TRAVEL DISTANCE	SHEET #
M(STORE)	200	99	A-102

ELEVATORS N/A

NEW [ ] EXISTING [ ] ELEVATOR KEYBOX LOCATED IN LOBBY? YES [ ] NO [ ]
(MUST BE WITHIN 20' OF THE CALL BUTTON)

4 FIRE PROTECTION & LIFE SAFETY SYS.
CHAPTER 9 IBC & IFC 2021

ALL FIRE PROTECTION PLANS SHALL BE SUBMITTED FOR REVIEW AFTER BUILDING PERMIT HAS BEEN ISSUED *(I.E. UNDERGROUND FIRE LINE, SPRINKLER SYSTEM, FIRE ALARM SYSTEM, STANDPIPE, FIRE PUMP ROOM, AND FIRE PROTECTION WATER SUPPLY SYSTEMS)*

AUTOMATIC FIRE SPRINKLER SYSTEM/ALTERNATIVE AUTOMATIC FIRE EXTINGUISHING SYSTEM

ALL SPRINKLERS SHALL COMPLY WITH MONITORING AND OCCUPANT NOTIFICATION PER 903.4.2.1
(SECTION 903.4 IFC 2021)

[ ] PROVIDED AS NOTED ON: _____ [X] NOT REQUIRED PER SECTION 903

SYSTEM PROVIDED:
- [ ] NFPA 13
- [ ] NFPA 13R
- [ ] NFPA 13D
- [ ] OTHER: _____

SPRINKLER HEAD PROVIDED:
- [ ] STANDARD
- [ ] ELO
- [ ] ESFR
- [ ] QUICK RESPONSE

FIRE PUMP PROVIDED:
- [ ] YES
- [ ] NO

FIRE DEPARTMENT ACCESS TO SPRINKLER CONTROLS: N/A

[ ] SPRINKLER RISER ROOM OR POST INDICATOR VALVE SHOWN ON: _____
(SECTION 901.4.6 IFC 2021)

[ ] FDC SHOWN ON: _____ *(FDC SHALL COMPLY WITH SECTION 912 IFC 2021)* N/A

SUPPRESSION SYSTEM PROVIDED *(SECTION 904 IFC 2021)*

[X] REQUIRED AND SHOWN ON: A-103,M3.0
[ ] NOT REQUIRED NOTE 17

STANDPIPE SYSTEM & HOSE CONNECTIONS *(SECTION 905 IFC 2021)*
(I.E. IN STAIRWAYS, STAGES, MALLS)

[ ] PROVIDED AS NOTED ON: _____, TYPE OF SYSTEM PROVIDED: _____ *(CLASS I, II OR III)*
[X] NOT REQUIRED PER SECTION 905

PORTABLE FIRE EXTINGUISHERS *(SECTION 906 IFC 2021)*

[X] PROVIDED AS NOTED ON: A-601 , NUMBER PROVIDED: 1 *(HIGHLIGHT ON PLANS)*

FIRE ALARM & DETECTION SYSTEMS *(SECTION 907 IFC 2021)*

- [ ] FIRE ALARM SYSTEM (DEFERRED SUBMITTAL)
- [X] NOT REQUIRED PER SECTION 907
- [ ] EMERGENCY VOICE EVACUATION
- [ ] OTHER: _____
- [ ] DEDICATED FUNCTION (SPRINKLER MONITORING, ELEVATOR RECALL, PRE-ACTION, EMERGENCY ALARM, SMOKE CONTROL)

HVAC & AIR DISTRIBUTION SYSTEM CONTROLS *(SECTION 606 IMC 2021)*

- [ ] SMOKE DETECTORS PROVIDED TO SHUT DOWN UNITS OVER 2,000 CFM PROVIDED ON: M3.0
- [X] NO HVAC UNITS OVER 2,000 CFM
- [ ] FIRE/SMOKE DAMPERS IN THE BUILDING SHOWN ON: _____
- [X] NO FIRE/SMOKE DAMPERS IN THE BUILDING

SMOKE CONTROL SYSTEMS *(SECTION 909 IFC 2021)(I.E. FOR HIGH RISE, ATRIUMS OR STAIRWAY PRESSURIZATION)*

[ ] PROVIDED AS NOTED ON: _____
[X] NOT REQUIRED PER SECTION 909

SMOKE & HEAT VENTILATION *(SECTION 910 IFC 2021)*

[ ] CALCULATIONS PROVIDED AS NOTED ON: _____
[X] NOT REQUIRED PER SECTION 910

NOTE: WHERE AREAS OF THE BUILDING ARE EQUIPPED WITH EARLY SUPPRESSION FAST-RESPONSE (ESFR) SPRINKLERS, AUTOMATIC SMOKE AND HEAT VENTS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS, MEETING LOCAL JURISDICTION REQUIREMENTS.

5 FIRE-RESISTANCE RATE CONSTRUCTION
CHAPTER 6, 7 AND 10 IBC 2021

SHOW DETAILS OF FIRE WALLS OR FIRE BARRIERS MEETING HORIZONTAL WALLS AND ROOF DECKS
(SEE SECTION 706.5, 706.6 & 707.5 IBC 2021)

FIRE-RESISTANCE RATING REQUIREMENTS *(TABLES 601 & 602 IBC 2021)*

BUILDING ELEMENTS	HOURS REQUIRED	HOURS PROVIDED	UL OR IBC STANDARD USED & DESIGN DETAIL SHOWN ON
STRUCTURAL FRAME	0	0	
EXTERIOR BEARING WALLS	0	0	
EXTERIOR NON-BEARING WALLS	0	0	
INTERIOR BEARING WALLS	0	0	
INTERIOR NON-BEARING WALLS	0	0	
FLOOR CONSTRUCTION	0	0	
ROOF CONSTRUCTION	0	0	
STAIRWELLS *(SECTION 1023)*	0	0	
ELEVATOR SHAFTS *(SECTION 713)*	0	0	
CORRIDORS *(SECTION 1020)*			
FIRE RATED DOORS *(TABLE 716.1(2))*			
DEMISING/PARTITION WALL *(SECTION 708)*	0	0	
FIRE BARRIER *(SECTION 707)*	0	0	
FIRE WALL *(SECTION 706)*	0	0	

DRAFTSTOPS: [ ] YES, SHOWN ON: _____ [ ] NO (SPRINKLED ATTIC) [X] N/A *(SECTION 718.4)*

HAVE YOU CHECKED WIDTH OF OPENINGS IN FIRE RATED WALLS? YES [X] NO [ ]
(TABLE 705.8, SECTION 706.8 & 707.6 IBC 2021)

FIRE SEPARATION DISTANCE (FEET) *(SECTION 602 IBC 2021)*	148'-0" NORTH	29'-0" SOUTH	26'-6" EAST	27'-5" WEST

ROOF COVERING CLASSIFICATION PROVIDED: A [ ] B [X] C [ ]
(TABLE 1505.1 IBC 2021)

6 WATER SUPPLY (FOR FIREFIGHTING)
CHAPTER 5, APPENDIX B & C IFC 2021

3,971.3 GROSS SIZE OF BUILDING IN SQUARE FEET *(INCLUDE ALL OVERHANGS UNDER ROOF)*

PUBLIC WATER SUPPLY WITH FIRE HYDRANTS
(FOR PROPOSED AND EXISTING FIRE HYDRANTS ONLY)

NAME OF THE MUNICIPAL UTILITY DISTRICT: CITY OF BRYAN

NUMBER OF HYDRANTS WITHIN 400 FT (NON-SPRINKLED) OR 600 FT (SPRINKLED) OF BUILDING: 2 , SHOWN ON: AS-101

OR

REQUIRED GPM: 1,750 DURATION: 2 *(TABLE B105.1 IFC 2021)*

75% REDUCTION? YES [ ] NO [X] *(MUST MAINTAIN MINIMUM PER TABLE B105.1.(1) OR B105.1.(2))*

WATER SOURCE FOR RURAL AREAS WITHOUT FIRE HYDRANTS N/A
(COMPLETE THE FIRE FLOW CALCULATOR)

- [ ] ***DRY HYDRANT
- [ ] ABOVEGROUND STORAGE
- [ ] UNDERGROUND STORAGE
- [ ] OTHER: _____

DESIGN SPECIFICATIONS AND LOCATIONS SHOULD MEET MINIMUM REQUIRED WATER SUPPLY FROM THE FIRE FLOW CALCULATOR NFPA 1142 (AVAILABLE ON THE WEBSITE).

***SUBMIT DRY HYDRANT DESIGN PLANS & CALCULATIONS TO FIRE PROTECTION FOR REVIEW & APPROVAL (AVAILABLE ON THE WEBSITE)

7 FIRE LANE ACCESS
CHAPTER 5 & APPENDIX D IFC 2021

FIRE LANE LAYOUT PLAN, WHICH SHALL INCLUDE THE SITE PLAN, THE FIRE LANE & FIRE HYDRANTS, IS SHOWN ON: AS-101 *(HIGHLIGHT THE FIRE HYDRANT LOCATIONS ON THE PLANS)* AERIAL ACCESS LAYOUT, FOR BUILDINGS OVER 30 FT, IS SHOWN ON: N/A .

FIRE LANES WILL BE APPROVED CONCEPTUALLY DURING THE CIVIL REVIEW PROCESS. HOWEVER, THE FIRE CODE PLAN REVIEWER MAY CHANGE THE FIRE LANE LAYOUT BASED ON THE BUILDING SPECIFICATIONS.

[ ] PROVIDING A REMOTE FIRE HOSE CONNECTION TO COMPLY WITH FIRE LANE HOSE COVERAGE. SUBMIT PLANS TO FIRE PROTECTION FOR REVIEW *(SECTION 918.1)*

8 INTERIOR FINISH
CHAPTER 8 & TABLE 803.13 IBC 2021

OCCUPANCY GROUP	EXIT ENCLOSURES AND EXIT PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES	SHEET #
M	A	B	C	A-101,A-601

9 STORAGE: STANDARD & HIGH PILED N/A
CHAPTER 32 IFC 2021 *(REFER TO REGULATIONS FOR REQUIREMENT FOR CONSULTANT ENGINEER SECTION 3201.5)*

YES [ ] NO [X] PRODUCTS BEING STORED: _____

YES [ ] NO [X] STORAGE PACKAGING *(I.E. PALLETS, RACKS, SOLID PILED, DRUMS, CARDBOARD BOXES, WRAPPED IN PLASTIC, ETC.)*: _____

YES [ ] NO [X] MAXIMUM HEIGHT OF COMMODITY: _____

YES [ ] NO [X] ***THIS BUILDING IS DESIGNED FOR THE INTENT OF HIGH PILED STORAGE. IF YES, THEN PROVIDE HIGH PILED STORAGE FORM

YES [ ] NO [X] FIRE DEPARTMENT ACCESS DOORS

YES [ ] NO [X] HIGH PILED STORAGE RACK LAYOUT/ELEVATIONS, CODE ANALYSIS, ETC. SHOWN ON: _____

10 HAZARDOUS MATERIALS
CHAPTER 50 IFC 2021

YES [ ] NO [X] DOES THE BUILDING HAVE HAZARDOUS MATERIAL USE OR STORAGE? IF YES, THEN PROVIDE ALL HMIS SUMMARY AND MSDS REPORTS.

YES [ ] NO [X] IF YES, DO THE QUANTITIES EXCEED THE MAXIMUM ALLOWABLE PER IFC 2018?

IF YES, YOU WILL BE REQUIRED TO PROVIDE THE FOLLOWING:
CODE ANALYSIS BY FIRE PROTECTION ENGINEER TO SHOW COMPLIANCE WITH IFC 2018.
CODES AND REFERENCED STANDARDS SHOWN ON SHEET(S) _____

11 SPECIAL CONDITIONS
PROPERTIES WITH FENCE AND GATES SHALL PROVIDE A 911 KEY BOX AT ENTRY GATE

YES [ ] NO [X] ATRIUM(S) PER 404 IBC 2018?
YES [ ] NO [X] HIGH RISE BLDG PER 403 IBC 2018?
YES [X] NO [ ] ANY FUEL STORAGE TANKS PER 5704 IFC 2018?
YES [ ] NO [X] CRITICAL FACILITIES (HARRIS COUNTY REGULATIONS AND AMENDMENTS)
YES [ ] NO [X] OTHER: _____

YES [ ] NO [X] PAINT SPRAY BOOTHS, COATINGS, DIPPING OR INDUSTRIAL OVENS USED PER 2404, 2405, 2406 AND CHAPTER 30 IFC 2018?
YES [X] NO [ ] HEALTH DEPARTMENT APPROVAL? REQUIRED FOR ALL ESTABLISHMENTS THAT SERVE/PREPARE FOOD AND BEVERAGES FOR THE PUBLIC OR HAVE REFRIGERATED FOOD STORAGE.

COMMENTS & NOTES

-UNDER GROUND FUEL TANKS AND FUEL PUMPS & CANOPY TO BE PERMITTED UNDER SEPARATE SUBMITTAL.

A COPY OF THESE APPROVED CONSTRUCTION PLANS MUST BE KEPT AT PROJECT SITE FOR THE FINAL INSPECTION OF THE BUILDING

CODES TO BE USED :-

1- 2021 INTERNATIONAL BUILDING CODE (IBC)
2- 2021 INTERNATIONAL PLUMBING CODE (IPC)
3- 2021 INTERNATIONAL FUEL GAS CODE (IFGC)
4- 2021 INTERNATIONAL FIRE CODE (IFC)
5- 2021 INTERNATIONAL MECHANICAL CODE (IMC)
6- 2020 INTERNATIONAL ELECTRIC CODE (NEC)
7- 2012 TEXAS ACCESSIBILITY STANDARDS (TAS)
8- 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
9- BRYAN'S AMENDMENTS TO THE ADOPTED CODES.

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED
PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
-	-	-
-	-	-
-	-	-
-	-	-

RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
FIRE CODE REVIEW SHEET

DRAWN BY: BM | DATE: 9-15-2021 | SHEET: A-005 Rev.0
CHECKED BY: RSK | PROJ. NO.: VR151003.317.4

LEGEND :

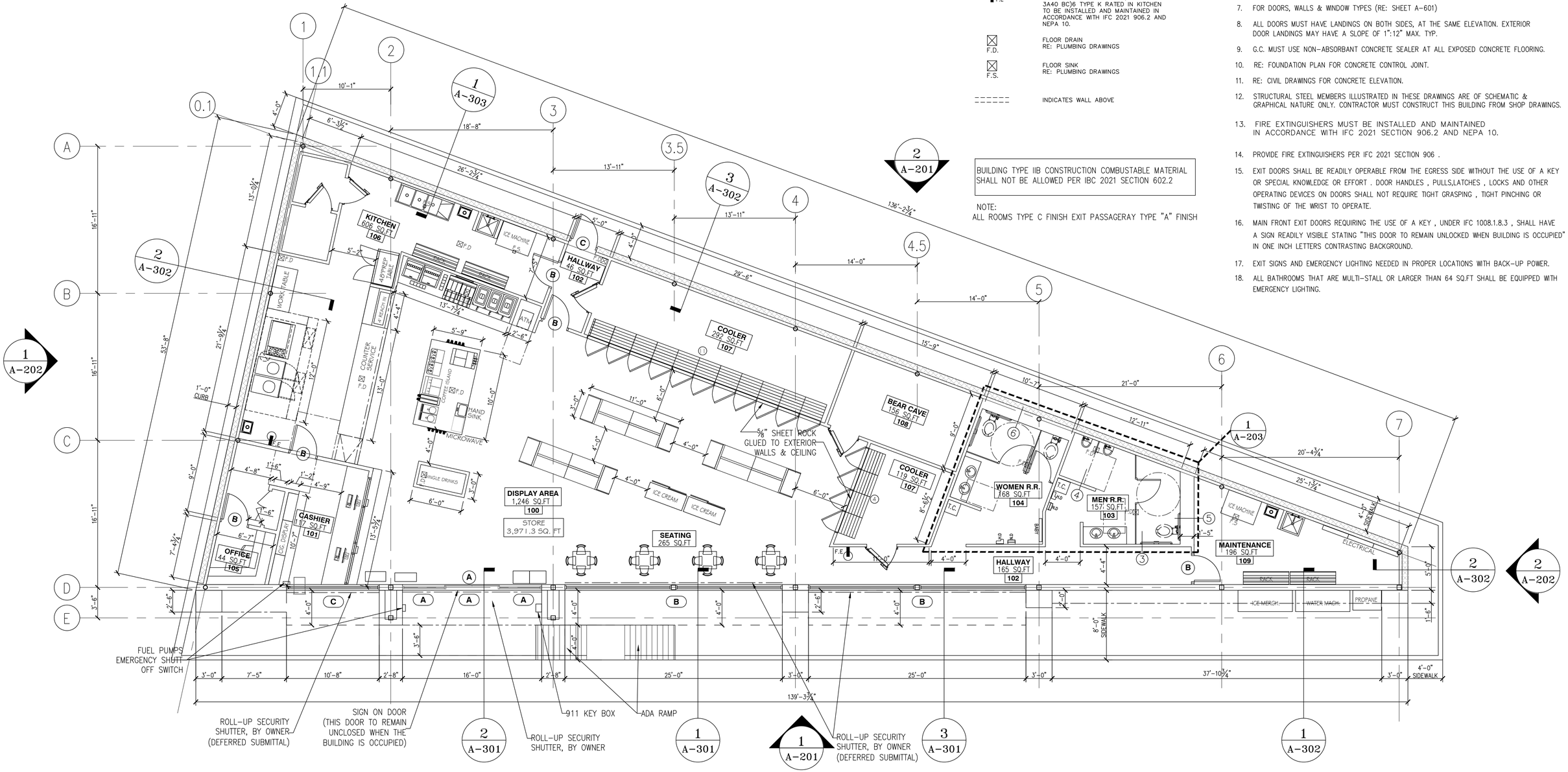
1 ———	WALL TYPE RE: A–601
A	INDICATE DOOR TYPE– RE: A–601 FOR DOOR SCHEDULE
A	INDICATED WINDOW TYPE. RE: A–601
100	INDICATE ROOM NO.– RE: A–601 FOR ROOM FINISH SCHEDULE.
F.E	LOCATION OF FIRE EXTENGUISHER F.E. TO BE TYPE PL ANS (MINIMUM 3A40 BC)6 TYPE K RATED IN KITCHEN TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH IFC 2021 906.2 AND NEPA 10.
F.D.	FLOOR DRAIN RE: PLUMBING DRAWINGS
F.S.	FLOOR SINK RE: PLUMBING DRAWINGS
======	INDICATES WALL ABOVE

BUILDING TYPE IIB CONSTRUCTION COMBUSTABLE MATERIAL SHALL NOT BE ALLOWED PER IBC 2021 SECTION 602.2

NOTE:
ALL ROOMS TYPE C FINISH EXIT PASSAGERAY TYPE "A" FINISH

GENERAL NOTES:

1. MAIN BUILDING OVERALL DIMENSIONS ARE EDGE OF CONCRETE TO EDGE OF CONCRETE.
2. CONTRACTOR MUST PROVIDE ALUMINUM THRESHOLD (ADA COMPLIANT) AT EXTERIOR DOORS.
3. CONTRACTOR MUST PROVIDE & INSTALL CLEAR ANODIZED ALUMINUM FRAME FOR ALL WINDOWS & DOOR FRAMES (U.N.O.).
4. ALL INTERIOR WALLS ARE TO BE 6" ABOVE CEILING HIGH. (U.N.O.)
5. FOR ALL EQUIPMENT (RE: EQUIPMENT SCHEDULE ON SHEET A–102)
6. ALL WALLS IN STORAGE, RESTROOMS AND WORK AREAS SHALL RECEIVE SMOOTH, NON–ABSORBENT, EASILY CLEANABLE AND LIGHT COLOR FINISH .
7. FOR DOORS, WALLS & WINDOW TYPES (RE: SHEET A–601)
8. ALL DOORS MUST HAVE LANDINGS ON BOTH SIDES, AT THE SAME ELEVATION. EXTERIOR DOOR LANDINGS MAY HAVE A SLOPE OF 1":12" MAX. TYP.
9. G.C. MUST USE NON–ABSORBANT CONCRETE SEALER AT ALL EXPOSED CONCRETE FLOORING.
10. RE: FOUNDATION PLAN FOR CONCRETE CONTROL JOINT.
11. RE: CIVIL DRAWINGS FOR CONCRETE ELEVATION.
12. STRUCTURAL STEEL MEMBERS ILLUSTRATED IN THESE DRAWINGS ARE OF SCHEMATIC & GRAPHICAL NATURE ONLY. CONTRACTOR MUST CONSTRUCT THIS BUILDING FROM SHOP DRAWINGS.
13. FIRE EXTINGUISHERS MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH IFC 2021 SECTION 906.2 AND NEPA 10.
14. PROVIDE FIRE EXTINGUISHERS PER IFC 2021 SECTION 906 .
15. EXIT DOORS SHALL BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT . DOOR HANDLES , PULLS,LATCHES , LOCKS AND OTHER OPERATING DEVICES ON DOORS SHALL NOT REQUIRE TIGHT GRASPING , TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.
16. MAIN FRONT EXIT DOORS REQUIRING THE USE OF A KEY , UNDER IFC 1008.1.8.3 , SHALL HAVE A SIGN READILY VISIBLE STATING "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED" IN ONE INCH LETTERS CONTRASTING BACKGROUND.
17. EXIT SIGNS AND EMERGENCY LIGHTING NEEDED IN PROPER LOCATIONS WITH BACK–UP POWER.
18. ALL BATHROOMS THAT ARE MULTI–STALL OR LARGER THAN 64 SQ.FT SHALL BE EQUIPPED WITH EMERGENCY LIGHTING.



SCALE: 3/16" = 1'–0"

GRAPHIC SCALE

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VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
STORE FLOOR PLAN

DRAWN BY: BM	DATE: 9–15–2021	SHEET: A-101 Rev.0
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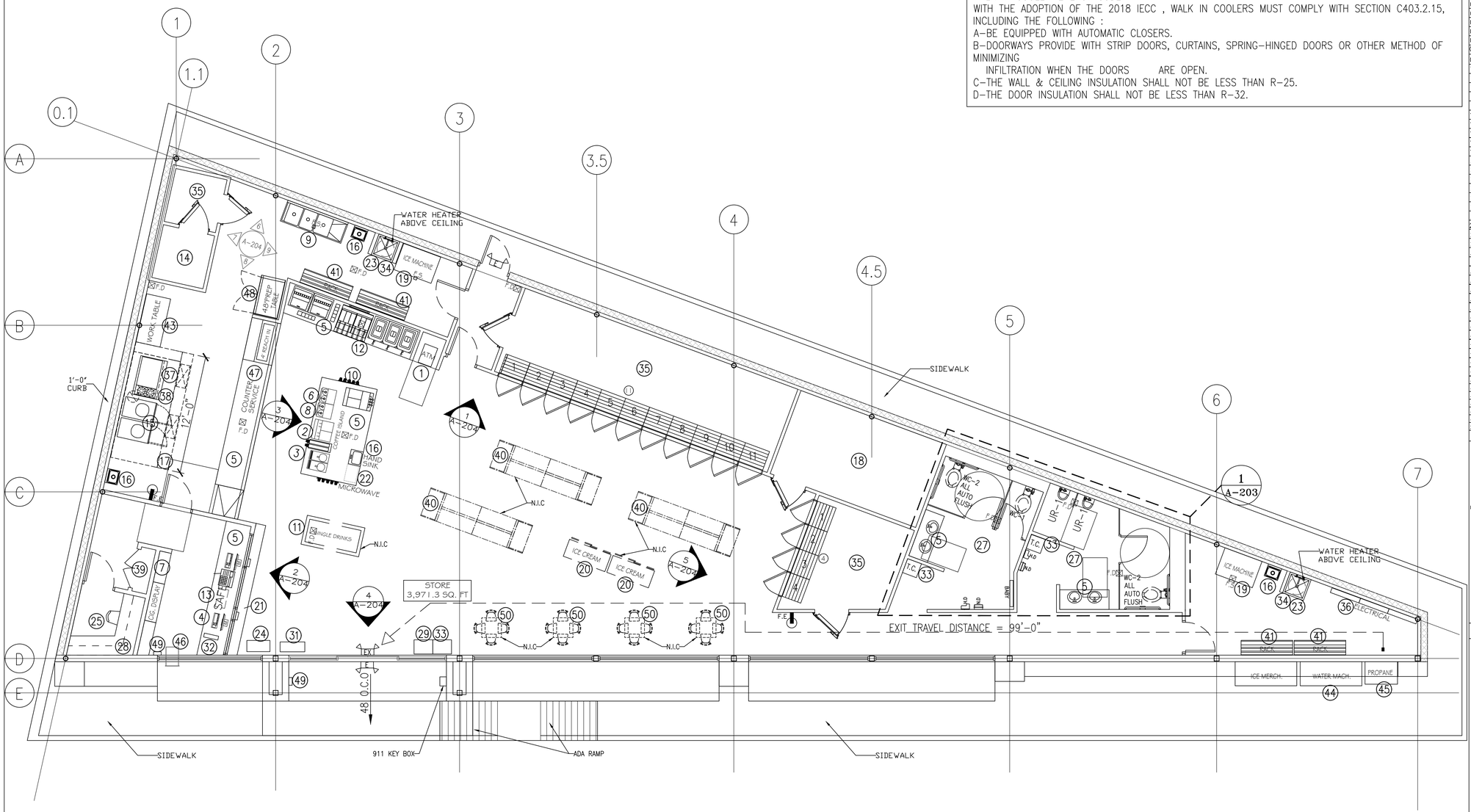

NOTES

WALK IN COOLER–ENERGY CODE :
WITH THE ADOPTION OF THE 2018 IECC , WALK IN COOLERS MUST COMPLY WITH SECTION C403.2.15, INCLUDING THE FOLLOWING :
A–BE EQUIPPED WITH AUTOMATIC CLOSERS.
B–DOORWAYS PROVIDE WITH STRIP DOORS, CURTAINS, SPRING–HINGED DOORS OR OTHER METHOD OF MINIMIZING
INFILTRATION WHEN THE DOORS ARE OPEN.
C–THE WALL & CEILING INSULATION SHALL NOT BE LESS THAN R–25.
D–THE DOOR INSULATION SHALL NOT BE LESS THAN R–32.

STORE KEYED NOTES

01	ATM MACHINE BY OWNER		
02	MILK SHACK		
03	SLUSH MACHINE – (F'REAL MODEL: 11–CSGF–X1–FRRL)		
04	CASH REGISTER		
05	COUNTER, 34" HIGH, GRANITE – CONTRACTOR		
06	3' W. CAPPUCCINO MACHINE – OWNER		
07	12'–0" X 14" D. CIGARETTE RACKS VENDOR		
08	3' W. COFFEE MACHINE – OWNER		
09	3 COMPARTMENT SINK 15"X15"X12"(LXWXD) – CONTRACTOR		
10	CUP–DISPENSER W/ LIDS AND STRAWS – CONTRACTOR		
11	DRINK BOX		
12	6' W. 12 HEAD DRINK DISPENSER W/ ICE (F'REAL MODEL: 11–CSGF–X1–FR2)		
13	FLOOR SAFE		
14	WALK IN FREEZER		
15	2–40 LB FRYERS 15'–2" x 30" AUTO LIFT ELECTRIC		
16	HAND SINK W/ PAPER TOWEL HOLDER – CONTRACTOR		
17	12'–0" HOOD CAPTIVE AIR– CONTRACTOR		
18	BEER CAVE		
19	ICE MAKER MACHINES WXDXH (24X21X27)(ICE–O–MATIC MODEL: GEM0650–PEARL ICE MAKER)		
20	2–ICE MERCHANDISER–(TURBO AIR MODEL: TGF–72F(B))		
21	MEDICINE DISPLAY – CONTRACTOR		
22	MICROWAVE OVEN – AMANA COMERCIAL MICROWAVE MODEL RMS10DS		
23	MOP SINK – CONTRACTOR		
24	NEWSPAPER STAND		
25	OFFICE – CONTRACTOR		
26	PUMPS & CARBONATOR SYSTEM		
27	REST ROOM SPACE WITH EQUIPMENT – CONTRACTOR		
28	CABINETS ABOVE – CONTRACTOR		
29	SHOPPING BASKETS		
30	LOTTO MACHINE		
31	SUNGLASS DISPLAY		
32	TELEPHONE LINE – CONTRACTOR		
33	TRASH RECEPTACLE, LAM. PLASTIC – CONTRACTOR		
34	WATER HEATER ABOVE MOP SINK / ABOVE CEILING (AO–SMITH MODEL: DSE–100)		
35	WALK IN COOLER		
36	ELECTRICAL PANELS		
37	4' FLAT GRILL	– ROYAL RANGE OF CALIFORNIA	RMG 48"
38	2 HEAD BURNER 24" GAS RESTAURANT RANGE – ROYAL RANGE OF CALIFORNIA		RR–2G12
39	CIGARETTES STORAGE		
40	DISPLAY SHELVING		
41	STANDING RACKS		
42	CHECK CASHIING REGISTER		
43	STAINLESS STEEL WORKTABLE	ADVANCE TABCO	SS303–30
44	REFILL WATER MACHINE		
45	PROPANE TANK CAGE		
46	NIGHT DROP BOX		
47	4'–0" SERVICE–DELI COOK		
48	PREP TABLE COOLER		
49	EMERGENCY DISCONNECT FOR FUEL PUMPS SHUTT OFF (PER IFC2021 CH:23–SEC 2303.2		
50	TABLES & CHAIRS SEATING		

LEGEND :

- (1) INDICATE STORE EQUIPMENT
- F.E – LOCATION OF FIRE EXTINGUISHER F.E. TO BE TYPE PL ANS (MINIMUM 3A40 BC)6 TYPE K RATED IN KITCHEN TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH IFC 2021 906.2 AND NEPA 10.
- TRAVEL DISTANCE ROUT
- ELEVATION# / SHEET# – INTERIOR ELEVATIONS SEE A–204
- EX – COMBINATION EXIT AND EMERGENCY LIGHT FIXTURE (2–26 WATTS, 120 VOLTS) WITH BATTERY BACK–UP
- E – EMERGENCY LIGHT FIXTURE (2–26 WATTS, 120 VOLTS) WITH BATTERY BACK–UP
- O.C.C – OCCUPANT LOAD
- N.I.C – NOT IN CONTRACT

COOLER NOTES

COOLER WALL CONSTRUCTION NOTES (IBC 2021 SECTION 2603.3)

2021 IBC SECTION 2603.3.ALSO, FOR COOLERS UNDER 400 SQUARE FEET WITHIN NON–SPRINKLED BUILDING, MANUFACTURER INFORMATION SHALL SHOW THAT THE FOAM NON– SPRINKLED BUILDINGS, MANUFACTURER INFORMATION SHALL SHOW THAT THE FOAM INSULATION DOES NOT EXCEED 4 INCHES IN THICKNESS WITH A MAXIMUM FLAME SPREAD OF 75, AND THAT THE FOAM PLASTIC IS COVERD BY A METAL FACING NOT LESS THAN .032 INCH–THICK ALUMINUM OR CORROSION–RESISTANT STELL WITH A MINIMUM BASE METAL THICKNESS UP TO 10 10 INCHES IS PERMITTED WHERE PROTECTED BY A THERMAL BARRIER. ALL SPECIFICATION SHH BE ESTABLISHED BY AN ACCREDITED TESTING AGENCY SUCH AS UL.

THERMAL BARRIER

USE 5/8" GYP.BD TYPE X ON ALL WALLS SURROUNDING MAIN COOLERS, AND IN CEILING ABOVE COOLER ROOF.

GENERAL NOTES

1– ALL EQUIPMENTS SHALL BE CERTIFIED OR COMPATIBLE BY ONE OF THE FOLLOWING: NSF, ULEPH, ETL OR SIMILARLY CERTIFIED FOR SANITATION OR COMPARABLE.
2– WALL AND CEILING COLOR SHALL HAVE MIN 40 LRV
3– CEILING IN KITCHEN AND FOUNTAIN DRINKS AREA SHOULD BE WHITE COLOR, SMOOTH, EASILY CLEARABLE AND NON–ABSORBENT SHEET ROCK PAINTED GLOSS TYPE.
4– WALLS IN KITCHEN AND BEHIND ALL SELF SERVICE DRINKS STATIONS ARE BEIGE COLORS CERAMIC TILE OR FRP FULL WALL HEIGHT. SEE A–204
5– THE STORE AND RESTAURANT ARE OPERATED BY SAME OWNER.
6– VERIFY EXACT REQUIREMENTS OF ELECTRICAL EQUIPMENT WITH OWNER FOR THIS PROJECT. IN CASE OF A DISCREPANCY BETWEEN THE ACTUAL SELECTION OF EQUIPMENT AND THOSE IN DRAWINGS, ADVISE THE OWNER BEFORE WORK BEGINS.
FIELD VERIFY ROUGH–IN LOCATIONS FOR ALL LIGHTS AND EQUIPMENT BEFORE INSTALLATION.
7– INSTALL A 2" CONDUIT FROM THE STORE TO CANOPY FOR CAMERA AND SPEAKER.
8– CONTRACTOR SHALL PROVIDE HEALTH DEPARTMENT WITH PHYSICAL SAMPLES OF CEILING, WALL TILES, WALL COVERING,
PAINT CHIPS IF OTHER THAN WHITE PAINT IN AREAS WHERE ROOM FINISH CODE APPLIES (FOOD, BEVERAGE, PREP, STOVE
SERVICE, DISPLAY, WARE–WASHING, ETC.) FOR VERIFICATION CODE COMPLIANCE. LABEL EACH SAMPLE INCLUDING
PROJECT NUMBER, NAME AND CODE NUMBER OF THE COLOR TILE, ... ETC.

9– CONTRACTOR SHALL PROVIDE STAINLESS STEEL PLATE BEHIND COOKING EQUIPMENTS UNDER HOOD
10– CONTRACTOR SHALL INSTALL BACKFLOW PREVENTOR AT ALL BEVERAGE DISPENSERS MANUFACTURER SPECIFICATIONS OF INSTALLATION GUIDE ATTACHED IN SPECIFICATIONS

NOTES

CEILING IN FOOD PREPARATION, FOOD STORAGE, FOOD SERVICE, UTENSIL WASHING AND UTENSIL STORAGE TO BE SMOOTH, NONABSORBENT, EASILY CLEANABLE, AND LIGHT COLORED (40 LRV OR GREATER).

NOTE

THE WALL BEHIND ALL THE SELF–SERVE DRINK STATIONS WILL HAVE LIGHT COLORED IMPERVIOUS WALL COVER CERAMIC UP TO CEILING

NOTES

1–FOOD ESTABLISHMENT PERMIT AND INSPECTION REQUIRED PRIOR TO OPERATION SEE NOTE ON A–601 .
2–AT LEAST ONE CERTIFIED MANAGER SHALL BE PRESENT AT ALL TIMES AT ALL FOOD EMPLOYEES SHALL HAVE A FOOD HANDLER CARD ON SITE FOR INSPECTION .

SCALE: 3/16" = 1'–0"

GRAPHIC SCALE

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1919 WEST VILLA MARIA ROAD
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EQUIPMENT & LIFE SAFETY PLAN

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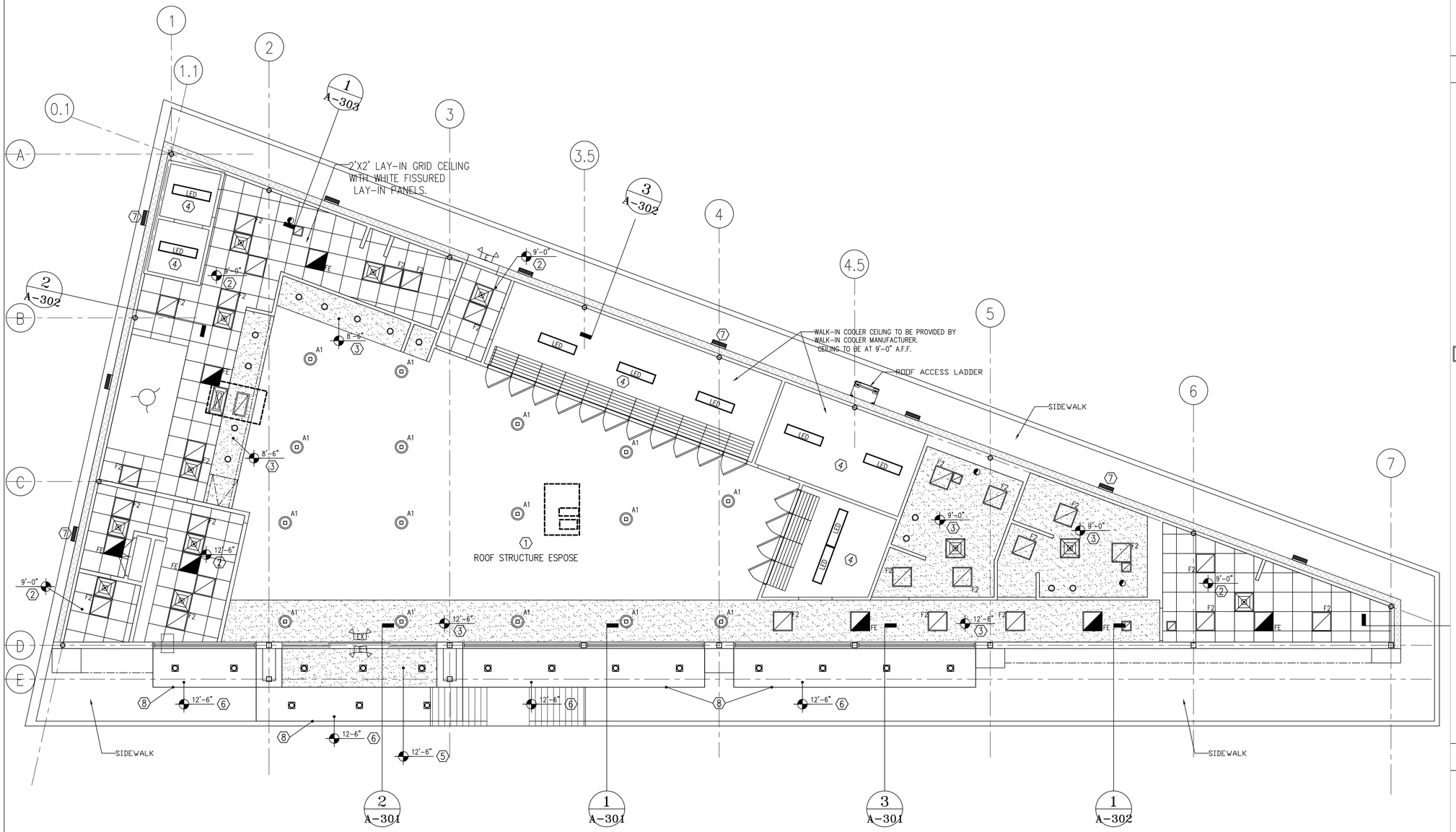

KEYED NOTES

1. ROOF STRUCTURE EXPOSED
2. 2'x2' VINYL FACED CEILING TILE @ 9'-0" A.F.F. SMOOTH NON-ABSORBANT & EASILY CLEANABLE & LIGHT IN COLOR (40 LRV OR GREATER) & SMOOTH
3. FURR-DOWN SOFFIT BOARD CEILING PRIME & PAINTED WITH 2 COAT LATEX SMOOTH (40 LRV OR GREATER). STANDARD COLOR COORDINATE SELECTION WITH OWNER
4. COOLER CEILING BY MANUFACTURER
5. CANOPIES SOFT STUCCO
6. METAL PANELS
7. EXTERIOR LIGHT FIXTURE TYP.
8. LINE OF CANOPY ABOVE

LEGEND

- A1 — LED STAR LIGHTING 150W LED HIGH BAY 5,000K
- FE — 2'x2' 50W LED STAR LIGHTING WITH BATTERY PACK RE: ELECTRICAL DWG.
- F2 — 2'x2' 50W LED STAR LIGHTING RE: ELECTRICAL DWG.
- GYP. BOARD CEILING
- 2'x2' CEILING GRID
- 2'x2' RETURN A/C GRILL
- 1'x4' SURFACE MOUNTED LED FIXTURE
- OUTDOOR WALL MTD. INC. LT. FIXTURE (2-75 WATT, 120V)
- 20W LED RECESSED CAN DOWN LIGHT
- CANOPY LIGHT 16" SQUARE SPECULAR REFLECTOR TEMPERED GLASS LENS
- EX — COMBINATION EXIT AND EMERGENCY LIGHT FIXTURE (2-26 WATTS, 120 VOLTS) WITH BATTERY BACK-UP
- E — EMERGENCY LIGHT FIXTURE (2-26 WATTS, 120 VOLTS) WITH BATTERY BACK-UP
- J — "J" BOX
- 2'X2' A/C VENT AIR SUPPLY (RE: MACHANICAL PLANS)
- EXHAUST FAN (RE: MACHANICAL PLANS)
- CEALING ELEVATION
- HOOD LIGHT FIXTURE

GENERAL NOTES

1. ALL LIGHT FIXTURES ARE LED. RE: ELECTRICAL DRAWINGS.

SCALE: 3/16" = 1'-0"

GRAPHIC SCALE

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REFLECTED CEILING PLAN

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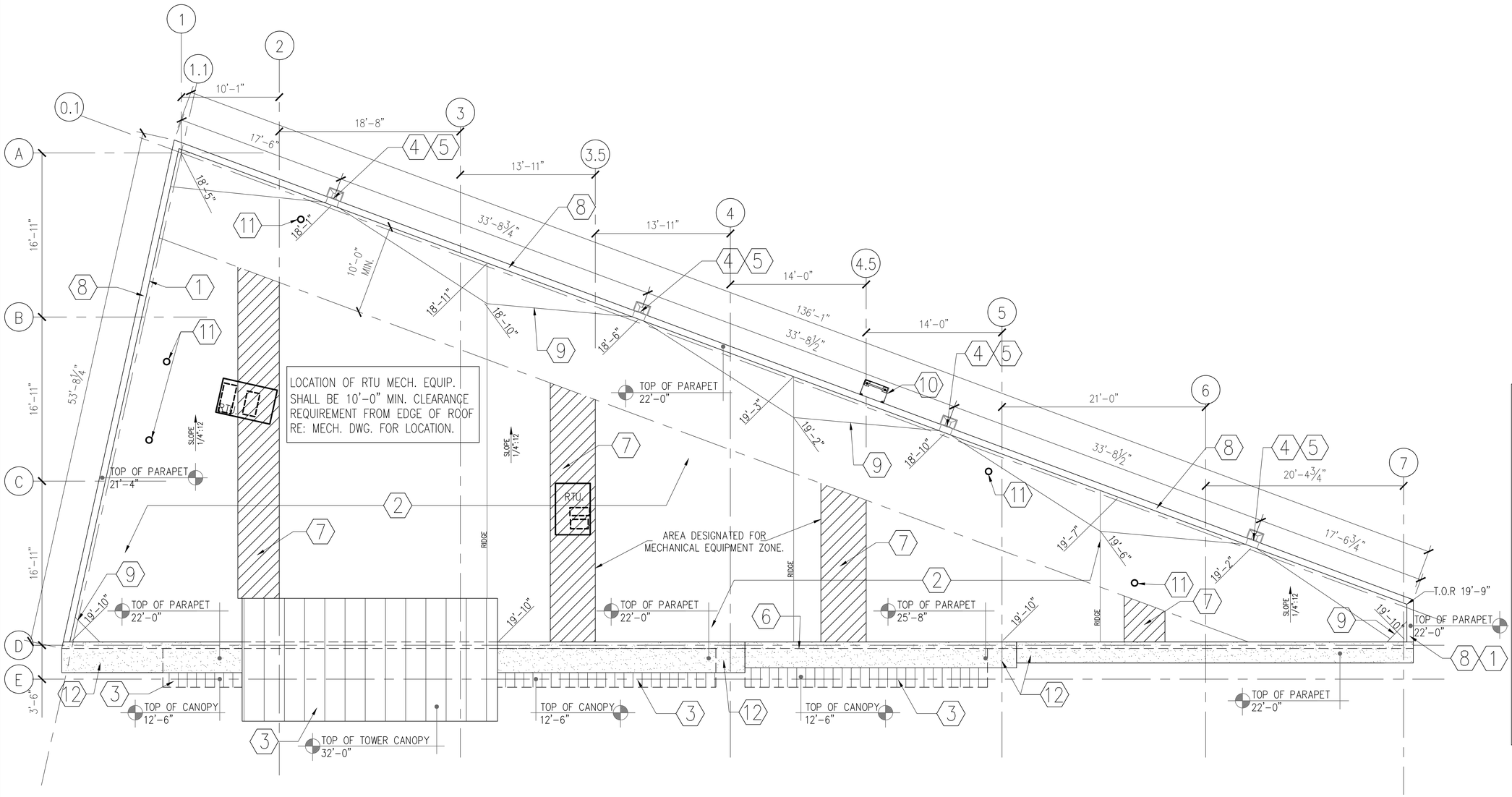

KEYED NOTES

1. PARAPET WALL (REFER TO ELEVATIONS FOR HEIGHT)
2. 60 MIL. T.P.O. ROOFING SYSTEM 4" RIDING INSULATION OVER METAL DECK
3. CANOPY
4. SCUPPER
5. DOWNSPOUTS 6"X6" PAINTED (TYPICAL)
6. WALL BELOW
7. MECHANICAL AREA
8. METAL CAP GALVANIZED (TYP.)
9. ROOF CRICKET
10. ACCESS LEDDER
11. EXHAUST DUCT RE: MECHANICAL DRAWINGS
12. STANDING SEAM METAL ROOFING

NOTES:

ALL ROOF TOP EQUIPMENT TO BE SUPPLIED WITH CURBS AND MOUNTED WITH CANT STRIP & CRICKET AROUND IT.

AS PER 2015 IBC OR LATEST OVERFLOW DRAINS HAVING THE SAME SIZE AS THE ROOF DRAINS SHALL BE INSTALLED WITH THE INLET FLOW LINE LOCATED 2" ABOVE THE LOW POINT OF THE ROOF.

BUILT UP ROOFING SYSTEM WITH FLASHING SHEET EXTENDING UP PARAPET AND TERMINATED UNDER COPING.

ROOF CONTRACTOR TO USE JOHNS MANVILLE SINGLE PLY TPO 45 MILL MECHANICALLY FASTENED ROOF SYSTEM (NO SUBSTITUTES)

INSTALLATION OF ROOFING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

ALL WOOD USED ON ROOF DECK TO BE PRESSURE TREATED ,FIRE RATED.

FIRE RETARDANT WOOD TO BE USED IN LOCATIONS AS ALLOWED PER SECTION 603.1. – IBC 2015

ROOF TO HAVE A MINIMUM SLOPE OF 1/4" PER 1'–0" IN A HORIZONTAL RUN

ALL ROOF MOUNTED EQUIPMENT SHALL NOT EXCEED PARAPET HEIGHT.

CLASS C ROOF SYSTEM AS REQUIRED FOR TYPE 2–B CONSTRUCTION PER IBC 2015 TABLE 1505.1, SECTION 1505.4 INSULATION ENTIRELY ABOVE DECK: HIGH ALBEDO ROOF REQUIRED, 3–YEAR AGED SOLAR REFLECTANCE = 0.55, THERMAL EMITTANCE = 0.75(E).

NOTE:
ROOF SHALL HAVE A COOL ROOF COVERING THE EXTERIOR ROOF SURFACE SHALL MEET THE CRITERIA OF 2015 IECC TABLE C402.3 FOR 3 YEAR AGED 0.55 SOLAR REFLECTANCE & 0.75 THERMAL EMITTANCE OR A 3 YEAR AGED SOLAR REFLECTANCE INDEX 64. TEST METHOS AS FOLLOW:

AGED SOLAR REFLECTANCE TEST METHOD:
ASTM C1549, ASTM E903 ASTM E1918 OR CRRC–1.

AGED THERMAL EMITTANCE TEST METHOD:
ASTM C1317, ASTM E408 OR CKRC–1 SOLAR REFLECTANCE INDEX (SRI) IN ACCORDANCE WITH ASTM E1980.

NOTE:
1–ROOF SYSTEM ,WALLS SYSTEM AND FIXTURES SHALL COMPLY WITH MANUFACTURER SPECIFICATIONS AND REQUIREMENTS

2–MECHANICAL EQUIPMENT GUARDS – SECTION 1013.6–2015 IBC GUARDS SHALL BE PROVIDED WHERE APPLIANCES, EQUIPMENT, FANS, ROOF HATCH OPENING OR OTHER COMPONENTS THAT REQUIRE SERVICE ARE LOCATED WITHIN 10 FEET (3048 MM)OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THAN 30 INCHES (762MM) ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF 21–INCH DIAMETER (533MM) DIAMETER SPHERE. THE GUARD SHALL EXTEND NOT LESS THAN 30 INCHES BEYOND EACH END OF SUCH APPLIANCE, EQUIPMENT, FAN OR COMPONENT.

3–ALL ROOF ELEVATIONS SHOWN ARE FROM TOP OF FINISH FLOOR.

SCALE: 3/16" = 1'–0"

GRAPHIC SCALE

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ROOF PLAN

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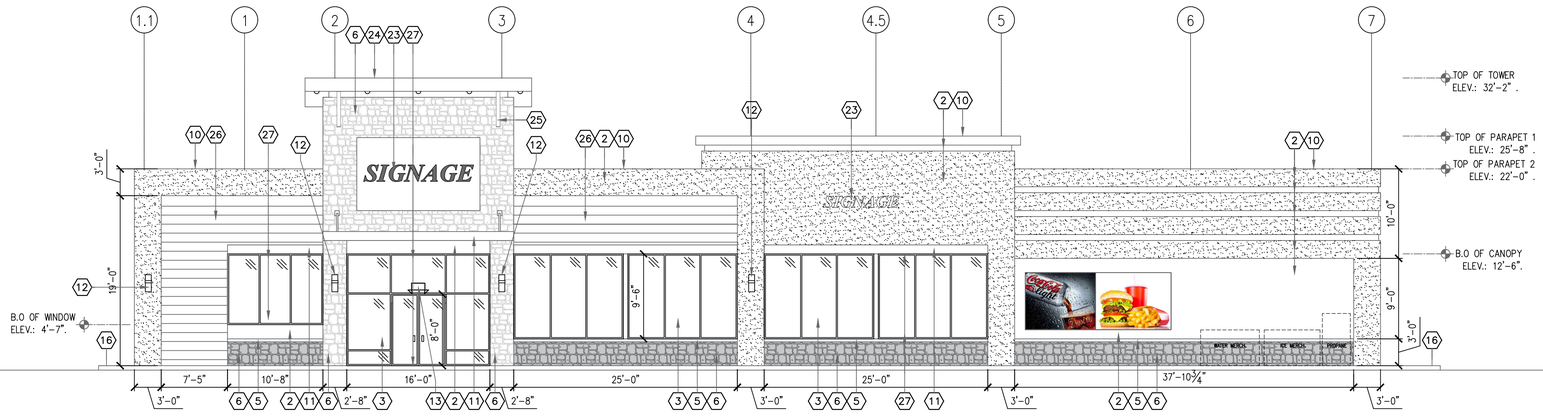
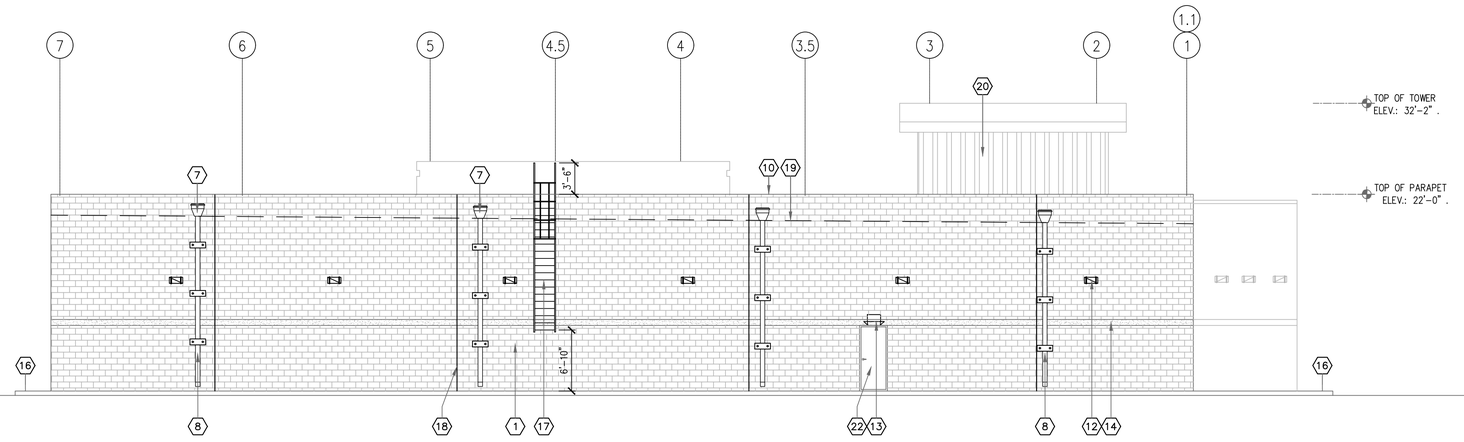


1 **NORTH ELEVATION**



2 **SOUTH ELEVATION**

KEYED NOTES

1	8"x16" SMOOTH FACE CMU BLOCK. SEALED AND PAINTED (TYP.)
2	7/8" HARD COAT STUCCO RES: GENERAL NOTES
3	ALUMINUM TINTED INSULATED GALSS STORE FRONT
4	NOT USED
5	3" CAST STONE
6	2" STONE VENEER.
7	SCUPPER & CONDUCTOR HEAD
8	PRE-FINISHED ALUMINUM 6"x6" DOWNSPOUT
9	NOT USED
10	PRE-FINISHED 25 GA. AL. CAP FLASHING
11	METAL CANOPY
12	WALL PACK LIGHT FIXTURE (RE: ELECTRICAL)
13	EXTERIOR EMERGENCY LIGHT FIXTURE (RE: ELECTRICAL)
14	BOND BEAM @ 7'-4" CMU WALLS (TYP) RE: STRUCTURAL
15	NOT USED
16	5" THICK SIDEWALK
17	METAL LADDER
18	EXPANSION JOINT (TYP.)
19	60 MIL. T.P.O. ROOFING SYSTEM
20	METAL SIDING PANEL
21	AWNING (NOT USED)
22	HOLLOW METAL DOOR , PAINTED
23	SIGNAGE (BY OWNER)
24	METAL TRIM
25	METAL BRACE
26	WOOD SIDING
27	EXTERIOR SECURITY SHUTTER, BY OWNER

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

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EXTERIOR ELEVATIONS NORTH AND SOUTH

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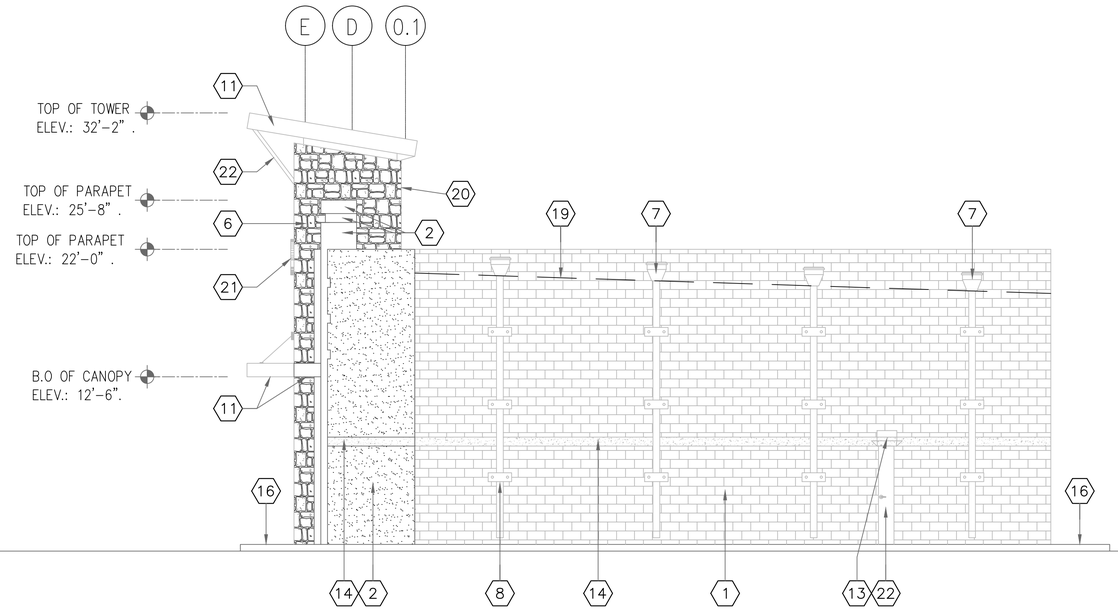

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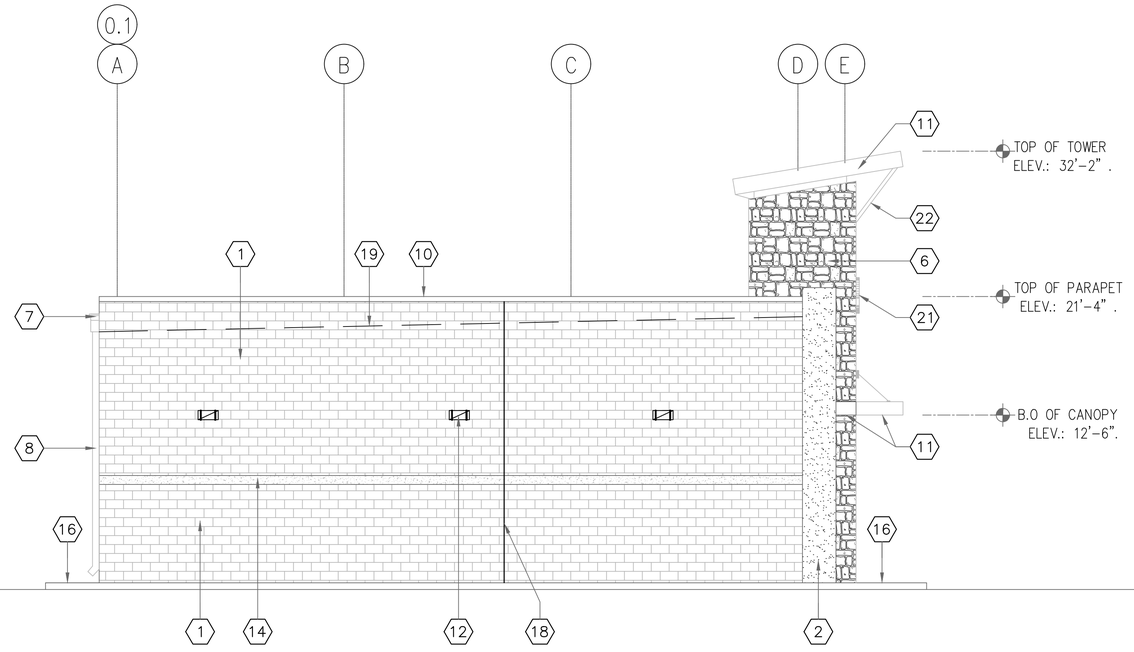

2 **EAST ELEVATION**

KEYED NOTES

1	8"x16" SPLIT FACE CMU BLOCK. SEALED AND PAINTED (TYP.)
2	7/8" HARD COAT STUCCO RES: GENERAL NOTES
3	NOT USED
4	NOT USED
5	NOT USED
6	2" STONE VENEER
7	SCUPPER & CONDUCTOR HEAD
8	PRE-FINISHED ALUMINUM 6"x6" DOWNSPOUT
9	NOT USED
10	PRE-FINISHED 25 GA. AL. CAP FLASHING
11	METAL CANOPY
12	WALL PACK LIGHT FIXTURE (RE: ELECTRICAL)
13	EXTERIOR EMERGENCY LIGHT FIXTURE (RE: ELECTRICAL)
14	BOND BEAM @ 7'-4" CMU WALLS (TYP)
15	NOT USED
16	5" THICK SIDEWALK
17	METAL LADDER
18	EXPANSION JOINT (TYP.)
19	60 MIL. T.P.O. ROOFING SYSTEM
20	METAL SIDING PANEL
21	SIGNAGE (BY OWNER)
22	METAL BRACE

SCALE: 3/16" = 1'-0"

GRAPHIC SCALE

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EXTERIOR ELEVATIONS WEST AND EAST

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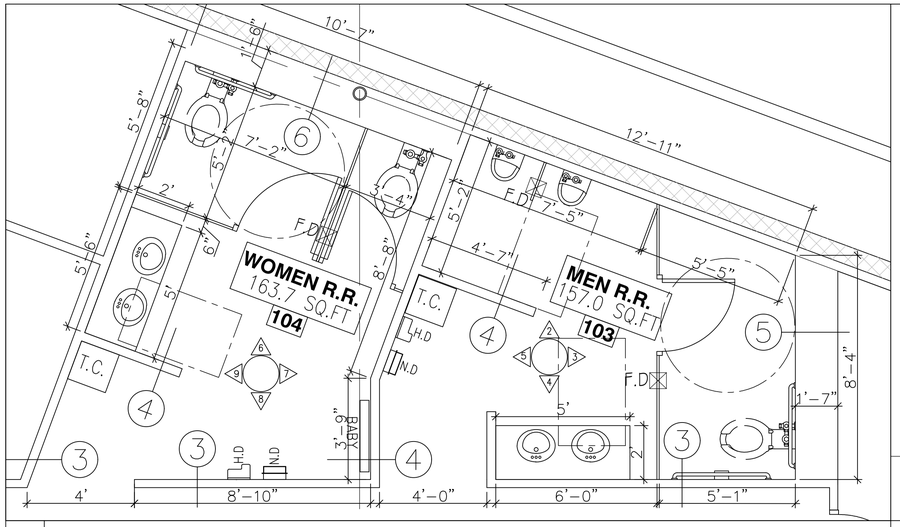
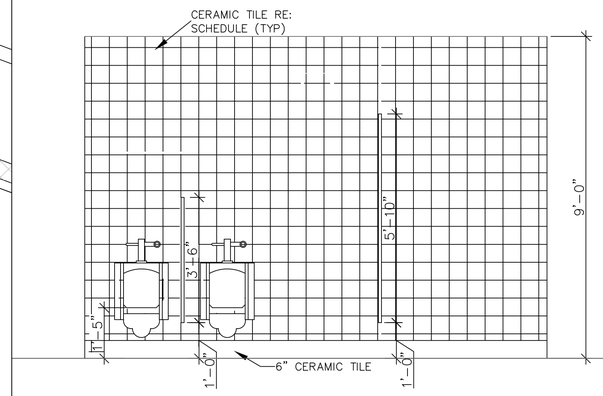
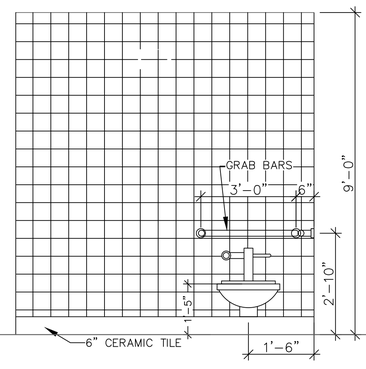


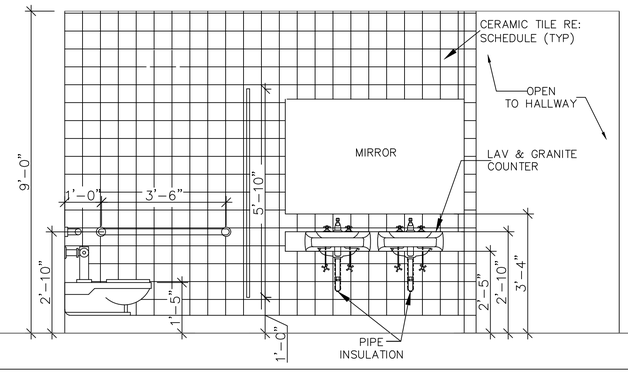
1 RESTROOMS FLOOR PLANS SCALE: 3/8" = 1'-0"



2 MEN RESTROOM



3 MEN RESTROOM



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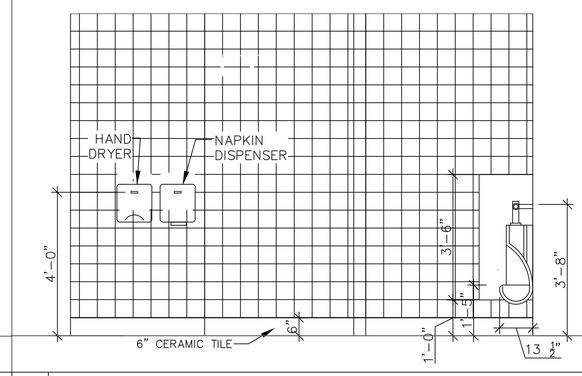
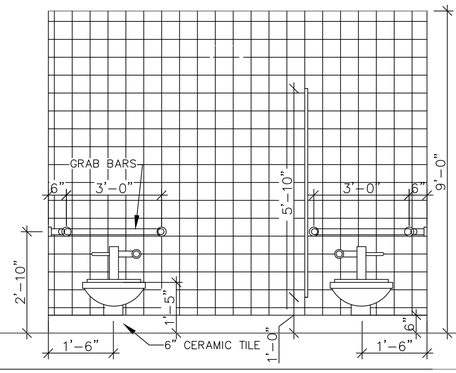
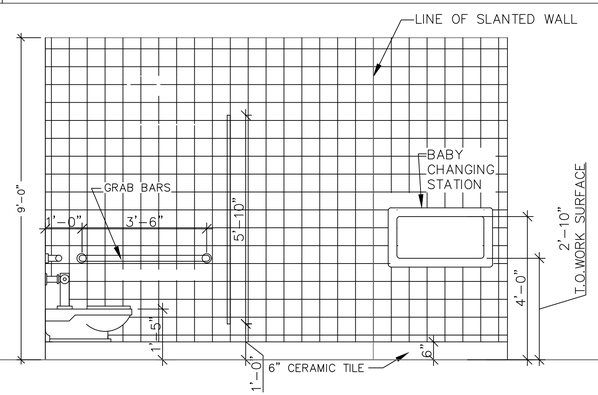


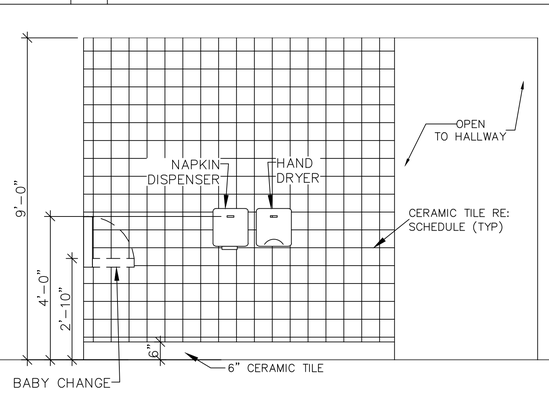
5 MEN RESTROOM



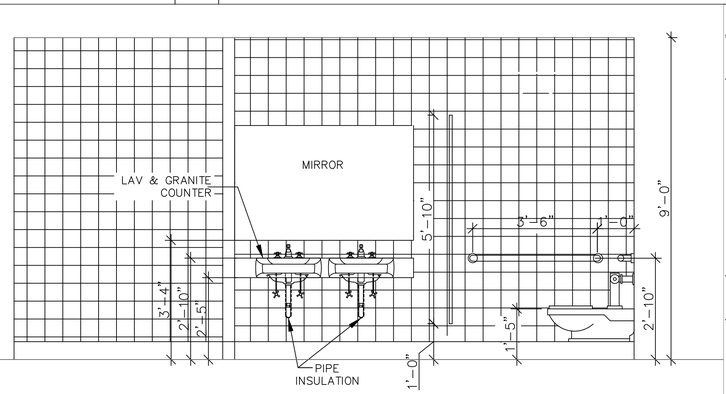
6 WOMAN RESTROOM



7 WOMEN RESTROOM



8 WOMEN RESTROOM



9 WOMEN RESTROOM

GENERAL NOTES:

1. LAVORATORY AND WATER CLOSETS ARE TO HAVE LEVER TYPE CONTROLS. WATER CLOSET CONTROLS SHALL BE LOCATED ON THE SIDE OPPOSITE TO THE NEAREST WALL.
2. A.D.A. HANDICAP SYMBOLS (Δ W/ BRAILLE, GRADE 2) TO BE LOCATED WITHIN 2' ADJACENT TO DOOR LATCH & 60" TO CENTERLINE AS REQUIRED BY LOCAL AUTHORITY.
3. GRAB BAR AND SEAT SHALL WITHSTAND A LOAD OF NOT LESS THAN 250 POUNDS APPLIED AT ANY ONE POINT.
4. PROVIDE 1 1/2" CLEARANCE BETWEEN GRAB BAR AND WALL.
5. GRAB BAR ON SIDE WALL TO BE OFFSET 12" MAX. FROM REAR WALL.
6. HOT WATER AND DRAIN PIPES UNDER LAVORATORY SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT.
7. RESTROOM FLOORS & WALLS SHALL HAVE A SMOOTH, HARD, NON-ABSORBENT SURFACE THAT EXTENDS UPWARD ONTO THE WALLS AT LEAST 6 INCHES. (AS PER IBC 2015 SEC. 1210.1)

HEALTH NOTES:

1. G.C. MUST USE A MIN. 6" HIGH COVERED SANITARY BASE AT ALL WET LOCATIONS.

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

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED
PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
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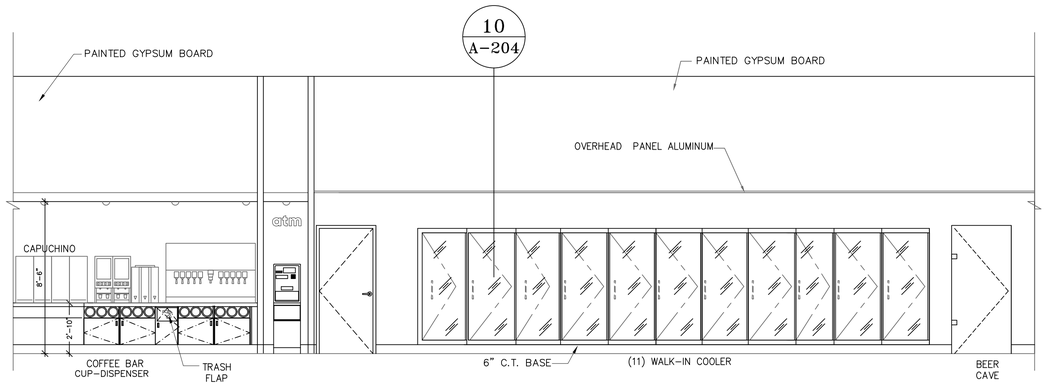
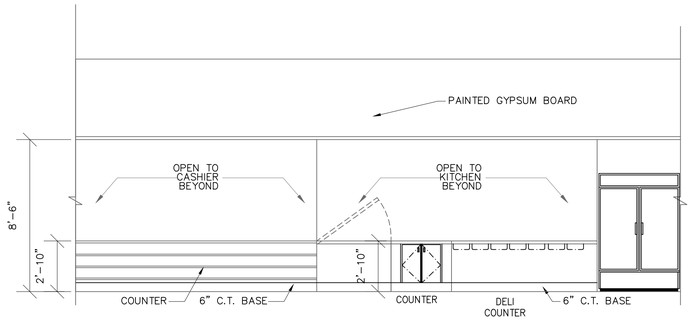
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
RESTROOMS ELEVATIONS

DRAWN BY: BM	DATE: 9-15-2021	SHEET: A-203 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

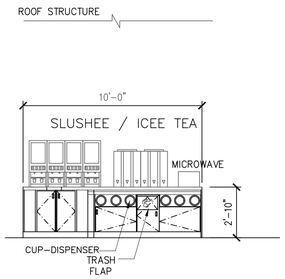


1 COOLER ELEVATION

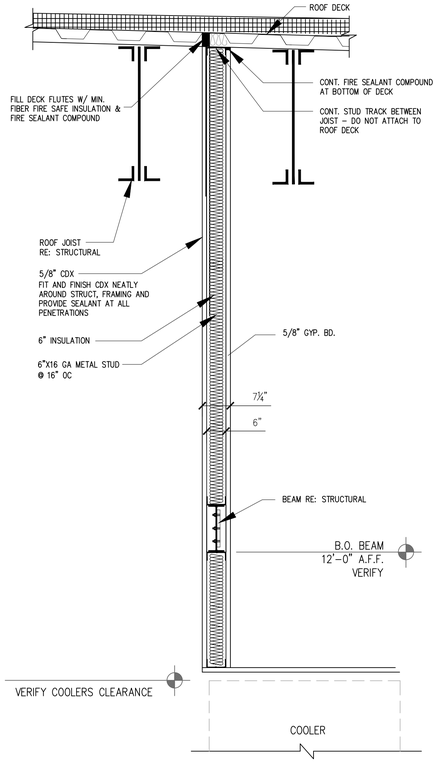


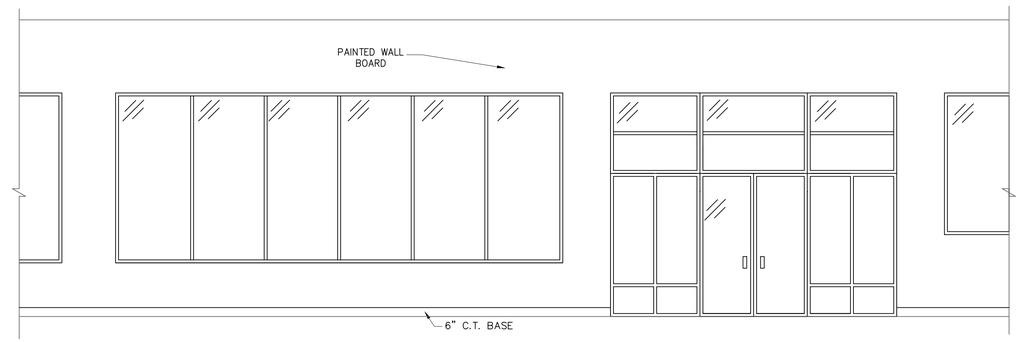
2 CASHIER AND KITCHEN ELEVATION

NOTE:
BEHIND SERVICE COUNTERS TO HAVE LIGHT COLORED IMPERVIOUS WALL COVER LIKE TILE TO HEIGHT OF TALLEST DRINK MACHINE MINIMUM. SEE NOTE #4 SHEET# A-102

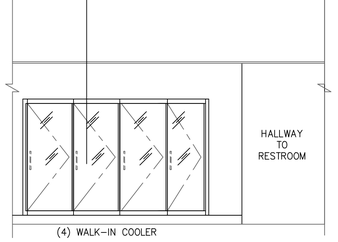


3 DRINK COUNTER ELEVATION

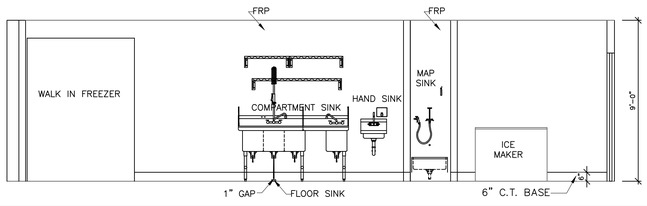




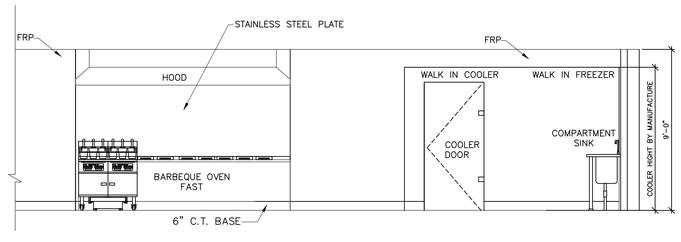
4 MAIN ENTRANCE ELEVATION



5 COOLER ELEVATION

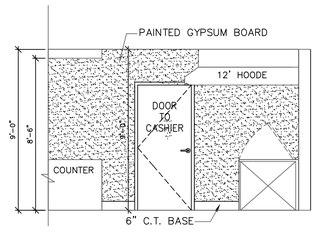


6 KITCHEN ELEVATION

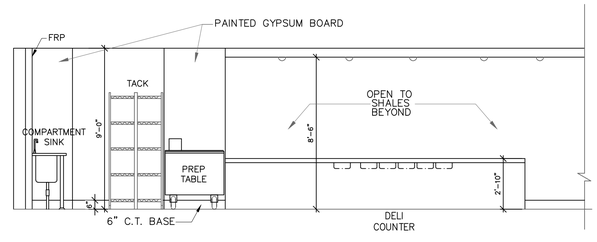


7 KITCHEN ELEVATION

10 FURR DOWNS DETAIL @ WALK IN COOLER N.T.S



8 KITCHEN ELEVATION



9 KITCHEN ELEVATION

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

GRAPHIC SCALE

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VILLA MARIA GAS STATION
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BRYAN , TX 77807
INTERIOR ELEVATIONS

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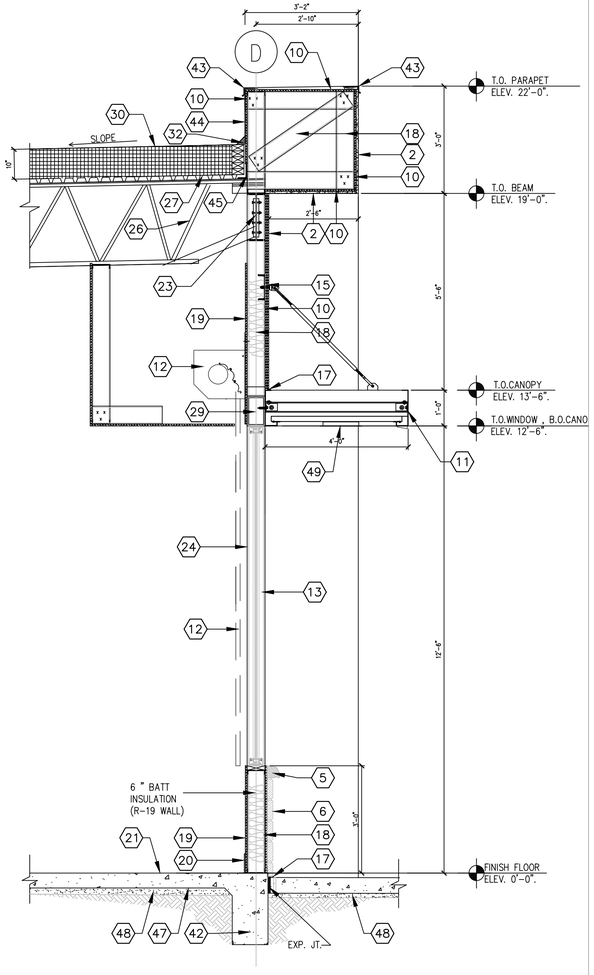
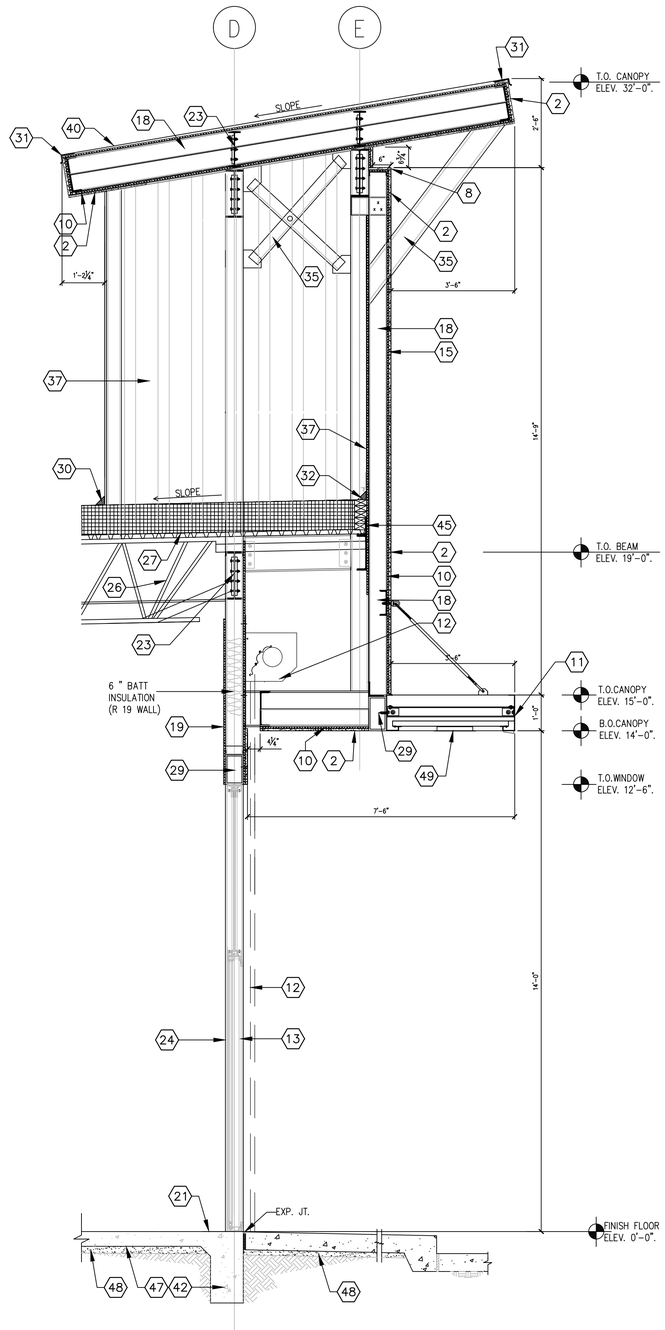


1 **EXTERIOR FRONT WALL**

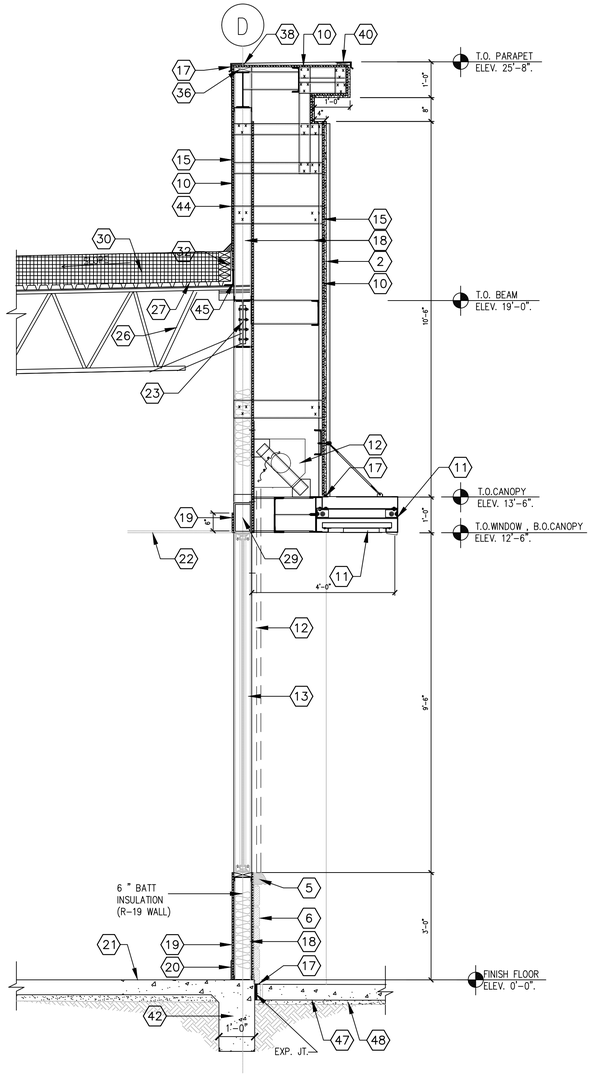


2 **EXTERIOR FRONT WALL @ TOWER**

NOTE:
FOR SECTION DETAILS NOT SHOWN RE: STRUCTURAL SECTIONS (TYP)

NOTE:
ALL WOOD USED SHALL BE FIRE RETARDANT TREATED (TYP).

NOTE:
SIDE WALK FLUSH WITH F.F.E AT DOORS. (TYP).



3 **EXTERIOR FRONT WALL**

KEYED NOTES

1	8"x8"x16" CMU
2	7/8" HARD COAT STUCCO RES: GENERAL NOTES
3	BOND BEAM @ 7'-4" CMU WALLS (TYP)
4	E.I.F.S. TRIM
5	3" CAST STONE
6	2" STONE VENEER.
7	2" BRICK VENEER.
8	CORNER REINF. ,TYP.
9	PRE-FINISHED ALUMINUM 6"x6" DOWNSPOUT AND SCUPPER HEAD
10	5/8" EXT., FIRE RESISTANT PLYWOOD SHEATHING
11	METAL CANOPY
12	EXTERIOR STORE FRONT SECURITY SHUTTERS (BY OWNER)
13	ALUM. AND GLASS STORE FRONT RE: SCH.
15	WATER RESISTANT BARRIER.
16	SELF FURRING LATH & CEMENT PLASTER.
17	CONTINUOUS METAL FLASHING.
18	METAL STUD @ 16" O.C., UNLESS OTHERWISE NOTED (U.N.O.), RE: STRUCT. DWGS
19	5/8" GYP. BOARD TYPE X
20	6" BASE , RE: SCH
21	FINISH FLOOR
22	CEILING RE: RCP.
23	STEEL BEAM RE: STRUCT.
24	COLUMN RE: STRUCT
25	L4"x4"x5/16"x6" RE: STRUL FOR SPACING
26	STEEL JOIST RE: STRUCT.
27	METAL DECK , RE: STRUCT.
28	OUTRIGGER AT COLUMN RE STRUC.
29	TUBE STEEL CONT. RE: STRCUT.
30	60MIL-TPO ROOFING SYSTEM OVER 4"RIGID INSULATION OVER METAL ROOF DECK (TYP)
31	CAP OR COUNTERFLASHING.
32	CANT STRIP.
33	BASE FLASHING SHOULD EXTEND 8" ABOVE HIGHEST ANTICIPATED WATERLINE.
34	PRE-FINISHED 25 GA. GALVZ. CAP FLASHING TO MATCH STUCCO COLOR.
35	STRUCTURE BRACING AT COLUMN RE: STRUC. DWGS.
36	SHAPED WOOD NAILER
37	METAL WALL PANEL RE: STRUCT. DWGS.
38	30 LBS FELT
39	PLATE (TYP.) RE:STRUC.
40	STANDING SEAM ROOF OVER 5/8" TREATED PLYWOOD
41	METAL TRIM
42	RENF. CONC. SLAB AND FOOTING RE: SRUCT. DWGS
43	METAL COPING
44	PARAPET FLASHING
45	STEEL ANGLE RE: STRUCT DWGS
46	REINF. CMU BOND BEAM W/2 #5, CONT, RE:STRUCT DWGS
47	VAPOR BARRIER RE: SOILS REPORT
48	2" SAND BED
49	LIGHT FIXTURE, RE: ELECT. DWGS.

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

GRAPHIC SCALE

STATE OF TEXAS
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VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
EXTERIOR WALL SECTIONS

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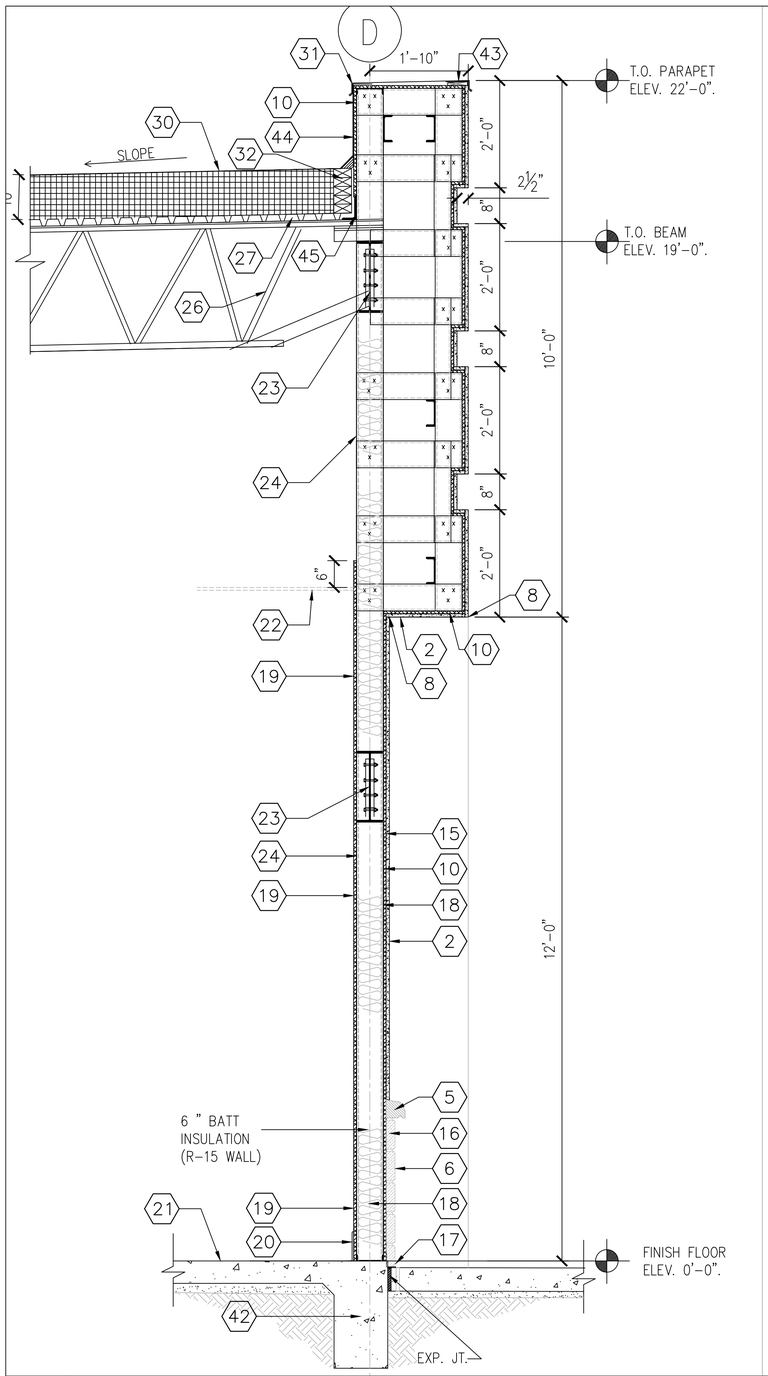
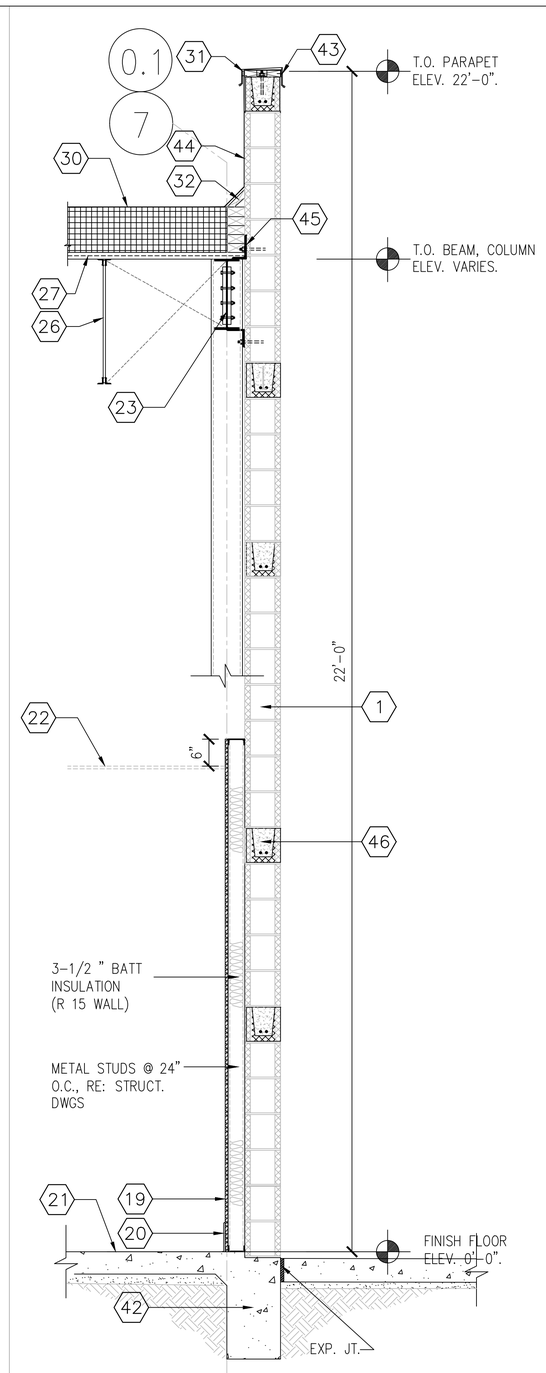
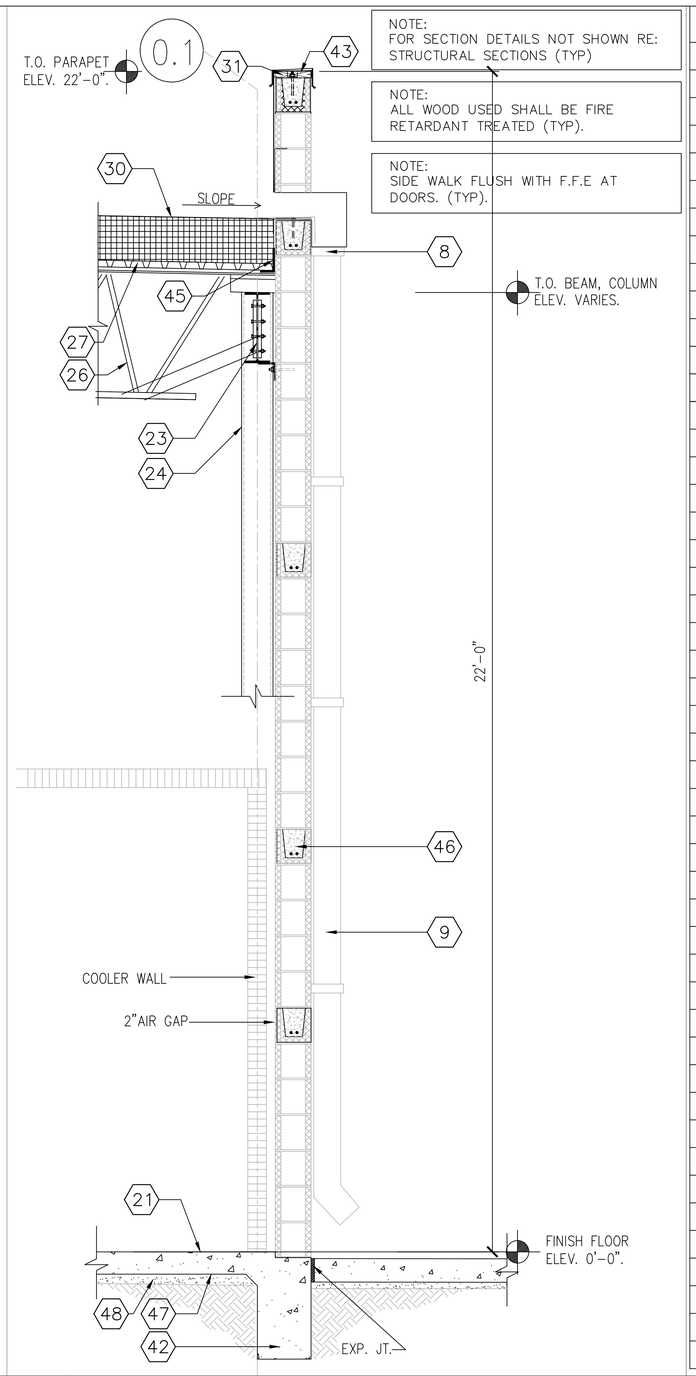


1 EXTERIOR SIDE WALL



2 EXTERIOR SIDE WALL



3 EXTERIOR BACK WALL

KEYED NOTES

1	8"x8"x16" CMU
2	7/8" HARD COAT STUCCO RES: GENERAL NOTES
3	BOND BEAM @ 7'-4" CMU WALLS (TYP)
4	E.I.F.S. TRIM
5	3" CAST STONE
6	2" STONE VENEER.
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8	CORNER REINF. ,TYP.
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10	5/8" EXT., FIRE RESISTANT PLYWOOD SHEATHING
11	METAL CANOPY, BY MANUFACTURER
12	EXTERIOR STORE FRONT SECURITY SHUTTERS
13	ALUM. AND GLASS STORE FRONT RE: SCH.
15	WATER RESISTANT BARRIER.
16	SELF FURRING LATH & CEMENT PLASTER.
17	CONTINUOUS METAL FLASHING.
18	METAL STUD @ 16" O.C, UNLESS NOTED OTHERWISE (U.N.O)., RE: STRUCT. DWGS
19	5/8" GYP. BOARD TYPE X
20	6" BASE , RE: SCH
21	FINISH FLOOR
22	CEILING RE: RCP.
23	STEEL BEAM RE: STRUCT.
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25	L4"x4"x5/16"x6" RE: STRU. FOR SPACING
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29	TUBE STEEL CONT. RE: STRCUT.
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37	METAL WALL PANEL RE: STRUCT. DWGS.
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SCALE: 3/4" = 1'-0"

GRAPHIC SCALE

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12/14/2022

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BRYAN , TX 77807

EXTERIOR WALL SECTIONS

DRAWN BY: BM	DATE: 9-15-2021	SHEET: A-302 Rev.0
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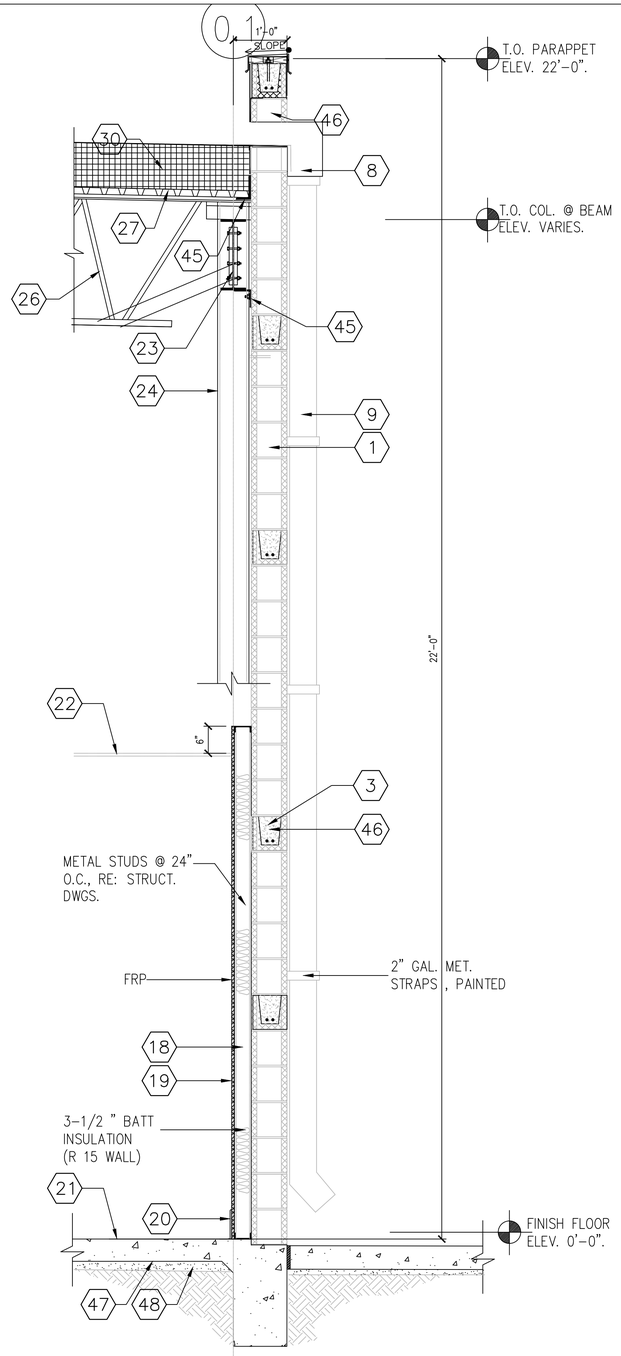
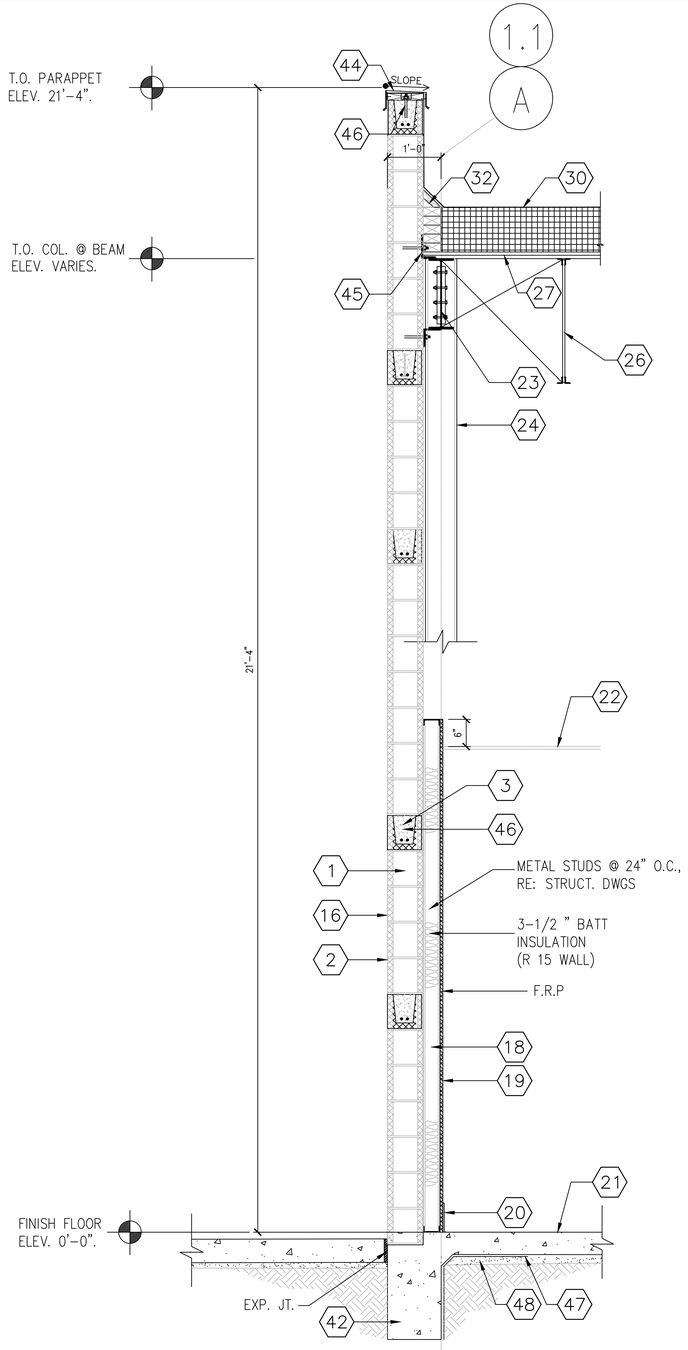


1 EXTERIOR REAR WALL



2 EXTERIOR SIDE WALL

NOTE:
FOR SECTION DETAILS NOT SHOWN RE: STRUCTURAL SECTIONS (TYP)

NOTE:
ALL WOOD USED SHALL BE FIRE RETARDANT TREATED (TYP).

NOTE:
SIDE WALK FLUSH WITH F.F.E AT DOORS. (TYP).

KEYED NOTES

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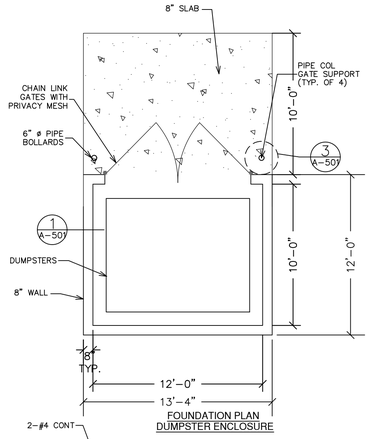
EXTERIOR WALL SECTIONS

DRAWN BY: BM	DATE: 9-15-2021	SHEET: A-303 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



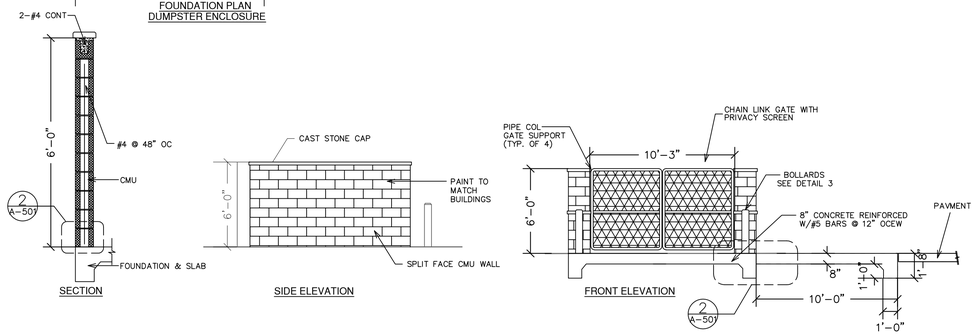
FOUNDATION PLAN
DUMPSTER ENCLOSURE

NOTES

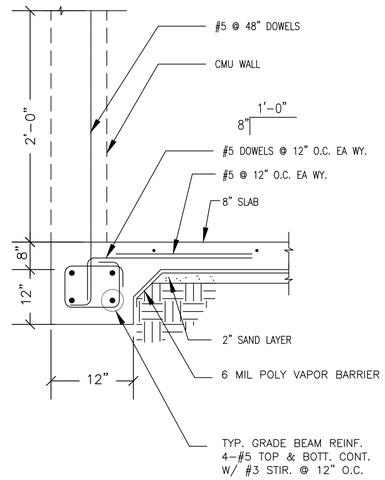
1. BEFORE ENCLOSURE CONSTRUCTION/MODIFICATION BEGINS CONTACT SOLID WASTE , AT (979)209-5900 FOR AN ON-SITE REVIEW.
2. IF ANY GANGES ARE MADE TO THE ENCLOSURE PLAN DURING THE CONSTRUCTION PHASE PLEASE CONTACT SOLID WASTE TO REVIEW MODIFICATIONS.

NOTES

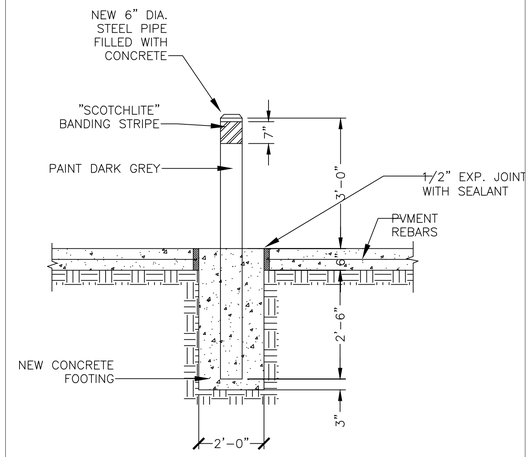
1. INSTALL GATE TO SWING CLEAR OF PAVEMENT
2. PROVIDE BOLTS TO SECURE GATES IN FULL OPEN OR CLOSED POSITION
3. SEAL AND PAINT TO MATCH BUILDING.
4. DUMPSTER ENCLOSURE DESIGNED FOR ULTIMATE DESIGN WIND SPEED 139 MPH, RISK CATEGORY II (SECTION 1609.3)
5. SEE STRUCTURAL DRAWINGS FOR FOUNDATION AND WALL DETAILS.



1 **DETAIL** SCALE: NTS — TYPICAL DUMPSTER PLAN & ELEVATIONS



2 **DETAIL** SCALE: NTS — FOR DUMPSTER ENCLOSURE GRADE BEAM



3 **DETAIL** SCALE: NTS — TYPICAL BOLLARD DETAIL

N.T.S

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
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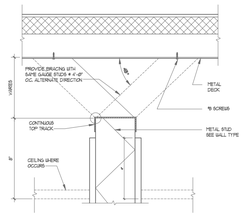
11302 TANNER RD.
HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

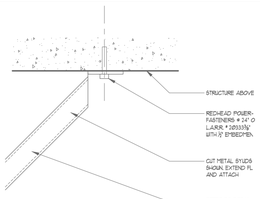
DUMPSTER DETAILS

DRAWN BY: BM	DATE: 9-15-2021	SHEET: **A-501** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

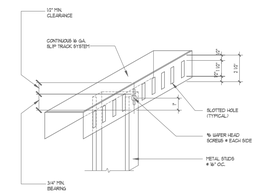
DETAILS



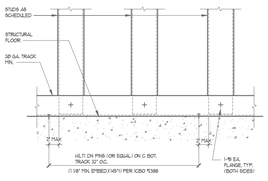
7 METAL STUD BRACING



8 BRACING AT SLAB



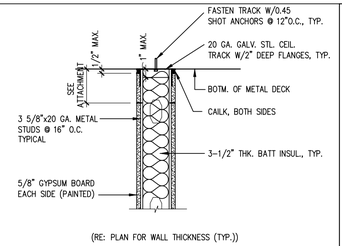
9 SLIP TRACK DETAIL



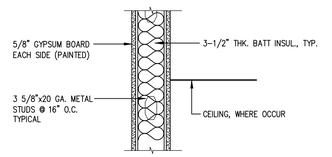
NOTE:
1.HILTI KWIK BOLTS (OR EQUAL) @ 1.10" EMBEDMENT X STD. WASHERS MAY BE SUBSTITUTED FOR EACH HILTI "DN" PN8 (ICBO 4627)

10 BOTTOM TRACK ANCHORAGE

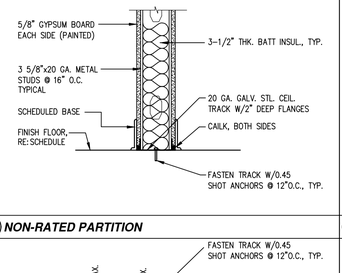
WALL TYPES



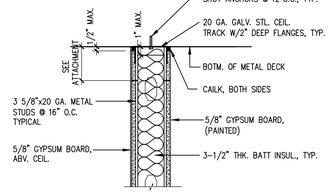
(RE: PLAN FOR WALL THICKNESS (TYP.))



(RE: FINISH SCHEDULE FOR FINISHES SEE: A24.0 (TYP.))



1 NON-RATED PARTITION



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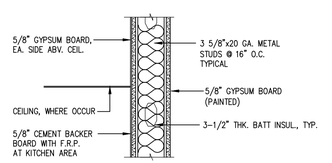

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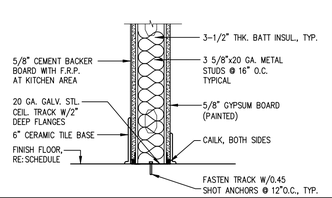
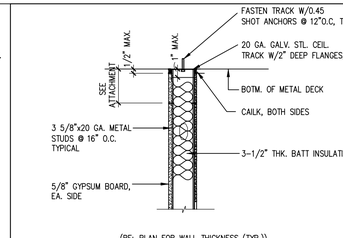


2 NON-RATED WALL



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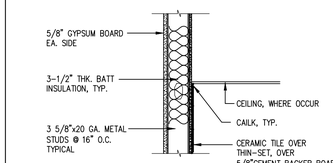

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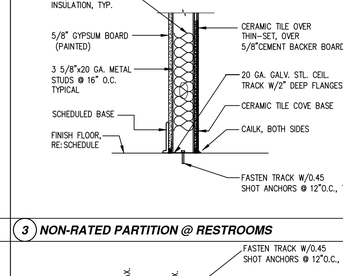
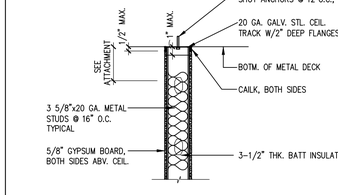


3 NON-RATED PARTITION @ RESTROOMS



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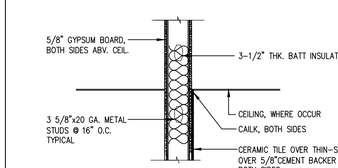

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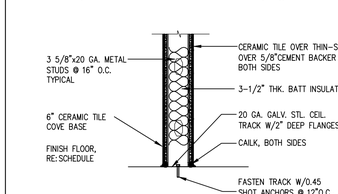

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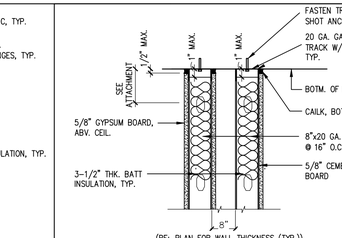

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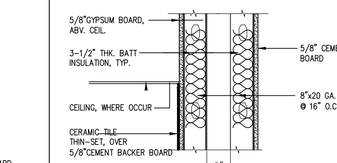

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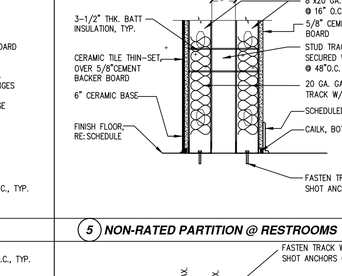
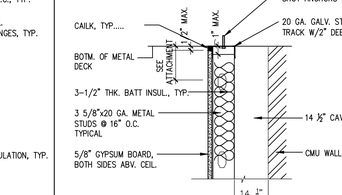


5 NON-RATED PARTITION @ RESTROOMS



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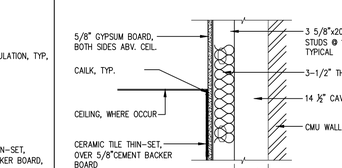

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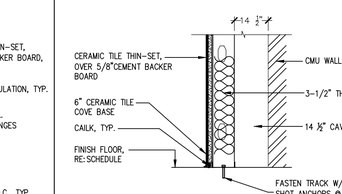
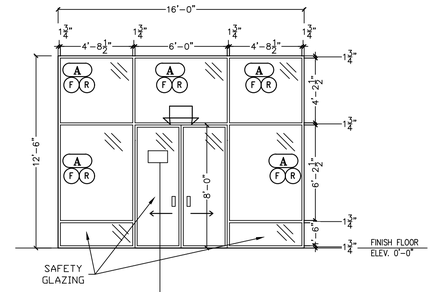


6 CHASE WALL

WINDOW SCHEDULE

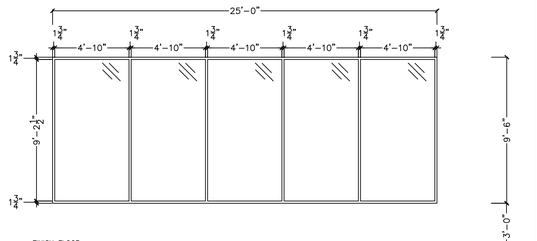


NOTE#1:
1. G.C. TO POST A DURABLE SIGN ON OR ADJACENT TO EXIT DOOR STATING "THIS EXIT TO REMAIN UNLOCKED WHEN THIS BUILDING IS OCCUPIED".

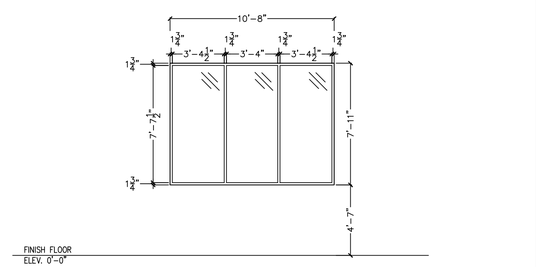
HARDWARE BY DOOR SUPPLIER.

REQUIRE MORE THAN 8.5 LBS TO OPERATE.

A ALUMINUM STOREFRONT AUTOMATIC SLIDING GLASS DOORS

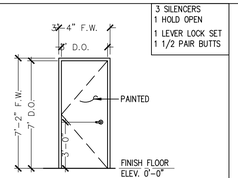


B TYPE STORE FRONT WINDOW



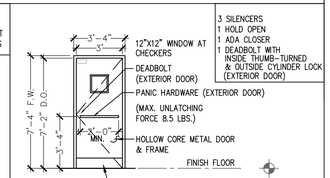
B TYPE STORE FRONT WINDOW

DOOR SCHEDULE



3 SILENCERS
1 HOLD OPEN
1 LEVER LOCK SET
1 1/2 PAIR BUTTS

B PLASTIC FACE S.C. WD. (NON RATED)



3 SILENCERS
1 HOLD OPEN
1 ADA CLOSER
1 DEADBOLT WITH INSIDE THUMB-TURNED & OUTSIDE CYLINDER LOCK (EXTERIOR DOOR)

C H.C METAL DOOR

GENERAL NOTES: DOORS

EGRESS DOORS

GENERAL CONTRACTOR SHALL POST A READILY-VISIBLE DURABLE SIGN ON THE EGRESS SIDE OR ADJACENT TO THE DOOR STATING: "THIS EXIT TO REMAIN UNLOCKED WHEN THIS BUILDING IS OCCUPIED." THE SIGN SHALL BE IN LETTERS 1 INCH HIGH ON CONTRASTING BACKGROUND.

HARDWARE

1. ALL HARDWARE SHALL BE PROVIDED & INSTALLED BY DOOR SUPPLIER.
2. CLOSERS SHALL COMPLY WITH ADA REQUIREMENTS AND SHALL NOT REQUIRE MORE THAN 8.5 LBS TO OPERATE.
3. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS ARE REQUIRED TO BE ACCESSIBLE (IBC 2015 SEC. 1008.1.9, AND SEC.1008.1.9.3)

ADA STANDARD NOTES (DOORS)

TAS SECTION 4.13--DOORS

SECTION 4.13.4– DOUBLE--LEAF DOORWAYS
DOORWAYS WITH TWO INDEPENDENTLY OPERATED LEAVES SHALL HAVE AT LEAST ONE LEAF THAT MEETS THE REQUIREMENTS IN 4.13.5 AND 4.13.6.

SECTION 4.13.5– CLEAR WIDTH
DOORWAYS SHALL PROVIDE A CLEAR OPENING OF 32" MINIMUM, WITH THE DOOR OPEN 90°.
1. CLEAR OPENING SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND STOP.
2. OPENINGS MORE THAN 24" IN DEPTH SHALL PROVIDE A CLEAR OPENING OF 36" MINIMUM.
EXCEPTION: DOORS NOT REQUIRING FULL USER PASSAGE, SUCH AS SHALLOW CLOSETS, SHALL HAVE A CLEAR OPENING OF 20" MINIMUM.

SECTION 4.13.6– MANEUVERING CLEARANCES AT DOORS
PROVIDE LEVEL AND CLEAR MANEUVERING AREA AT DOORS AS FOLLOWS:
FRONT APPROACH PULL SIDE – 18" MIN. BESIDE STRIKE EDGE.
FRONT APPROACH PUSH SIDE – 0" BESIDE STRIKE EDGE.
12" IF DOOR HAS BOTH A CLOSER AND A LATCH.
HINGE SIDE APPROACH PULL SIDE – 60" MIN. WIDTH 36" MIN. BESIDE STRIKE EDGE.
HINGE SIDE APPROACH PUSH SIDE – 42" MIN. WIDTH.
42" MIN. WIDTH IF DOOR HAS BOTH A CLOSER AND A LATCH.
LATCH SIDE APPROACH PULL SIDE – 48" MIN. WIDTH AND 24" MIN. BESIDES STRIKE EDGE.
54" MIN. WIDTH IF DOOR HAS A CLOSER.
LATCH SIDE APPROACH PUSH SIDE – 42" MIN. WIDTH AND 42" MIN. BESIDES STRIKE EDGE.
54" MIN. WIDTH IF DOOR HAS A CLOSER.

SECTION 4.13.8– THRESHOLDS AT DOORWAYS
MAXIMUM THRESHOLD HEIGHT: 1"(s"AT EXTERIOR SLIDING DOOR).RAISED THRESHOLDS AND FLOOR LEVEL CHANGES SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.

SECTION 4.13.9– DOOR HARDWARE
HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
1. LEVER--OPERATED MECHANISMS, PUSH--TYPE MECHANISMS, AND U--SHAPE HANDLES ARE ACCEPTABLE DESIGNS.
2. WHEN SLIDING DOORS ARE FULLY OPEN, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.
3. HARDWARE REQUIRED FOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISHED FLOOR.

SECTION 4.13.11– DOOR OPENING FORCE
THE MAXIMUM FORCE FOR PUSHING OR PULLING OPEN A DOOR SHALL BE AS FOLLOWS:
1. FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATION AUTHORITY.
2. OTHER DOORS:
A.EXTERIOR HINGED DOORS: NOT REQUIRED
B.INTERIOR HINGED DOORS: 5 LBF.
C.SLIDING OR FOLDING DOORS: 5 LBF.
THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT MAY HOLD THE DOOR IN A CLOSED POSITION.

WINDOW LEGEND

(T) TEMPERED GLAZING (F) FIXED (O) OPERABLE (R) REGULAR

FINISH SCHEDULE

ROOM	FLOOR	BASE	WALL	CEILING
100–DISPLAY AREA	CERAMIC TILE	6" CERAMIC BASE	PAINTED GYPSUM BOARD	OPEN TO ROOF STRUCTURE
101–CASHIER AREA	CERAMIC TILE	6" CERAMIC BASE	PAINTED GYPSUM BOARD COLOR TO BE SELECTED BY OWNER	2x2 V.C.T. WHITE COLOR
102–HALLWAY	CERAMIC TILE	6" CERAMIC BASE	PAINTED GYPSUM BOARD	2x2 V.C.T. WHITE COLOR
103–MEN RR	CERAMIC TILE	6" CERAMIC TILE BASE	8"x2 2" CERAMIC TILE TO CEILING COLOR TO BE 40 OR GRATER LRV.	SHEET ROCK WHITE GLOSS PAINT
104–WOMEN RR	CERAMIC TILE	6" CERAMIC BASE	8"x2 2" CERAMIC TILE TO CEILING COLOR TO BE 40 OR GRATER LRV.	SHEET ROCK WHITE GLOSS PAINT
105–OFFICE AREA	CERAMIC TILE	6" CERAMIC BASE	PAINTED GYPSUM BOARD COLOR TO BE SELECTED BY OWNER	2x2 V.C.T. WHITE COLOR
106–KITCHEN AREA	CERAMIC TILE	6" CERAMIC BASE	F.R.P. WITH GYPSUM BOARD WHITE COLOR TO THE CEILING	2x2 V.C.T. WHITE COLOR
107–COOLER	SEALED SMOOTH FINISH CONCRETE	NONE	COOLER INSULATION (REFER TO COOLER NOTE ON SHEET A–001)	COOLER INSULATION (REFER TO COOLER NOTE ON SHEET A–001)
108–BEAR CAVE	SEALED SMOOTH FINISH CONCRETE	NONE	COOLER INSULATION (REFER TO COOLER NOTE ON SHEET A–001)	COOLER INSULATION (REFER TO COOLER NOTE ON SHEET A–001)
109–MAINTENANCE ROOM	SEALED SMOOTH FINISH CONCRETE	6"CERAMIC TILE BASE	F.R.P. WITH GYPSUM BOARD WHITE COLOR TO THE CEILING	2x2 V.C.T. WHITE COLOR

BATHROOM GENERAL NOTES:

1. LAVATORY AND WATER CLOSETS ARE TO HAVE LEVER TYPE CONTROLS. WATER CLOSET CONTROLS SHALL BE LOCATED ON THE SIDE OPPOSITE THE NEAREST WALL.
2. A.D.A. HANDICAP SYMBOLS (LW/BRAILLE, GRADE 2) TO BE LOCATED WITHIN 2" ADJACENT TO DOOR LATCH & 60" TO CENTERLINE AS REQUIRED BY LOCAL AUTHORITY.
3. GRAB BAR AND SEAT SHALL WITHSTAND A LOAD OF NOT LESS THAN 250 POUNDS APPLIED AT ANYONE POINT.
4. PROVIDE 1-1/2" CLEARANCE BETWEEN GRAB BAR AND WALL.
5. GRAB BAR ON SIDE WALL TO BE OFFSET 12" MAX. FROM REAR WALL.
6. HOT WATER AND DRAIN PIPES UNDER LAVATORY SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT.
7. ACCESSIBLE RESTROOM FLOORS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE THAT EXTENDS UPWARD ONTO THE WALLS AT LEAST 6 INCHES. (AS PER IBC 2015 SEC. 1210.2.1)

HEALTH NOTES:

1. G.C. MUST USE A MIN. 6" HIGH COVERED SANITARY BASE AT ALL WET LOCATIONS.

N.T.S

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY	REVISIONS	
DATE	ISSUED FOR	DESCRIPTION
5–16–22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
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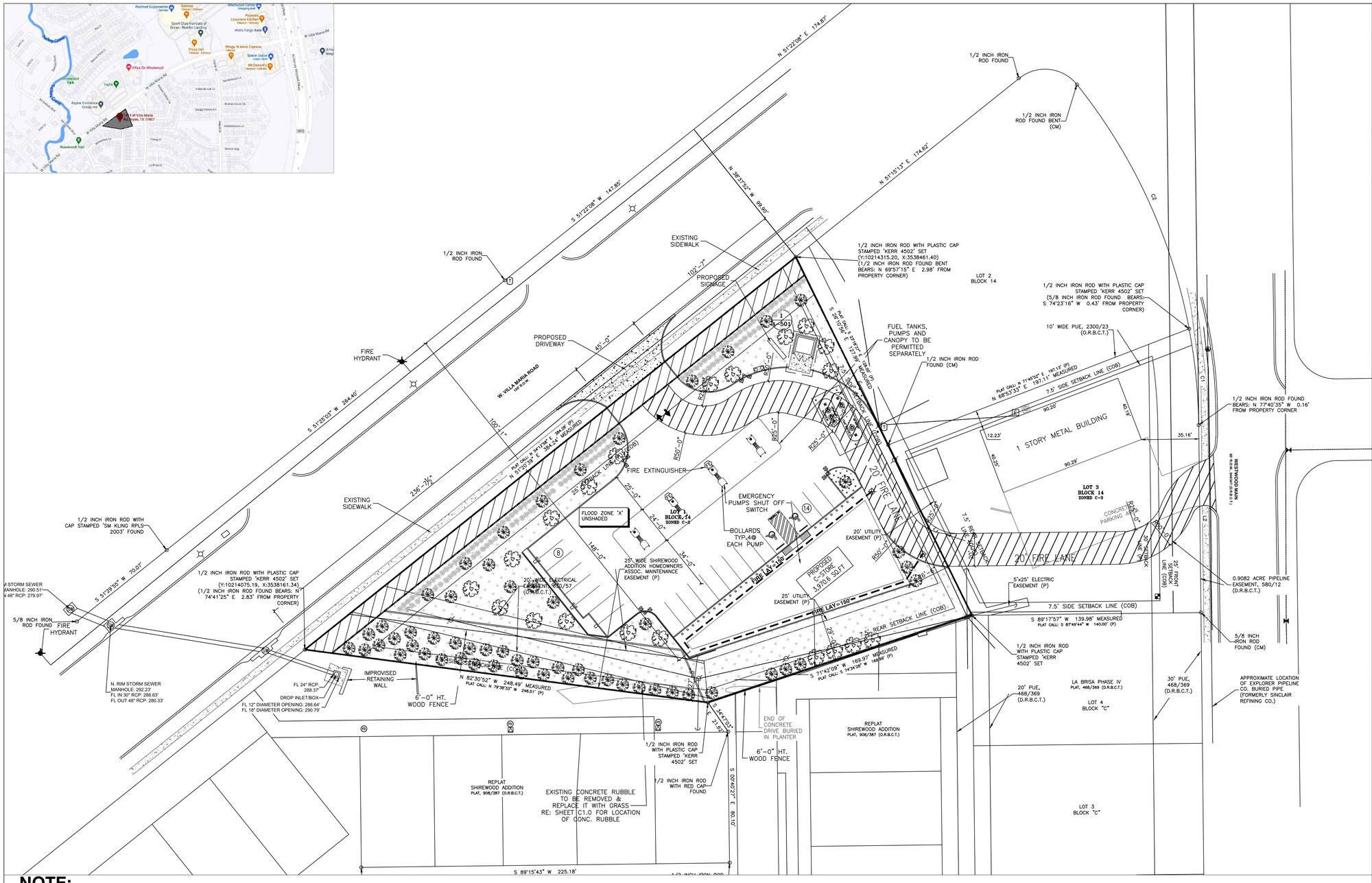
HOUSTON, TEXAS 77041
TEL. (281) 580–4585
FAX (281) 580–4399
FIRM # F–11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

WALL TYPE, DOOR, WINDOW, FINISH SCHEDULE

DRAWN BY: BM | DATE: 9–15–2021 | SHEET: A-601 Rev.0
CHECKED BY: RSK | PROJ. NO.: VR151003.317.4



GENERAL NOTES: (FIRE)

A. GENERAL

1. CURB LOCATED BETWEEN APPROVED FIRE LANE – TOW–AWAY–ZONE SIGN SHALL BE PAINTED RED OR A RED STRIPE SHALL BE PLACED ALONG THE PAVEMENT WHERE THERE IS NO CURB. CURB SHALL BE CONSPICUOUSLY AND LEGIBLY MARKED WITH THE WARNING "FIRE LANE – TOW–AWAY–ZONE" IN WHITE LETTERS AT LEAST 3 INCHES IN HEIGHT, AT INTERVALS NOT TO EXCEED 50 FEET.

LEGEND:

– INDICATES FIRE ACCESS ROAD

– INDICATES PROPOSED DRIVEWAY CONC.

FE – FIRE EXTEQUISHER TO MEET IFC 2015, CH:23–SEC:2305.5

HYD – INDICATES FIRE HYDRANT LOCATION

NOTE:

1. CONTRACTOR SHALL PROVIDE BUILDING ADDRESS VISIBLE FROM FIRE DEPARTMENT ACCESS ROAD.
2. FUEL DISPENSING FACILITY SHALL MEET THE IFC 2015 CH:23. FUEL DISPENSING, TANK, CANOPY TO BE PERMITTED SEPARATELY BY OTHERS.
3. FOR INFORMATION NOT SHOWN RE: SITE SURVEY C1.0.
4. FUEL TANKS, PUMPS AND CANOPY TO BE PERMITTED SEPARATELY.
5. FUEL DISTRIBUTION SYSTEM PLANS SHALL MEET THE FOLLOWING REQUIREMENTS.
   a. PROVIDE IMPACT PROTECTION FOR FUEL PUMP DISPENSING EQUIPMENT TO MEET IFC 2015, CHAPTER 23, SECTION 2306.7.3 .
   b. PROVIDE EMERGENCY DISCONNECT FOR FUEL PUMP SHUT OFF TO MEET IFC 2015, CHAPTER 23, SECTION 2303.2 .
   c. PROVIDE FIRE EXTINGUISHER PLACEMENT FOR FUEL ISLAND AND REFILL AT TANK TO MEET IFC 2015, CHAPTER 23, SECTION 2303.5.
   d. IDENTIFY ON PLANS THE FUEL TANK VENT LOCATION.
   e. PROVIDE NOTE ON PLANS THE FUEL DISPENSING FACILITY WILL MEET THE IFC 2015 CHAPTER 23 .
6. SCOPE OF WORK IN THESE PLANS COVERS MERCANTILE BUILDING .
7. EMERGENCY RESPONDER RADIO COVERAGE SHALL BE PROVIDE PER SECTION 915, 2015 IBC BUILDINGS STRUCTURES SHALL CMPLY WITH ALL APPLICABLE CODE PROVISIONS OF ERRC PROVISIONS ON SECTION 510 IPC 2015.

OWNER INFORMATIONS:
NAME: FRANK RAJAN
MAILING ADDRESS: 2001 S. COLLEGE AVE.
CITY: BRYAN STATE: TX. ZIP CODE: 77801
PHONE NUMBER: 979–229–3475
E–MAIL ADDRESS: FRANKARAJAN@YAHOO.COM

NOTE:

1– EMERGENCY PROCEDURE SIGN WILL BE PLACED BY EMERGENCY DISCONNECT SWITCH AND SHALL READ:

IN CASE OF FIRE,SPILL, OR RELEASE
USE EMERGENCY PUMP SHUTOFF
REPORT THE ACCIDENT !
FIRE DEPARTMENT TELEPHONE NO. 9–1–1

2– FIRE EXTINGUISHERS WITH A RATING OF 2–A:20–B:C SHALL BE REQUIRED AND INSTALLED IN A MANNER TO PROVIDE ONE WITHIN 75 FT. OF EACH MOTOR FUEL DISPENSING PUMP.

3– WARNING SIGNS IN ACCORDANCE WITH IFC 2205.6 SHALL BE POSTED AT PUMPS.

4– STATE LICENSED FIRE PROTECTION CONTRACTORS SHALL SUBMIT AS–BUILT PLANS AND INSTALLATION PAPERWORK DIRECTLY TO MCFMO AT THE END OF CONSTRUCTION BEFORE THE FINAL INSPECTION.

5– FIRE LANE MARKINGS WILL BE REVIEWED DURING FINAL INSPECTION.

6–PRIOR TO REQUESTING A FINAL INSPECTION, YOU MUST SUBMIT ANY FIRE PROTECTION CHECKLISTS TO OUR OFFICE.THESE CHECKLISTS ARE FOUND ON OUR WEBSITE

7– UPON COMPLETION OF ALL WORK, A REQUEST FOR FINAL INSPECTION FORM MUST BE SUBMITTED TO THE FIRE MARSHALS OFFICE. THIS PROJECT MAY NOT BE OCCUPIED UNTIL A FINAL INSPECTION HAS BEEN PERFORMED AND A CERTIFICATE OF COMPLIANCE HAS BEEN ISSUED

8– FIRE RATED ASSEMBLIES – ALL PENETRATIONS SHALL BE SEALED . ALL FIRE WALLSSHALL HAVE SIGNS OR STENCILING PERMANENTLY INSTALLED ABOVE ANY DECORATIVE CEILING AND /OR IN CONCEALED SPACES. THE LETTERING SHALL BE 2 INCHES IN HEIGHT AND SPACED EVERY 12 FEET. THE FOLLOWING WORDING IS REQUIRED, "(1) HOUR FIRE AND SMOKE WALL–PROTECT ALL PENETRATIONS"

9– ALL BULK CO2 TANK SHALL BE PROVIDE WITH MONITOR AND NOTIFICATION DEVICE PER IFC 2015 5303.16.10 .

10– ALL PROJECTS SHALL SUBMIT AN EMERGENCY RESPONSE INFORMATION FORM.

SCALE: 1" = 30'–0"
0' 10' 20' 30' 40'
GRAPHIC SCALE

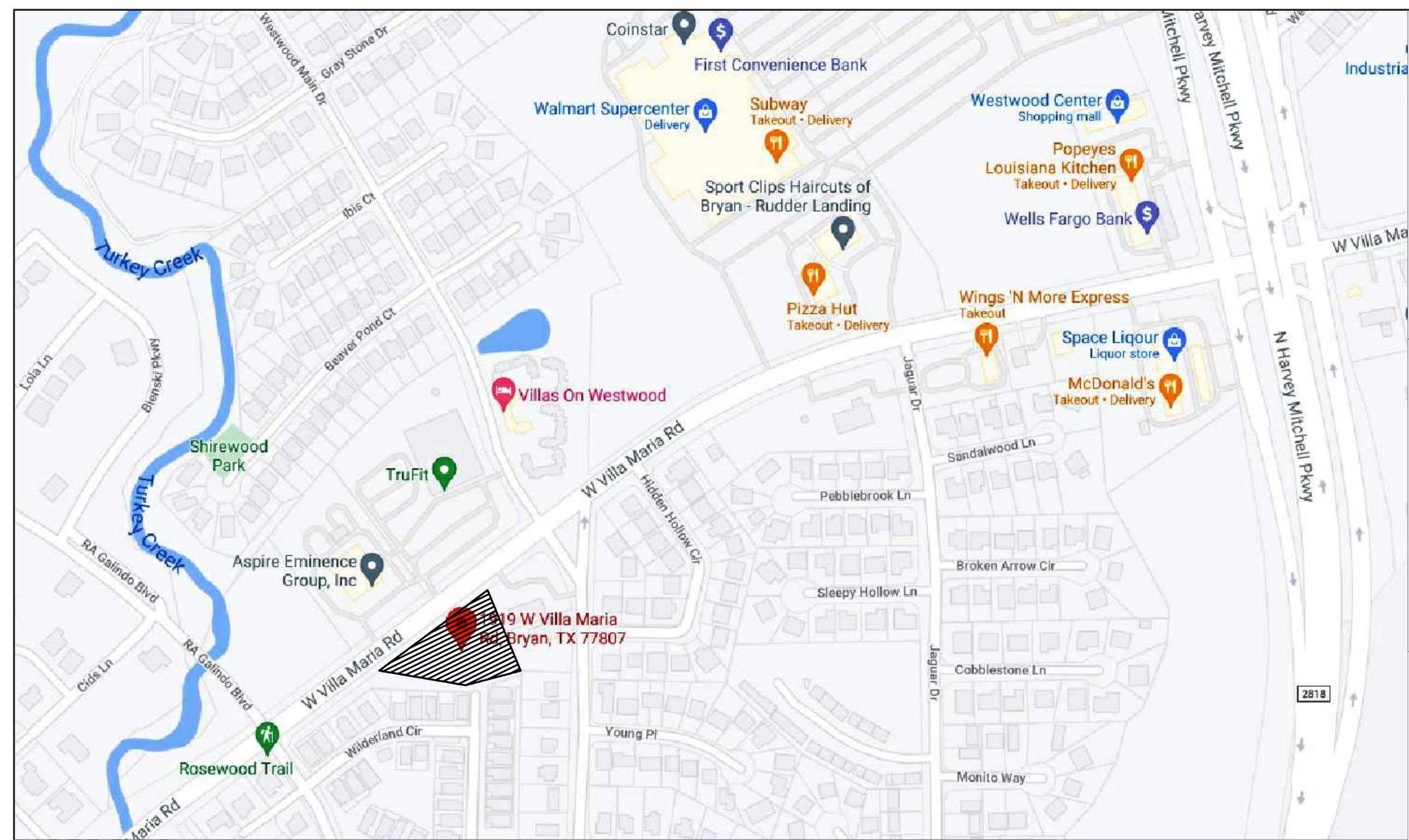
STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
HOUSTON, TEXAS 77041
TEL. (281) 580–4585
FAX (281) 580–4399
FIRM # F–11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
FIRE ACCESS LANE PLAN

DRAWN BY: BM	DATE: 12–6–2021	SHEET: AS-101 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



GENERAL NOTES

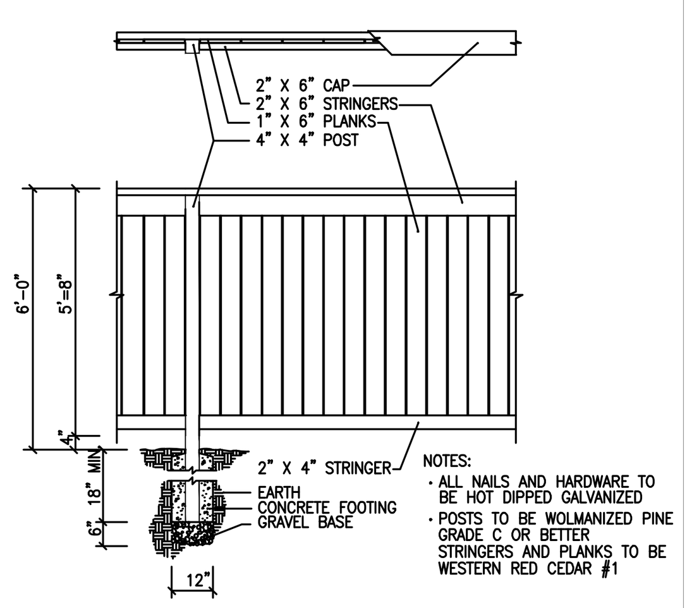
This district is limited to specified areas encompassing land that has already been assigned conventional zoning district classifications. It supplements the standards of the underlying conventional districts with new or different standards, which may be more restrictive. The intent is to exercise greater control over the aesthetic and functional characteristics of development along major thoroughfares, which serve as major entrances to the community where higher development standards can effectively enhance the city's image as a desirable place to live, work, and shop

NOTE:

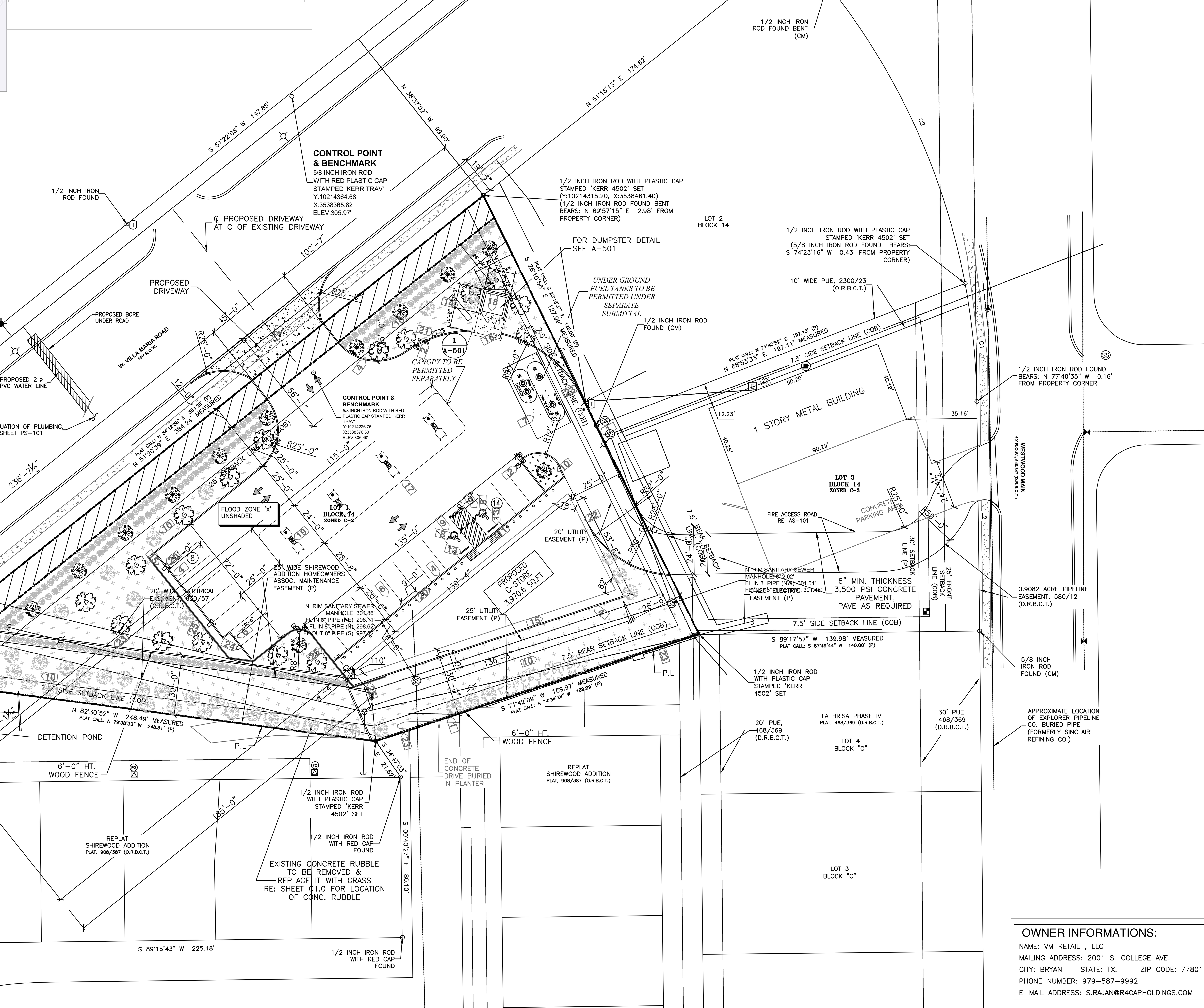
TOTAL AREA = 54,972.72 SQ. FT. = 1.262 ACRES
DEVELOPED AREA = 29,165 SQ.FT. = 0.66 ACRES
LANSCAPE AREA = 11,658.6 SQ.FT. = 0.26 ACRES
20' BUFFER AREA = 8,400 SQ.FT. = 0.19 ACRES
12' DEDICATION AREA = 4,530.24 SQ.FT. = 0.104 ACRES

NOTE:

- SINCE THE PROPERTY IN THE WEST VILLA MARIA CORRIDOR OVERLAY DISTRICT & ZONED C-2, THE MAXIMUM SIGN HEIGHT (NO MATTER THE LOCATION) WOULD BE 10 FEET.
- THE MAXIMUM SQUARE FOOTAGE WOULD BE 150 SQ.FT.
- SIGNAGE MAY NOT BE LOCATED WITHIN AN UTILITY OR RIGHT-OF-WAY EASEMENT.



1 WOOD FENCE
SCALE: N.T.S.



KEYED NOTES

1. PROPERTY LINE
2. 25' STEEL LIGHT POLE (REFER TO ELECTRICAL)
3. NEW PROPOSE CONCRETE DRIVEWAY
4. 6" CONCRETE CURB.
5. NEW CONCRETE PAVEMENT 6" THICK 3500 PSI (REFER TO CIVIL PLANS)
6. REGULAR PARKING SPACES @ 9'-0" X 19'-0" TYP. (U.N.O.)
7. UNDERGROUND FUEL TANK 8" THICK PAVING (VERIFY LOCATION WITH OWNER)
8. H/C SIGNAGE GRAPHICS RE: C-503
9. H/C PARKING SPACE (RE: SHEET A-003)
10. LANDCAPING
11. RAMP 1:12 SLOPE
12. PAVEMENT SIGNAGE SEE C-503
13. 6" CURB/WHEEL STOP
14. PYLON SIGN,THE MAXIMUM SIGN HEIGHT 10' WITH 150 SF MAX. FOOTAGE (TO BE APPROVED BY OWNER)
15. CONCRETE SIDE WALK (RE: CIVIL PLANS)
16. 8" THICKNESS PAVEMENT
17. CANOPY (BY OTHERS)
18. NEW TRASH DUMPSTER ENCLOSURE AS SCREEN WITH THICKEN SLAB TO 8" RE: A-501. TO MEET CITY OF BRYAN REQUIREMENTS
19. GAS PUMP (BY OTHERS)
20. 6" BOLLARDS
21. AIR AND WATER
22. 12" CONCRETE CURB.
23. 6'-0" HT WOOD FENCE
24. ELECTICAL CHARGER STATION
25. RETAINING WALL,SEE DETAIL (6) SHEET S3.0

GENERAL NOTES

PARKING NOTES:

1. CONTRACTOR TO PAINT STRIPS, ARROWS AND ETC AS SPECIFIED AND AS SHOWN ON THE PLANS.
2. PROVIDE 4" WIDE YELLOW PARKING STRIPS.
3. FOR FIRE LANES MARKING RE: AS-101

LEGEND

- HYD – INDICATES FIRE HYDRANT LOCATION
- INDICATES PROPOSED DRIVEWAY CONC.
- GRASS/ LANDSCAPE BED SOD.
- 1 1/2" LIVE OAK ,SHADE TREE 6' HT. MIN.
- 2" PARKING TREES, SHADE TREES 6' HT. MIN.
- 1 1/2" LAGERSTROEMIA/ UNSHADED TREES 6' HT. MIN.
- TREES MATURE HT. 30 FT. .
- 2 GAL. SHRUBS/ INDIAN HAWTHORN MAX 36"HT NOT LESS THAN 18"
- (#) – NUMBER OF PARKING SPACES
- HANDICAP PARKING SPACE
- PROPERTY LINE
- BUILDING LINE
- LIGHT POLE . RE: ELECTRICAL SITE PLAN
- INDICATES FOR (7'-0") CMU FENCE

PARKING ANALYSIS

OCCUPANCY TYPE	AREA (S.F. OF GFA)	REQUIRED RETAIL PARKING	NUMBER OF CAR PARKING REQUIRED
M	3,970.6	5/1,000 GSF	20
TOTAL REQUIRED PARKING			20
NUMBER OF PARKING PROVIDED AT PUMPS			8
NUMBER OF PARKING PROVIDED (INCLUDING 2 H/C)			22
TOTAL NUMBER OF PARKING (INCLUDING 2 H/C) & PARKING AT PUMPS.			30

LANDSCAPING

SYMBOL	SIZE	OFFICIAL NAME	#	SF VALUE	TOTAL
	1.5"—3.0" CALIPER	LIVE OAK QUERCUS VIRGINIANA CANOPY TREE	11	200	2,061.4
	1.5"—3.0" CALIPER	DYNAMITE CREPE MYRTLE LAGERSTROEMIA INDICA DYNAMITE) NON-CANOPY TREE	14	150	2,061.4
	2—5 GALLON	KNOCK-OUT ROSE (ROSE RADRAZZ) SHRUB	200	10	2000
	15 GALLON	INDIAN HAWTHORN (RHAPHIOLEPIS INDICA) SHRUB	130	15	1,900
	COVER (15% MAX)	BERMUDA GRASS	500 SF / 100	100	223

LANDSCAPE REQUIREMENTS:
1) 15% OF DEVELOPED AREA 1.262 ACRES (54,972.72 SQ FT) = 8,245.9 SF LANDSCAPING
2) NOT LESS THAN 50% OF REQUIRED AREA SHALL BE TREES—4,122.9 SF REQ'D; 4,701 PROVIDED
3) NOT LESS THAN 50% OF TREE PLANTED SHALL BE CANOPY; 2,061.4 SF REQ'D; 2,640 PROVIDED
4) ALL PARKING ISLANDS MUST HAVE A CANOPY TREE.
5) 30' REDUCED BUFFER AREA TO BE 20 FT. x 420 LN=8,400 SQ.FT./200 SQ.FT= 42 CANOPY TREES.

TOTAL AREA REQUIRED: 8,245.9 SF
LANDSCAPED AREA PROVIDED: 11,658.6 SF
** AUTOMATIC IRRIGATION IS REQUIRED FOR THIS PROJECT **

OWNER INFORMATIONS:

NAME: VM RETAIL , LLC
MAILING ADDRESS: 2001 S. COLLEGE AVE.
CITY: BRYAN STATE: TX. ZIP CODE: 77801
PHONE NUMBER: 979-587-9992
E-MAIL ADDRESS: S.RAJAN@R4CAPHOLDINGS.COM

SCALE: 1" = 30'-0"
0' 10' 20' 30' 40'
GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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FAX (281) 580-4399
FIRM # F-11211

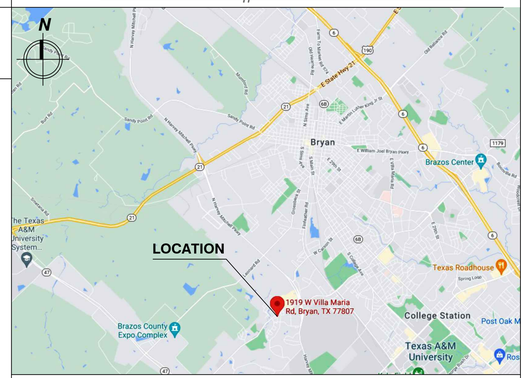
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
PARKING SITE PLAN AND LANDSCAPE

DRAWN BY: BM	DATE: 12-6-2021	SHEET:
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	AS-102 Rev.0

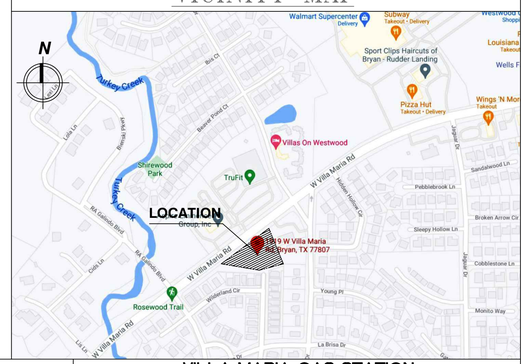
VILLA MARIA GAS STATION

1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

KEY MAP # 48027C 0295E



VICINITY MAP



INDEX TO DRAWINGS

CIVIL

NONE

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED
PROFESSIONAL ENGINEER
12/19/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5–16–22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
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VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
COVER SHEET, INDEX & VICINITY MAPS

DRAWN BY: BM	DATE: 9–15–2021	SHEET: **C-00** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

LAND TITLE SURVEY PLAT
OF
LOTS 1 & 3, BLOCK 11
SHIREWOOD ADDITION PHASE II
VOLUME 583, PAGE 181 (D.R.B.C.T.)
ZENO PHILLIPS LEAGUE, A-45
BRYAN, BRAZOS COUNTY, TEXAS

KERR SURVEYING

"When one person stands to gain over another, the facts must be uncovered"

SCALE: 1 INCH = 30 FEET
SURVEY DATE: 03-02-2021 | PLAT DATE: 03-12-2021
JOB NUMBER: 21-177 | CAD NAME: 21-177
POINT FILE: 21-177-ALL
DRAWN BY: WJB CHECKED BY: BNK

PREPARED BY: KERR SURVEYING, LLC
TBPELS FIRM#10018500
409 N. TEXAS AVENUE, BRYAN, TEXAS 77803
PHONE: (979) 268-3195
SURVEYS@KERRSURVEYING.NET | KERRLANDSURVEYING.COM

SURVEYOR'S CERTIFICATE:

I, BRAD KERR, R.P.L.S. NO. 4502, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS PLAT IS A TRUE REPRESENTATION OF A CATEGORY 1A (LAND TITLE SURVEY), CONDITION II SURVEY (ACCORDING TO THE TSPS MANUAL OF PRACTICE FOR LAND SURVEYING IN THE STATE OF TEXAS) AS MADE ON THE GROUND UNDER MY SUPERVISION AND THAT THERE ARE NO VISIBLE ENCROACHMENTS ON THIS TRACT EXCEPT AS SHOWN HEREON. THE ENTIRETY OF THESE TRACTS LIE WITHIN FLOOD ZONE 'X' UNSHADED AND DO NOT LIE WITHIN A DESIGNATED 100 YEAR FLOOD PLAIN ACCORDING TO THE F.I.R.M. MAPS, PANEL NO. 48041C0195E, REVISED DATE: 05-16-2012.

BRAD KERR
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 4502

REVISED 05-17-21: ADDITIONAL TOPOGRAPHIC DATA

FEMA INFORMATION

LEGEND:

(D.R.B.C.T.) = DEED RECORDS OF BRAZOS COUNTY, TEXAS

(O.R.B.C.T.) = OFFICIAL RECORDS OF BRAZOS COUNTY, TEXAS

(O.P.R.B.C.T.) = OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS

123/456 = VOLUME AND PAGE FROM PUBLIC COUNTY RECORDS

N/F = NOW OR FORMERLY

(P) = PER PLAT, 583/181 (D.R.B.C.T.)

WATER VALVE
WATER METER
FIRE HYDRANT
SANITARY SEWER MANHOLE
CLEAN OUT
STORM SEWER MANHOLE
STREET SIGN
UTILITY POLE
LIGHT POLE/STANDARD
GUY WIRE
A/C UNIT
GAS METER
PIPE LINE MARKER
ELECTRIC SERVICE
ELECTRIC BOX
TELEPHONE PEDESTAL
FIBER OPTIC MARKER

AERIAL ELECTRIC LINES
WOOD FENCE
APPROXIMATE LOCATION OF 8" SANITARY SEWER LINE
APPROXIMATE LOCATION OF 8" WATER LINE
APPROXIMATE LOCATION OF 12" WATER LINE
APPROXIMATE LOCATION OF BURIED ATMOS GAS LINE AS FLAGGED ON THE GROUND
CONCRETE

SCALE: 1" = 30'
0 30 60 90 Feet

C1
R=339.96'
D=9°58'48"
ARC=59.22'
T=29.68'
CHORD=59.14'
BRG=S 05°42'17" E

C2
R=339.96'
D=27°57'40"
ARC=165.91'
T=84.64'
CHORD=164.27'
BRG=S 24°40'31" E

L1
S 26°10'56" E 116.08' MEASURED
PLAT CALL: S 23°18'37" E 116.09' (P)

L2
S 00°42'53" E 114.60' MEASURED
PLAT CALL: S 02°09'26" E 114.61' (P)

1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED "KERR 4502" FOUND
1/2 INCH IRON ROD FOUND
1/2 INCH IRON ROD FOUND BENT (CM)
N 51°22'08" E 174.87'
N 51°15'13" E 174.82'
S 51°22'08" W 147.85'
S 51°25'03" W 284.40'
N 38°37'52" W 99.90'
CONTROL POINT & BENCHMARK
5/8 INCH IRON ROD WITH RED PLASTIC CAP STAMPED 'KERR TRAV'
Y:10214364.68
X:3538365.82
ELEV:305.97'
1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED "KERR 4502" SET
(Y:10214315.20, X:3538461.40)
(1/2 INCH IRON ROD FOUND BENT BEARS: N 69°57'15" E 2.98' FROM PROPERTY CORNER)
LOT 2 BLOCK 14
1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED 'KERR 4502' SET
(5/8 INCH IRON ROD FOUND BEARS: S 74°23'16" W 0.43' FROM PROPERTY CORNER)
10' WIDE PUE, 2300/23 (O.R.B.C.T.)
W. VILLA MARIA ROAD
100' R.O.W.
PLAT CALL: S 25°18'37" E 128.00' (P)
S 25°10'56" E 127.99' MEASURED
7.5' SIDE SETBACK LINE (COB)
1/2 INCH IRON ROD (CM)
PLAT CALL: N 71°45'52" E 197.13' (P)
N 68°53'33" E 197.11' MEASURED
7.5' SIDE SETBACK LINE (COB)
1 STORY METAL BUILDING
1/2 INCH IRON ROD FOUND BEARS: N 77°40'35" W 0.16' FROM PROPERTY CORNER
WESTWOOD MAIN
60' R.O.W. 540/347 (D.R.B.C.T.)
CONTROL POINT & BENCHMARK
5/8 INCH IRON ROD WITH RED PLASTIC CAP STAMPED 'KERR TRAV'
Y:10214226.75
X:3538376.60
ELEV:306.49'
PLAT CALL: N 54°12'58" E 384.26' (P)
N 51°20'39" E 384.24' MEASURED
25' SETBACK LINE (P) (COB)
LOT 3 BLOCK 14
0.548 ACRES
ZONED C-3
CONCRETE PARKING AREA
30' SETBACK LINE (P)
25' FRONT SETBACK LINE (COB)
CONTROL POINT & BENCHMARK
5/8 INCH IRON ROD WITH RED PLASTIC CAP STAMPED 'KERR TRAV'
Y:10214196.32
X:3538158.39
ELEV:298.08'
FLOOD ZONE 'X' UNSHADED
LOT 1 BLOCK 14
1.262 ACRES
ZONED C-2
20' UTILITY EASEMENT (P)
N. RIM SANITARY SEWER MANHOLE: 312.02'
FL IN 8" PIPE (NW): 301.54'
FL OUT 8" PIPE (SW): 301.48'
5'x25' ELECTRIC EASEMENT (P)
0.9082 ACRE PIPELINE EASEMENT, 580/12 (D.R.B.C.T.)
1/2 INCH IRON ROD WITH CAP STAMPED 'SM KLING RPLS 2003' FOUND
S 51°29'55" W 70.07'
1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED 'KERR 4502' SET
(Y:10214075.19, X:3538161.34)
(1/2 INCH IRON ROD FOUND BEARS: N 74°41'25" E 2.83' FROM PROPERTY CORNER)
N. RIM SEWER MANHOLE: 290.51'
FL IN 48" RCP: 279.97'
5/8 INCH IRON ROD FOUND
20' WIDE ELECTRICAL EASEMENT, 630/57 (O.R.B.C.T.)
25' WIDE SHIREWOOD ADDITION HOMEOWNERS ASSOC. MAINTENANCE EASEMENT (P)
N. RIM SANITARY SEWER MANHOLE: 304.86'
FL IN 8" PIPE (NE): 298.11'
FL IN 8" PIPE (W): 298.62'
FL OUT 8" PIPE (S): 297.82'
25' UTILITY EASEMENT (P)
7.5' REAR SETBACK LINE (COB)
7.5' SIDE SETBACK LINE (COB)
S 89°17'57" W 139.98' MEASURED
PLAT CALL: S 87°49'44" W 140.00' (P)
1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED 'KERR 4502' SET
5/8 INCH IRON ROD FOUND (CM)
N. RIM STORM SEWER MANHOLE: 292.23'
FL IN 30" RCP: 286.63'
FL OUT 48" RCP: 280.33'
FL 24" RCP: 289.57'
DROP IN LET BOX
FL 12" DIAMETER OPENING: 288.64'
FL 18" DIAMETER OPENING: 290.79'
IMPROVISED RETAINING WALL
N 82°30'52" W 248.49' MEASURED
PLAT CALL: N 79°38'33" W 248.51' (P)
CONCRETE "BUBBLE"
S 71°42'09" W 169.97' MEASURED
PLAT CALL: S 74°34'25" W 169.99' (P)
20' PUE, 468/369 (D.R.B.C.T.)
LA BRISA PHASE IV
PLAT, 468/369 (D.R.B.C.T.)
LOT 4 BLOCK "C"
30' PUE, 468/369 (D.R.B.C.T.)
APPROXIMATE LOCATION OF EXPLORER PIPELINE CO. BURIED PIPE (FORMERLY SINCLAIR REFINING CO.)
END OF CONCRETE DRIVE BURIED IN PLANTER
REPLAT SHIREWOOD ADDITION PLAT, 908/387 (O.R.B.C.T.)
1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED 'KERR 4502' SET
1/2 INCH IRON ROD WITH RED CAP FOUND
S 00°42'27" E 601.10'
S 89°15'43" W 225.18'
1/2 INCH IRON ROD FOUND
1/2 INCH IRON ROD WITH RED CAP FOUND
LOT 3 BLOCK "C"

ZONING SETBACK NOTES (COB)

ACCORDING TO THE CITY OF BRYAN ONLINE ZONING MAP REFERENCED ON 03-12-2021 THESE TRACTS ARE ZONED RETAIL DISTRICT (C-2) AND COMMERCIAL DISTRICT (C-3) AND ARE SUBJECT TO THE FOLLOWING BUILDING SETBACKS:

FRONT SETBACK - 25'
SIDE SETBACK (INTERIOR) - 7.5'
REAR SETBACK - 7.5'

GENERAL NOTES

BEARING SYSTEM SHOWN HEREON IS BASED ON THE TEXAS STATE PLANE CENTRAL ZONE GRID NORTH AS ESTABLISHED FROM GPS OBSERVATION USING THE LEICA SMARTNET NAD83 (NA2011) EPOCH 2010 MULTI-YEAR CORS SOLUTION 2 (MYCS2).

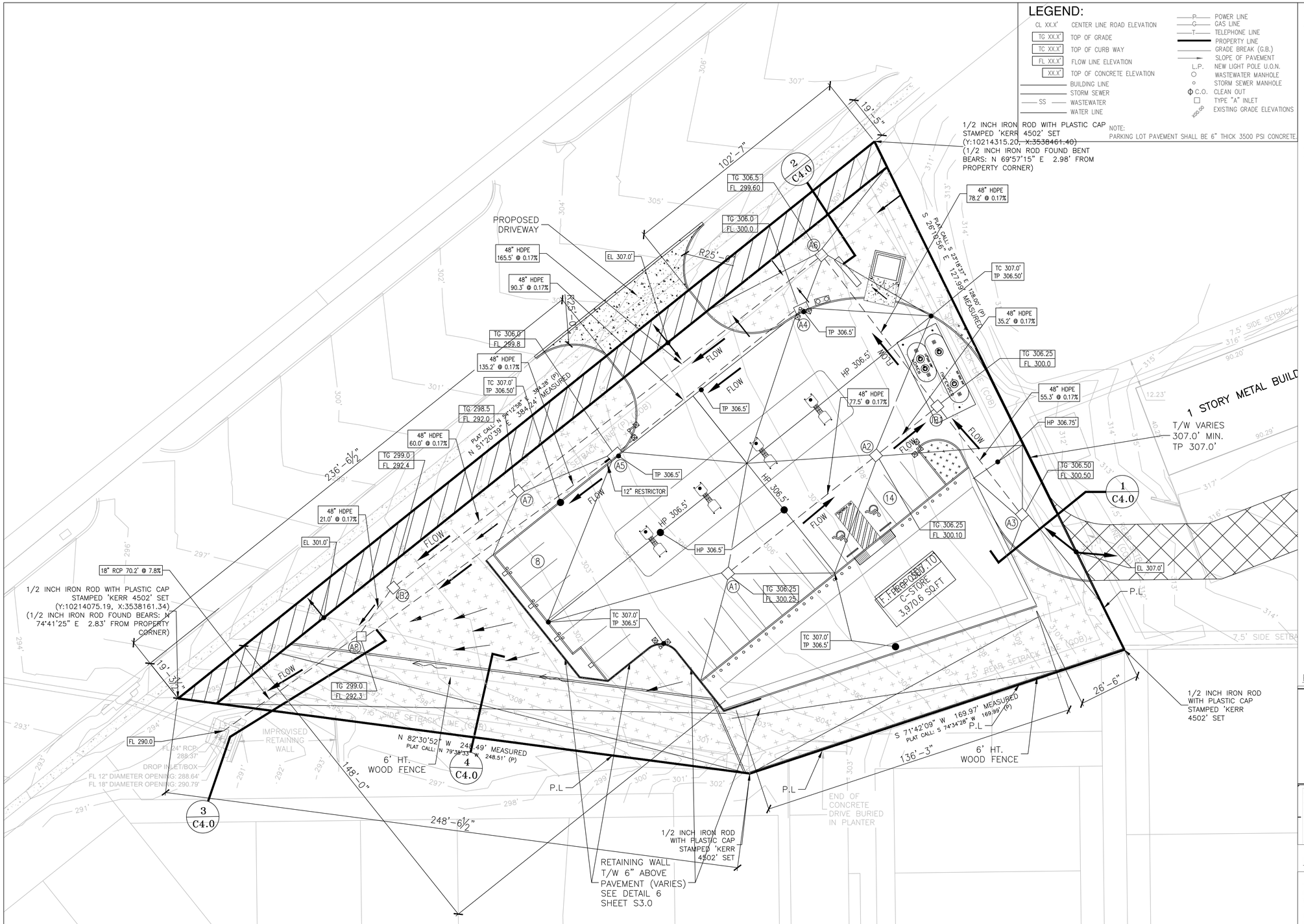
DISTANCES SHOWN HEREON ARE GRID DISTANCES UNLESS OTHERWISE NOTED. AREAS SHOWN AS "MEASURED" HEREON ARE CALCULATED FROM GRID DISTANCES. TO OBTAIN SURFACE DISTANCES (NOT SURFACE AREAS) MULTIPLY BY A COMBINED SCALE FACTOR OF 1.000107637 (CALCULATED USING GEOID12B).

(CM) INDICATES CONTROLLING MONUMENT FOUND AND USED TO ESTABLISH PROPERTY BOUNDARIES.

THIS SURVEY PLAT WAS PREPARED TO REFLECT THE TITLE *REPORT* ISSUED BY UNIVERSITY TITLE COMPANY, GF NO. 211007, DATED: 02-21-2021. ITEMS LISTED ON SCHEDULE B ARE ADDRESSED AS FOLLOWS:
- EASEMENTS AND BUILDING LINES PER PLAT, 583/181 (D.R.B.C.T.), DO APPLY AS SHOWN HEREON.
- 20' WIDE ELECTRIC EASEMENT, 630/57 (O.R.B.C.T.), DOES APPLY AS SHOWN HEREON.
- PIPELINE EASEMENT TO SINCLAIR REFINING CO., 132/35 (D.R.B.C.T.), DOES APPLY TO THIS TRACT AS PARTIALLY RELEASED AND DEFINED IN 580/12 (D.R.B.C.T.), AND AS SHOWN HEREON.
- ELECTRICAL TRANSMISSION LINE EASEMENT TO CITY OF BRYAN, 215/591 (D.R.B.C.T.), DOES NOT CROSS THIS TRACT.
- ALL OTHER ITEMS ARE NOT SURVEY ITEMS AND/OR ARE NOT ADDRESSED BY THIS PLAT.

UNDERGROUND UTILITIES ARE APPROXIMATED BASED ON ABOVE GROUND FEATURES, AVAILABLE MAPS AND MARKINGS BY UTILITY PROVIDERS. ADDITIONAL UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS SURVEY.

THIS PLAT WAS PREPARED IN CONJUNCTION WITH A FIELD NOTES DESCRIPTION (METES AND BOUNDS). THE PLAT AND FIELD NOTES ARE INTENDED TO BE ONE INSTRUMENT TOGETHER.



GENERAL NOTES:

A. GENERAL

1. GENERAL CONTRACTOR SHALL COORDINATE SITE UTILITIES WORK WITH PLUMBING DRAWINGS.

B. PERMIT

1. CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED BY REGULATION OF CITY OF BRYAN, TEXAS PRIOR TO STARTING CONSTRUCTION.

2. OWNER TO OBTAIN ALL PERMITS REQUIRED BY CITY OF BRYAN, TEXAS PRIOR TO STARTING CONSTRUCTION OF UTILITY AND/OR CULVERTS WITHIN CITY OF BRYAN ROAD RIGHT OF WAY.

3. CONTRACTOR MAY SUBSTITUTE PVC PIPE FOR HDPE PIPE IN ACCORDANCE WITH CODE REQUIREMENTS.

4. ANY FUTURE DEVELOPMENT WILL REQUIRE APPROVAL.

C. STORM SEWER SYSTEM

1. STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BRYAN.

2. STORM SEWER PIPE SHALL BE HDPE, UNLESS SHOWN OTHERWISE. CONTRACTOR MAY SUBSTITUTE PVC SDR 35 PIPE FOR PVC PIPE IN ACCORDANCE WITH CODE REQUIREMENTS.

3. SET STORM SEWER MANHOLE RIMS TO MATCH FINISH GRADE.

4. STORM SEWER INLETS SHALL BE CITY APPROVED INLET.

5. CONCRETE PIPE SHALL BE BEDDED WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH CITY OF BRYAN.

6. PVC PIPE SHALL BE BEDDED WITH A MINIMUM OF ONE FOOT OF CEMENT STABILIZED SAND. CEMENT STABILIZED SAND SHALL BE LAID IN 6" LIFTS COMPOSED TO 95% STD. PROCTOR MAX. DRY DENSITY (ASTM D698).

7. EXISTING PAVEMENTS, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO THE CITY OF BRYAN STANDARDS.

8. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK.

9. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY.

TOTAL PAVEMENT AREA	= 22854 SF
BUILDING AREA	= 3970.6 SF
SIDE WALK AREA	= 1706.1 SF
TOTAL IMPERVIOUS AREA	= 28530.7 SF
LANDSCAPE AREA	= 26442 SF
TOTAL AREA	= 54972.7 SF
INLETS & J.B	= 10 @ 64 CF = 640 CF
LENGTH OF 18"ø HDPE PIPES	= 719 FT.
LENGTH OF 24"ø RCP PIPES	= 34.2 FT.

PROPERTY DESCRIPTION:

LAND TITLE SURVEY PLAT
OF
LOTS 1 & 3, BLOCK 11
SHIREWOOD ADDITION PHASE II
VOLUME 583, PAGE 181 (O.R.B.C.T.)
ZENO PHILLIPS LEAGUE, A-45
BRYAN, BRAZOS COUNTY, TEXAS

CONTROL POINT & BENCHMARK
5/8 INCH IRON ROD WITH RED PLASTIC CAP STAMPED 'KERR TRAV'
Y:10214226.75
X:3538376.60
ELEV:306.49'

FLOOD PLAIN INFORMATION:

THIS PLAT IS A TRUE REPRESENTATION OF A CATEGORY 1A (LAND TITLE SURVEY), CONDITION II SURVEY (ACCORDING TO THE TSPS MANUAL OF PRACTICE FOR LAND SURVEYING IN THE STATE OF TEXAS) AS MADE ON THE GROUND UNDER MY SUPERVISION AND THAT THERE ARE NO VISIBLE ENCROACHMENTS ON THIS TRACT EXCEPT AS SHOWN HEREON. THE ENTIRETY OF THESE TRACTS LIE WITHIN FLOOD ZONE 'X' UNSHADED AND DO NOT LIE WITHIN A DESIGNATED 100 YEAR FLOOD PLAIN ACCORDING TO THE F.I.R.M. MAPS, PANEL NO. 48041C0195E, REVISED DATE: 05-16-2012.

SCALE: 1" = 20'-0"
0' 10' 20' 30' 40'
GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/19/2022

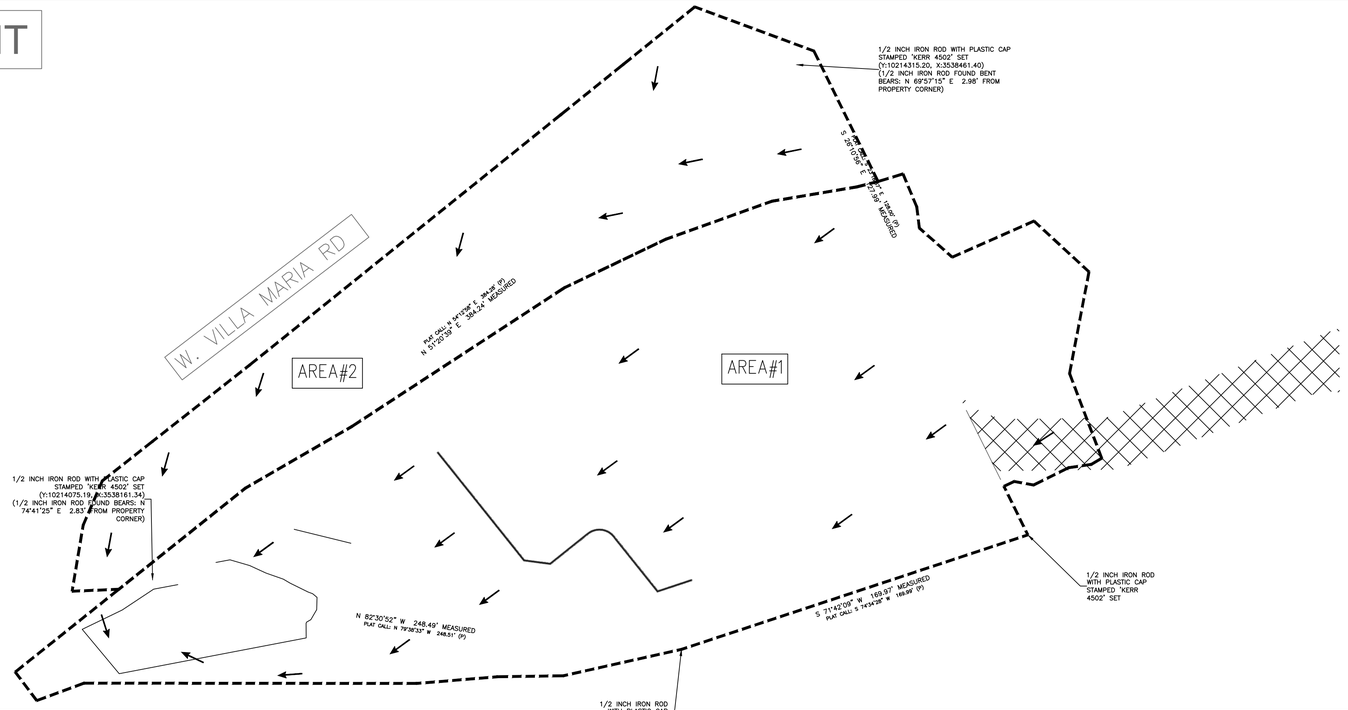
ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
HOUSTON, TEXAS 77041
TEL. (281) 580-4585
FAX (281) 580-4399
FIRM # F-11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
PAVINING AND DRAINAGE SITE PLAN

DRAWN BY: BM	DATE: 12-6-2021	SHEET: C2.0 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

PRE-DEVELOPMENT

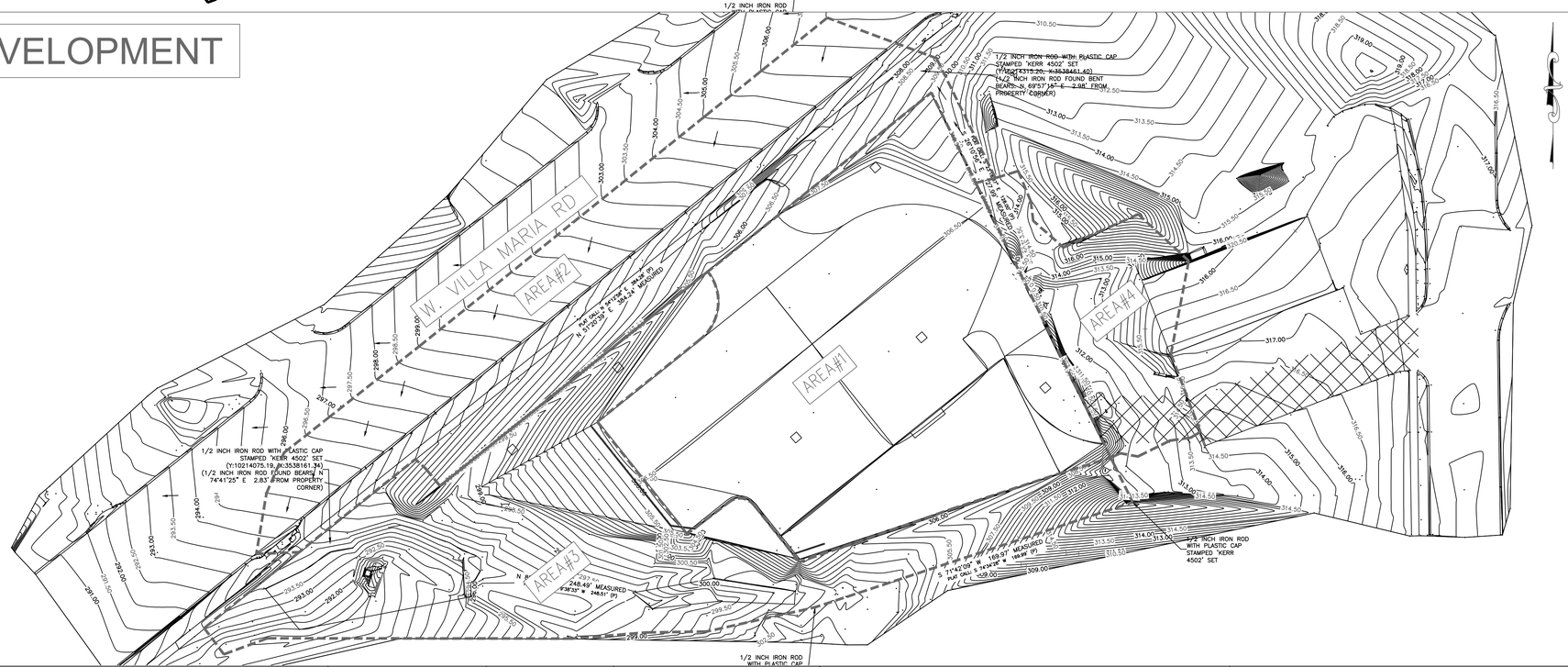


LEGEND

- DRAINAGE BOUNDARY
- FLOW DIRECTION
- CONTOUR
- INLET
- STORM SEWER LINE
- AREA#2 — DRAINAGE AREA I.D.

PRE DEVELOPMENT DRAINAGE AREA SUMMARY		
I.D#	AREA (SF)	AREA (AC)
AREA #1	66,724.6	1.532
AREA #2	25,833.5	0.593
TOTAL AREA (AC)		2.125

POST-DEVELOPMENT



POST DEVELOPMENT DRAINAGE AREA SUMMARY		
I.D#	AREA (SF)	AREA (AC)
AREA #1	32,895.7	0.755
AREA #2	23,947.4	0.550
AREA #3	27,857.0	0.640
AREA #4	7,858.9	0.180
TOTAL AREA (AC)		2.125

OWNER NAME:
ADDRESS:
PHONE #:
EMAIL:

APPLICANT NAME: RSK ENGINEERING
ADDRESS: 11302 TANNER RD
HOUSTON, TX 77041
PHONE #: 281-580-4585
EMAIL: RSKENGINEERING@GMAIL.COM

SCALE: 1" = 500'

0 250 500 Feet

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED
PROFESSIONAL ENGINEER
12-19-2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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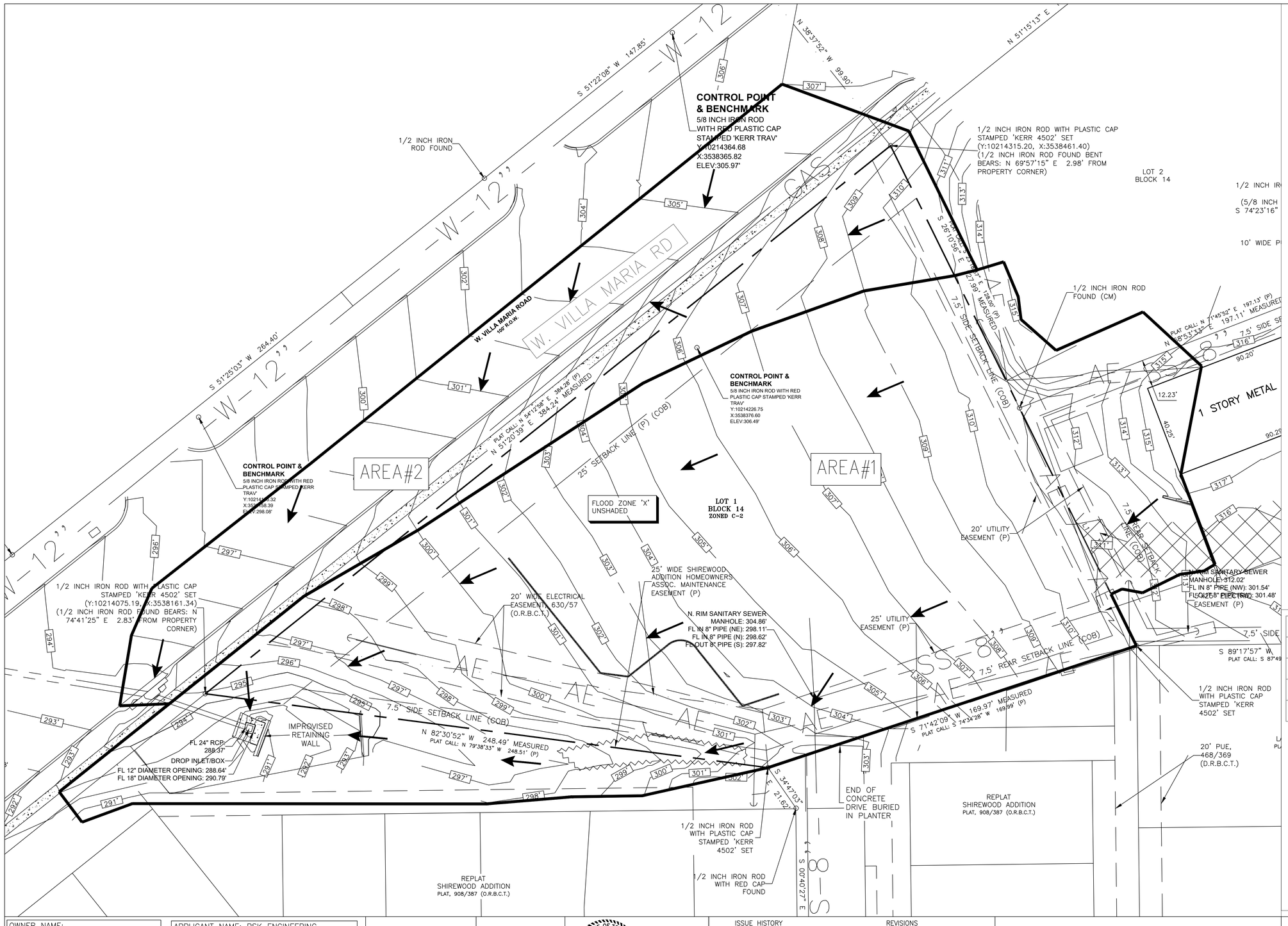
VILLA MARIA GAS STATION

1919 WEST VILLA MARIA ROAD
BRYAN, TX 77807

DRAINAGE AREA MAP

DRAWN BY: BM	DATE: 04-26-2022	SHEET: **C2.1** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR15003.317.4	



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TOTAL AREA (AC)		2.125

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GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
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REGISTERED PROFESSIONAL ENGINEER
12-19-2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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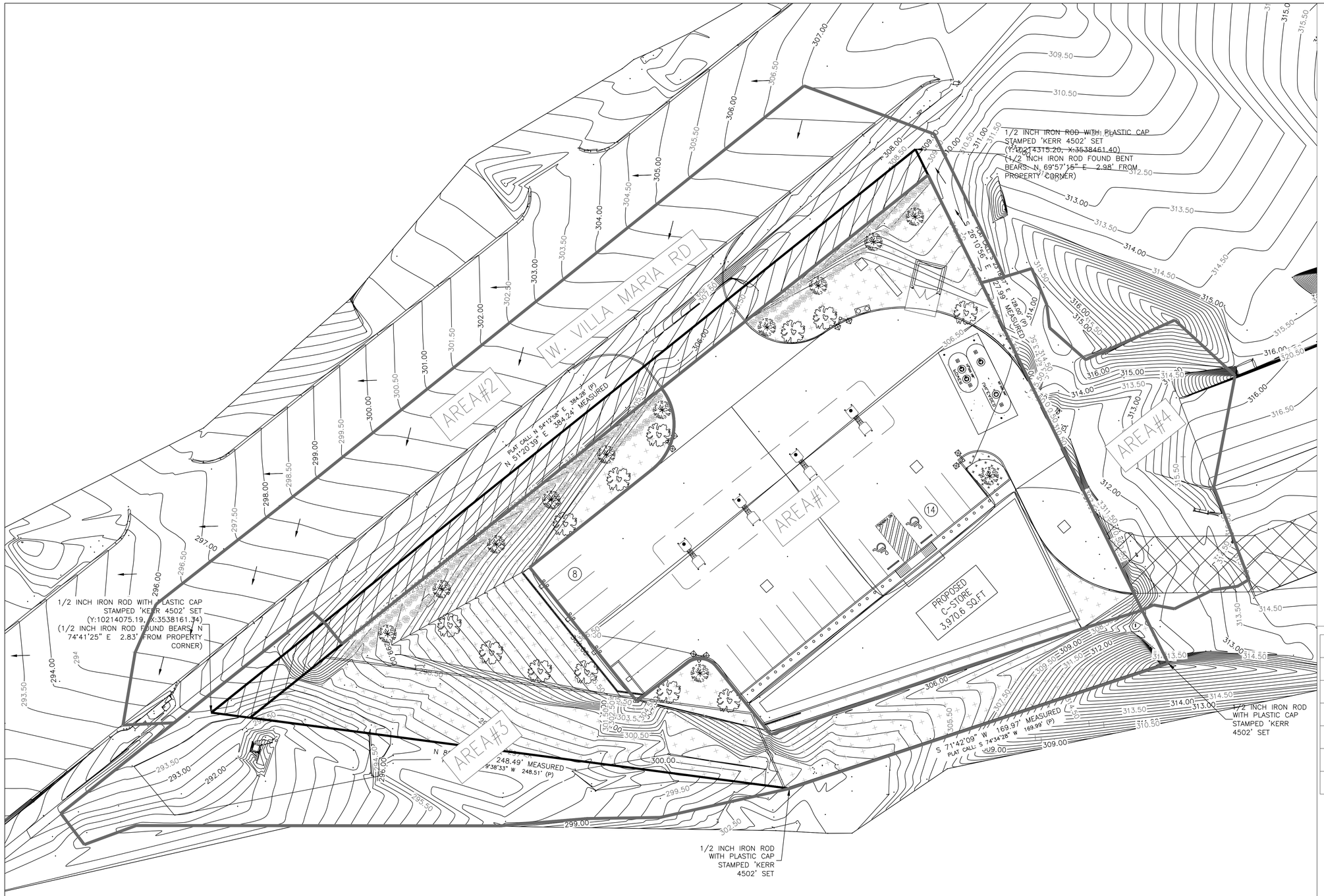
VILLA MARIA GAS STATION

1919 WEST VILLA MARIA ROAD
BRYAN, TX 77807

C2.1 DRAINAGE AREA MAP

DRAWN BY: BM	DATE: 04-26-2022	SHEET: C2.1 -1 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR15003.317.4	



N

LEGEND

- DRAINAGE BOUNDARY
- FLOW DIRECTION
- CONTOUR
- INLET
- STORM SEWER LINE
- AREA#2 — DRAINAGE AREA I.D.

POST DEVELOPMENT DRAINAGE AREA SUMMARY

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GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
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12-19-2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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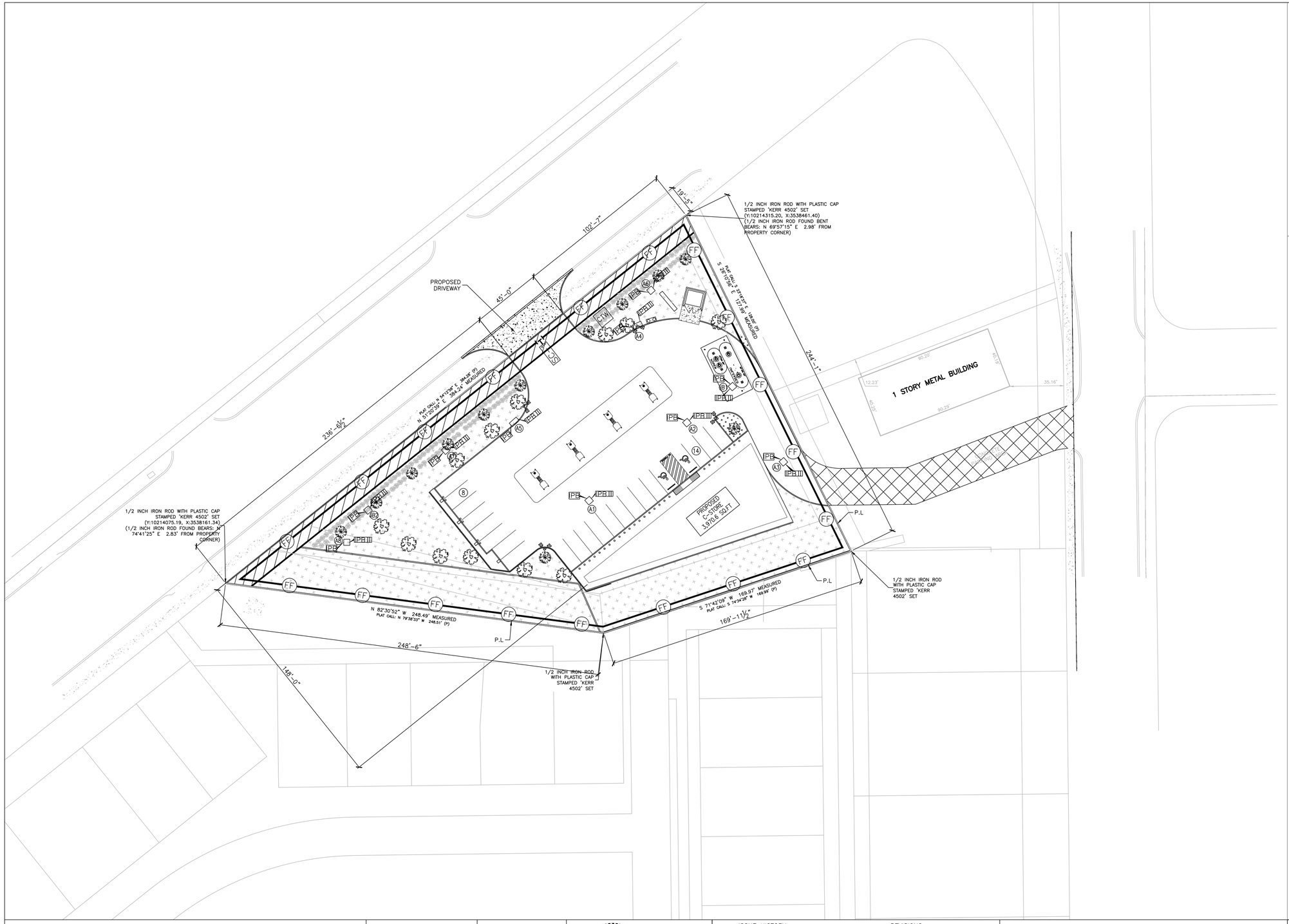
VILLA MARIA GAS STATION

1919 WEST VILLA MARIA ROAD
BRYAN, TX 77807

C2.1 DRAINAGE AREA MAP

DRAWN BY: BM	DATE: 04-26-2022	SHEET: C2.1 -2 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR15003.317.4	



NOTE:

FOR DETALS REFER C3.1

LEGENDS

- (FF) FILTER FABRIC FENCE
- SC–1 STABILIZED CONSTRUCTION ACCESS
- IPB STAGE I INLET PROTECTION
- IPB II STAGE II INLET PROTECTION
- CTW CONCRETE TRUCK WASHOUT AREA

SCALE: 1" = 30'–0"

0' 10' 20' 30' 40'

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/19/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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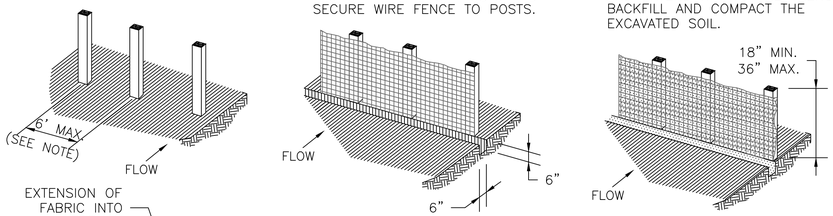
VILLA MARIA GAS STATION

1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

STORM WATER POLLUTION PROTECTION PLAN

DRAWN BY: BM	DATE: 12–6–2021	SHEET: C3.0 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

1. SET POSTS AT REQUIRED SPACING
2. EXCAVATE A 6"x6" TRENCH UPSLOPE ALONG THE LINE OF POSTS AND SECURE WIRE FENCE TO POSTS.
3. ATTACH FILTER FABRIC TO POSTS AND EXTEND IT INTO THE TRENCH. BACKFILL AND COMPACT THE EXCAVATED SOIL.

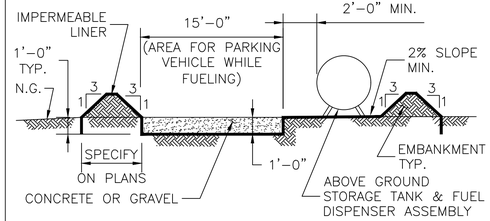


REINFORCED FILTER FABRIC BARRIER

RFB — SYMBOL

GENERAL NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

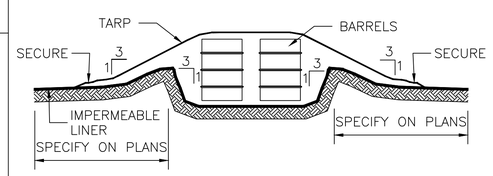


ABOVE GROUND TEMP. VEHICLE & EQUIPMENT FUELING AREA WITH TANK

TFA — SYMBOL

GENERAL NOTES:

1. THE SIZE OF TANK FOUNDATION AREA DEPENDS ON THE SIZE OF ABOVE GROUND STORAGE TANK AND DISPENSER ASSEMBLY.
2. PROVIDE A MINIMUM SLOPE OF 2 % TOWARD THE SUMP PIT.
3. INSTALL IMPERMEABLE LINER AS PER MANUFACTURER'S RECOMMENDATIONS.

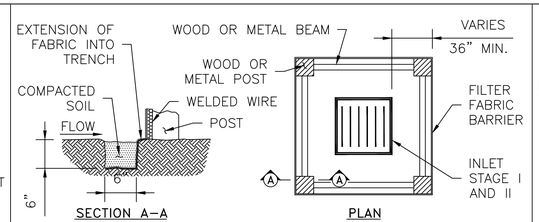


BARREL STORAGE AREA

BSA — SYMBOL

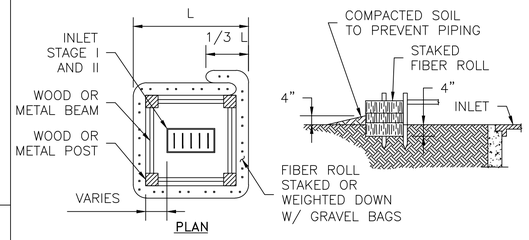
GENERAL NOTES:

1. ALTERNATIVELY, STORE BARRELS IN AN ENCLOSED BUILDING OR SHED.
2. INSTALL IMPERMEABLE LINER AS PER MANUFACTURER'S RECOMMENDATIONS. 60 mil MINIMUM.
3. CONSTRUCT BERMED AREA WITH VOLUME GREATER THAN OR EQUAL TO 110% VOLUME OF BARRELS.



SECTION A-A — PLAN

INLET PROTECTION BARRIER WITH REINFORCED FILTER FABRIC



PLAN

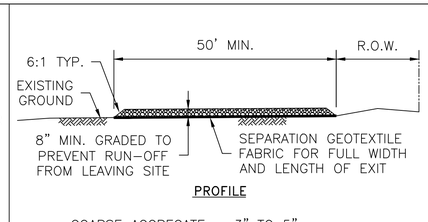
INLET PROTECTION BARRIER WITH FILTER ROLLS

GENERAL NOTES:

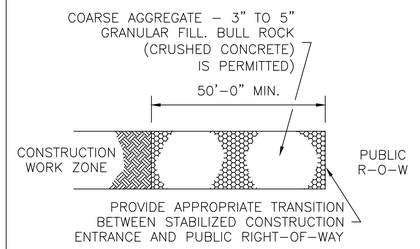
1. FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER, AND AS APPROVED BY THE ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE I INLETS

IPB — SYMBOL



PROFILE



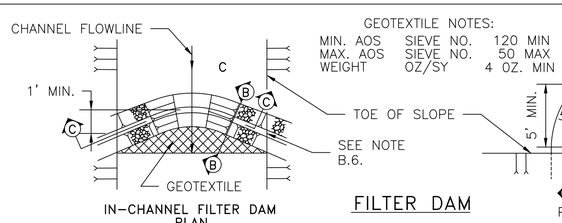
PLAN

STABILIZED CONSTRUCTION ACCESS

SC-1 — SYMBOL

GENERAL NOTES:

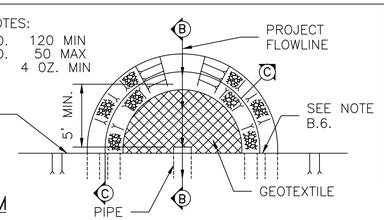
1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
7. MINIMUM 14' WIDTH FOR ONE WAY TRAFFIC AND 20' WIDTH FOR TWO WAY TRAFFIC.



IN-CHANNEL FILTER DAM PLAN

GEOTEXTILE NOTES:

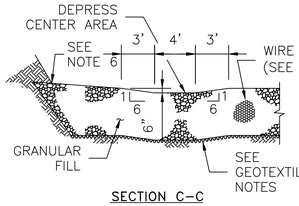
MIN. AOS	SIEVE NO.	120 MIN
MAX. AOS	SIEVE NO.	50 MAX
WEIGHT	OZ/SY	4 OZ. MIN



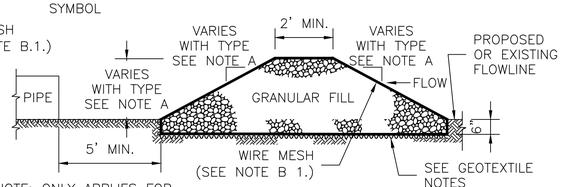
FILTER DAM AT DETENTION BASIN OUTFALL PIPE PLAN

FILTER DAM

RFD-TYPE — SYMBOL



SECTION C-C



SECTION B-B

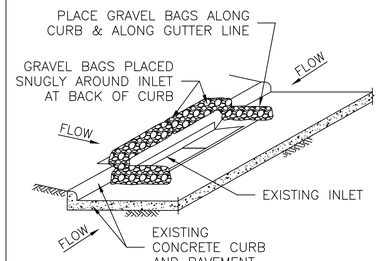
NOTE: ONLY APPLIES FOR DETENTION BASIN OUTFALL PIPE PROTECTION.

A. TYPES OF FILTER DAMS

1. TYPE 1 (NON-REINFORCED)
   a. HEIGHT – 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
   b. TOP WIDTH – 2 FEET (MINIMUM)
   c. SLOPES – 2:1 (MAXIMUM).
2. TYPE 2 (REINFORCED).
   a. HEIGHT – 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
   b. TOP WIDTH – 2 FEET (MINIMUM).
   c. SLOPES – 2:1 (MAXIMUM).
3. TYPE 3 (REINFORCED)
   a. HEIGHT – 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
   b. TOP WIDTH – 2 FEET (MINIMUM).
   c. SLOPES – 3:1 (MAXIMUM).
4. TYPE 4 (GABION)
   a. HEIGHT – 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
   b. TOP WIDTH – 2 FEET (MINIMUM).
5. TYPE 5. AS SHOWN ON THE PLANS.

B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.

1. TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
2. PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
   a. 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4.
   b. 4-8 INCHES FOR ROCK FILTER DAM TYPE REFER TO GRANULAR FILL IN SPECIFICATION SECTION No. 02378 RIPRAP AND GRANULAR FILL.
3. FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
4. IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
5. SEE HCFCD SPECIFICATION SECTION NO. 02364-FILTER DAMS.
6. EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.

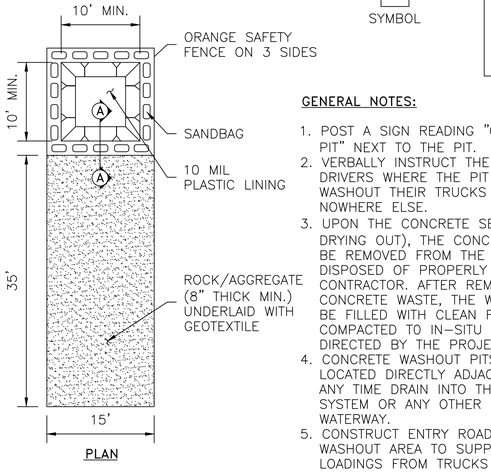


INLET PROTECTION BARRIERS FOR STAGE II INLETS

IPB-II — SYMBOL

GENERAL NOTES:

1. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.
2. GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.



SECTION A-A

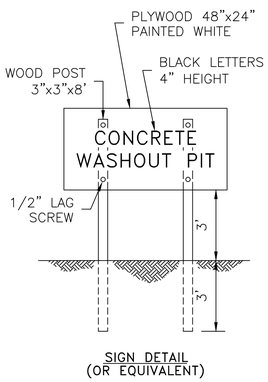
CONCRETE TRUCK WASHOUT AREA

CTW — SYMBOL

PLAN

GENERAL NOTES:

1. POST A SIGN READING "CONCRETE WASHOUT PIT" NEXT TO THE PIT.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT AND NOWHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASHOUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASHOUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.



SIGN DETAIL (OR EQUIVALENT)

GRAPHIC SCALE

STATE OF TEXAS — RAWHI KHALIFEH — 79452 — REGISTERED PROFESSIONAL ENGINEER — 12/19/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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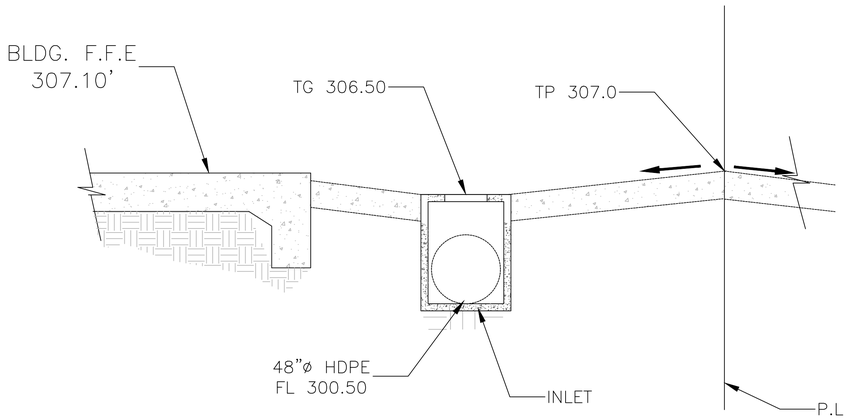
RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
STORM WATER QUALITY POLLUTION PREVENTION DETAILS

DRAWN BY: BM	DATE: 12-6-2021	SHEET: **C3.1** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



SECTION 1
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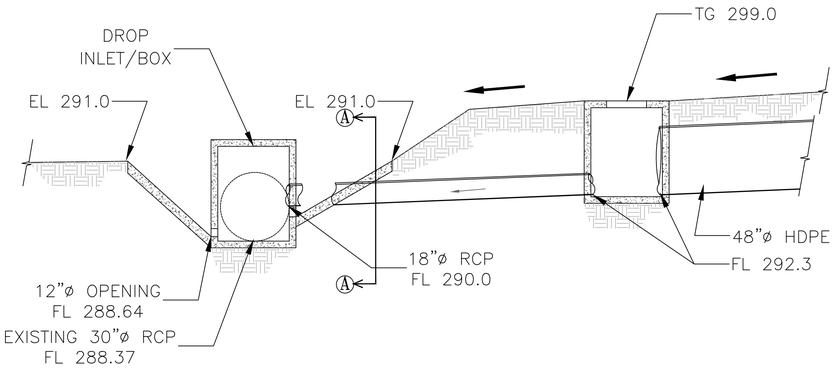

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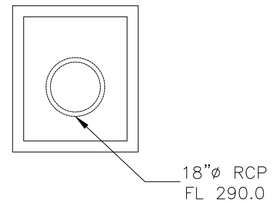
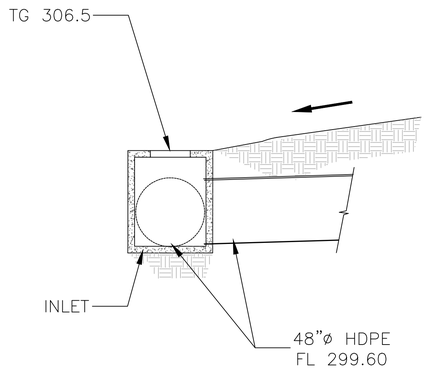


SECTION: A–A
SCALE: NTS



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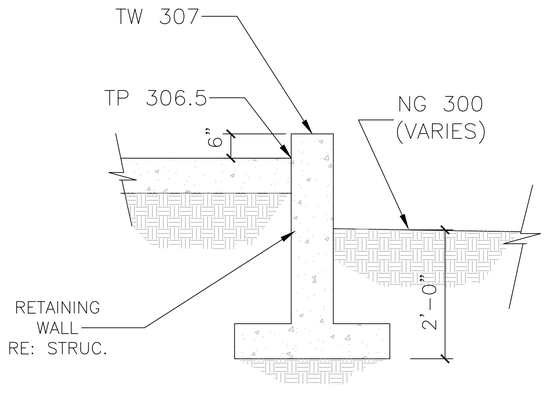
SCALE: NTS



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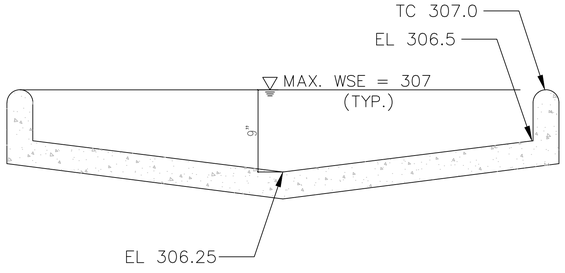

SECTION 5: AT PARKING LOT (TYP.)
SCALE: NTS

NONE

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED
PROFESSIONAL ENGINEER
12/19/2022

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FIRM # F-11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
DRAINAGE SECTIONS

DRAWN BY: BM	DATE: 12-6-2021	SHEET: **C4.0** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

VILLA MARIA STORE
DRAINAGE AREA RUNOFF COMPUTATIONS
CITY OF BRYAN/COLLEGE STATION - RATIONAL METHOD

Frequency (Yr) | 100

SYSTEM	DA	RUNOFF COEFFICIENTS, C (Table C-2 & C-3)								C	Area (A)	T_c	Intensity (I)	Discharge (Q)
		Developed Area				Developed Area - Grass			Undeveloped					
		Asphalt	Concrete	Roof Areas	Detention Pond	<50% Cover	50-75% Cover	>75% Cover	Unimproved					
OUTFALL	I.D.	0.90	0.92	0.92	0.85	0.32	0.25	0.21	0.25	Wtd.	Acres	mins	in./hr	cfs
Existing Conditions														
Exist Drop Inlet	AREA #1			0.15					1.26	0.32	1.53	13.90	10.09	4.94
VM Curb Inlet	AREA #2		0.40				0.19			0.70	0.59	10.75	10.09	4.19
Proposed Conditions														
INLET-A3	AREA #4		0.03	0.09				0.06		0.68	0.18	10.00	11.64	1.43
INLET-A1	A1		0.19							0.92	0.19	10.00	11.64	2.02
INLET-A2	A2		0.24							0.92	0.24	10.00	11.64	2.59
INLET-A3	A3		0.04							0.92	0.04	10.00	11.64	0.44
INLET-A4	A4		0.10							0.92	0.10	10.00	11.64	1.07
INLET-A5	A5		0.11							0.92	0.11	10.00	11.64	1.14
INLET-A6	A6							0.07		0.21	0.10	10.00	11.64	0.24
INLET-A7	A7							0.12		0.21	0.12	10.00	11.64	0.30
INLET-A8	A8							0.04		0.21	0.04	10.00	11.64	0.09
	(AREA #1 + #4)		***0.71***	***0.09***				***0.29***		***0.73***	***1.12***	***10.00***	***11.64***	***9.54***
Exist Drop Inlet	AREA #3						0.64			0.25	0.64	11.72	11.64	1.86
VM Curb Inlet	AREA #2		0.55							0.92	0.55	10.75	11.64	5.89

Frequency (Yr) | 25

SYSTEM	DA	RUNOFF COEFFICIENTS, C (Table C-2 & C-3)								C	Area (A)	T_c	Intensity (I)	Discharge (Q)
		Developed Area				Developed Area - Grass			Undeveloped					
		Asphalt	Concrete	Roof Areas	Detention Pond	<50% Cover	50-75% Cover	>75% Cover	Unimproved					
OUTFALL	I.D.	0.90	0.92	0.92	0.85	0.32	0.25	0.21	0.25	Wtd.	Acres	mins	in./hr	cfs
Existing Conditions														
Exist Drop Inlet	AREA #1			0.15					1.26	0.32	1.53	13.90	8.54	4.18
VM Curb Inlet	AREA #2		0.40				0.19			0.70	0.59	10.75	8.54	3.55
Proposed Conditions														
INLET-A3	AREA #4		0.03	0.09			0.00	0.06		0.68	0.18	10.00	9.86	1.21
INLET-A1	A1		0.19							0.92	0.19	10.00	9.86	1.71
INLET-A2	A2		0.24							0.92	0.24	10.00	9.86	2.19
INLET-A3	A3		0.04							0.92	0.04	10.00	9.86	0.37
INLET-A4	A4		0.10							0.92	0.10	10.00	9.86	0.91
INLET-A5	A5		0.11							0.92	0.11	10.00	9.86	0.96
INLET-A6	A6							0.07		0.21	0.10	10.00	9.86	0.21
INLET-A7	A7							0.12		0.21	0.12	10.00	9.86	0.26
INLET-A8	A8							0.04		0.21	0.04	10.00	9.86	0.08
	(AREA #1 + #4)		***0.71***	***0.09***				***0.29***		***0.73***	***1.12***	***10.00***	***9.86***	***8.08***
Exist Drop Inlet	AREA #3						0.64			0.25	0.64	11.72	9.86	1.58
VM Curb Inlet	AREA #2		0.55							0.92	0.18	10.75	9.86	1.64

Frequency (Yr) | 10

SYSTEM	DA	RUNOFF COEFFICIENTS, C (Table C-2 & C-3)								C	Area (A)	T_c	Intensity (I)	Discharge (Q)
		Developed Area				Developed Area - Grass			Undeveloped					
		Asphalt	Concrete	Roof Areas	Detention Pond	<50% Cover	50-75% Cover	>75% Cover	Unimproved					
OUTFALL	I.D.	0.90	0.92	0.92	0.85	0.32	0.25	0.21	0.25	Wtd.	Acres	mins	in./hr	cfs
Existing Conditions														
Exist Drop Inlet	AREA #1			0.15						0.32	1.53	13.90	7.46	3.66
VM Curb Inlet	AREA #2		0.40				0.19			0.70	0.59	10.75	7.46	3.10
Proposed Conditions														
INLET-A3	AREA #4		0.03	0.09			0.00	0.06		0.68	0.18	10.00	8.63	1.06
INLET-A1	A1		0.19							0.92	0.19	10.00	8.63	1.50
INLET-A2	A2		0.24							0.92	0.24	10.00	8.63	1.92
INLET-A3	A3		0.04							0.92	0.04	10.00	8.63	0.33
INLET-A4	A4		0.10							0.92	0.10	10.00	8.63	0.79
INLET-A5	A5		0.11							0.92	0.11	10.00	8.63	0.84
INLET-A6	A6							0.07		0.21	0.10	10.00	8.63	0.18
INLET-A7	A7							0.12		0.21	0.12	10.00	8.63	0.22
INLET-A8	A8							0.04		0.21	0.04	10.00	8.63	0.07
	(AREA #1 + #4)		***0.71***	***0.09***				***0.29***		***0.73***	***1.12***	***10.00***	***8.63***	***7.08***
Exist Drop Inlet	AREA #3		0.71				0.64			0.60	0.64	11.72	8.63	3.33
VM Curb Inlet	AREA #2		0.55							0.92	0.18	10.75	8.63	1.43

VILLA MARIA STORE
DRAINAGE AREA RUNOFF COMPUTATIONS
CITY OF BRYAN/COLLEGE STATION - RATIONAL METHOD

Frequency (Yr) | 2

SYSTEM	DA	RUNOFF COEFFICIENTS, C (Table C-2 & C-3)								C	Area (A)	T_c	Intensity (I)	Discharge (Q)
		Developed Area				Developed Area - Grass			Undeveloped					
		Asphalt	Concrete	Roof Areas	Detention Pond	<50% Cover	50-75% Cover	>75% Cover	Unimproved					
OUTFALL	I.D.	0.90	0.92	0.92	0.85	0.32	0.25	0.21	0.25	Wtd.	Acres	mins	in./hr	cfs
Existing Conditions														
Exist Drop Inlet	AREA #1			0.15						0.32	1.53	13.90	5.40	2.65
VM Curb Inlet	AREA #2		0.40				0.19			0.70	0.59	10.75	5.40	2.25
Proposed Conditions														
INLET-A3	AREA #4		0.03	0.09			0.00	0.06		0.68	0.18	10.00	6.33	0.78
INLET-A1	A1		0.19							0.92	0.19	10.00	6.33	1.10
INLET-A2	A2		0.24							0.92	0.24	10.00	6.33	1.41
INLET-A3	A3		0.04							0.92	0.04	10.00	6.33	0.24
INLET-A4	A4		0.10							0.92	0.10	10.00	6.33	0.58
INLET-A5	A5		0.11							0.92	0.11	10.00	6.33	0.62
INLET-A6	A6							0.07		0.21	0.10	10.00	6.33	0.13
INLET-A7	A7							0.12		0.21	0.12	10.00	6.33	0.16
INLET-A8	A8							0.04		0.21	0.04	10.00	6.33	0.05
	(AREA #1 + #4)		***0.71***	***0.09***				***0.29***		***0.73***	***1.12***	***10.00***	***6.33***	***5.18***
Exist Drop Inlet	AREA #3						0.64			0.25	0.64	11.72	6.33	1.01
VM Curb Inlet	AREA #2		0.55							0.92	0.18	10.75	6.33	1.05

Note(s) : Table C-2, Unified Stormwater Design Guidelines, City of Bryan/City of College Station 2020

TIME OF CONCENTRATION (T_c)

Bryan-College Station - TIME OF CONCENTRATION CALCULATION (T_c)

OVERLAND SHEET FLOW			*EXISTING CONDITIONS*	*PROPOSED CONDITIONS*
Overland Flow Distance (<=300ft)	L	ft	300	70
2-year, 24-hour Rainfall depth (Table C-6)	P_i	inches	4.50	4.50
Slope of land (ft/ft)	s	ft/ft	0.065	0.0103
Mannings Roughness Coeff.	n		0.150	0.011
Travel Time $T_t = \frac{0.007(nL)^{0.8}}{(P_i)^{0.5} S^{0.4}}$	T_t	hrs	0.21	0.02

SHALLOW CONCENTRATED FLOW			*EXISTING CONDITIONS*	*PROPOSED CONDITIONS*
Flow Distance	D	ft	180	
Overland Slope	S_{op}	ft/ft	0.072	
Runoff Velocity (Table C-4)	V	ft/s	2.00	
Travel Flow Time T = D/60V	T	mins	1.50	0.00

CHANNEL FLOW

Channel Shape	Channel Slope S_o (ft/ft)	Bottom Width (ft)	Water Depth (ft)	Side Slope (H:1)	Diameter (ft)	X-Section Area (ft^2)	Top Width (ft)	Wetted Perimeter (ft)	Existing Length of Channel (ft)	Proposed Length of Channel (ft)	*EXISTING CONDITIONS*	*PROPOSED CONDITIONS*
Trapeziodal Channel						0.00	0.00	0.00				
Triangular Channel						0.00	0.00	0.00				
Circular Channel	0.0017				1.50	1.77	1.34	258.00		450	0.00	10.71
								Travel Flow Time, T (mins)			0.00	10.71

TOTAL TIME OF CONCENTRATION	mins	*13.90*	*11.72*
TIME OF CONCENTRATION USED	***mins***	***13.90***	***11.72***

VILLA MARIA STORE

APPENDIX C

DETENTION CALCULATIONS FOR 100-YR STORM EVENT

PEAK INFLOW RATE	**I**	8.34	CFS
PEAK DISCHARGE RATE	**O**	4.94	CFS
TOTAL AREA OF DEVELOPMENT	**A**	1.26	AC-FT
100-YR, 24-HR RAINFALL DEPTH	**P_{100}**	**11.00**	**IN**

INITIAL INFILTRATION

LAND USE DESCRIPTION *(TR-55 Table 2-2a)*	Commercial & Business Areas		
HYRDOLOGIC SOIL GROUP	**HSG**	C	
SCS CURVE No. ***(TR-55 Table 2-2a)***	**CN**	94	
RETENTION AFTER RUNOFF ***(S = (1000/CN)-10)***	**S**	0.64	IN
INITIAL ABSTRACTION ***(I_a = 0.2*S)***	**I_a**	0.128	IN
TOTAL BASIN INFLOW VOLUME	**V_R**	1.16	AC-FT
$B = \frac{43560 V_R}{0.5I}$	**B**	12115	SECONDS
$S = \frac{0.5B(I-O)}{43560}$	**S**	20555	CF
REQUIRED DETENTION		**0.47**	**AC-FT**

RESTRICTOR CALCULATION

ALLOWABLE DISCHARGE (100-YR EVENT)	**Q_{allow}**	**4.94**	**CFS**
CONTRACTION COEFFICIENT	**C_d**	0.82	
GRAVITIONAL CONSTANT	**g**	32.2	FT/S2
HEAD (ASSUMED)	**H**	3.00	FT
RESTRICTOR DIAMETER $D = \frac{\sqrt{Q}}{2.25H^{0.25}}$	**D**	0.75	FT
		9.0	IN.
RESTRICTOR SIZE TO USE	**D_{actual}**	**8.0**	**IN.**
	A	0.35	SF
HEAD (ACTUAL)	**H_{actual}**	3.50	FT
ACTUAL DISCHARGE $Q = C_d A_0 \sqrt{2gH}$	**Q_{actual}**	**4.30**	**CFS**

DETENTION CALCULATIONS FOR 25-YR STORM EVENT

PEAK INFLOW RATE	**I**	7.06	CFS
PEAK DISCHARGE RATE	**O**	4.18	CFS
TOTAL AREA OF DEVELOPMENT	**A**	1.26	AC-FT
25-YR, 24-HR RAINFALL DEPTH	**P_{25}**	**8.40**	**IN**

INITIAL INFILTRATION

LAND USE DESCRIPTION (DD11 DCM Tbl 6-5)	Commercial & Business Areas		
HYRDOLOGIC SOIL GROUP	**HSG**	C	
SCS CURVE No. ***(DD11 DCM TBL 6-5)***	**CN**	94	
RETENTION AFTER RUNOFF ***(S = (1000/CN)-10)***	**S**	0.64	IN
INITIAL ABSTRACTION ***(I_a = 0.2*S)***	**I_a**	0.128	IN
TOTAL BASIN INFLOW VOLUME	**V_R**	0.88	AC-FT
$B = \frac{43560 V_R}{0.5I}$	**B**	10931	SECONDS
$S = \frac{0.5B(I-O)}{43560}$	**S**	15696	CF
REQUIRED DETENTION		**0.36**	**AC-FT**

RESTRICTOR CALCULATION

ALLOWABLE DISCHARGE (25-YR EVENT)	**Q_{allow}**	**4.18**	**CFS**
CONTRACTION COEFFICIENT	**C_d**	0.82	
GRAVITIONAL CONSTANT	**g**	32.2	FT/S2
HEAD (ASSUMED)	**H**	3.00	FT
RESTRICTOR DIAMETER $D = \frac{\sqrt{Q}}{2.25H^{0.25}}$	**D**	0.69	FT
		8.3	IN.
RESTRICTOR SIZE TO USE	**D_{actual}**	**8.0**	**IN.**
	A	0.35	SF
HEAD (ACTUAL)	**H_{actual}**	2.00	FT
ACTUAL DISCHARGE $Q = C_d A_0 \sqrt{2gH}$	**Q_{actual}**	**3.25**	**CFS**

DETENTION VOLUME PROVIDED

	# OF UNITS	LENGTH (FT)	DEPTH (FT)	WIDTH (FT)	AREA (SF)	VOLUME (CF)	VOLUME (AC-FT)
PARKING LOT			0.58		**22,659**	13,210	0.303
PIPES (18" HDPE)		706	4.00		**12.57**	8,872	0.204
INLETS						-	0.000
DETENTION POND						-	0.000
			TOTAL VOLUME PROVIDED			**22,082**	**0.51**

OWNER NAME:
ADDRESS:
PHONE #:
EMAIL:

APPLICANT NAME: RSK ENGINEERING
ADDRESS: 11302 TANNER RD
HOUSTON, TX 77041
PHONE #: 281-580-4585
EMAIL: RSKENGINEERING@GMAIL.COM

GRAPHIC SCALE

STATE OF TEXAS · RAWHI KHALIFEH · 79452 · REGISTERED PROFESSIONAL ENGINEER · 12-19-2022

ISSUE HISTORY		REVISIONS
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ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD
HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN, TX 77807

SITE DETAILS & DETENTION CALCULATION

DRAWN BY: BM | DATE: 04-27-2022 | SHEET: **C5.0** Rev.0
CHECKED BY: RSK | PROJ. NO.: VR15003.317.4

KEYED NOTES:

1. CONNECT NEW SEWER LINE TO EXISTING SEWER LINE AS SHOWN. FIELD TO COORDINATE ACTUAL LOCATION OF EXISTING SEWER LINE.
2. CONNECT NEW NATURAL GAS LINE TO EXISTING NATURAL GAS LINE AS SHOWN. FIELD TO COORDINATE ACTUAL LOCATION OF EXISTING NATURAL GAS LINE.
3. CONNECT NEW DOMESTIC WATER LINE TO EXISTING DOMESTIC WATER LINE AS SHOWN. FIELD TO COORDINATE ACTUAL LOCATION OF EXISTING DOMESTIC WATER LINE.

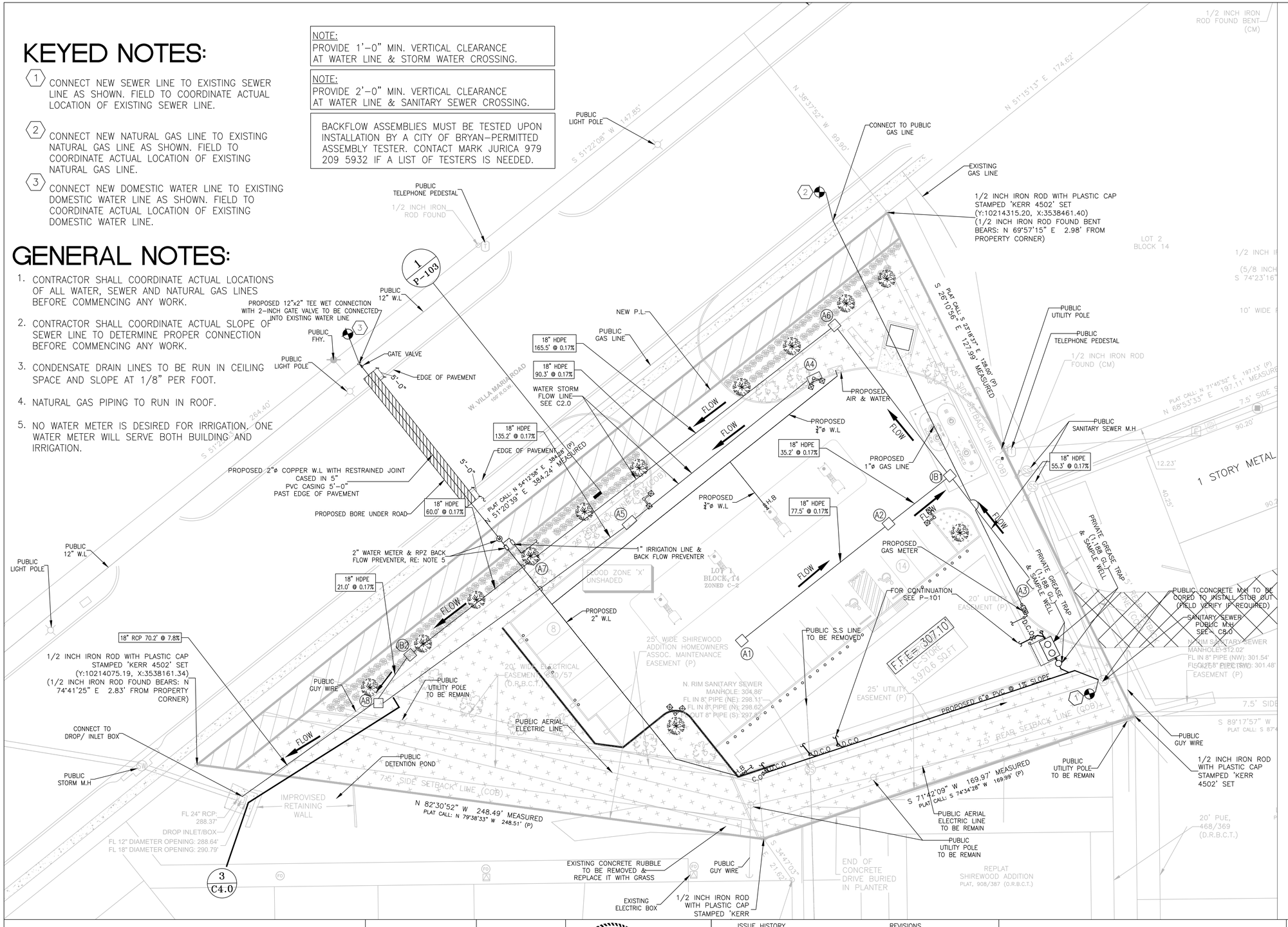
NOTE:
PROVIDE 1'-0" MIN. VERTICAL CLEARANCE AT WATER LINE & STORM WATER CROSSING.

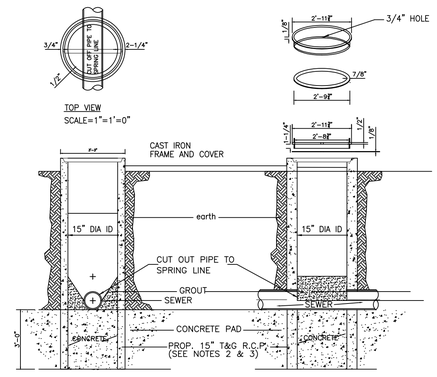
NOTE:
PROVIDE 2'-0" MIN. VERTICAL CLEARANCE AT WATER LINE & SANITARY SEWER CROSSING.

BACKFLOW ASSEMBLIES MUST BE TESTED UPON INSTALLATION BY A CITY OF BRYAN-PERMITTED ASSEMBLY TESTER. CONTACT MARK JURICA 979 209 5932 IF A LIST OF TESTERS IS NEEDED.

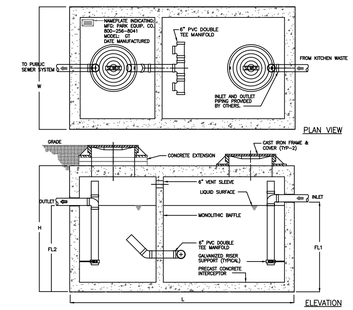
GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE ACTUAL LOCATIONS OF ALL WATER, SEWER AND NATURAL GAS LINES BEFORE COMMENCING ANY WORK.
2. CONTRACTOR SHALL COORDINATE ACTUAL SLOPE OF SEWER LINE TO DETERMINE PROPER CONNECTION BEFORE COMMENCING ANY WORK.
3. CONDENSATE DRAIN LINES TO BE RUN IN CEILING SPACE AND SLOPE AT 1/8" PER FOOT.
4. NATURAL GAS PIPING TO RUN IN ROOF.
5. NO WATER METER IS DESIRED FOR IRRIGATION. ONE WATER METER WILL SERVE BOTH BUILDING AND IRRIGATION.





SAMPLE WELL BASIN



GREASE INTERCEPTOR SCHEDULE								
MODEL NO.	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
GT-1250	1,250	2,900	14,650	9'-2"	5'-8"	6'-0"	4'-9"	4'-6"

* PARK EQUIPMENT CO. OR EQUAL

1000,GALLON-GREASE-TRAP

Typical applications include commercial and industrial food service kitchens where excessive grease may interfere with the proper drainage of the sewer system. The grease interceptor is generally buried below grade for gravity flow sewer systems. A sample well is utilized on the outlet side for sampling by the local water authority.

Specifications

CONCRETE: Class 1 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor, first stage of wall and baffle with sectional riser to required depth. (Monolithic baffle required, slide-in type is not acceptable)

REINFORCEMENT: Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

C.I. CASTINGS: Manhole frames, covers or grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30. Manhole shall be nominal 24 inch diameter and be traffic duty.

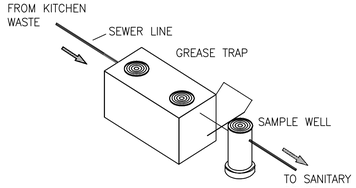
OTHER SIZES ARE AVAILABLE. CONTACT US FOR MORE INFORMATION

Engineering Data

The grease interceptor is structurally & hydraulically engineered to conform to regional plumbing codes recommended in most cities. Consult with local authorities for specific application requirements.

Shop drawings shall include complete structural & buoyancy calculations certified by a licensed professional engineer.

Consult with Park Equipment Company for exact excavation dimensions & shipping information.



1 GREASE INTERCEPTOR DETAIL
SCALE: NONE

SCALE: 1"=20'-0"
GRAPHIC SCALE

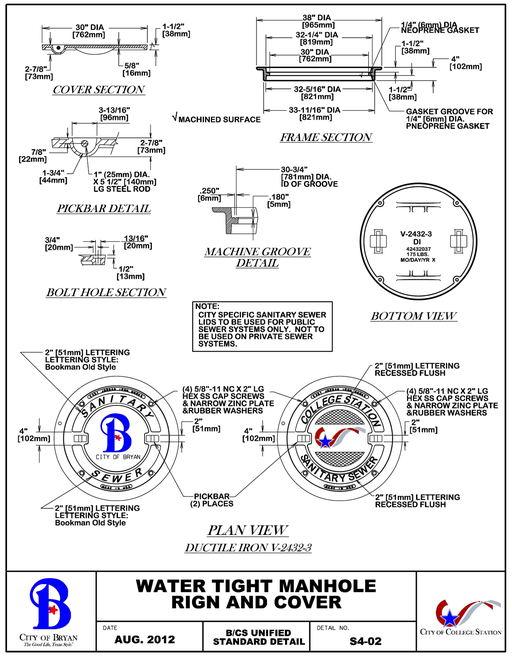
STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/19/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
UTILITY SITE PLAN

DRAWN BY: BM	DATE: 12-6-2021	SHEET: **C6.0** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



City of Bryan	WATER TIGHT MANHOLE RIGN AND COVER
DATE	AUG. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	S4-02
City of College Station	

1 DETAIL SCALE: NTS — WATER TIGHT MANHOLE RIGN AND COVER

(A) SELECT NATIVE MATERIAL

MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION), COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NON-STRUCTURAL AREAS (ie...YARDS, PASTURES, EASEMENTS) AND TO A MINIMUM OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NEW STREET AREAS AND STREETS TO BE RECONSTRUCTED.

(B) GRANULAR MATERIAL

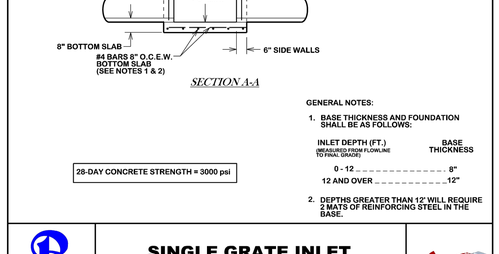
MATERIAL SHALL BE BANK RUN RIVER SAND WHICH IS FREE OF DETRIMENTAL QUANTITIES OF CLAY, DEBRIS, OR ORGANIC MATERIAL AND WHICH, WHEN TESTED BY STANDARD LABORATORY METHODS, MEET THE FOLLOWING REQUIREMENTS:

MAXIMUM LIQUID LIMIT	45
MAXIMUM PLASTICITY INDEX	15
MAXIMUM PERCENT PASSING NO. 200 SIEVE	35
MINIMUM PERCENT PASSING 3/4" SIEVE	100

THE MATERIAL SHALL BE FREE FLOWING AND WHEN WET, SHALL NOT ADHERE TO FORM A BALL WHEN PRESSED IN THE HAND.

(C) CEMENT STABILIZED SAND

NOTES:
1. *FOR BEDDING AND TRENCHING WITHIN ALL EXISTING PAVED AREAS, SEE DETAILS FOR OPEN CUT STREETS. (Details ST4-00, ST4-01, ST4-02). THIS NOTE DOES NOT APPLY TO STREETS BEING RECONSTRUCTED.*
2. ALL BEDDING & INSTALLATION OF PVC PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA STANDARDS FOR PVC PIPE.
3. ALL BEDDING & INSTALLATION OF DUCTILE IRON PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA C150/A21.50.
4. COMPACTION SHALL BE ATTAINED BY MECHANICAL TAMPING.
5. ALL TRENCHES SHALL BE BACK FILLED AND TEMPORARY PAVING OR PLANKING PLACED AT THE END OF EACH WORKING DAY.



NON-STRUCTURAL AREAS

AREAS TO BE PAVED OR STREETS TO BE RECONSTRUCTED

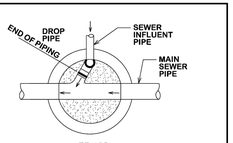
City of Bryan	BEDDING AND TRENCH FOR DI PIPE & PVC PIPE
DATE	AUG. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	S1-01
City of College Station	

2 DETAIL SCALE: NTS — BEDDING AND TRENCH FOR DI PIPE &PVC PIPE

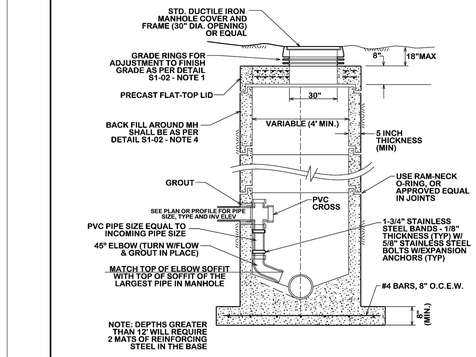
NOTE:
MANHOLE BASE SHALL BE PLACED ON FIRM SUBGRADE. ADDITION OF CEMENT STABILIZED SAND OR GRAVEL MAY BE REQUIRED TO STABILIZE FOUNDATION.

IN EXISTING MANHOLE, PLACE PVC ELBOW ON BENCH. GROUT NEW BENCH TO SPRINGLINE AND TROWEL SMOOTH. FORM SMOOTH CHANNEL TO INVERT.

ALL NEW CONNECTION AT EXISTING MANHOLES SHALL BE BY CORING ONLY



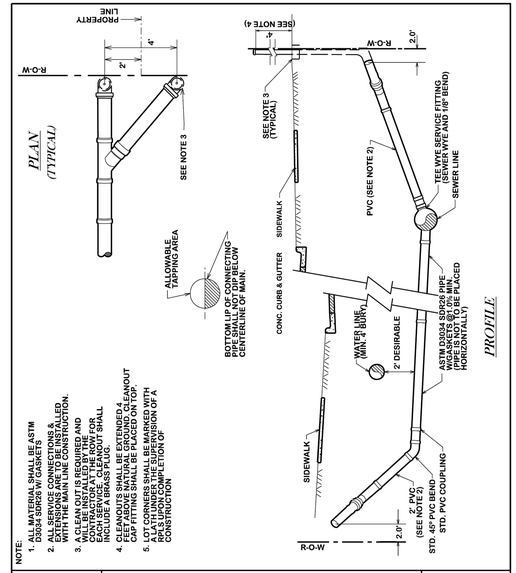
PLAN



CITY OF BRYAN : DROP MANHOLE TO BE USED ON LINES UP TO 12' IN SIZE
CITY OF COLLEGE STATION : DROP MANHOLE TO BE USED ON LINES UP TO 4' IN SIZE

City of Bryan	INSIDE DROP MANHOLE
DATE	AUG. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	S2-02
City of College Station	

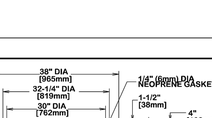
3 DETAIL SCALE: NTS — INSIDE DROP MANHOLE



City of Bryan	CITY OF BRYAN SEWER SERVICE LINE CROSSING
DATE	OCT. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	S6-00
City of College Station	

4 DETAIL SCALE: NTS — CITY OF BRYAN SEWER SERVICE LINE CROSSING

NOTES:
1. 1" DIA. "STARTER" HOLES SHALL BE DRILLED THROUGH WALL OF EXISTING MANHOLE SPACED 3" APART CENTER TO CENTER. AFTER "STARTER" HOLES HAVE BEEN INSTALLED AND APPROVED BY A CITY INSPECTOR, THE CONTRACTOR SHALL BEGIN REMOVING THE CONCRETE INSIDE THE PERIPHERAL "STARTER" HOLES. CONCRETE SHALL BE REMOVED WITH PNEUMATIC HAND TOOLS.
2. THE NUMBER OF REBAR DOWELS SHALL VARY WITH SIZE OF OPENING. REBAR SHALL NOT BE SPACED MORE THAN 12" CC.
3. WATERSTOP SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
4. CONCRETE SHALL BE 3,000 P.S.I.



1 / A OPENING CREATION DETAIL

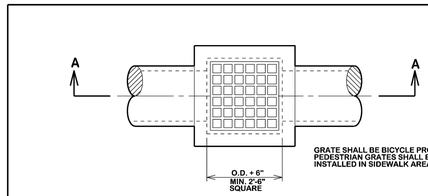
1 / B MANHOLE CONNECTION DETAIL

1 / B.2 CONNECTION DETAIL SECTION VIEW

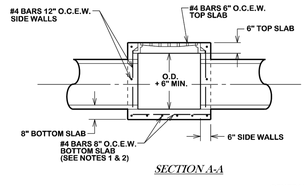
1 / B.1 CONNECTION DETAIL SECTION VIEW

City of Bryan	STANDARD MANHOLE TIE-IN
DATE	AUG. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	S3-01
City of College Station	

5 DETAIL SCALE: NTS — STANDARD MANHOLE TIE-IN



PLAN



SECTION A-A

GENERAL NOTES:
1. BASE THICKNESS AND FOUNDATION SHALL BE AS FOLLOWS:

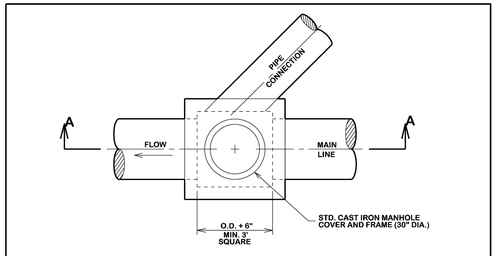
INLET DEPTH (FT.) (MEASURED FROM FLOWLINE TO FINAL GRADE)	BASE THICKNESS
0 - 12	8"
12 AND OVER	12"

2. DEPTHS GREATER THAN 12' WILL REQUIRE 2 MATS OF REINFORCING STEEL IN THE BASE.

28-DAY CONCRETE STRENGTH = 3000 psi

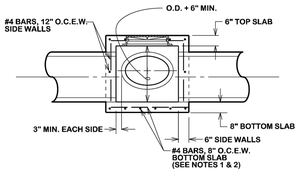
City of Bryan	SINGLE GRATE INLET
DATE	AUG. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	D1-01
City of College Station	

6 DETAIL SCALE: NTS — SINGLE GRATE INLET



PLAN

28-DAY CONCRETE STRENGHT = 3000 psi



SECTION A-A

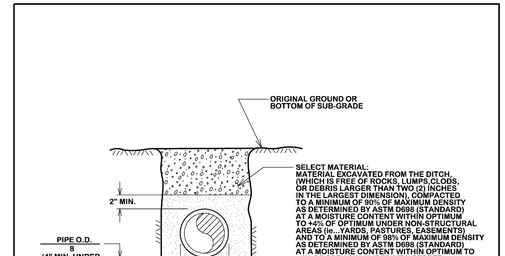
GENERAL NOTES:
1. BASE THICKNESS AND FOUNDATION SHALL BE AS FOLLOWS:

INLET DEPTH (FT.) (MEASURED FROM FLOWLINE TO FINAL GRADE)	BASE THICKNESS
0 - 12	8"
12 AND OVER	12"

2. DEPTHS GREATER THAN 12' WILL REQUIRE 2 MATS OF REINFORCING STEEL IN THE BASE.

City of Bryan	STORM SEWER JUNCTION BOX
DATE	AUG. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	D1-02
City of College Station	

7 DETAIL SCALE: NTS — STORM SEWER JUNCTION BOX



City of Bryan	BEDDING AND TRENCH FOR REINFORCED CONCRETE PIPE
DATE	AUG. 2012
B/CS UNIFIED STANDARD DETAIL	
DETAL NO.	D3-03
City of College Station	

8 DETAIL SCALE: NTS — BEDDING AND TRENCH FOR REINFORCED CONCRETE PIPE

OWNER NAME:
ADDRESS:
PHONE #:
EMAIL:

APPLICANT NAME: RSK ENGINEERING
ADDRESS: 11302 TANNER RD
HOUSTON, TX 77041
PHONE #: 281-580-4585
EMAIL: RSKENGINEERING@GMAIL.COM

N.T.S.

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12-19-2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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–	–	–
–	–	–

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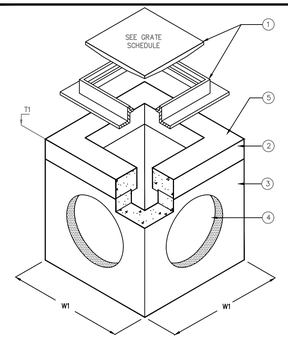
11302 TANNER RD
HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN, TX 77807

SITE DETAILS

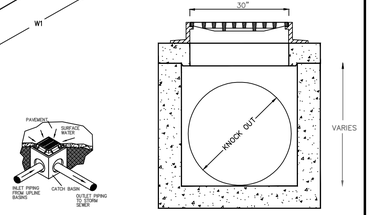
DRAWN BY: BM	DATE: 10-14-2021	SHEET: C7.0 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR15003.317.4	



ISOMETRIC VIEW

KEYED NOTES		
MARK	QTY.	DESCRIPTION
1	1	CAST IRON FRAME &GRATE
2	1	TOP SECTION
3	1	PRECAST CONCRETE BASIN SECTION
4	4	THIN WALL KNOCKOUT ON ALL 4 SIDES, SEE KO DIMENSION FOR MAXIMUM PIPE O.D.
5	1	NAMEPLATE MFG: ParkUSA 888-611-PARK WWW.PARKUSA.COM MODEL: CB4880

GRATE SCHEDULE		
GRATE = 200 lbs OPEN AREA = 480 in²	MODEL No.	V4880-1
GRATE = 240 lbs OPEN AREA = 634 in²	MODEL No.	V4880-3
GRATE = 270 lbs OPEN AREA = 387 in²	MODEL No.	V4880-4



SECTION VIEW

NOTE:
RISER SECTION AVAILABLE IN 6" TO 12" DEPTHS.

MODEL	W1	W2	H1	H2	T1	T2	KO	GRATE SIZE	OPEN AREA	WEIGHT LBS
CB-30	42"	30"	42"	36"	6"	6"	30"	30"x30"x2"	490	3,675
CB-36	48"	36"	42"	36"	6"	6"	32"	30"x30"x2"	693	4,585
CB-48	60"	48"	54"	48"	6"	6"	48"	30"x30"x2"	693	7,250
CB-60	72"	60"	66"	60"	6"	6"	60"	30"x30"x2"	693	10,500
CB-72	84"	72"	78"	72"	6"	6"	72"	30"x30"x2"	693	15,350
CB-84	96"	84"	78"	72"	6"	6"	72"	30"x30"x2"	693	19,500

SPECIFICATIONS

CONCRETE : CLASS I/II CONCRETE WITH OF DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH. RATED FOR H-20 LOADING.

REINFORCEMENT: GRADE 60 REINFORCED WITH STEEL REBAR TO CONFORM TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

C.I. CASTINGS: CAST IRON FRAMES AND GRATES ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30.

NPCA CERTIFIED PLANT | ASTM C-913 | NSPE MEMBER

CB-C STANDARD MANHOLE DETAILS

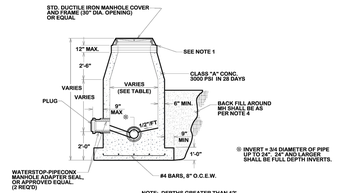
PROJECT:	.
CUSTOMER:	.
ENGINEER:	.
ORDER #:	. PROJ #: .
DATE:	. LOCATION: .

PARK USA
www.parkusa.com 888-611-PARK

TYPE-A GRATE INLET
MODEL CB4880 30" THRU 84"

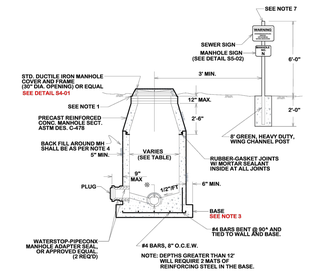
PM	PC	DRN	ENG	DWG. NO.	REV.
.	.	.	.		
DATE 12/2020					.

NOTES:
1. A MAX. OF 4 AND A MIN. OF 2 THROAT RINGS MAY BE USED TO ADJUST MANHOLE IN NEW OR EXISTING RIGHT-OF-WAY.
2. USE ADEKA SEALANT OR APPROVED EQUAL BETWEEN RING/COVER, ADJUSTMENT RINGS AND CHIMNEY OR CORBEL/CONE SECTION.
3. MANHOLE BASE THICKNESS AND FOUNDATION FROM FLOWLINE TO RIM AS FOLLOWS:
   MANHOLE DEPTH (FT.) — BASE THICKNESS
   0 - 12 — 8"
   12 AND OVER — 12"
4. MANHOLE LOCATION AND COMPACTION AS FOLLOWS:
   LOCATION — COMPACTION REQUIREMENT
   PAVEMENT — 98 % STANDARD PROCTOR - ASTM D 698
   LANDSCAPE AREA — 90 % STANDARD PROCTOR - ASTM D 698
5. IN FLOODPLAINS OR AREAS OF CONCENTRATED FLOW, MANHOLE COVERS SHALL BE LOCATED TWO BASE FLOOD ELEVATION OR A BOLT DOWN WATER-TIGHT RING AND COVER SHALL BE USED, VENTED WHERE REQUIRED.
6. WARNING SIGN ONLY TO BE PLACED WHERE SEWER CROSSES OPEN FIELDS.



CAST IN PLACE MANHOLE

MANHOLE DIA.	MAIN SIZE
4 FT	<18in.
5 FT	≥18in. <30in.
6 FT	≥36in.



PRE-CAST MANHOLE

CITY OF BRYAN — The Good Life, Texas Style.

STANDARD MANHOLE

DATE	B/CS UNIFIED STANDARD DETAIL	DETAIL NO.
DECEMBER 2020		S1-00

CITY OF COLLEGE STATION

1 DETAIL — STANDARD MANHOLE DETAILS
SCALE: NTS

N.T.S.

GRAPHIC SCALE

STATE OF TEXAS — RAWHI KHALIFEH — 79452 — REGISTERED PROFESSIONAL ENGINEER — 12/19/2022

ISSUE HISTORY	REVISIONS	
DATE	ISSUED FOR	DESCRIPTION
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–	–	–
–	–	–
–	–	–

RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
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HOUSTON, TEXAS 77041
FIRM # F-11211
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
STANDARD MANHOLE DETAILS & GRATE INLET

DRAWN BY: BM	DATE: 12-6-2021	SHEET: C8.0 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

GENERAL NOTES:

THE DESIGN GRAVITY LOADS ARE AS FOLLOWS:

1– BUILDING SUPPLIER TO PROVIDE ALL ACCESORIES BOLTS,ANGLES,AND WELDS REQUIRED TO INSTALL BUILDING,WALLS AND ROOF.

2. THE FLOOR SYSTEM HAS BEEN DESIGN TO WITHSTAND A CONCENTRATED LOAD OF 2000 POUNDS, IN ACCORDANCE WITH SECTION 1604.3 OF IBC 2015.

3. METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

4. STRUCTURAL MEMBERS HAVE BEEN LOCATED AND DESIGN TO ACCOMODATE THE MECHANICAL EQUIPMENT AND OPENINGS SPECIFIED BY THE MECHANICAL CONSULTANT, ANY SUBSTITUTION RESULTING IN REVISIONS TO THE STRUCTURE SHALL BE THE RESPONSIBILITY TO THE CONTRACTOR TO CORDINATE WITH THE STRUCTURAL ENGINEER.

5. THE GENERAL CONTRACTOR AND SUB–CONTRACTORS SHALL DETERMINE THE SCOPE OF THE STRUCTURAL WORK FROM THE CONTRACT DOCUMENT S TAKEN AS A WHOLE, THE STRUCTURAL DRAWINGS SHALL NOT BE CONSIDERED SEPARATELY FOR PURPOSES OF BIDDING THE STRUCTURAL WORK. DUE CONSIDERATION SHALL BE GIVEN TO OTHER STRUCTURAL WORK OR WORK RELATED TO THE STRUCTURE, INCLUDING NECCESSARY COORDINATION DESCRIBED OR IMPLIED BY THE THE ARCHITECTURAL AND MECHANICAL DRAWINGS.

6. WRITTEN PERMISSION MUST BE OBTAINED FROM RSK ENGINEEING PRIOR TO THE REPRODUCTIVE USE OF THE STRUCTURAL CONTRACT DOCUMENTS IN ANY FASHIION AS STRUCTURAL SHOP DRAWING DOCUMENTS.

7. SCALES NOTED ON THE DRAWING ARE FOR GENERAL INFORMATION ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY DIRECT SCALING OF THE DRAWING.

8. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL RESULTING REVISIONS TO THE STRUCTURAL SYESTEM AS A RESULT OF ACCEPTANCE OF CONTRACTOR PROPOSED ALTERNATIVES OR SUBSTITUTIONS.

9. PRINCIPAL OPENINGS IN THE STRUCTURE ARE INDICATED ON THE CONTRACT DOCUMENTS, REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBINGS DRAWINGS FOR SLEEVES, CURBS, INSERTS, ETC. NOT HEREIN INDICATED. OPENINGS IN SLABS WITH A MAXIMUM SIDE DIMENSION OR DIAMETER OF 12 INCHES OR LESS SHALL NOT REQUIRED ADDITIONAL FRAMING OR REINFORCEMENT, UNLESS NOTED OTHERWISE. THE LOCATION OF SLEEVES OR OPENINGS IN STRUCTURAL MEMBERS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

GENERAL NOTES: LIGHT-CAGE STEEL FRAMING

(THESE NOTES SHALL CONTROL UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.)

MATERIALS & STANDARDS

1. STEEL FRAMING MEMBERS MUST CONFORM TO THE REQUIREMENTS OF AISI SPECIFICATIONS FOR THE DESIGN OF COLD–FORMED STRUCTURAL MEMBERS (AISI–86).
2. MATERIAL MUST CONFORM TO ONE OF THE FOLLOWING: ASTM A653, A792 OR A875.
3. MINIMUM YIELD STRENGTH (FY) = 33,000 PSI.
4. FRAMING MEMBERS SHALL BE HOT–DIP GALVANIZED (G60) OR HAVE EQUIVALENT CORROSION–RESISTANT COATING.
5. MATERIAL THICKNESS SHALL CONFORM TO THE FOLLOWNG SCHEDULE:

GAUGE	MILS	MIN. THICKNESS (INCHES)
25	18	0.018
22	27	0.027
20	33	0.033
18	43	0.043
16	54	0.054
14	68	0.068
12	97	0.097

CUTTING, NOTCHING & HOLE STIFFENING

1. FLANGES SHALL NOT BE CUT OR NOTCHED WITHOUT ENGINEER'S APPROVAL.
2. WEB HOLES SHALL BE NO CLOSER THAN 12 INCHES TO BEAM OR JOIST BEARING AND SHALL BE LIMITED TO THE FOLLOWING:
   A. DEPTH: ONE–AND A HALF INCHES (1 1/2").
   B. LENGTH: FOUR INCHES (4").
3. WEB HOLES CLOSER THAN 12" TO JOISTS BEARING OR 18" TO BEAM/HEADER BEARING SHALL BE REINFORCED WITH STIFFENER PLATE, EXTENDING 1" BEYOND ALL HOLE EDGES AND ATTACHED TO WEB WITH #8 SCREWS AT 1" SPACING ALONG THE EDGES.

FASTENERS

1. SCREWS:
   A. ALL SCREWS SHALL BE SELF–DRILLING TAPPING SCREWS, WITH HEAD STYLES, THREADS AND POINT TYPES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION CONDITIONS.
   B. USE #8 MINIMUM UNLESS OTHERWISE SPECIFIED.
   C. MAINTAIN A MINIMUM CENTER–TO–CENTER OR EDGE DISTANCE OF THREE(3) DIAMETERS.
   D. INSTALL SO THAT:
      (I) A MINIMUM OF THREE (3) THREADS PENETRATE THROUGH THE STEEL;
      (II) SCREWS PENETRATE COMPONENTS WITHOUT CAUSING PERMANENT SEPARATION;
      (III) HOLES OR THREADS ARE NOT STRIPPED.
2. BOLTS:
   A. ALL BOLTS SHALL CONFORM TO ASTM–A307, INSTALLED WITH STANDARD NUTS AND WASHERS.
   B. MAINTAIN A MINIMUM DISTANCE OF 1 1/2 TIMES BOLT DIAMETER TO EDGE OF CONNECTED STEEL MEMBER.
   C. BOLT HOLE DIAMETER SHALL NOT EXCEED BOLT DIAMETER BY MORE THAN 1/16".
3. ADHESIVE ANCHORS:
   SHALL BE HILTI–HIT RE500 SERIES, OR APPROVED EQUAL.
4. ***POWDER-ACTUATED PINS:***
   SHALL BE HILTI X-EDNI SERIES (0.145"Ø KNURLED-SHANK W/ DOME HEAD) OR APPROVED EQUAL.

STUD WALLS

1. ALL STUDS SHALL BE SPACED AT 16" O.C.
2. STUDS SHALL NOT BE SPLICED WITHOUT ENGINEER'S APPROVAL.
3. PROVIDE THE FOLLOWING NUMBER OF KING & JACK STUDS AT EACH SIDE OF OPENINGS:
   UP TO 4'–0" OPENING 1 JACK STUD 1 KING STUD
   4'–0" TO 8'–0" OPENING 2 JACK STUDS 2 KING STUDS
   8'–0" TO 12'–0" OPENING 3 JACK STUDS 3 KING STUDS.

CONSTRUCTION GUIDELINES

1. CUTTING METHODS WHICH CAUSE SIGNIFICANT HEATING OF THE STEEL OR DAMAGE TO THE COATINGS SHALL ONLY BE USED WHEN THE GALVANIZED COATING IS REPAIRED.
2. A SILL SEALER, OR EQUIVALENT, SHALL BE PROVIDED BETWEEN THE UNDERSIDE OF THE WALL WHEN FASTENED DIRECTLY TO CONCRETE.
3. PLUMBING LINES:
   COPPER AND PLASTIC PIPES SHALL BE SEPARATED FROM THE STEEL FRAMING BY NON–CONDUCTIVE GROMMETS OR OTHER EQUIVALENT MEANS.
4. ELECTRICAL WIRING:
   A GROMMET BUSHING, CONDUIT OR EQUIVALENT WIRE PROTECTION SHALL BE INSTALLED IN THE SERVICE HOLE OR PUNCH–OUT BEFORE ELECTRICAL WIRING IS PULLED THROUGH.

SPECIFICATIONS: STRUCTURAL & MISC. STEEL

(THESE NOTES SHALL CONTROL UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.)

EXECUTION (CONT'D)

3.04 ERECTION TOLERANCES:
   A. MAXIMUM VARIARTION FROM PLUMB: 1/4 INCH PER STORY, NON–CUMULATIVE.
   B. MAXIMUM OFFSET FROM TRUE ALIGNMENT: 1/4 INCH.
   C. MAXIMUM OUT–OF–POSITION: 1/4 INCH.

SPECIFICATIONS: CORRUGATED STEEL DECK

(THESE NOTES SHALL CONTROL UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.)

GENERAL

1.01 STANDARDS:
   A. WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND CODES:
      ASTM A 653 –– STANDARD SPECIFICATION FOR STEEL SHEET, ZINC–COATED (GALVANIZED) BY HOT–DIP PROCESS.
      ASTM A 1008 –– STANDARD SPECIFICATION FOR STEEL SHEET, COLD–ROLLED, CARBON, STRUCTURAL, HIGH STRENGTH LOW–ALLOY AND HIGH–STRENGTH LOW–ALLOY WITH IMPROVED FORMABILITY.
      STEEL DECK INSTITUTE (SDI) –– CODE OF RECOMMENDED PRACTICE AND BASIC DESIGN SPECIFICATIONS.
1.02 SUBMITTALS:
   A. SHOP DRAWINGS: INDICATE DECKING PLAN, SUPPORT LOCATIONS, OPENINGS AND REINFORCEMENT THEROF, PROJECTIONS, PERTINENT DETAILS AND ACESSORIES.

PRODUCTS

2.01 METAL DECK:
   A. UNCOATED : CONFORM TO ASTM A 1008 , STRUCTURAL QUALITY GRADE AND MINIMUM YIELD STRENGTH : 33,000 PSI.
   B. GALVANIZED : CONFORM TO ASTM A 653, G60 MINIMUM COATING CLASS. MINIMUM YIELD STRENGTH : 33,000 PSI.
   C. DECKS SHALL BE VULCRAFT, CORRUGATED STEEL DECK WITH THE FOLLOWING TYPE, GAGE AND PHYSICAL PROPERTIES (PER FOOT OF WIDTH):
      ROOF DECK — GAGE: 22; MOMENT OF INERTIA: 0.12 IN⁴/FT; SECTION MODULUS: 0.111 IN³/FT; MINIMUM DEPTH: 1–1/2 IN (NOMINAL)
      USE "VULCRAFT 1.5F22 OR APPROVED EQUAL.

2.02 ACCESSORIES:
   A. WELDING MATERIAL: AWS D1.1
   B. TOUCH–UP PRIMER: ZINC CHROMATE TYPE
   C. WELD WASHERS: MILD STEEL, UNCOATED
   D. FASTENERS: HARDENED STEEL, GALVANIZED, SELF–TAPPING
2.03 FABRICATION:
   A. MINIMUM METAL THICKNESS AND NOMINAL HEIGHT: AS SHOWN ON DRAWINGS
   B. SHEET WIDTH: 36"
   C. SPAN DESIGN: MULTIPLE (3 OR MORE)
   D. SIDE JOINTS: LAPPED

EXECUTION

3.01 INSTALLATION:
   A. ERECT METAL DECKING IN ACCORDANCE WITH SDI DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, ROOF DECKS AND WITH MANUFACTURERS INSTRUCTIONS.
   B. BEAR DECKING ON STEEL SUPPORTS WITH 1–1/2" INCH MINIMUM BEARING. ALIGN AND LEVEL.
   C. FASTEN DECK TO STEEL SUPPORT MEMBERS AT ENDS AND INTERMEDIATE SUPPORTS WITH FUSION WELDS THROUGH WELD WASHERS AT 12" O.C. MAXIMUM, PARALLEL WITH DECK FLUTE AND AT EVERY OTHER TRANSVERSE FLUTE..
   D. MINIMUM WELD SIZE: 5/8 INCH PUDDLE WELD. WELD IN ACCORDANCE WITH ASW D1.1.
   E. FASTEN MALE/FEMALE SIDE LAPS AT 24" O.C. MAXIMUM WITH #12 SELF–TAPPING GALVANIZED SCREWS.
   F. REINFORCE STEEL DECK OPENINGS FROM 6 TO 18 INCHES IN SIZE WITH 2x2x1/4 INCH STEEL ANGLES, UNLESS NOTED OTHERWISE. PLACE ANGLES PERPENDICULAR TO FLUTES; EXTEND MINIMUM TWO FLUTES BEYOND EACH SIDE OF OPENING AND FUSION WELD TO DECK AT EACH FLUTE.
   G. INSTALL 6 INCH MINIMUM WIDE SHEET STEEL COVER PLATES, OF THE SAME THICKNESS AS DECKING, WHERE DECK CHANGES DIRECTION. FUSION WELD TO DECK AT EACH FLUTE.
   H. WHERE REQUIRED, AND NOT SHOWN ON DRAWINGS, INSTALL WET CONCRETE STOPS AT DECK EDGES UPTURNED TO TOP SURFACE OF SLAB.
   I. INSTALL SHEET STEEL CLOSURES AND ANGLES FLASHINGS TO CLOSE OPENINGS BETWEEN DECK AND WALLS, COLUMNS, AND OPENINGS.
   J. IMMEDIATELY AFTER WELDING GALVANIZED DECK AND OTHER METAL COMPONENTS IN POSITION, WELDS, WELD BLOOMS, BURNED AREAS, AND DAMAGED SURFACE SHALL BE TOUCH–UP GALVANIZED.
3.02 CONSTRUCTION GUIDELINES:
   A. DO NOT USE DECK UNITS AS A WORKING PLATFORM OR STORAGE AREA UNTIL DECK UNITS ARE PERMANENTLY ATTACHED IN FINAL POSITION.
   B. CONSTRUCTION LOADS MUST NOT EXCEED LOAD CARRYING CAPACITY OF DECK, AS ESTABLISHED BY DECK MANUFACTURER.

GENERAL NOTES: OPEN-WEB JOISTS

(THESE NOTES SHALL CONTROL UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.)

1. DESIGN, FABRICATION AND ERECTION OF OPEN–WEB JOISTS SHALL CONFORM TO SPECIFICATIONS OF THE STEEL JOIST INSTITUTE(SJI).
2. UNLESS SHOWN OTHERWISE, JOISTS SHALL BE WELDED TO SUPPORTING BEAMS WITH A 3/16" FILLET WELD, 1–1/2" LONG, ON EACH SIDE OF EACH END.
3. PROVIDE BRIDGING FOR JOISTS AS SHOWN ON DRAWINGS AND IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE STEEL JOIST INSTITUTE.

SPECIFICATIONS: STRUCTURAL & MISC. STEEL

(THESE NOTES SHALL CONTROL UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.)

GENERAL

1.01 REFERENCES:

ANSI A14.3 – AMERICAN NATIONAL STANDARD FOR LADDERS –– FIXED –– SAFETY REQUIREMENTS.

ASTM A 36 – STANDARD SPECIFICATION FOR CARBON STRUCTURAL STEEL.
A 53 – STANDARD SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT–DIPPED, ZINC–COATED, WELDED AND SEAMLESS.
A 123 – STANDARD SPECIFICATION FOR ZINC (HOT–DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS.
A 153 – STANDARD SPECIFICATION FOR ZINC COATING (HOT–DIP) ON IRON AND STEEL HARDWARE.
A 325 – STANDARD SPECIFICATION FOR STRUCTURAL BOLTS, STEEL, HEAT TREATED, 120/105 KSI MINIMUM TENSILE STRENGTH.
A 500 – STANDARD SPECIFICATION FOR COLD–FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES.
A 992 – STANDARD SPECIFICATION FOR STRUCTURAL STEEL SHAPES.

AWS A 2.4 – STANDARD SYMBOLS FOR WELDING, BRAZING, AND NONDESTRUCTIVE EXAMINATION; AMERICAN WELDING SOCIETY.
A 5.1 – SPECIFICATION FOR CARBON STEEL ELECTRODES FOR SHIELDED METAL ARC WELDING.
A 5.5 – SPECIFICATION FOR LOW–ALLOY STEEL ELECTRODES FOR SHIELDED METAL ARC WELDING.
D 1.1 – STRUCTURAL WELDING CODE – STEEL; AMERICAN WELDING SOCIETY.

1.02 DETAILING:
   A. ALL DETAILING SHALL BE IN CONFORMANCE WITH THE STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), LATEST EDITION.
   B. UNLESS NOTED OTHERWISE, PROVIDE FRAMED BEAM CONNECTIONS IN ACCORDANCE WITH AISC. PART 10, TO DEVELOP THE FULL SHEAR STRENGTH OF SUPPORTED BEAM.
   C. CONNECTIONS SHALL BE SHOP–WELDED AND FIELD–BOLTED UNLESS SHOWN OTHERWISE IN DRAWINGS.
   D. IF CONNECTION BOLTS ARE IN SINGLE SHEAR, BOLTS SHALL BE PLACED IN TWO VERTICAL ROWS AT EACH APPLICABLE CONNECTED MEMBER.

1.03 SUBMITTALS:
   A. SHOP DRAWINGS: INDICATE PROFILES, SIZES, CONNECTION ATTACHMENTS, REINFORCING, ANCHORAGE, SIZE AND TYPE OF FASTENERS, AND ACCESSORIES. INCULDE ERECTION DRAWINGS, ELEVATIONS, AND DETAILS WHERE APPLICABLE.
      1. INDICATE WELDED CONNECTIONS USING STANDARD AWS A2.4, WELDING SYMBOLS. INDICATE NET WELD LENGTH.
   B. WELDER'S CERTIFICATES: SUBMIT CERTIFICATION FOR WELDERS EMPLOYED ON THE PROJECT, VERIFYING AWS QUALIFICATION WITHIN THE PERVIOUS 12 MONTHS.

PRODUCTS

2.01 MATERIALS–STEEL:

STEEL SHAPES: ASTM A 992 GR 50, AS NOTED ON DRAWINGS (FY = 50 KSI).
PLATES: ASTM A 36 (FY = 36 KSI).
TUBING: ASTM A 500, GRADE B, COLD–FORMED STRUCTURAL TUBING (FY = 46 KSI).
PIPE: ASTM A 53, GRADE B SCHEDULE 40, BLACK FINISH (FY = 35 KSI).
BOLTS, NUTS, WASHERS: ASTM A 325 GALVANIZED TO ASTM A 153 FOR GALVANIZED COMPONENTS.
WELDING MATERIALS: AWS A 5.1 AND A 5.5 – E70XX ELECTRODES.
SHOP AND TOUCH–UP PRIMER: SSPC – PAINT 15, TYPE I – RED OXIDE.
TOUCH–UP PRIMER FOR GALVANIZED SURFACES: SSPC – PAINT 20, TYPE I – INORGANIC.
HOT–DIPPED GALVANIZED WHERE CALLED FOR ON DRAWINGS OR IN ALL EXPOSED CONDITIONS.

2.02 FABRICATION:
   A. FIT AND SHOP ASSEMBLY ITEMS IN LARGEST PRACTICAL SECTIONS, FOR DELIVERY TO SITE.
   B. FABRICATE ITEMS WITH JOINTS TIGHTLY FITTED AND SECURED.
   C. CONNECTIONS SHALL BE SHOP–WELDED AND FIELD–BOLTED UNLESS SHOWN OTHERWISE ON DRAWINGS.
   D. GRIND EXPOSED JOINTS FLUSH AND SMOOTH WITH ADJACENT FINISH SURFACES. MAKE EXPOSED JOINTS BUTT TIGHT, FLUSH, AND HAIRLINE. EASE EXPOSED EDGES TO SMALL UNIFORM RADIUS.
2.03 FINISHES WITH ONE COAT:
   A. PRIME PAINT ALL STEEL ITEMS, WITH THE FOLLOWING EXCEPTIONS:
      1. GALVANIZED ITEMS TO BE EMBEDDED IN CONCRETE OR MASONARY, AND ITEMS SPECIFIED FOR GALVANIZED FINISH.
      2. SURFACES IN DIRECT CONTACT WITH CONCRETE, WHERE FIELD WELDING IS REQUIRED, AND ITEMS TO BE COVERED WITH SPRAYED FIREPROOFING.
   B. PREPARE SURFACES TO BE PRIMED IN ACCORDANCE WITH SSPC–SP2.
   C. CLEAN SURFACES OF RUST, SCALE, GREASE, AND FOREIGN MATTER PRIOR TO FINISHING.
   D. PRIME PAINTING: ONE COAT.
   E. GALVANIZING OF STRUCTURAL MEMBERS: GALVANIZE AFTER FABRICATION TO ASTM A 123. PROVIDE MINIMUM 1.3 OZ/SQ. FT GALVANIZED COATING.
   F. GALVANIZING OF NON–STRUCTURAL ITEM: GALVANIZE AFTER FABRICATION TO ASTM A 123. PROVIDE MINIMUM 1.3 OZ/SQ. FT GALVANIZED COATING.
2.04 FABRICATION TOLERANCES:
   A. SQUARENESS: 1/8 INCH MAXIMUM DIFFERENCE IN DIAGONAL MEASUREMENTS.
   B. MAXIMUM OFFSET BETWEEN FACES: 1/16 INCH.
   C. MAXIMUM MISALIGNMENT OF ADJACENT MEMBERS: 1.16 INCH.
   D. MAXIMUM BOW: 1/8 INCH IN 48 INCHES.
   E. MAXIMUM DEVIATION FROM PLANE: 1/16 INCH IN 48 INCHES.

EXECUTION

3.01 EXAMINATION:
   A. VERIFY THAT FIELD CONDITIONS ARE ACCEPTABLE AND ARE READY TO RECEIVE WORK.
3.02 PREPARATION:
   A. CLEAN AND STRIP PRIMED STEEL ITEMS TO BARE METAL WHERE SITE WELDING IS REQUIRED.
   B. SUPPLY SETTING TEMPLATES FOR STEEL ITEMS REQUIRED TO BE CAST INTO CONCRETE OR EMBEDDED IN MASONARY.
3.03 INSTALLATION:
   A. INSTALL ITEMS PLUMB AND LEVEL, ACCURATELY FITTED, FREE FROM DISTORTION OR DEFECTS.
   B. PROVIDE FOR ERECTION LOADS, AND FOR SUFFCIENT TEMPORARY BRACING, TO MAINTAIN TRUE ALLIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT ATTACHMENTS. (NOTE: STEEL FRAMING SYSTEM IS NOT DESIGNED FOR STABILITY DURING CONSTRUCTION, UNTIL ALL COMPONENTS ARE INSTALLED. TEMPORARY BRACING AND SHORING IS STRICTLY THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.)
   C. INSTALLATION OF A 325 BOLTS SHALL BE BY TURN–OF–THE–NUT METHOD, USING PROPERLY CALIBRATED TORQUE WRENCHES.
   D. PERFORM FIELD WELDING IN ACCORDANCE WITH AWS D1.1. WELDS NOT CALLED OUT ON DRAWINGS SHALL BE 1/4 INCH CONTINUOUS FILLET WELDS.
   E. OBTAIN APPROVAL PRIOR TO SITE CUTTING OR MAKING ADJUSTMENTS NOT SCHEDULED.
   F. NO FIELD BURNING OR CUTTING OF HOLES IS ALLOWED IN ANY PART OF ANY STRUCTURAL MEMBER, UNLESS AUTHORIZED, IN WRITING, BY THE ENGINEER–OF–RECORD.
   G. AFTER ERECTION, PRIME WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED OR GALVANIZED, EXCEPT SURFACES TO BE IN CONTACT WITH CONCRETE.

GENERAL CONCRETE NOTES:

DESIGN LOADS (IBC 2015)

ULTIMATE DESIGN WIND SPEED 130 MPH, RISK CATEGORY II

1. MINIMUM CONCRETE COVER PROTECTION FOR Reinforcement BARS SHALL BE AS" FOLLOWS: (SEE .AC I 318 SECT I ON 7.7 FOR CONO I T IONS NOT NOTED)
   FOOTINGS DRILLED ..... 3 INCHES SIDES & BOTTOM
   GRADE BEAMS:
   TOP..... 1–1/2 INCHES
   BOARD FORMED SIDES .....1–1/2 INCHES
   EARTH FORMED SIDES ..... 3 INCHES
   BOTTOM..... 3 INCHES'
   SLABS ON GRADE .....1–1/2 INCHES (TOP)
   PILASTERS & PLINTHS..... 2 INCHES
   SLABS ON METAL forms 3/4 INCHES (TOP)
   PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED.
2. LIVE LOADS ROOF 20PSF
   DEAD LOAD ROOF 16 PSF
   FLOOR 100 PSF
3. CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL not BE TACK WELDED. WELDED, HEATED OR CUT UNLESS INDICATE ON THE CONTRACT DOCUMENTS OR REVIEWED BY THE STRUCTURAL ENGINEER.
4. REINFORECEMENT DESIGNATED AS "CONTINUOUS" SHALL LAP 50 BAR DIAMETER AT SPLICES UNLESS NOTED OTHERWISE. REINFORCEMENT BAR SPLICES IN GRADE BEAMS SHALL BE LOCATED AT THE CENTERLINE OF SUPPORTS FOR BOTTOM BARS AND AT MIDSPAN FOR TOP BARS. PROVIDE STANDARD ACI HOOKS FOR TOP AND BOTTOM BARS AT DISCONTINUOUS ENDS OF ALL GRADE BEAMS.
5. HORIZONTAL FOOTING AND HORIZONTAL WALL REINFORCEMENT SHALI BE CONTINUOUS AND SHALL HAVE 90–DEGREE BENDS AND EXTENSIONS. OR CORNER BARS OF EQUIVALENT SIZE LAPPED 36 BAR DIAMETER, AT CORNERS AND INTRSECTIONS.
6. HORIZONTAL JOINTS WILL NOT BE PERMITTED IN CONCRETE CONSTRUCTION EXCEPT AS SHOWN ON THE CONTRACT DOCUMENTS. VERTICAL JOINTS SHALL OCCUR AT CENTER OF SPANS AT LOCATIONS REVIEWED BY THE STRUCTURAL ENGINEER.
7. CONSTRUCTION JOINTS BETWEEN PIERS AND PIER CAPS, FOOTINGS AND WALLS OR COLUMNS, OR WALLS, COLUMNS. BEAMS AND THE FLOOR SYSTEM THEY SUPPORT SHALL BE PREPARED BY ROUGHENING THE CONTACT SURFACE TO A FULL AMPLITUDE OF APPROXIMATELY 1/4 INCH LEAVING THE CONTACT SURFACE CLEAN AND FREE OF LAITANCE.
8. PROVIDE t– NO.4 REINFORCEMENT BAR X 4 '–0. AT RE–ENTRANT CORNERS AND AROUND RECTANGULAR HOLES IN SLABS UNLESS NOTED OTHERWISE. PLACE BAR DIAGONAL TO CORNER WITH 1" CLEARANCE FROM THE TOP AND THE SIDE OF THE SLAB AT THE CORNER.
9. ALL CONCRETE SHALL BE IN ACCORDANCE THE ACI STANDARD BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318–83)
10. NORMAL WIGHT CONCRETE (W=145 PCF) WITH MINIMUM COMPRESSIVE STRENGTH FC'= 3500 PSI AT 28 DAYS:
11. GROUT FOR BASE PLATES SHALL BE NONSHRINKABLE. NON–METALLIC CONFORMING TO ASTM C827, AND SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI. PREGROUTING OF BASE PLATES WILL NOT BE PERMITTED.
12. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFOR TO THE RECOMMENDATIONS OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP–66 "DETAILING MANUAL". PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES. AND CRSI "MANUAL OF STANDARD PRACTICE",
13. MIXING. TRANSPORTING. AND PLACING OF CONCRETE SHALL CONFORM TO ACI 301.
14. THE SUBSURFACE INFORMATION AND FOUNDATION DESIGN ARE BASED ON A REPORT NO. G21–354 BY ARM SOIL & TESTING LLC. DATE: JULY 23, 2019.
   THE CONTRACTOR SHALL PERFORM EXCAVATIONS, FOOTING CONSTRUCTION, AND PREPARATION OF THE SUB–GRADE UNDER THE SLAB ON GRADE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT AND THE PROJECT SPECIFICATIONS. THE MINIMUM SOIL BEARING FOR THIS PROJECT IS 3,200 PSF FOR DEAD PLUS LIVE LOAD AND4,800 PSF FOR TOTAL LOAD.
15. GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER 24 HOURS PRIOR TO PLACEMENT OF CONCRETE IN THE FOOTINGS.
16. ALL CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM, GRADE 60.
17. CONCRETE SHALL BE REGULAR WEIGHT, SAND AND GRAVEL AGGREGATE , WITH TYPE 1 PORTLAND CEMENT . 5 SACK MIX, DESIGNATED MINIMUM COMPRESSIVE (F'C) OF 3500 PSI IN 28 DAYS.
18. ALL MIXING , TRANSPORTING , PLACING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF AMERICAN CONCRETE INSTITUTE.
19. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN GRADE BEAM OTHER THAN CONSTRUCTION JOINTS SHALL BE MADE IN QUARTER SPANS BETWEEN FOOTING WITH VERTICAL BULKHEADS .
20. LAP CONTINUOUS UNSCHEDULED REINFORCING BARS AS FOLLOWS : BOTTOM BARS IN MEMBERS SUPPORTED BY FOOTING AT LOCATIONS –12" . TOP BARS SHALL BE LAP AT OR NEAR MID SPAN. LAP SHALL BE 50 BAR DIAMETERS.
21. GROUT UNDER THE BASE PLATES SHALL BE NON SHRINKING TYPE WITH MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI IN 28 DAYS.
22. DETAILING AND PLACING OF CONCRETE REINFORCEMENT BARS AND ITS ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315 LATEST EDITION.
23. ALL CONFLICT OR OMISSIONS BETWEEN DRAWNG , NOTE , SOIL REPORT AND SITE CONDITIONS SHALL BE IMMDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER . FALLURE TO DO SO WILL OBLIGATE THE CONTRACTOR TO ANY JOB EXPENSE ARISING DUE ANY ERRORS THAT MAY OCCUR HEREON.

GRAPHIC SCALE

STATE OF TEXAS — RAWHI KHALIFEH — 79452 — REGISTERED PROFESSIONAL ENGINEER

12/14/2022

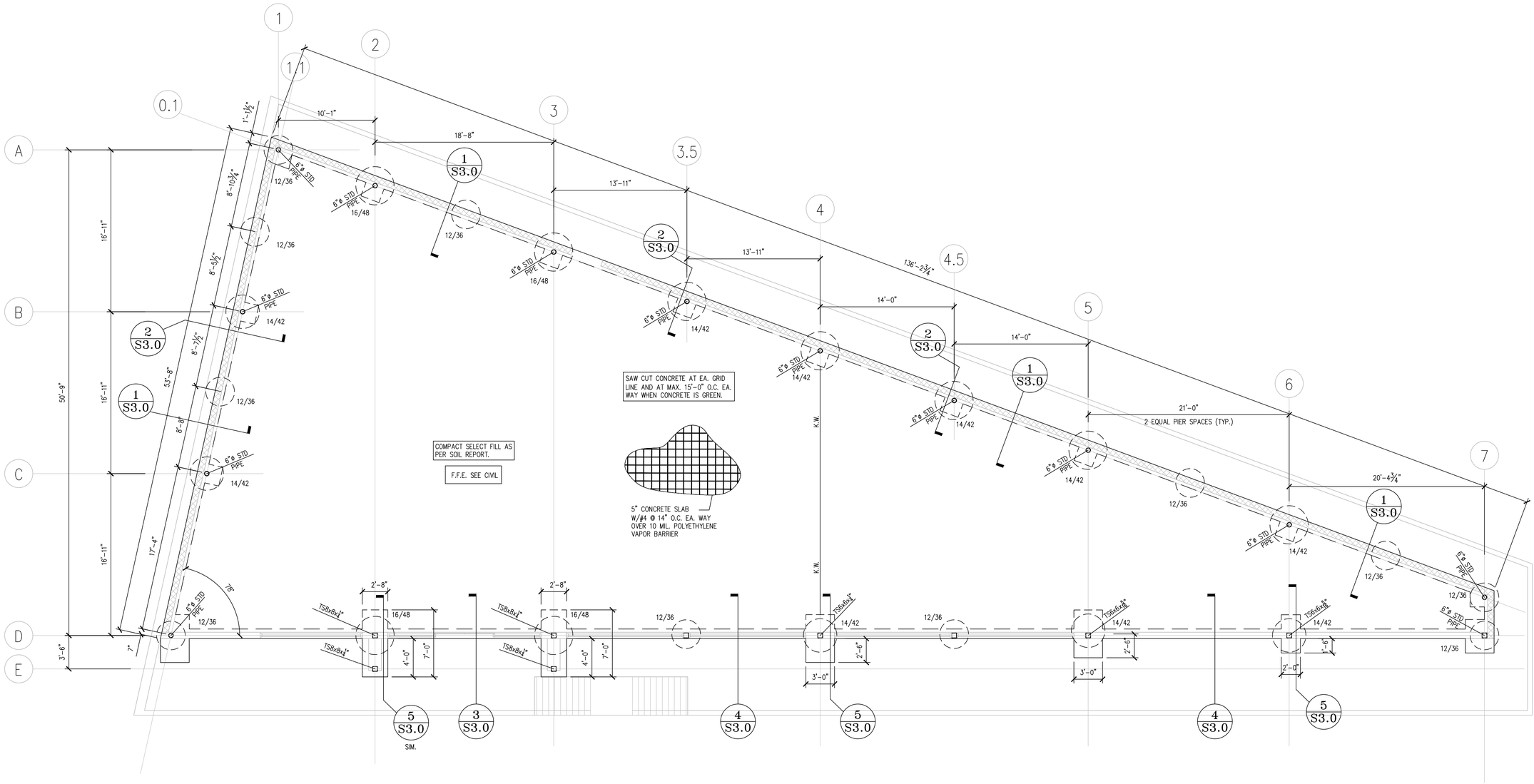
ISSUE HISTORY — REVISIONS

DATE	ISSUED FOR	DESCRIPTION
5–16–22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
HOUSTON, TEXAS 77041
TEL. (281) 580–4585
FAX (281) 580–4399
FIRM # F–11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
GENERAL NOTES

DRAWN BY: BM	DATE: 9–15–2021	SHEET: **S0.00** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



PLAN NOTES:

1. REPLACE EXISTING SOIL AS RECOMMENDED BY GEOTECHNICAL REPORT. REPORT BY ARM SOIL TESTING LLC. REPORT NO. G21-354
2. SITE SHOULD BE GRADED TO SHED ALL RAIN WATER AWAY FROM THE STRUCTURE.
3. CONTRACTOR TO CHECK FOR UNDERGROUND UTILITIES BEFORE DIGGING OR DRILLING PIERS.
4. CONTRACTOR TO CONTACT GEO/TECH ENGINEER FOR PRESENCE OF ANY TREES AND PROCEDURES FOR REMOVAL OF TREES FROM THE PROJECT SITE.
5. REFER TO ARCHITECTURE DRAWINGS FOR TOP OF FINISH FLOOR ELEVATION.
6. REFER TO ARCHITECTURE DRAWINGS FOR ALL BRICK LEDGES, SIDEWALK, ELEVATIONS AND RAMP DETAILS
7. ALL TUBE STEEL COLUMNS TO HSS (HIGH STRENGTH STEEL)

LEGEND

- (C) INDICATE COLUMN NUMBER AND LOCATION
- (B) INDICATE BASE PLATE (TYP.)
- C.J. INDICATES CONTROL JOINT
- K.W. INDICATES KEY WAY
- E.J. INDICATE EXPANSION JOINT.

FOOTING DESIGNATION AS SHOWN ON PLAN
SHAFTø
16/48
BELL ø

SCALE: 3/16" = 1'-0"

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

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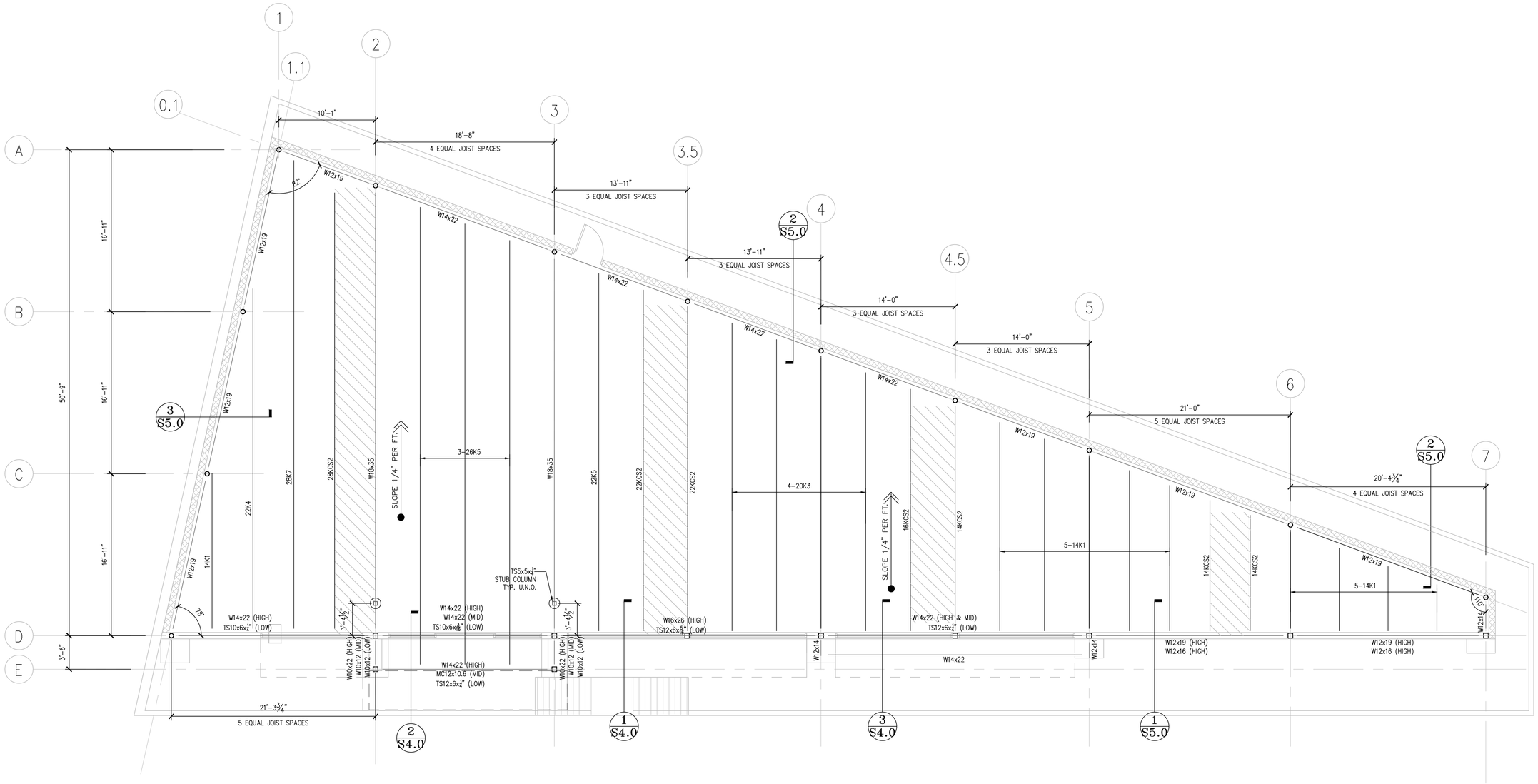
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
FOUNDATION PLAN

DRAWN BY: BM	DATE: 9-15-2021	SHEET: **S1.0** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



GENERAL NOTES:

1. CONTRACTOR SHALL REVIEW ARCHITECTURAL AND STRUCTURAL DRAWINGS JOINTLY,
TO ENSURE COORDINATION OF ALL PHASES OF CONSTRUCTION DESCRIBED IN THESE DRAWINGS.
DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF BOTH ARCHITECT AND ENGINEER, PRIOR TO PROCEEDING WITH CONSTRUCTION WORK.
2. THE FOLLOWING ITEMS, IN PARTICULAR, HAVE TO BE CLOSELY COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS:
   A. ALL DIMENSIONS;
   B. SLAB AND FLOOR ELEVATIONS, SLOPES, LOCATIONS AND DIMENSIONS OF ANY RECESSES.
   C. PLUMBING, GAS, VENT & ELECTRICAL OUTLETS, ETC.;
   D. CURBS AND VENEER LEDGES;
   E. CEILING HEIGHTS AND CEILING CONDITIONS;
   F. ROOF GEOMETRY AND SLOPES.
3. CONTRACTOR IS ADVISED THAT IN ALL ITEMS LISTED UNDER PARAGRAPH 2 ABOVE, ARCHITECTURAL DRAWINGS WILL GENERALLY TAKE PRECEDENCE OVER STRUCTURAL DRAWINGS.

PLAN NOTES:

1. ▨ AREA DESIGNATED FOR MECHANICAL EQUIPMENT ZONE.
   MAX ALLOWABLE LOAD IS 50 PSF.

2. ALL STEEL SHALL BE 50 KSI MATERIAL

3. DESIGN BAR JOISTS BRIDGING FOR MAX. NET UPLIFT PRESSURE OF 30 PSF

4. ALL COLUMNS ARE AS SHOWN ON FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY	REVISIONS	
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
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ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
11302 TANNER RD.
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FIRM # F-11211
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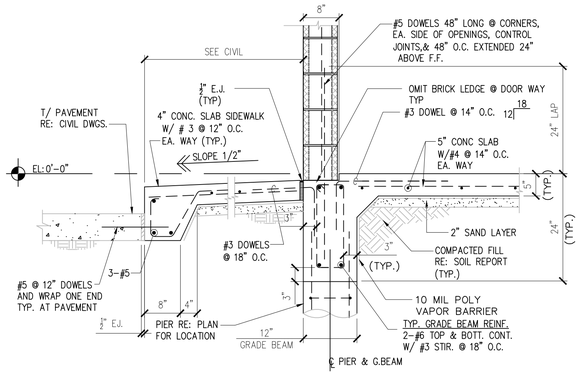
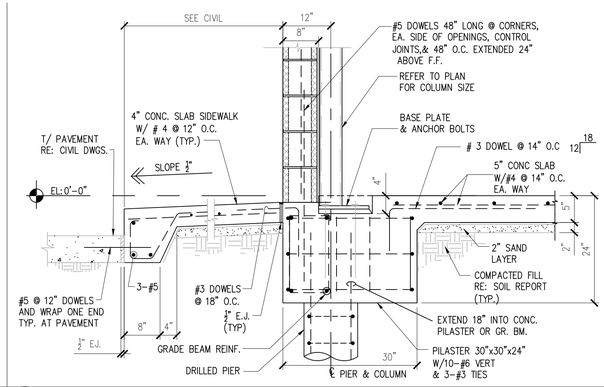
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
ROOF FRAMING PLAN

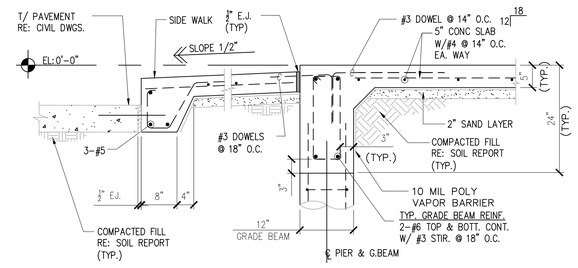
DRAWN BY: BM	DATE: 9-15-2021	SHEET: **S2.0** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



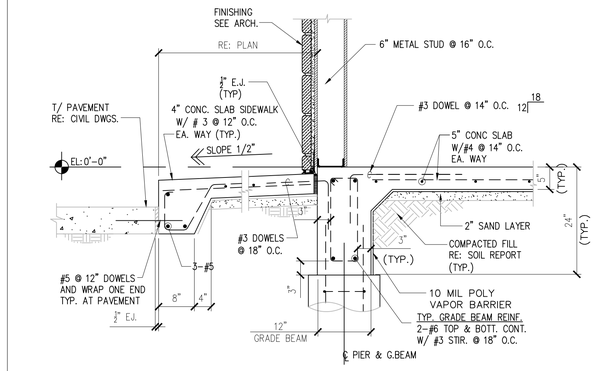
1 **SECTION:** TYPICAL GRADE BEAM AT CMU WALL



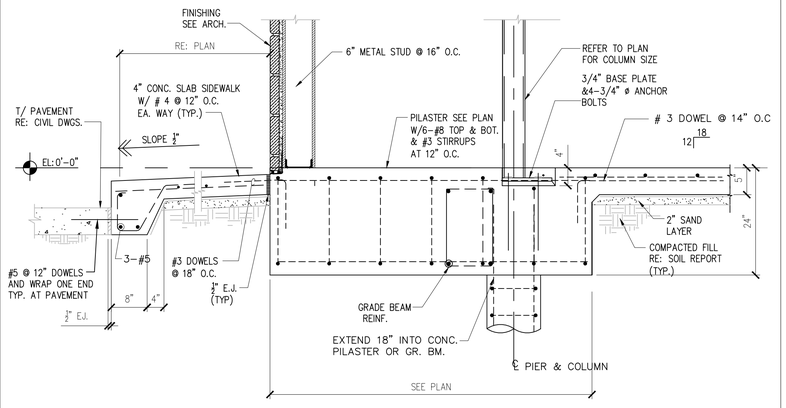
2 **SECTION:** COLUMN PILASTER AT CMU WALL



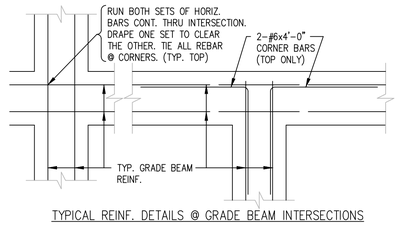
3 **SECTION:** TYPICAL EXTERIOR GRADE BEAM AT DOOR WAY



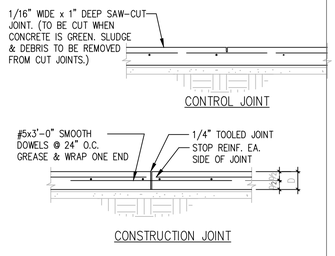
4 **SECTION:** GRADE BEAM ATFRONT METAL STUD WALL



5 **SECTION:** COLUMN PILASTER AT STORE FRONT

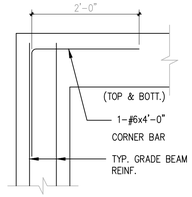


TYPICAL REINF. DETAILS @ GRADE BEAM INTERSECTIONS



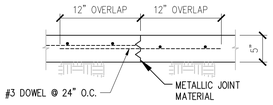
CONTROL JOINT

CONSTRUCTION JOINT



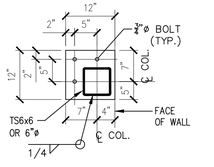
CORNER

NOTE: WHERE "JOINT" IS CALLED OUT ON PLAN, CONTRACTOR MAY PROVIDE CONSTRUCTION JOINT OR CONTROL JOINT AT HIS OPTION.

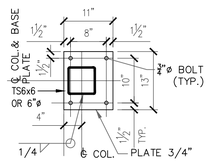


KEY WAY DETAILS

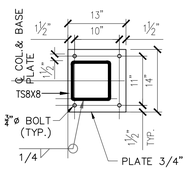
SCALE: NOT TO BE SCALE



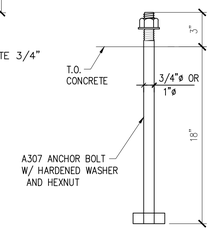
DETAIL-A



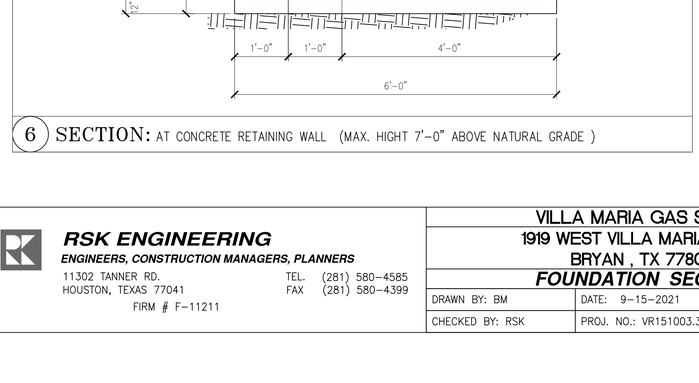
DETAIL-B



DETAIL-C

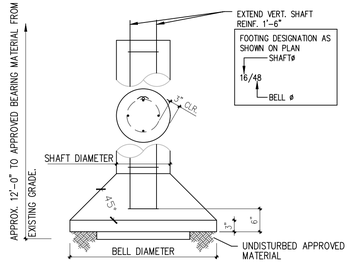


TYP. COLUMN TO FOUNDATION ANCHOR BOLT



6 **SECTION:** AT CONCRETE RETAINING WALL (MAX. HIGHT 7'-0" ABOVE NATURAL GRADE)

PIER REBAR SCHEDULE	
PIER SIZE	BARS SIZE
12/36	4-#4
14/42	5-#5
16/48	6-#6



– **DETAIL:** TYPICAL DRILLED PIER DETAIL

GRAPHIC SCALE

STATE OF TEXAS
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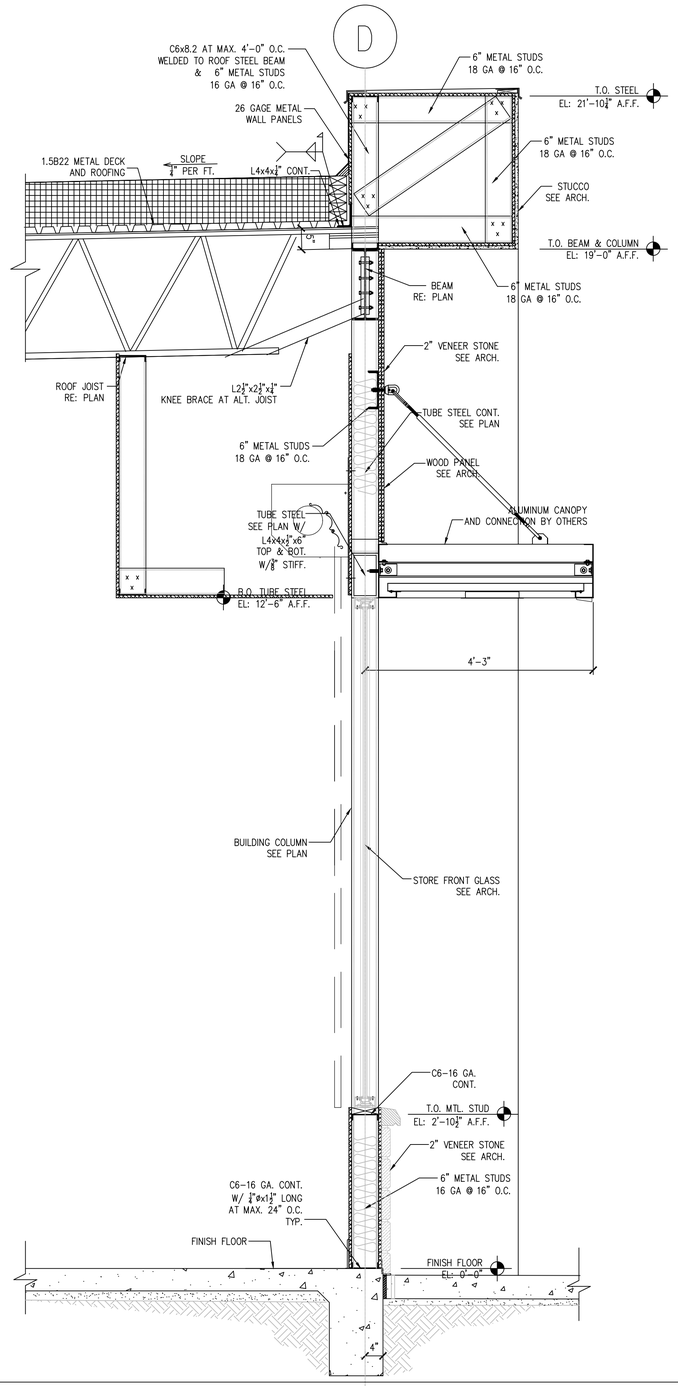
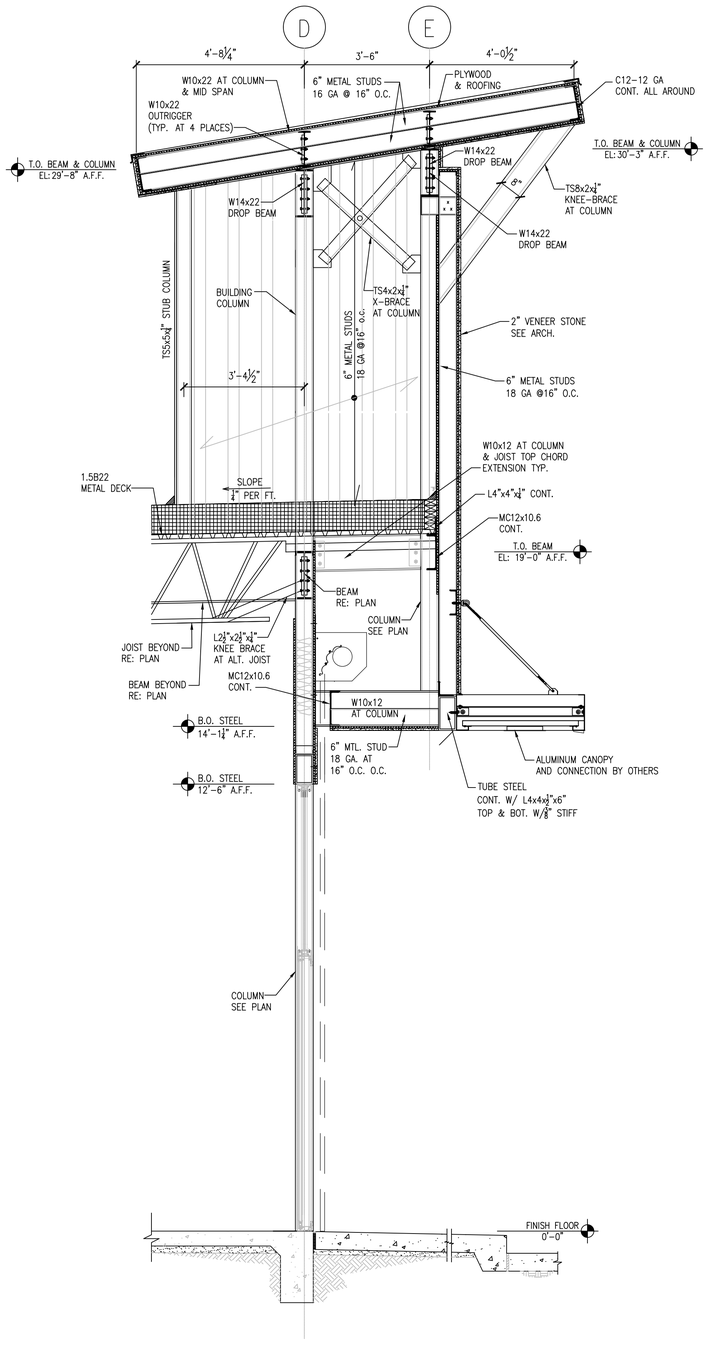
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
FOUNDATION SECTIONS

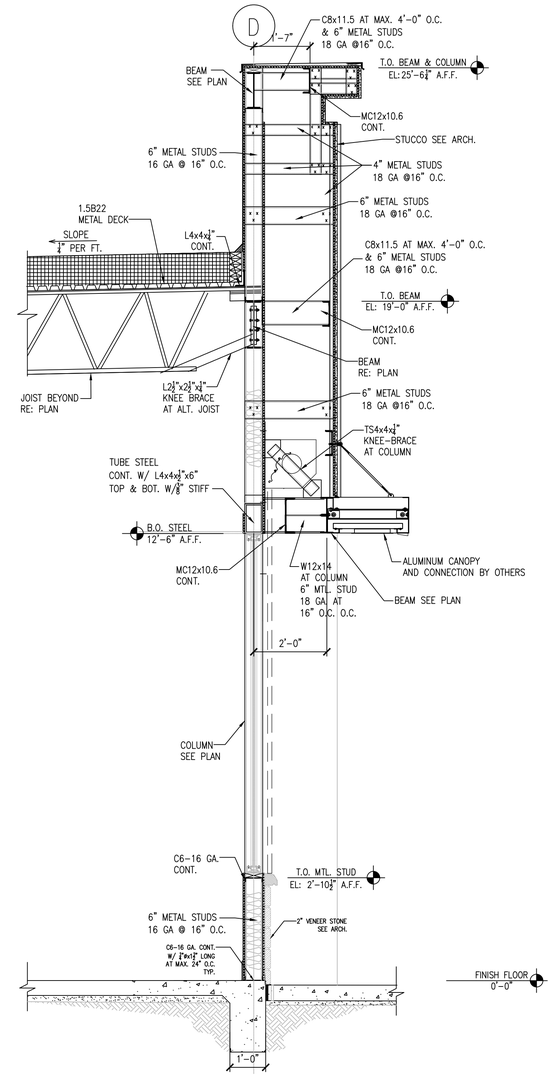
DRAWN BY: BM	DATE: 9-15-2021	SHEET: **S3.0** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



1 SECTION: AT STORE FRONT WALL SECTION



2 SECTION: AT STORE FRONT TOWER



3 SECTION: AT STORE FRONT WALL SECTION

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

GRAPHIC SCALE

STATE OF TEXAS
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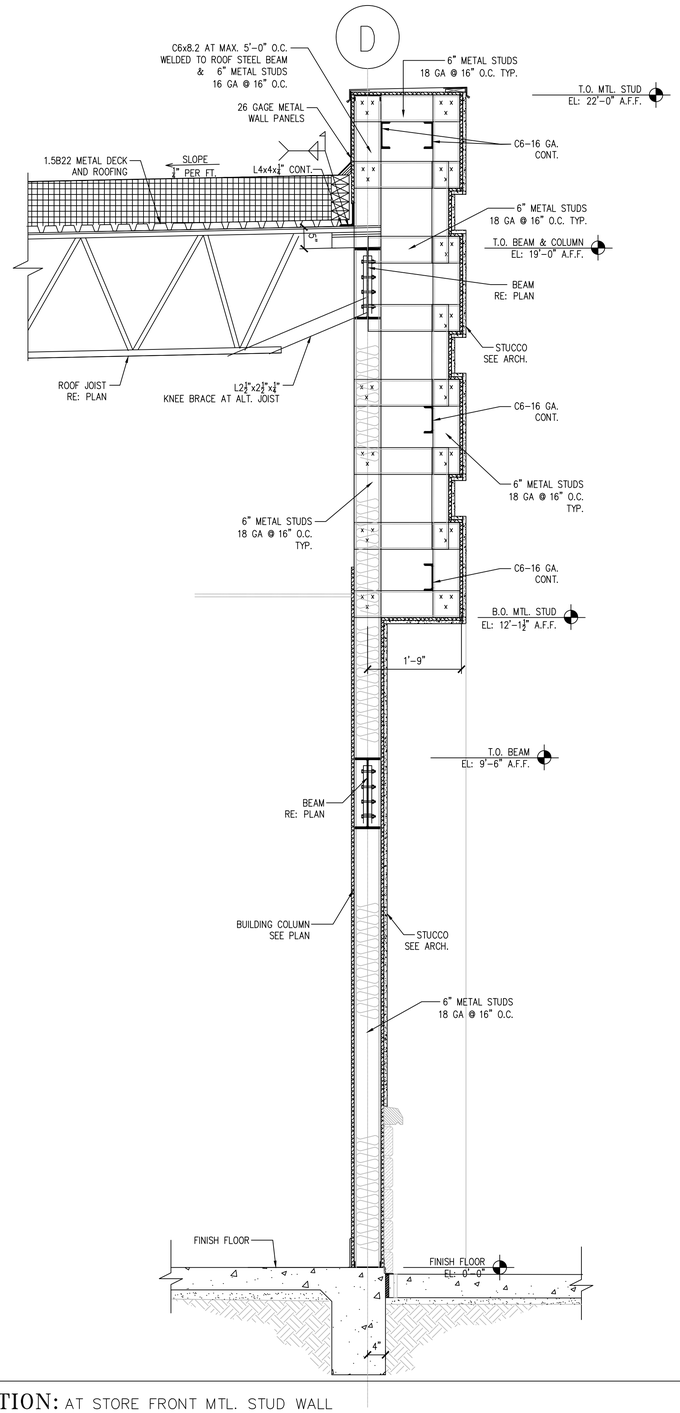
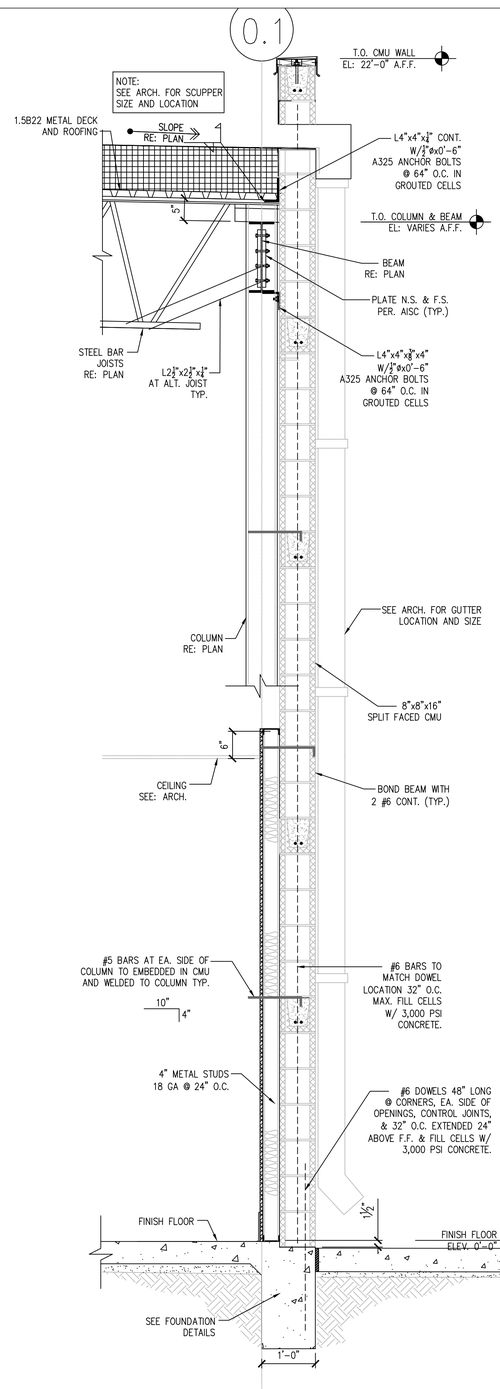
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
WALL SECTIONS FRAMING

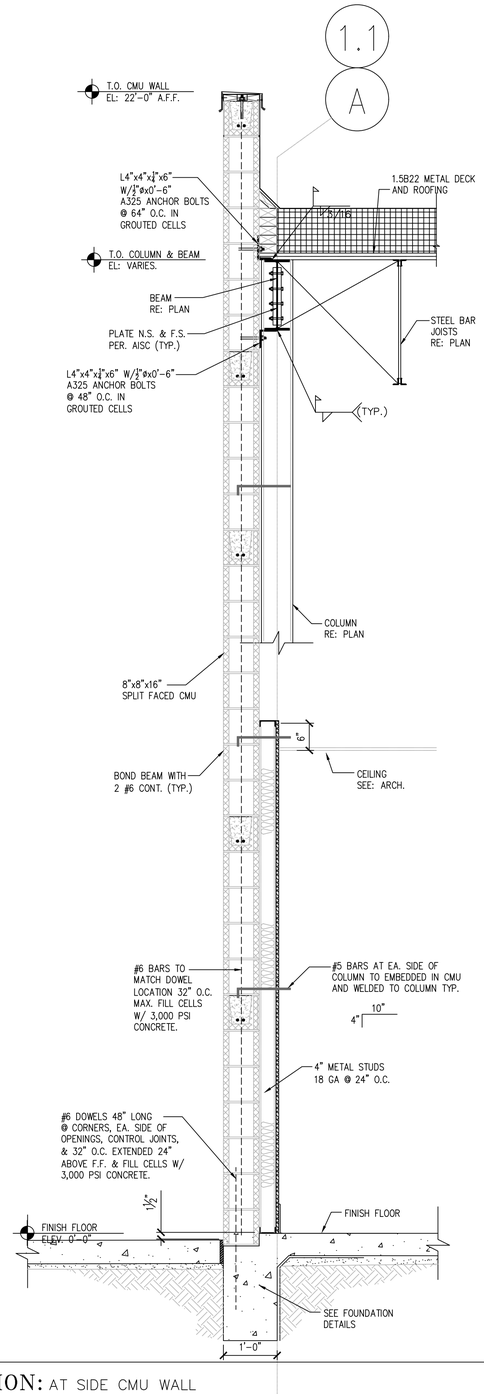
DRAWN BY: BM	DATE: 12-6-2021	SHEET: **S4.0** Rev:0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



1 SECTION: AT STORE FRONT MTL. STUD WALL



2 SECTION: AT REAR CMU WALL



3 SECTION: AT SIDE CMU WALL

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

GRAPHIC SCALE

STATE OF TEXAS
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WALL SECTIONS FRAMING

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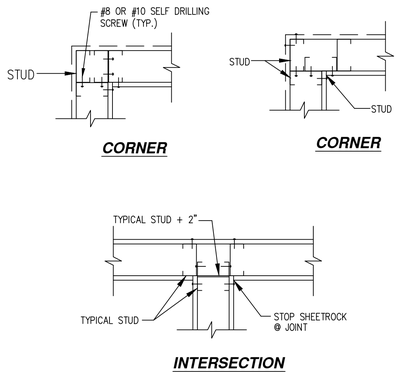
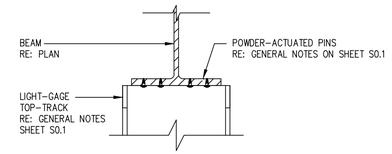
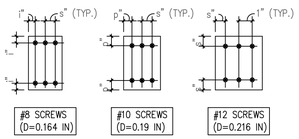


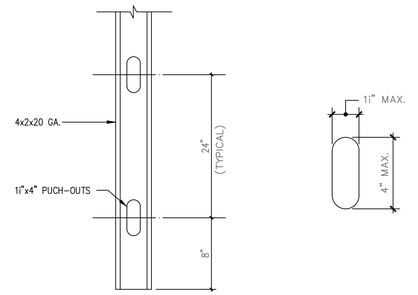
1 SECTION: *TYPICAL STUD WALL CORNER FRAMING DETAILS*



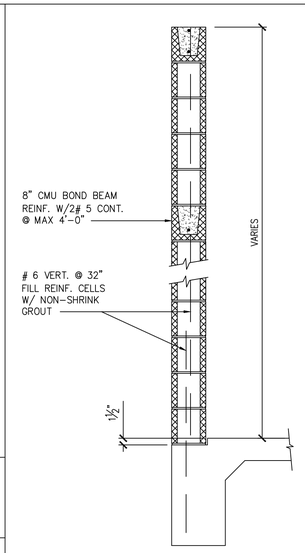
4 SECTION: *TYPICAL LIGHT-GAGE TRACK TO STEEL BEAM CONN.*



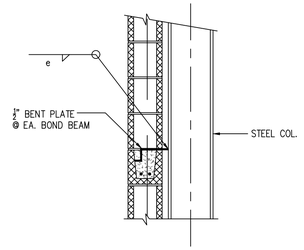
7 SECTION: *MINIMUM FASTENER SPACING & EDGE DISTANCES*



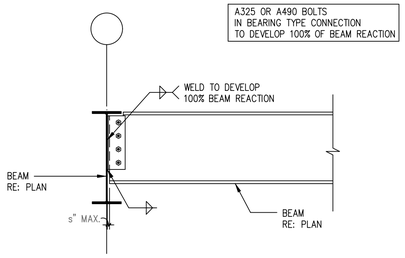
9 DETAIL: *TYPICAL STUD PUCH-OUT (ELEVATION)*



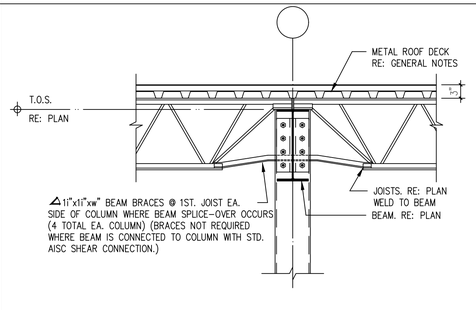
TYPICAL WALL SECTION



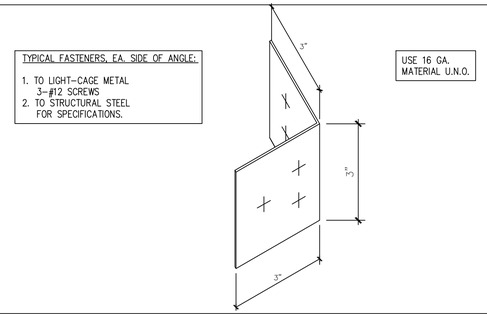
TYPICAL COLUMN/WALL ATTACHMENT



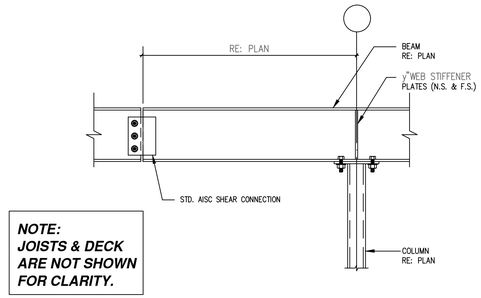
2 SECTION: *TYPICAL BEAM TO BEAM SHEAR CONNECTION*



5 SECTION: *TYPICAL STRUT JOIST DETAIL*

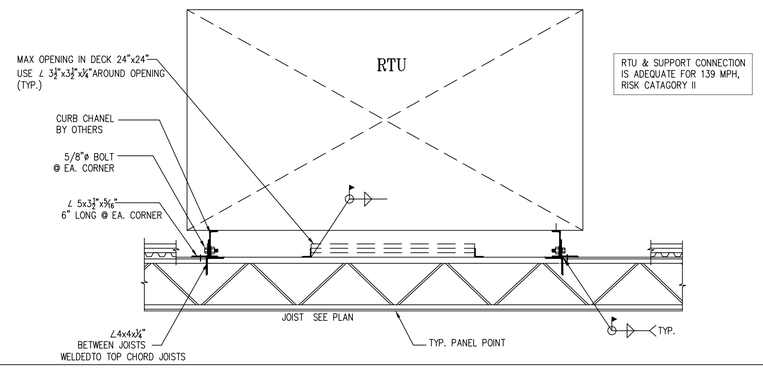


8 SECTION: *TYPICAL LIGHT-GAGE FRAMING ANGLE*

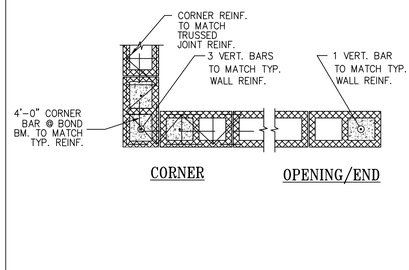


NOTE: JOISTS & DECK ARE NOT SHOWN FOR CLARITY.

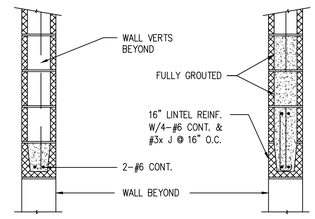
10 SECTION: *CANTILEVER BEAM DETAILS*



6 SECTION: *TYPICAL RTU TO JOIST CONNECTION*



CORNER OPENING/END



OPENINGS 6'-0" OR SMALLER OPENINGS 6'-0" TO 15'-0"

NOTES

1. PROVIDE 8" MIN. BEARING OF LINTEL BEAM @ EACH END.
2. SHORE LINTELS FOR A MINIMUM OF 14 DAYS AFTER PLACEMENT.
3. PROVIDE 1 TYPICAL VERT. BAR FULL HEIGHT OF WALL @ EACH JAMB.

LINTELS

GRAPHIC SCALE

STATE OF TEXAS
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BRYAN , TX 77807

TYPICAL FRAMING SECTIONS & DETAILS

DRAWN BY: BM	DATE: 9-15-2021	SHEET: **S6.0** Rev.0
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GENERAL NOTES (APPLICABLE TO ALL DRAWINGS)

1. DRAWINGS MAY NOT REFLECT EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ACTUAL EXISTING CONDITIONS PRIOR TO SUBMITTING BID. BEFORE EXECUTING CONTRACT CONTRACTOR SHALL NOTIFY ARCHITECT OF EACH EXISTING CONDITION THAT VARIES FROM THE CONDITION INDICATED ON DRAWINGS. CONTRACTOR WILL NOT BE COMPENSATED EXTRA FOR WORK RESULTING FROM FAILURE BY CONTRACTOR TO COMPLY WITH THIS REQUIREMENT.

2. CONTRACTOR SHALL COORDINATE WORK OF THE MECHANICAL, ELECTRICAL, AND PLUMBING (M.E.P.) DISCIPLINES WITH WORK OF ALL OTHER DISCIPLINES.

3. WORK OF THE M.E.P. TRADES MAY BE SHOWN ON OTHER DRAWINGS INCLUDING BUT NOT LIMITED TO ARCHITECTURAL AND STRUCTURAL DRAWINGS. WHERE FEATURES ARE INDICATED ON MORE THAN ONE DRAWING (FOR EXAMPLE, THE REFLECTED CEILING PLAN MAY APPEAR ON ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS), CONTRACTOR SHALL CONTACT ARCHITECT TO RESOLVE CONFLICTS. SUCH CONTACT SHALL BE MADE IN WRITING PRIOR TO THE COMMENCEMENT OF WORK BY THE CONTRACTOR.

4. CONTRACTOR SHALL COORDINATE DEMOLITION WORK AMONG THE TRADES. BY WAY OF EXAMPLE, BUT NOT EXCLUSION, MECHANICAL DEMOLITION SHALL BE COORDINATED WITH ELECTRICAL DEMOLITION INCLUDING POWER, CONTROL, COMMUNICATION AND MONITORING.

5. DAMAGE CAUSED TO EXISTING SYSTEMS AND/OR EXISTING FEATURES OF THE BUILDING DURING DEMOLITION OR OTHER PHASES OF CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

6. M.E.P. WORK REQUIRES CUTTING, PATCHING, AND REINFORCING OF ADJACENT SURFACES AND FEATURES OF THE BUILDING. CONTRACTOR SHALL PERFORM ALL SUCH WORK AT NO ADDITIONAL COST TO OWNER. REPAIRED SURFACES SHALL BE FINISHED TO MATCH THE EXISTING SURROUNDING AREA.

7. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, COUNTY, STATE, AND FEDERAL CODES, ORDINANCES, RULES AND REGULATIONS. IN THE EVENT OF CONFLICT BETWEEN CONTRACT DOCUMENTS AND CODES, ORDINANCES, RULES AND REGULATIONS, THE MOST RIGID SHALL APPLY.

8. CONTRACTOR SHALL NOT REMOVE PLUMBING AND HVAC EQUIPMENT THAT IS NOT CODED WITH HATCH MARKS ON DRAWINGS.

9. CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIAL, AND LABOR, WHETHER OR NOT SHOWN ON DRAWINGS, NECESSARY TO PROVIDE A COMPLETE, OPERATIONAL, CODE-COMPLIANT SYSTEM.

10. CONTRACTOR SHALL NOT CUT, DRILL, OR ALTER ANY ELEMENT OF WALLS, FLOORS CEILINGS, ROOFS, SLABS, ETC., WITHOUT FIRST RECEIVING ARCHITECT'S APPROVAL. ALL CUTS SHALL BE MADE WITH ARCHITECT-APPROVED CUTTING TOOLS.

11. IN THE EVENT THAT CONTRACTOR FINDS DISCREPANCIES OR OMISSIONS, OR IS IN DOUBT AS TO THE EXACT MEANING OF THE PLANS AND/OR SPECIFICATIONS, CONTRACTOR SHALL, BEFORE COMMENCING WORK ON THE AREA IN QUESTION, CONTACT ARCHITECT FOR CLARIFICATION.

12. SUBMITTALS: CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS FOR ALL M.E.P. EQUIPMENT. SAID SUBMITTALS MUST BE BOUND TOGETHER (PARTIAL SUBMITTALS NOT ACCEPTABLE) AND SHALL INCLUDE MANUFACTURER MODEL NUMBER, PHYSICAL DIMENSIONS AND PERFORMANCE RATINGS CLEARLY IDENTIFIED BY SAME IDENTIFICATION SCHEDULED ON DRAWINGS. DATA SHEETS SHALL INDICATE MODEL NUMBERS, PARTS, DIMENSIONS AND VALUES WHICH APPLY TO THE PRODUCTS BEING PROPOSED. NEATLY CIRCLE OR DRAW ARROWS TO IMPORTANT INFORMATION. IF CONTRACTOR PLACES ORDERS AND/OR PROCEEDS WITH WORK PRIOR TO RECEIPT OF ARCHITECT'S APPROVAL OF SUBMITTAL DATA, SUCH ACTION SHALL BE AT CONTRACTOR'S SOLE RISK. IN THE EVENT THAT SUBMITTAL DATA IS REJECTED BY ARCHITECT, CONTRACTOR SHALL CANCEL ALL RELATED ORDERS AND REPLACE ALL RELATED WORK AT CONTRACTOR'S SOLE EXPENSE. ANY SCHEDULE PROGRESS IMPACT CAUSED BY CONTRACTOR PROCEEDING IN ADVANCE OF ARCHITECT'S APPROVAL OF SUBMITTAL DATA SHALL BE AGAINST CONTRACTOR'S ACCOUNT.

13. IF CONTRACTOR DESIRES TO USE MATERIAL OF EQUAL QUALITY OTHER THAN THAT SPECIFIED, CONTRACTOR SHALL SUBMIT WRITTEN REQUEST FOR APPROVAL TO ARCHITECT AT LEAST SEVEN CALENDAR DAYS BEFORE THE DATE SET FOR BIDDING. BY OFFERING A SUBSTITUTION, CONTRACTOR ACCEPTS SOLE RESPONSIBILITY FOR EFFECT OF SUBSTITUTION ON THE WORK OF ALL TRADES. ALL COSTS OF CHANGES RESULTING FROM THE INCLUSION OF SUBSTITUTIONS SHALL BE BORNE BY CONTRACTOR.

GENERAL NOTES (CONT.)

14. PROVIDE TEMPORARY SERVICES AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.

15. MAINTAIN ACCESS TO EXISTING ELECTRICAL, MECHANICAL AND PLUMBING INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS AS APPROPRIATE.

16. EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING INSTALLATIONS, UNLESS INDICATED OTHERWISE ON DRAWINGS.

17. THE CONTRACTOR SHALL PROVIDE CONTAINMENT AND DISPOSE OF DUST AND DEBRIS DURING DEMOLITION AND CONSTRUCTION.

18. AT FINAL COMPLETION OF THE PROJECT, ALL M.E.P. PRODUCTS, EQUIPMENT, AND SYSTEMS SHALL OPERATE UNDER ALL CONDITIONS OF LOAD WITHOUT ANY SOUND OR VIBRATION WHICH IS OBJECTIONABLE IN THE OPINION OF THE ENGINEER. SOUND OR VIBRATION NOTICEABLE OUTSIDE THE SPACE OF A PRODUCT WILL BE CONSIDERED OBJECTIONABLE. VIBRATION WHICH, IN THE OPINION OF ENGINEER WILL IMPACT ON THE LIFE, WARRANTY, OR PERFORMANCE OF A PRODUCT IS CONSIDERED OBJECTIONABLE. SOUND OR VIBRATION CONDITIONS CONSIDERED OBJECTIONABLE BY ENGINEER SHALL BE CORRECTED BY CONTRACTOR AT CONTRACTOR'S EXPENSE. VIBRATION CONTROL SHALL BE BY MEANS OF VIBRATION ELIMINATORS INSTALLED IN THE MANNER RECOMMENDED BY THE MANUFACTURER OF THE SUPPORTED EQUIPMENT.

19. CONTRACTOR SHALL LOCATE ALL EQUIPMENT AND PRODUCTS WHICH REQUIRE SERVICE, OPERATION, OBSERVATION, OR MAINTENANCE IN FULLY ACCESSIBLE POSITIONS. IF REQUIRED FOR BETTER ACCESSIBILITY, ANY CHANGE(S) OF LOCATION SHALL BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR REVIEW AND APPROVAL BEFORE RELOCATION IS MADE. CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR CONCEALED VALVES, FIRE DAMPERS, AND OTHER DEVICES REQUIRING SERVICE. ACCESS PANELS IN THE SURFACES OF THE PREMISES, EQUIPMENT, DUCTWORK, AND OTHER SURFACES, WHETHER OR NOT SPECIFICALLY SHOWN ON THE DRAWINGS, SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER. ACCESS PANELS SHALL BE OF A TYPE AND FINISH WHICH, IN THE OPINION OF ARCHITECT, ARE AESTHETICALLY ACCEPTABLE.

20. CONTRACTOR IS RESPONSIBLE FOR PROPER SUPPORT OF ALL EQUIPMENT, DUCTWORK, PIPING, CONDUITS, ETC. COORDINATE EXACT LOCATION OF ALL M.E.P. ITEMS (I.E., DUCTWORK, PIPING, CONDUITS, ETC.), WITH STRUCTURAL, ARCHITECTURAL, OTHER DISCIPLINES.

21. ALL PRODUCTS, MATERIALS, WORK, AND TECHNIQUES SHALL COMPLY WITH THE MOST RIGID STANDARDS AND RECOMMENDATIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA); THE INTERNATIONAL CODES (PLUMBING, GAS, MECHANICAL, ELECTRICAL, AND BUILDING) AS MODIFIED AND/OR ADAPTED BY LOCAL AUTHORITIES; THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME); THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM); AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI). ALL MATERIALS AND EQUIPMENT FOR THE ELECTRICAL PORTION OF THE MECHANICAL SYSTEMS SHALL BEAR THE APPROVAL LABEL OF UNDERWRITERS LABORATORIES, INC. (UL).

22. THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION WORK SUCH THAT OWNER'S NORMAL DAY-TO-DAY OPERATIONS CAN BE ACCOMPLISHED WITHOUT DELAY. THE CONTRACTOR SHALL COORDINATE PHASING AND SCHEDULING OF WORK WITH OWNER AND SHALL PROVIDE NIGHT AND WEEKEND CREWS IF REQUIRED BY OWNER. CONTRACTOR SHALL NOT BE COMPENSATED EXTRA FOR OVERTIME.

23. THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING DURING DEMOLITION AND CONSTRUCTION PER INDUSTRY SAFETY STANDARDS.

24. ALL MATERIALS DISCONNECTED AND REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER, AND SHALL BE NEATLY PACKAGED BY THE CONTRACTOR FOR REUSE BY THE OWNER. THE OWNER SHALL DETERMINE WHAT DEMOLITION MATERIAL ARE TO BE SALVAGED. STOCKPILE SALVAGED MATERIALS IN AREAS DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE FROM SITE ITEMS WHICH OWNER DEFINES AS NON-SALVAGABLE.

25. THE CONTRACTOR SHALL VISIT THE SITE DURING THE BIDDING PERIOD TO COMPLETELY FAMILIARIZE SELF WITH THE SCOPE OF WORK, CONDITIONS, AND VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGMENTS. INCLUDE IN THE BID ALL NECESSARY COSTS ASSOCIATED WITH PERFORMANCE OF THE WORK.

SUPPORT

1. ADEQUATELY SUPPORT PIPING AGAINST SAGGING, POCKETING, AND DISPLACEMENT.

2. SIZE SLEEVES LARGE ENOUGH TO ALLOW FOR MOVEMENT DUE TO EXPANSION AND CONTRACTION. PROVIDE FOR CONTINUOUS INSULATION WRAPPING. SLEEVES FOR PIPES THROUGH NONFIRE RATED FLOORS: FORM WITH 18 GAGE GALVANIZED STEEL. ALL PENETRATIONS THROUGH FLOORS, WALLS AND CEILINGS, SHALL BE SEALED IN ACCORDANCE WITH THE GOVERNING REGULATIONS. ALL PIPES PASSING THROUGH FLOORS, WALLS, AND CEILINGS SHALL BE SLEEVED, INSULATED, AND SEALED.

3. WALL SUPPORT FOR PIPE SIZES TO 3 INCHES : CAST IRON HOOK. WALL SUPPORT FOR PIPE SIZES 4 INCHES AND OVER: WELDED STEEL BRACKET AND WROUGHT STEEL CLAMP; ADJUSTABLE STEEL YOKE.

4. VERTICAL SUPPORT: STEEL RISER CLAMP.

5. FLOOR SUPPORT FOR PIPE SIZES TO 4 INCHES AND ALL COLD PIPE SIZES: CAST IRON ADJUSTABLE PIPE SADDLE, LOCKNUT NIPPLE, FLOOR FLANGE, AND CONCRETE PIER OR STEEL SUPPORT.

6. COPPER PIPE SUPPORT: CARBON STEEL RING, ADJUSTABLE, COPPER PLATED.

7. SHIELD FOR INSULATED PIPING 2 INCHES AND SMALLER: 18 GAGE GALVANIZED STEEL SHIELD OVER INSULATION IN 180 DEGREE SEGMENTS, MINIMUM 12 INCHES LONG AT PIPE SUPPORT.

8. SHIELDS FOR INSULATED COLD WATER PIPING 2-1/2 INCHES AND LAGER HARD BLOCK NON-CONDUCTING SADDLES IN 90 DEGREE SEGMENTS, 12 INCH MINIMUM LENGTH, BLOCK THICKNESS SAME AS INSULATION THICKNESS.

DUCTWORK AND ACCESSORIES

1. ALL DUCTWORK TO BE GALVANIZED STEEL, ASTM A525, LOCK-FORMING QUALITY, HAVING ZINC COATING OF 1.25 OZ PER SQ. FT. FOR EACH SIDE IN CONFORMANCE WITH ASTM A90.

2. RECTANGULAR LOW-PRESSURE DUCTS: FOLLOW STANDARDS FOR 2" POSITIVE STATIC PRESSURE PER SMACNA-85 TABLE 1-7 AND INTERMEDIATE REINFORCEMENT TABLE 1-10 AND 1-11.

3. PROVIDE ALL PURPOSE SEALANT FOR USE ON METAL DUCTS.

4. FABRICATE MANUAL VOLUME CONTROL DAMPERS IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS. PROVIDE LOCKING, INDICATING QUADRANT REGULATORS. WHERE ROD LENGTHS EXCEED 30" PROVIDE REGULATOR AT BOTH ENDS.

SUPPORTS AND ANCHORS

1. DUCT SUPPORT: PER SMACNA SECTION IV HANGERS AND SUPPORTS CHAPTER, FIG. 4-4, TABLES 4-1 FOR RECTANGULAR DUCTS AND TABLE 4-2 FOR ROUND DUCTS.

2. STEEL HANGER RODS: THREADED BOTH ENDS, THREADED ONE END, OR CONTINUOUS THREADED. WIRE HANGERS ARE NOT ALLOWED.

3. SLEEVES FOR RECTANGULAR DUCTWORK: FORM WITH GALVANIZED STEEL.

TESTING ADJUSTING AND BALANCING

1. TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH NEBB.

MECHANICAL LEGEND

GENERAL		LINETYPES AND ABBREVIATIONS		DUCTWORK	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
# / X-##	DETAIL # / # OF SHEET ON WHICH CONDITION IS DRAWN	GAS	NATURAL GAS LINE (LOW PRESSURE)		SUPPLY DUCTWORK UP
	NORTH DIRECTION	MPG	MEDIUM PRESSURE NATURAL GAS LINE		RETURN/EXHAUST DUCTWORK UP
#	KEYED NOTES	CD	CONDENSATE DRAIN LINE		SUPPLY DUCTWORK DOWN
	NEW EQUIPMENT	RS	REFRIGERANT SUCTION LINE		RETURN DUCTWORK DOWN
	EXISTING EQUIPMENT	RL	REFRIGERANT LIQUID LINE	X SIZE / cfm's	SUPPLY REGISTER CFM'S, NECK SIZE AND TYPE
		RTU	ROOF TOP UNIT	SIZE / cfm's X	RETURN REGISTER CFM'S, NECK SIZE AND TYPE
		EC	EVAPORATIVE COOLER		
		EF	EXHAUST FAN		
		RH	RELIEF HOOD		
		EXIST.	EXISTING		

PIPING AND DUCTWORK INSULATION

A. PLUMBING PIPING (GLASS FIBER):

1. MANUFACTURERS: MANVILLE MICROLOK AP-T, OWENS CORNING ASJ/SSL-11, KNAUF PIPE INSULATION ASJ/SSL OR EQUAL.

2. INSULATION: ASTM C547; RIGID MOLDED, NONCOMBUSTIBLE. INSULATION: ASTM C547; RIGID MOLDED, MINIMUM SERVICE TEMPERATURE: -60. F.MAXIMUM SERVICE TEMPERATURE: 850 F. MAXIMUM MOISTURE ABSORPTION: 0.2 PERCENT BY VOLUME. ALL THERMAL SYSTEM INSULATION (TSI) SHALL BE NON-ASBESTOS CONTAINING BUILDING MATERIAL.

3. VAPOR BARRIER JACKET. ASTM C921, WHITE KRAFT PAPER REINFORCED WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM. MOISTURE VAPOR TRANSMISSION: ASTM E96; 0.02 PER INCHES. SECURE WITH SELF SEALING LONGITUDINAL LAPS AND BUTT STRIPS. SECURE OUTWARD CLINCH EXPANDING STAPLES AND VAPOR BARRIER MASTIC.

B. DUCTWORK (GLASS FIBER, FLEXIBLE):

1. MANUFACTURERS: MANVILLE R-SERIES MICROLITE, OWENS CORNING ASF(ALL SERVICE FACED), KNAUF MULTI-PURPOSE DUCT WRAP, OR EQUAL.

2. INSULATION: 'K' VALUE: ASTM C518, 0.30 BTU-IN/H-FT2-F AT 75 F. MAXIMUM SERVICE TEMPERATURE: 250 F. MAXIMUM MOISTURE ABSORPTION: 0.20 PERCENT BY VOLUME. DENSITY: 1.0 LB/CU FT. THICKNESS: 1.5 INCHES.

3. VAPOR BARRIER JACKET. KRAFT PAPER REINFORCED WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM. MOISTURE VAPOR TRANSMISSION: ASTM E96; 0.02 PERM.

GRAPHIC SCALE

JOSE DE JESUS SANCHEZ JR. 75926 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS
9/28/2021
TEXAS FIRM REGISTRATION No. F12808

ISSUE HISTORY / REVISIONS

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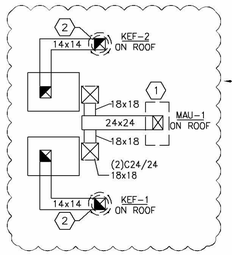
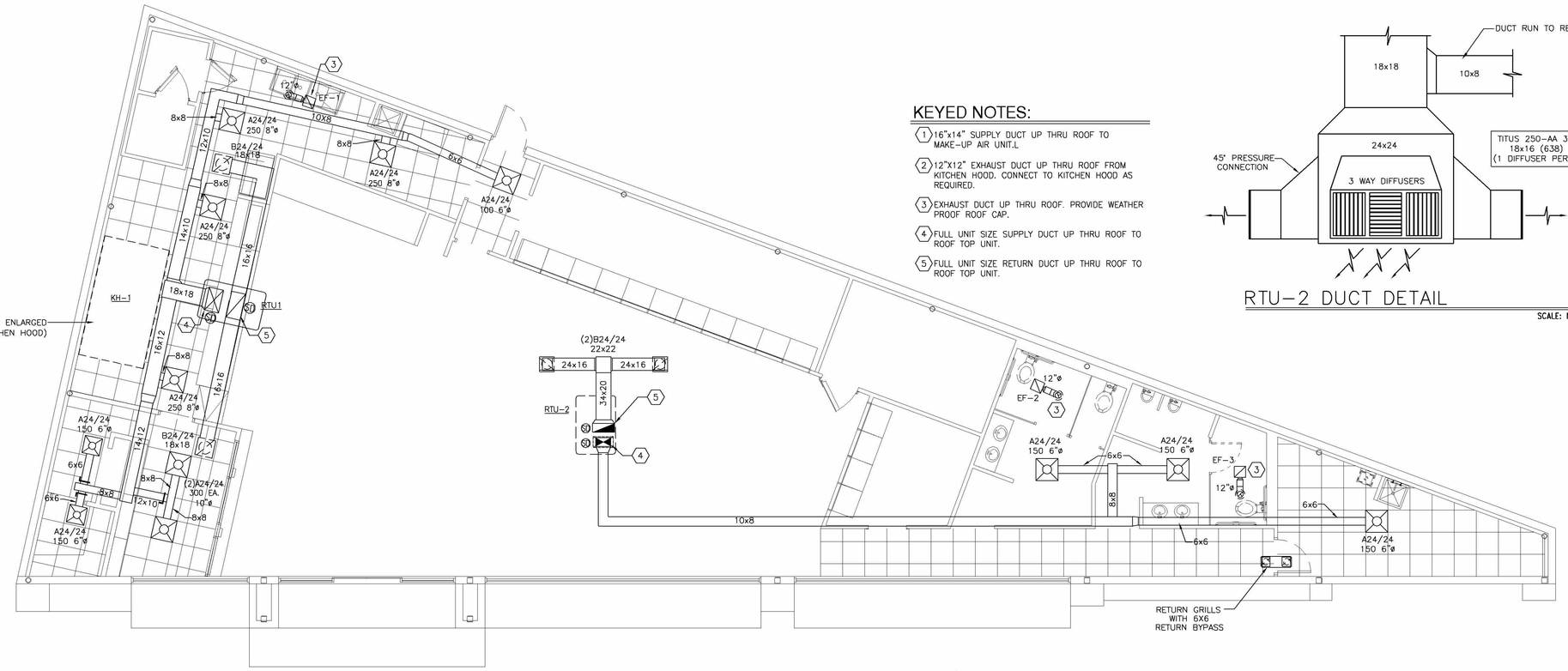
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
MECHANICAL LEGEND & GENERAL NOTES

DRAWN BY: TD | DATE: 3-04-2021 | SHEET: M1.0 OF: 3
CHECKED BY: RSK | PROJ. NO.: VR151003.317.4



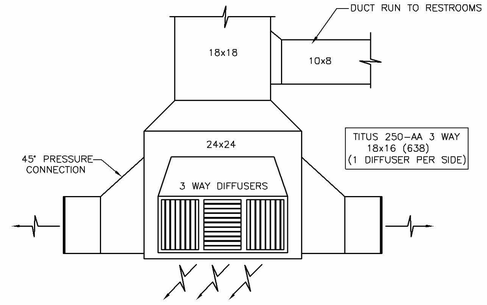
(SEE ENLARGED KITCHEN HOOD)

ENLARGED KITCHEN HOOD



KEYED NOTES:

1. 16"x14" SUPPLY DUCT UP THRU ROOF TO MAKE-UP AIR UNIT.L
2. 12"X12" EXHAUST DUCT UP THRU ROOF FROM KITCHEN HOOD. CONNECT TO KITCHEN HOOD AS REQUIRED.
3. EXHAUST DUCT UP THRU ROOF. PROVIDE WEATHER PROOF ROOF CAP.
4. FULL UNIT SIZE SUPPLY DUCT UP THRU ROOF TO ROOF TOP UNIT.
5. FULL UNIT SIZE RETURN DUCT UP THRU ROOF TO ROOF TOP UNIT.

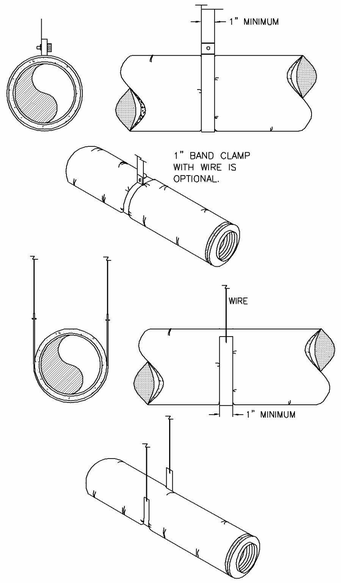


RTU-2 DUCT DETAIL

SCALE: NONE

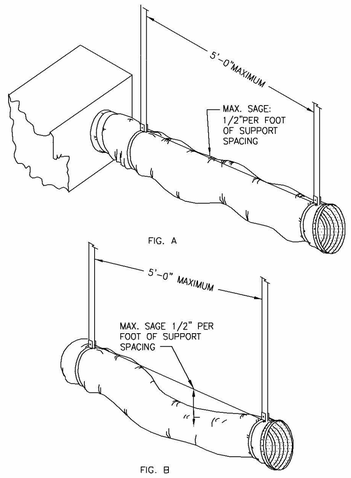
MECHANICAL FLOOR PLAN

SCALE: 3/16"=1'-0"



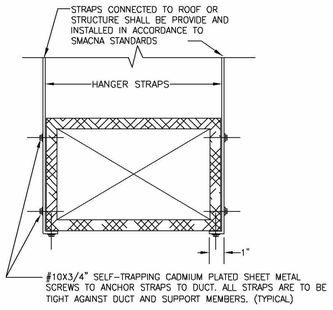
3 TYPICAL ROUND DUCT SUPPORT DETAILS

SCALE: NONE

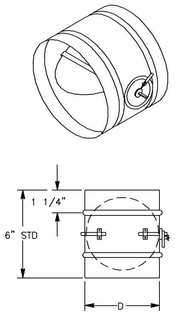


4 TYPICAL FLEXIBLE DUCT SUPPORT DETAILS

SCALE: NONE



2 TYPICAL DUCT STRAP HANGER DETAIL

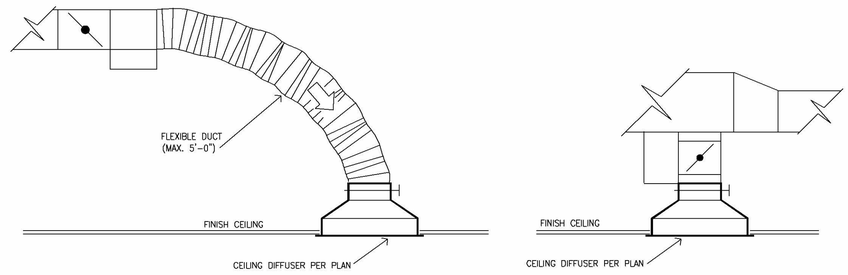


5 TYPICAL VOLUME DAMPER DETAIL

SCALE: NONE

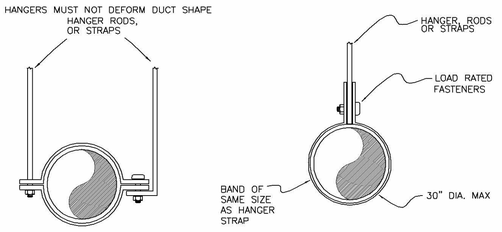
NOTE:

1. 22 GAUGE GALVANIZED STEEL FRAME, 6" LONG STANDARD AND DOUBLE BEADED.
2. 22 GAUGE GALVANIZED STEEL BLADE WITH CENTER "V" BREAK.
3. 3/8" SQUARE ZINC PLATED STEEL BLADE SHAFTS WITH TIGHT SEALING NYLON BUSHINGS.
4. ALL STEEL PARTS WITH GALVANIZED FINISH OR ZINC PLATING.
5. MAXIMUM OPERATING TEMPERATURE SHALL BE 250° F.
6. FACTORY MOUNTED MANUAL LOCKING QUADRANT TO DAMPER SLEEVE.
7. MAXIMUM DIAMETER 24", MINIMUM DIAMETER 4".
8. DAMPERS SHALL BE APPROXIMATELY 1/8" UNDER NOMINAL DIAMETER.



1 TYPICAL VOLUME DAMPER, DIFFUSER AND/OR FLEX DUCT CONNECTION DETAIL

SCALE: NONE



6 TYPICAL HANGER DUCT DETAIL

SCALE: NONE

GRAPHIC SCALE

JOSE DE JESUS SANCHEZ JR. 75928 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS
9/28/2021
TEXAS FIRM REGISTRATION No. F12808

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MECHANICAL FLOOR PLAN

DRAWN BY: TD	DATE: 3-04-2021	SHEET: M2.0 OF: 3
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ROOFTOP UNIT SCHEDULE

MARK	MANUFACTURER AND MODEL	NOMINAL TONS	DISCHARGE CONFIGURATION	ELEV.	SUPPLY FAN			COOLING							HEATING			ELECTRICAL					REFIG. LBS.	WT.	REMARKS (SEE NOTES)
					CFM RANGE	ESP	HP	TOTAL (GROSS)[2]	SENSIBLE (GROSS)[2]	SENSIBLE (NET)[2]	EAT db °F	EAT wb °F	AMB °F	ARI SEER/EER	INPUT MBH (SL)	OUTPUT MBH (SL)	FUEL	# COMP	COMP RLA (LARGEST)	MCA	MOCP	VOLTS / PH			
RTU-1	TRANE YHC060	5	SEE PLAN	100	2,000	0.7	0.9	62.1	56.9	45.1	80	67	105	11.8/—	80	64.8	NG	1	25.0	39.5	60	208/3	7.9	574	4, 5, 9
																			17.4	30.0	45	460/3			
RTU-2	TRANE YHC092	7.5	SEE PLAN	100	3,000	0.7	2.0	94.0	88.2	68.7	80	67	105	—/11.5	120	97.2	NG	2	12.4	38.1	50	208/3	12.6	923	4, 5, 9
																			6.4	19.4	25	460/3			

NOTES:
1. CFM VALUE REPRESENTS AVERAGE FOR UNIT'S AVAILABLE RANGE.
2. CAPACITY INDICATED IS FOR THE LISTED CFM.
3. "NET" (net of altitude, and fan heat) AT THE LISTED CFM POINT. SUBMIT ON SELECTION AT THIS CONDITION.
4. SEE PLAN FOR ADDITIONAL DATA, AND DUCT CONFIGURATION.
5. ALL UNITS OVER 5 TONS SHALL BE FURNISHED WITH POWER EXHAUST.
6. POWERED CONVENIENCE OUTLET.
7. CO2 CONTROLLER (TO INCLUDE FUNCTIONALITY TO COMMUNICATE WITH THE UNIT OUTSIDE AIR CONTROLS TO OPEN AND CLOSE DAMPERS BASED ON SETPOINT.
8. VERIFY DUCT CONFIGURATION ON PLAN.
9. SMOKE DETECTOR ON RETURN DUCT - SEE ELECTRICAL.

AIR CONDITIONING UNIT REQUIRED OPTIONS: R-410A, HAIL GUARDS, LOW AMBIENT TO 0°F, SMOKE DETECTORS, CONDENSATE FLOAT SWITCHES, EXPANSION VALVES, PROGRAMMABLE T-STAT (UNLESS PROJECT INCLUDES EMS CONTROLS), INSULATED CURB, DUAL INPUT ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF, POWERED CONVENIENCE OUTLET, CO2 CONTROLLER (TO INCLUDE FUNCTIONALITY TO COMMUNICATE WITH THE UNIT OUTSIDE AIR CONTROLS TO OPEN AND CLOSE DAMPERS BASED ON SETPOINT.

AIR DEVICE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	INSTALLATION TYPE	MANUFACTURER MODEL NO.
A	CEILING SUPPLY	ALL STEEL, PERFORATED FLUSH FACE, NOMINAL 24" X 24" FACE, ADJUSTABLE AIRFLOW DAMPER IN THE NECK, NECK SIZE AS SHOWN ON DRAWINGS, BORDER FOR CEILING SPECIFIED, 4-WAY THROW UNLESS SPECIFIED OTHERWISE.	LAY-IN	TITUS PCS
B	CEILING RETURN	ALL STEEL, PERFORATED FLUSH FACE, NOMINAL 24" X 24" FACE, BORDER FOR CEILING SPECIFIED.	LAY-IN	TITUS PAR (SEE NOTE 3)
C	CEILING SUPPLY	ALUMINUM 4 WAY ADJUSTABLE CURVED BLADE	SURFACE	TITUS 250-AA

NOTES :
1. AIR DEVICES SCHEDULED TO BE MANUFACTURED BY TITUS. KRUEGER, METALAIRE, CARNES, J & J, NAILOR, PRICE, AND TUTTLE & BAILEY ARE CONSIDERED EQUIVALENT MANUFACTURERS.
2. UNLESS SCHEDULED OTHERWISE, AIR DEVICES SHALL BE WHITE OR OFF-WHITE IN COLOR.
3. ALL JOISTS, CONDUITS, PIPING AND EQUIPMENT ABOVE OPEN RETURN AIR DEVICES SHALL BE PAINTED BLACK FOR AN AREA OF 2 FEET ON ALL SIDES OF THE AIR DEVICE.

AIR BALANCE CALCULATION

KITCHEN EXHAUST FAN: -2,000 CFM
BATHROOM EXHAUST: -564 CFM
TOTAL EXHAUST: -2,564 CFM

KITCHEN MAKEUP AIR: 1,700 CFM
A/C VENTILATION: 900 CFM
TOTAL MAU & A/C VENTILATION: 2,600 CFM

2600 CFM VENTILATION MINUS 2564 CFM EXHAUST EQUALS 36 CFM BALANCE (SLIGHTLY POSITIVE)

EXHAUST FAN SCHEDULE

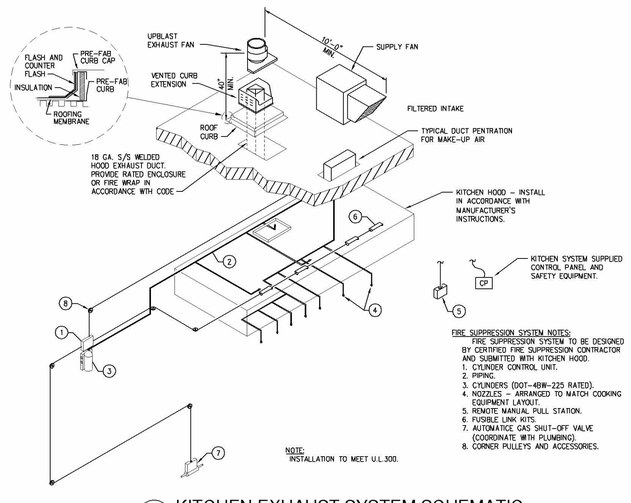
MARK	MANUFACTURER & MODEL	FAN TYPE	CFM	ESP IN.W.G.	MOTOR				SONES	WEIGHT LBS.	NOTES
					HP (AMPS)	VOLTS	PHASE	# SPDS			
EF-1	GREENHECK SP-A290	CEILING CABINET	257	0.25	(0.72)	120	1	1	3.0	24	1
EF-2	GREENHECK SP-A290	CEILING CABINET	100	0.25	(0.25)	120	1	1	3.0	24	1
EF-3	GREENHECK SP-A290	CEILING CABINET	100	0.25	(0.25)	120	1	1	3.0	24	1

NOTES:
1. FURNISH FANS WITH ROOF CAP (RCC-7 THRU 200 CFM, GRS-12 THRU 600 CFM, GRS-16 THRU 1500 CFM) AND CURB.
2. FURNISH WITH MOTORIZED DAMPER TO AUTOMATICALLY SHUT DOWN UNIT WHEN NOT IS NOT IN USE.

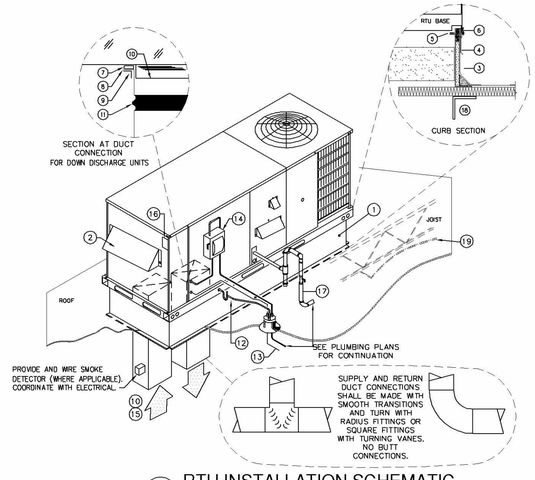
FANS			ACTUAL PERFORMANCE					MOTOR SPECIFICATIONS							
MARK	MODEL	WHEEL DIA.	VOLUME (CFM)	TOTAL EXTERNAL SP (in. WC)	FAN RPM	POWER (HP)	dBA	SONES	SIZE (HP)	VOLT	Hz	Ph	ENC	RPM	EC MOTOR	MOTOR STARTER
KEF-1	DU50HFA	13.75	1,000	1.25	1	0.354	--	15.2	0.5	115	60	1	ODP	1725	-	NO
KEF-2	DU50HFA	13.75	1,000	1.25	1	0.354	--	15.2	0.5	115	60	1	ODP	1725	-	NO

MARK	MODEL	WIDTH (in.)	LENGTH (in.)	ACTUAL WIDTH (in.)	ACTUAL LENGTH (in.)	HEIGHT (in.)
KEF-1	DU50HFA	21"	21"	28-7/8"	27-1/4"	27-1/4"
KEF-2	DU50HFA	21"	21"	28-7/8"	27-1/4"	27-1/4"

MARK	MODEL	VOLUME (CFM)	TOTAL SP (In. WC)	EXT. SP (in. WC)	FRPM	OPER. POWER (HP)	HP	ELECTRICAL	MOTOR RPM	ENCL	HEATING	COOLING
MAU-1	A1-G10	1,700	0.500	0.5	922	0.595	1 HP	115V, 1Ph, 10.2 FLA	1,725	ODP	NO HEAT	EVAPORATIVE



1 / M-3 KITCHEN EXHAUST SYSTEM SCHEMATIC
SCALE: NONE



2 / M-3 RTU INSTALLATION SCHEMATIC
SCALE: NONE

○ RTU SCHEMATIC KEYED NOTES

1. FACTORY ROOF CURB FOR BOTH SIDE AND DOWN DISCHARGE UNITS. ANCHOR CURB TO BASE OR ROOF PER ROOFER RECOMMENDATIONS. PROVIDE WOOD BLOCK LEVELING, 2" SOLID BASE AROUND PERIMETER OF CURB, IN LIEU OF THIS REQUIREMENT. PROVIDE FACTORY CURB BUILT TO ROOF SLOPE.
2. PROVIDE ALL UNITS WITH HAIL GUARDS AND OUTSIDE AIR HOODS.
3. INSULATED EQUIPMENT CURB WITH NAIL STRIP.
4. APPLY ROOF SYSTEM AND FLASHING WATER-TIGHT ALL AROUND CURB.
5. INSTALL 3/8" VIBRATION ISOLATING RUBBER GASKET CONTINUOUS AROUND BASE OF CURB.
6. ATTACH RTU TO CURB PER MANUFACTURER'S INSTRUCTIONS.
7. INSTALL SEALING GASKET CONTINUOUS AROUND DUCT FLANGE TO ACHIEVE AN AIR-TIGHT SEAL, BETWEEN UNIT CONNECTION AND DUCTWORK.
8. DUCT FLANGE TO TURN OUT OVER DUCT CONNECTION FRAME.
9. DUCT CONNECTION FRAME INTEGRAL TO ROOF CURB.
10. RTU SUPPLY OR RETURN AIR OPENING. PROVIDE RETURN DUCT WITH 1" ANTI-MICROBIAL ACOUSTICAL LINER IN THE FIRST 10' OF DUCT. PROVIDE LINER EDGE WITH NOSING.
11. DUCT FLEX CONNECTOR.
12. CONDENSATE DRAIN AND TRAP OF COPPER PIPE WHERE EXPOSED - SEE PLUMBING. DO NOT BLOCK ACCESS PANELS WITH PIPING OR CONDUIT.
13. PROVIDE THERMOSTAT AND CONTROL WIRING TO UNIT AS REQUIRED FOR PROPER OPERATION. USE CONDUIT AND PAINT FOR EXPOSED ROUTING COORDINATE WITH ELECTRICAL. PROVIDE LABELING ON THIS CONNECTION @ 10 FOOT INTERVALS. SEE CONTROLS SCHEMATIC FOR ADDITIONAL INFORMATION
14. UNIT DISCONNECT - MOUNT IN ON CABINET IN MFG. APPROVED LOCATION. COORDINATE WITH ELECTRICAL. PROVIDE 4'-6" CLEAR ACCESS IN FRONT OF DISCONNECT.
15. PROVIDE AND WIRE SMOKE DETECTOR. COORDINATE WITH ELECTRICAL. SEE CONTROLS SCHEMATIC FOR ADDITIONAL INFORMATION.
16. PROVIDE EQUIPMENT LABEL ON NORTH SIDE OF UNIT.
17. SEE PLUMBING FOR GAS PIPING DETAILS. DO NOT BLOCK ACCESS PANELS WITH PIPING OR CONDUIT.
18. SEE STRUCTURAL FOR FRAMING REQUIREMENTS UNDER EQUIPMENT.
19. FOR INSTALLATIONS WHERE THERE IS SHEET ROCK AT THE BOTTOM OF THE JOISTS, SEAL ALL PENETRATIONS IN SHEETROCK IN ACCORDANCE WITH THE ASSEMBLY RATING.

GRAPHIC SCALE

STATE OF TEXAS — JOSE DE JESUS SANCHEZ JR. — 75926 — REGISTERED PROFESSIONAL ENGINEER — 9/28/2021
TEXAS FIRM REGISTRATION No. F12808

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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RSK ENGINEERING
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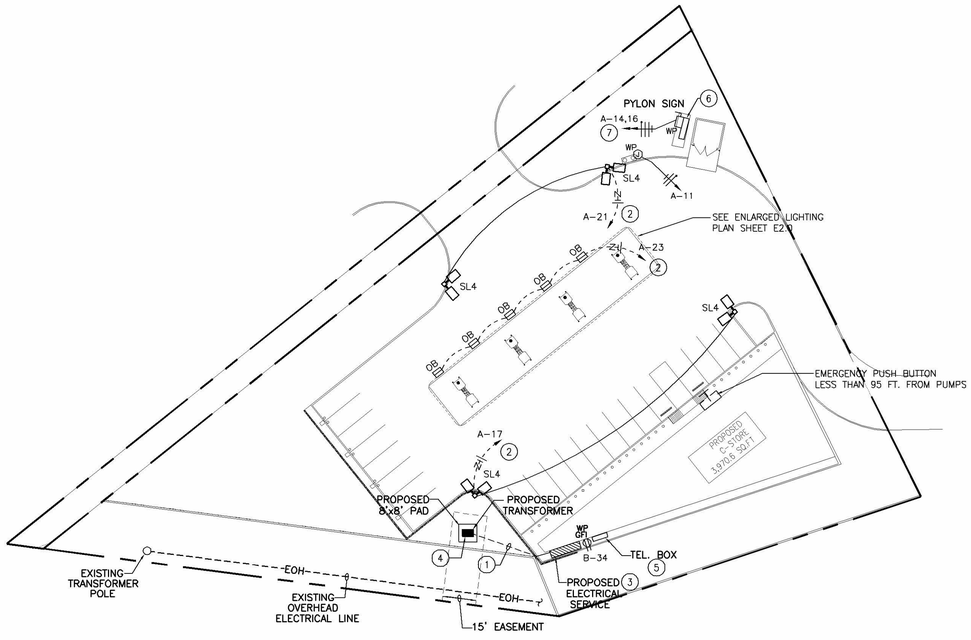
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN, TX 77807
MECHANICAL SCHEDULES

DRAWN BY:
DATE: 04-21-2021
CHECKED BY:
PROJ. NO.: VR151003.317.4
SHEET: **M-3.0** 3 OF: 3

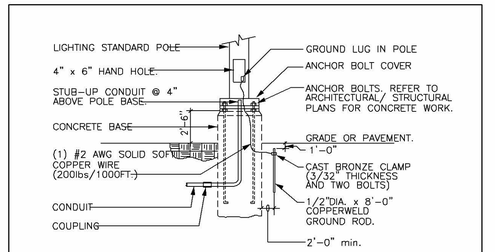
KEYED NOTES: (THIS SHEET ONLY)

1. PROVIDE (2) 4" CONDUITS FROM POLE MOUNTED TRANSFORMER TO NEW ELECTRICAL METER CAN AS SHOWN FOR UNDERGROUND ELECTRICAL SERVICE CONDUCTORS. REFER TO SHEET E4.0 FOR MORE INFORMATION.
2. THIS CIRCUIT TO BE WIRE THRU TIMER CONTACTOR, TIME CONTACTOR TO BE CONTROLLED BY PHOTOCELL ON ROOF. USE 1" CONDUIT W/2–#10 CU. CONDRS. AND 1–#10 CU GND.
3. PROPOSED MAIN ELECTRICAL SERVICE FOR GAS STATION INSTALL MAIN, GUTTER, METER CANS, TENANTS DISCONNECTS AND METERS. REFER TO ELECTRICAL RISER DIAGRAM SHEET E4.0
4. PROPOSED PADMOUNT TRANSFORMER LOCATION. SERVICE SHALL BE 120/208V, 3ø, 4W. ELECTRICAL CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY AND OWNER FOR EXACT LOCATION PRIOR TO DOING ANY WORK.
5. PROPOSED LOCATION OF AT&T TELEPHONE BOX. PROVIDE (1) 2" CONDUIT WITH PULLSTRIG FROM BOX TO END OF PROPERTY. COORDINATE WITH AT&T FOR EXACT LOCATION OF TERMINATION POINT AND REQUIREMENTS.
6. PROPOSED LOCATION OF PYLON SIGN. PROVIDE 208V, 2 POLE 30A CIRCUIT BREAKER COORDINATE WITH OWNER BEFORE ROUGH–IN.
7. THESE CIRCUIT TO BE WIRE THRU TIMER CONTACTOR, TIME CONTACTOR TO BE CONTROLLED BY PHOTOCELL ON ROOF. USE 3/4" CONDUIT W/3–#8 CU. CONDRS. AND 1–#8 CU GND.
8. THIS CIRCUIT TO BE WIRE THRU TIMER CONTACTOR, TIME CONTACTOR TO BE CONTROLLED BY PHOTOCELL ON ROOF. USE 3/4" CONDUIT W/2–#10 CU. CONDRS. AND 1–#10 CU GND.
9. INSTALL 3/4" CONDUIT UNDERGROUND WITH PULLSTRING FOR EACH GAS DISPENSER FOR POWER. CONTRACTOR TO COORDINATE ALL CONDUIT RUNS AND REQUIREMENTS WITH OWNER BEFORE ROUGH–IN.
10. INSTALL 3/4" CONDUIT UNDERGROUND WITH PULLSTRING FOR EACH GAS DISPENSER FOR PA CONTROLLER. COORDINATE WITH OWNER FOR EXACT LOCATION. CONTRACTOR TO COORDINATE ALL CONDUIT RUNS AND REQUIREMENTS WITH OWNER BEFORE ROUGH–IN.
11. INSTALL 3/4" CONDUIT UNDERGROUND WITH PULLSTRING FOR EACH GAS DISPENSER FOR PUMP DISTRIBUTION BOX. COORDINATE WITH OWNER FOR EXACT LOCATION. CONTRACTOR TO COORDINATE ALL CONDUIT RUNS AND REQUIREMENTS WITH OWNER BEFORE ROUGH–IN.
12. INSTALL 3/4" CONDUIT UNDERGROUND WITH PULLSTRING FOR EACH GAS DISPENSER FOR INTERCOMM. COORDINATE WITH OWNER FOR EXACT LOCATION. CONTRACTOR TO COORDINATE ALL CONDUIT RUNS AND REQUIREMENTS WITH OWNER BEFORE



ELECTRICAL SITE PLAN

NTS



NOTE: ALL SITE LIGHTING POLE CONCRETE BASES TO BE CENTERED ON THE PARKING SPINES. WHERE POLE BASES OCCUR IN THE HANDICAP AREAS THE POLE BASE IS TO BE LOCATED UPON THE SPINE OF THE ACCESS/UNLOADING STRIPED AREA AND CLEAR OF THE WALKWAY.

POLE BASE DETAIL NO SCALE

ELECTRICAL MATERIAL AND EQUIPMENT NOTE:

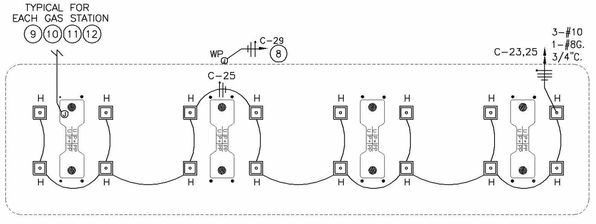
A) NO ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THF CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THIS DIVISION.

B) IN GENERAL ANY TYPE OF WIRING OR WIRING SYSTEM MAY BE USED AS APPROVED IN THE NATIONAL CODES ADOPTED IN THIS CHAPTER, EXCEPT WHERE SPECIFICALLY PROHIBITED IN THIS DIVISION.

C) ANY WIRE OR CABLE UTILIZING ALUMINUM CONDUCTORS OR COPPER –CLAD. ALUMINUM. CONDUCTORS. SMALLER. THAN. NO. 2. AMERICAN. WIRE. GAUGE. IS. PROHIBITED.

D) ALL LATERAL SERVICE ENTRANCE CONDUCTORS SHALL BE INSTALLEOD IN AN APPROVED RACEWAY, EXCEPT FOR TEMPORARY SERVICE POLES.

E) ALUMINUM WIRING ALUMINUM WIRING IS NOT ACCEPTABLE FOR ANY WIRING SYSTEM, RESIDENTIAL OR COMMERCIAL, IN THIS JURISDICTION.



ENLARGED PUMP STATIONS ELECTRICAL POWER PLAN

N.T.S

FIXTURE SCHEDULE				
TYPE	DESCRIPTION	LAMPS	MOUNTING	COMMENTS
A	COPPER HALO PD620ED010 / PDM6A940 / 61VC	LED 21W, 2K LUMENS, 4K'	RECESSED	
A1	COPPER MC GRAW-EDISON TBLED-LD1-11-M-UNV-L840-CD1-PM-WHT	LED 108W, 11K LUMENS, 4K'	PENDANT	
A1E	COPPER TBLED-LD1-11-M-UNV-L840-CD1-PM-WHT-IBP (120V)	LED 108W, 11K LUMENS, 4K'	PENDANT	
C	COPPER 4VT2-LD4-6-DR-W-UNV-L840-CD1-WL-U	57.5W, 6K LUMENS, 4K'	SURFACE	
F	COPPER 22CZ-LD5-44SE-UNV-L850-CD1-U	41.8 W, 4891 LUMENS, 4K'	RECESSED	
FE	COPPER 22CZ-LD5-44SE-UNV-EL14W-L850-CD1-U	41.8 W, 4891 LUMENS, 4K'	RECESSED	
G	COPPER PR820D010 / PR8M12WDMW	LED 22W, 2000 LUMENS, 4K'	RECESSED	UL W/D LOCATION
H	COPPER XTOR2B-W	18W, 2135 LUMENS, 4K'	WALL	
J	COPPER TT-C6-LED-E1-CQ-STD FINISH	108W, 12K LUMENS, 4K'	CANOPY	UL W/D LOCATION
SL2	COPPER GLEON-AF-04-LED-E1-SL2-STD FINISH (1 HEAD PER POLE)	225W, 23522 LUMENS, 4K'	POLE	
SL4	COPPER GLEON-AF-04-LED-E1-SL4-STD FINISH (2 HEADS @ 90')	450W, 47044 LUMENS, 4K'	POLE	
5WQ	COPPER GLEON-AF-04-LED-E1-5WQ-STD FINISH (2 HEADS @ 180)	450W, 47044 LUMENS, 4K'	POLE	
X	COPPER APX7R	LED	WALL	
E	COPER SEL25	LED	WALL	
E0	COPPER SELW	LED	WALL	
	*** SUBSTITUTONS TO BE ACCEPTED MUST HAVE SAME LAMP COLOR TEMPERATURE (K') AS WELL AS LUMEN OUTPUT +/- 10%			

ANY CHANGES TO THE PLANS DURING CONSTRUCTION NEED TO BE APPROVED BY THE ARCHITECT AND/OR ENGINEER OF RECORD AND CITY

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GRAPHIC SCALE

7-21-2022

JOSE PEREDA-ALVAREZ 85352 LICENSED PROFESSIONAL ENGINEER

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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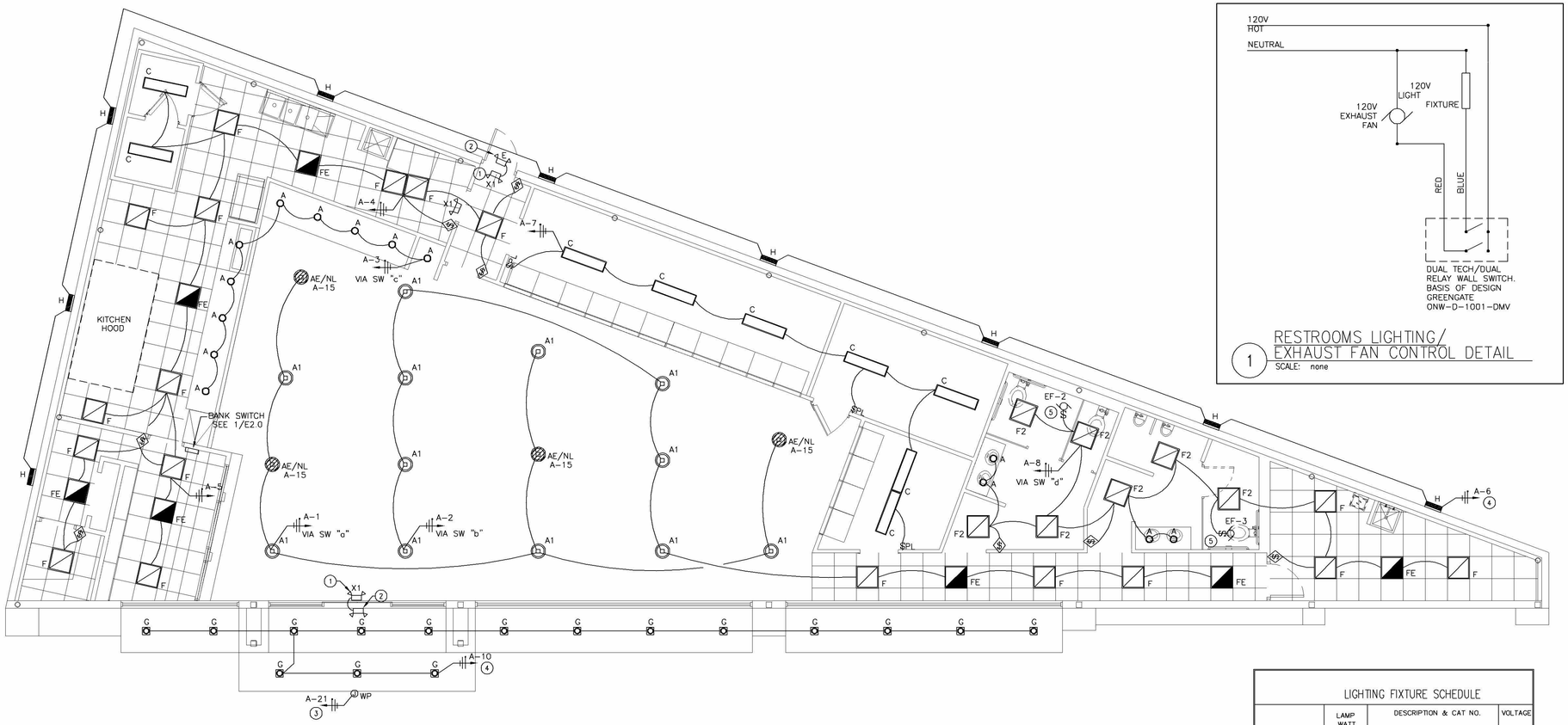
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
ELECTRICAL SITE PLAN

DRAWN BY: FA	DATE: 3–04–2021	SHEET: E1.0 OF:4
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



LIGHTING FLOOR PLAN

SCALE: 3/16"=1'-0"

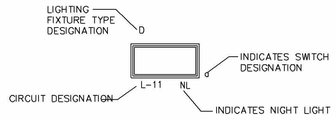
Ⓢ=OCCUPANCY SENSOR, WITH BYPASS DUAL TECHNOLOGY

1 RESTROOMS LIGHTING/ EXHAUST FAN CONTROL DETAIL
SCALE: none

LIGHTING CIRCUITING NOTES

1. SWITCH LIGHTING FIXTURES IN ENCLOSED SPACES BY LIGHTING CONTROL DEVICE/SWITCH SHOWN IN THAT SPACE.
2. ALL BATTERY PACKS IN EXIT SIGNS AND EMERGENCY LIGHTING FIXTURES SHALL BE CONNECTED DIRECTLY TO BRANCH CIRCUIT (UNSWITCHED HOT) SERVING THE AREA U.O.N.

CIRCUITING LEGEND



LIGHTING GENERAL NOTES

1. ALL JUNCTION BOXES, CONDUITS, AND WIRES SHALL BE SIZED PER NEC.
2. CONNECT ALL EXIT LIGHTS AHEAD OF ANY LOCAL OR AUTOMATIC SWITCHING DEVICE.
3. PROVIDE A CONSTANT HOT FROM PANEL BOARD DIRECTLY TO ALL EMERGENCY BATTERY PACKS IN ALL EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS. EMERGENCY LIGHTING FIXTURES SHALL TURN ON TO FULL BRIGHTNESS IN CASE OF POWER LOSS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION & MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES SHOWN ON THIS DRAWING.
5. ALL HOME RUNS SHALL BE 2#12 + 1#12 GND IN 3/4"CONDUIT UNLESS OTHERWISE NOTED.
6. REFER TO SHEET E3.0 FOR SYMBOLS, SPECIFICATIONS, ABBREVIATIONS, AND LIGHTING FIXTURE SCHEDULE.
7. ALL DEVICES AND EQUIPMENT OUTSIDE THE SCOPE OF WORK ARE EXISTING TO REMAIN U.O.N.
8. CONTRACTOR SHALL PROVIDE AN ACCURATELY TYPED PANEL BOARD SCHEDULE FOR EACH PANEL BOARD.
9. ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY PROBLEMS PERTAINING TO CIRCUIT AVAILABILITY OR LOAD CAPACITY PRIOR TO INSTALLATION.
10. ALL EXTERIOR LUMINAIRES AND ELECTRICAL DEVICES SHALL BE LISTED AS WEATHERPROOF TYPE.
11. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF ALL LIGHTING CONTROL DEVICES/SWITCHES/DIMMERS WITH LIGHTING FIXTURES AND BALLASTS/DRIVERS PRIOR TO SUBMITTAL.
12. ALL LIGHTING TO BE INSTALLED BY LICENSED ELECTRICIAN.
13. GC TO VERIFY EXIT SIGN TYPE (GREEN OR RED), LOCATIONS & QUANTITIES PRIOR TO REQUESTING LIGHTING PACKAGE
14. DO NOT INSTALL SHAMPOO CAN LIGHTS ABOVE SHAMPOO BOWL AREA. SEE REMARKS IN LIGHTING SCHEDULE.
15. CONTACT LSI @ 713.744.5581 FOR LIGHTING SPECIFICATIONS AND ORDERING INFORMATION.

NOTE:
ALL CONDUIT TO BE RUN OUTSIDE OF COOLER/FREEZER AND ALL PENETRATIONS PROVIDED WITH SEAL-OFFS PER NEC. RACEWAYS THAT PENETRATE COOLERS THAT ARE KNOWN TO BE SUBJECT TO DIFFERENT TEMPERATURES AND CONDENSATION SHALL BE FILLED INSIDE THE RACEWAY WHERE IT ENTERS THE COOLERS WITH AN APPROVED MATERIAL TO PREVENT TO CIRCULATION OF WARM AIR TO THE COOLER SECTION.
(SEE 300.7 OF NFPA 70).

PER 2015 IECC 505.2.2.2 AREAS WHERE AUTOMATIC SHUTOFF FOR LIGHTING WOULD ENDANGER OCCUPANT SAFETY OR SECURITY JUST LIKE FOOD PREPARATION AND FOOD PROCESSING AREAS, AND AREAS WITH ELECTRICAL AND MECHANICAL EQUIPMENT ARE EXEMPT FROM AUTOMATIC CONTROLS.

PER 2015 IECC 101.3 THIS CODE IS NOT INTENDED TO ABRIDGE SAFETY, HEALTH OR ENVIRONMENTAL REQUIREMENTS CONTAINED IN OTHER APPLICABLE CODES OR ORDINANCES. SINCE THE MINIMUM REQUIREMENTS OF ILLUMINATION PER HEALTH CODE FOR FOOD SERVICE ESTABLISHMENT WHERE FOOD IS PREPARED IS 50 FOOT-CANDLES, NO 50% REDUCTION HAS BEEN PROVIDED IN KITCHEN AREA.

a	b	c	d
A-1 SALES GENERAL LIGHTS	A-2 SALES GENERAL LIGHTS	A-6 SALES GENERAL LIGHTS	A-8 RESTRM'S LIGHTS

CONTRACTOR TO VERIFY EXACT CONFIGURATION REQUIRED WITH SPACE AVAILABLE. PROVIDE LABELS AS DIRECTED BY OWNER. SWITCHES SHALL NOT BE MOUNTED HIGHER THAN 48". VERIFY EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR ROUGH-IN.

1 SWITCH BANK DETAIL
SCALE: N.T.S.

Ⓐ LIGHTING KEY NOTES Ⓐ

1. CONTRACTOR SHALL WIRE ALL EMERGENCY, EGRESS, AND EXIT FIXTURES AHEAD OF ALL LOCAL SWITCHING.
2. THIS FIXTURE SHALL HAVE AN EMERGENCY BATTERY PACK IN IT THAT IS TIED TO THE HOT LEG OF THE EXIT LIGHT CIRCUIT AS INDICATED. THIS FIXTURE IS TO PROVIDE EMERGENCY LIGHTING OUTSIDE THE EXIT DOOR AS REQUIRED BY THE IBC (CURRENT EDITION). THE EMERGENCY BALLAST SHALL PROVIDE EMERGENCY POWER FOR AT LEAST 90 MINUTES. INSTALL THE LIGHT AS SHOWN OR AS NEEDED TO PROVIDE 1 FOOTCANDLE OF EMERGENCY LIGHT AT THE GROUND AT THE DOOR.
3. PROVIDE WEATHERPROOF JUNCTION BOX WITH 20A, 120V BRANCH CIRCUIT TO POWER EXTERIOR SIGNAGE. CONTRACTOR TO PROVIDE 1P-20A RATED TOGGLE SWITCH ABOVE CEILING IN AN ACCESSIBLE AREA AS A DISCONNECT MEAN AND TO COORDINATE EXACT LOCATION AND REQUIREMENTS WITH OWNER/SIGN VENDOR PRIOR TO ROUGH-IN. EXTERIOR SIGNAGE SHALL BE CONTROLLED VIA PHOTOCELL/TIME CLOCK AS DIRECTED BY OWNER.
4. EXTERIOR LIGHTS SHOULD BE CONTROLLED VIA PHOTOCELL/CONTACTOR AS DIRECTED BY OWNER.
5. RESTROOM LIGHT SHALL BE CONTROLLED/INTERLOCKED WITH EXHAUST FAN CONTROL UNLESS OTHERWISE DIRECTED BY OWNER. REFER TO DETAIL 1/E2.0

LIGHTING FIXTURE SCHEDULE

	LAMP WATT	DESCRIPTION & CAT NO.	VOLTAGE
	50W LED	STAR LIGHTING FP2X4LED60W5K 5,700 LM	120V
	50W LED	STAR LIGHTING FP2X2LED50W5K 4,750 LM WITH EMERGENCY BATTERY PACK	120V
	50W LED	STAR LIGHTING FP2X2LED50W5K 4,750 LM	120V
	50W LED	STAR LIGHTING FP1X4LED50W5K 4,750 LM	120V
	20W LED	20 LED, RECESSED CAN DOWN LIGHT	120V
	DIODS CLUSTER	EMERGENCY EXIT LIGHT (5 WATTS, 120 VOLTS) WITH EMERGENCY BATTERY BACK, UPUL LABELED LITHONIA PRICISE OR APPROVED EQUAL	120V
	125W LED	CANOPY LIGHT 16" SQUARE, SPECULAR REFLECTOR, TEMPERED GLASS LENS MFG - AS REQUIRED BY ENGINEER	120V
	65W LED	OUTDOOR WALLPACK MTD. INC. LT. FIXTURE (2-75 WATT, 120V)	120V
		EMERGENCY LIGHT (2-26 WATTS, 120 VOLTS) WITH BATTERY BACK-UP	120V
A1	100W LED	METALUX TBLED-LD1-11-M-UNV-L840-CD1-CG-WHT	120V
AE	100W LED	METALUX TBLED-LD1-11-M-UNV-L840-CD1-CG-WHT-IBP-120V (WITH EMERGENCY PACK)	120V

NOTES:
1. CIRCUITS SHOWN SHALL BE FIELD VERIFIED. RELOCATE / REARRANGE AS NECESSARY AND PROVIDE ORIGINAL CIRCUITS TO GREATEST EXTENT POSSIBLE.

2. FOR SITE LIGHT POLE SEE DRAWING MEP-1

A LICENSED FIRE ALARM PLANNING SUPERINDENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.

ANY HANGES TO THE PLANS DURING CONSTRUCTION NEED TO BE APPROVED BY THE ARCHITECT AND/OR ENGINEER OF RECORD AND CITY

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GRAPHIC SCALE

6-01-2022

JOSE PEREDA-ALVAREZ 93452 LICENSED PROFESSIONAL ENGINEER

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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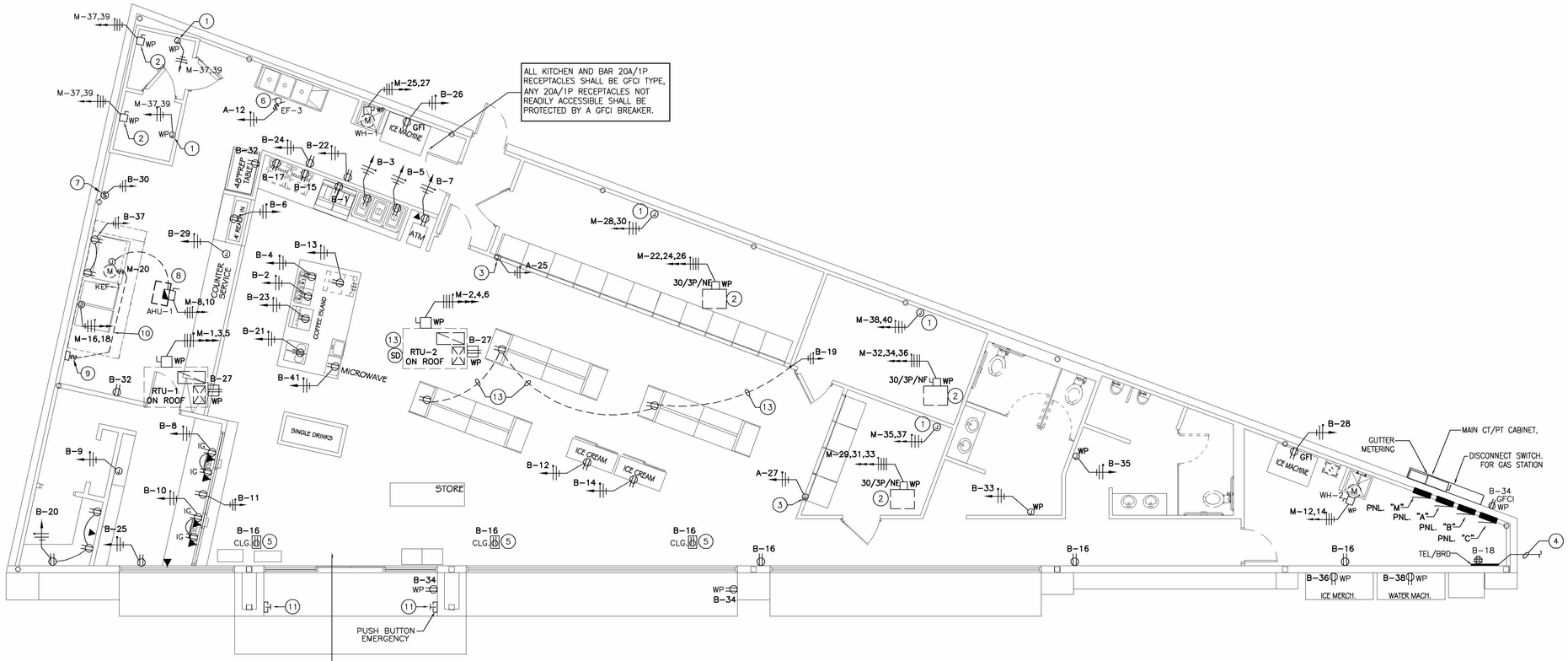
FIRM # F-11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
MASTER LIGHTING PLAN

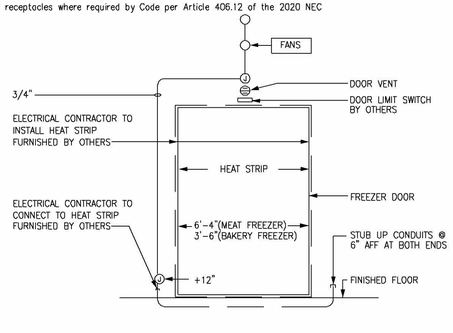
DRAWN BY: TD	DATE: 3-04-2021	SHEET: E2.0 OF:4
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



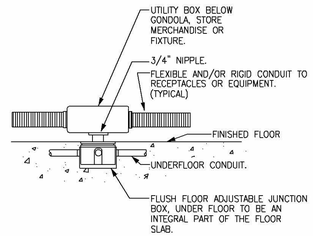
ELECTRICAL POWER PLAN

SCALE: 3/16"=1'-0"

tamper resistant receptacles where required by Code per Article 406.12 of the 2020 NEC



1 CONDUIT AT FREEZER DOOR DETAIL
SCALE: NONE ECOND-9



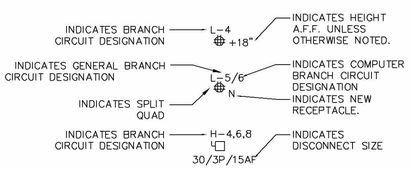
2 HANDY BOX – UNDER FLOOR CONDUIT
SCALE: NONE ERECE-4

ALL EQUIPMENT BENEATH EXHAUST HOOD SHALL BE SHUT DOWN DURING FIRE. PROVIDE SHUNT-TRIP BREAKERS FOR ALL EQUIPMENT BENEATH HOODS. INCLUDING ANY HOOD SUPPLY AIR FANS. PROVIDE INTERCONNECTION WITH HOOD FIRE SUPPRESSION SYSTEM, COORDINATE WITH FIRE SUPPRESSION CONTRACTOR.

ALL KITCHEN AND BAR 20A/1P RECEPTACLES SHALL BE GFCI TYPE, ANY 20A/1P RECEPTACLES NOT READILY ACCESSIBLE SHALL BE PROTECTED BY A GFCI BREAKER.

REFER TO EQUIPMENT SCHEDULE AND ELEVATIONS FOR CIRCUITING, EXACT LOCATION OF ALL RECEPTACLES, AND ALL OTHER REQUIREMENTS.

CIRCUITING LEGEND



POWER GENERAL NOTES

1. PROVIDE PULL STRINGS IN ALL EMPTY CONDUITS.
2. ALL JUNCTION BOXES, CONDUITS, AND WIRES SHALL BE SIZED PER NEC.
3. REFER TO ARCHITECTURAL AND KITCHEN CONSULTANT DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL DEVICES SHOWN ON THE DRAWING. COORDINATE WITH OWNER FOR EXACT LOCATION AND OTHER REQUIREMENTS PRIOR TO ROUGH-IN.
4. NOT USED.
5. ALL DEVICES AND EQUIPMENT OUTSIDE THE SCOPE OF WORK ARE EXISTING TO REMAIN U.O.N.
6. CIRCUIT NUMBERS INDICATED ARE FOR DESIGN PURPOSES ONLY. CONTRACTOR SHALL COORDINATE ACTUAL CIRCUIT NUMBERS AT THE TIME OF INSTALLATION AND TO PROVIDE AN ACCURATELY TYPED PANEL BOARD SCHEDULE FOR EACH PANEL BOARD.
7. ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY PROBLEMS PERTAINING TO CIRCUIT AVAILABILITY OR LOAD CAPACITY PRIOR TO INSTALLATION.
8. CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT AND SCHEDULES. CONTRACTOR SHALL PROVIDE ALL ELECTRICAL DISCONNECTS, BRANCH CIRCUITRY, CIRCUIT BREAKERS AND CONNECTIONS REQUIRED TO POWER EQUIPMENT.
9. CONTRACTOR TO COORDINATE EXACT LOCATION OF DISCONNECT SWITCHES, JUNCTION BOXES AND SINGLE POLE TOGGLE SWITCHES WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
10. ALL RECEPTACLES LOCATED WITHIN 6'-0" OF SINK SHALL BE GFCI TYPE.
11. DEVICE MARKER WITH SUBSCRIPT "(E)" IS EXISTING TO REMAIN, AND WITH SUBSCRIPT "(R)" IS RELOCATED DEVICE TO BE POWERED FROM THE SAME CIRCUIT WAS POWERING IT PREVIOUSLY.

TELE/DATA/AV NOTES

1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TELE/DATA AND A/V CONSULTANTS/VENDORS FOR ADDITIONAL SCOPE OF CONDUITS, OUTLETS AND BACK BOXES REQUIREMENTS.

(#) POWER KEY NOTES (#)

1. JUNCTION BOX FOR EVAPORATOR COIL CONNECTION. CONTRACTOR TO COORDINATE WITH WALK-IN COOLER/FREEZER VENDOR FOR ALL REQUIREMENTS AND TO MAKE FINAL TIE-INS TO ROOF CONDENSING UNITS AS REQUIRED.
2. CONNECT TO EVAPORATOR UNIT. INTERCONNECT WITH ROOF TOP CONDENSING UNIT PER MANUFACTURER'S INSTRUCTIONS.
3. JUNCTION BOX FOR WALK-IN COOLER/FREEZER LIGHTING OR HEAT TAPE CONNECTION. PROVIDE GFPE BREAKER AS PER NEC 427.22. CONTRACTOR TO COORDINATE WITH WALK-IN COOLER/FREEZER VENDOR FOR EXACT LOCATION AND ALL REQUIREMENTS PRIOR TO INSTALLATION.
4. PROVIDE (1) 2" CONDUIT WITH RING AND STRING FOR TELE/DATA CABLING FROM BUILDING TELEPHONE CABINET TO TELEPHONE BOARD LOCATION AS SHOWN. CONTRACTOR TO COORDINATE ROUTING OF CONDUIT, TERMINATION POINTS, AND OTHER REQUIREMENTS WITH TENANT'S IT CONSULTANT/OWNER PRIOR TO INSTALLATION.
5. PROVIDE CEILING MOUNTED RECEPTACLE FOR NEON SIGN. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION.
6. EXHAUST FAN SHALL BE CONTROLLED VIA TIME CLOCK AND BY 1P-20A TOGGLE SWITCH. CONTRACTOR TO PROVIDE 120V CONTACTOR AS REQUIRED FOR CONTROL.
7. LOCATION OF FIRE SUPPRESSION SYSTEM. SUPPRESSION SYSTEM TO TURN OFF POWER TO SHUNT TRIP BREAKERS FOR HOOD FAN, HOOD LIGHTS, AND ALL RECEPTACLES OUTLETS UNDER THE HOOD.
8. FURNISHED AND INSTALL ALL NECESSARY CONDUIT AND WIRING AND MAKE ALL CONNECTIONS TO INTERLOCKING EXHAUST FAN WITH MAU-1. REEFER TO MECHANICAL FOR ADDITIONAL INFORMATION.
9. CONTROL PANEL FOR MAKE-UP AIR UNIT SHALL BE FURNISHED BY ECHANICAL FOR INSTALLATION, WIRING AND CONNECTIONS BY ELECTRICAL.
10. 1/2" CONDUIT WITH CONTROL CONDUCTORS AS REQUIRED. MAKE ALL CONNECTIONS FOR PROPER OPERATION.L
11. PROVIDE EMERGENCY PUSH BUTTON FOR FUEL PUMP SHUT-DOWN.
12. PROVIDE DUCT SMOKE DETECTOR. FURNISHED AND WIRE BY ELECTRICAL CONTRACTOR. MOUNTED IN DUCT BY MECHANICAL CONTRACTOR.
13. PROVIDE (1) 3/4" CONDUIT CONCEALED IN SLAB FOR POWER WIRING TO BANQUETTE BENCH RECEPTACLES. COORDINATE EXACT LOCATION OF RECEPTACLES AND OTHER REQUIREMENTS WITH OWNER PRIOR TO INSTALLATION.

ANY HANGES TO THE PLANS DURING CONSTRUCTION NEED TO BE APPROVED BY THE ARCHITECT AND/OR ENGINEER OF RECORD AND CITY

8-08-2022

Pereda Engineering TX FIRM #F-8313
9434 Viscount (915)238-8399
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GRAPHIC SCALE

JOSE PEREDA-ALVAREZ 93452 LICENSED PROFESSIONAL ENGINEER

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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RSK ENGINEERING
ENGINEERS, CONSTRUCTION MANAGERS, PLANNERS
12812 WILLOW CENTRE, UNIT A HOUSTON, TEXAS 77066
TEL. (281) 580-4585 FAX (281) 580-4399
FIRM # F-11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
MASTER POWER PLAN

DRAWN BY: TD	DATE: 3-04-2021	SHEET: E3.0 OF:4
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

PANELBOARD SCHEDULE — M

VOLTAGE	PHASE	WIRE	MCB (A)	MLO (A)	AIC RATING	MOUNTING	LOCATION	NEMA ENCLOSURE
120 208	3	4		600	44,000	RECESSED	BACK ROOM	1

LOAD TYPE LEGEND

L	LIGHTING/CONT-LD	K	KITCHEN EQUIP	REMARKS	PROVIDE EQUIPMENT GROUNDING BUS AND FEED THRU AND/OR SUB FEED LUGS
R	RECEPTACLES	E	EXISTING		
M	MECHANICAL EQUIP	O	OTHER/MISC		

CKT #	LOAD DESCRIPTION	LOAD TYPE	WIRE SIZE	CONDUIT SIZE	CIRCUIT BREAKER TRIP	P	LOAD (VA)	PHASE	LOAD (VA)	P	CIRCUIT BREAKER TRIP	CONDUIT SIZE	WIRE SIZE	LOAD TYPE	LOAD DESCRIPTION	CKT #
1	RTU-1	M	#8	1"	40A	3	3600	A	5000	3	60A	1"	#8	M	RTU-2	2
3							3600	B	5000							4
5							3600	C	5000							6
7	PANEL 'A'		SEE RISER		200A	3	0	A	1500	2	20A	3/4"	#10	M	MUA-1, 12 FLA, 208V, 1PH	8
9							0	B	1500							10
11							0	C	3500	2	40	1"	#6	O	WH-2	12
13	PANEL 'B'		SEE RISER		200A	3	0	A	3500							14
15							0	B	4500	2	50A	1"	#6	O	LIFT ELECTRIC	16
17							0	C	3300							18
19	PANEL 'C'		SEE RISER		200A	3	0	A	1200	1	20A	3/4"	#12	M	KEF-1	20
21							0	B	2000	3	30A	1"	#8	O	WALK-IN FREEZER CU	22
23							0	C	2000							24
25	WH-1	O	#8	1"	40A	2	3500	A	2000							26
27							3500	B	1000	2	20A	3/4"	#10	O	FREEZER EVAPORATOR	28
29	WALK-IN COOLER CU	O	#6	1"	30A	3	1500	C	1000							30
31							1500	A	1200	3	30A	1"	#8	O	CAVE COOLER CU	32
33							1500	B	1200							34
35	COOLER EVAPORATOR	O	#8	1"	20A	2	1000	C	1200							36
37							1000	A	1200	2	30A	1"	#8	O	CAVE EVAPORATOR	38
39	SPARE				20A	1	0	B	1200							40
41	SPARE				20A	1	0	C	0	1	20A				SPARE	42

	A	B	C	TOTAL
CONNECTED LOAD ABOVE (VA)	25200	25000	22100	72300
CONNECTED AMPACITY ABOVE (A)	210.00	208.33	184.17	

LOAD TYPE	CONN. LD(VA)	SUBPANELS (VA) A	B	C	-	CONN. LD (VA)	SIZING FACTOR	SIZING LOAD (VA)
LIGHTING/CONT-LD	0	13450	0	5200	-	18650	125%	23313
RECEPTACLES	0	360	3320	1600	-	5280	*	5280
MECHANICAL EQUIP	30000	0	0	0	-	30000	100%	30000
KITCHEN EQUIP	0	0	10540	0	-	10540	65%	6851
#OF KITCHEN EQUIP	0	0	12	0	-	12		**
EXISTING	0	0	0	0	-	0	125%	0
OTHER/MISC	42300	3950	15040	15421	-	78711	100%	78711
TOTAL CONNECTED (VA)						141181		142155
CONNECTED AMPACITY (A)						391.88		394.58

SIZING TOTAL (VA) PER NEC
SIZING AMPACITY (A) PER NEC

NOTES
* 1ST 10KVA @ 100%, REMAINING @ 50%
** SIZE PER NEC TABLE 220.56
*** NON-SIMULTANEOUS LOAD
G: PROVIDE GFI CIRCUIT BREAKER
S: PROVIDE SHUNT TRIP CIRCUIT BREAKER
L: PROVIDE LOCK-ON CIRCUIT BREAKER

PANELBOARD SCHEDULE — A

VOLTAGE	PHASE	WIRE	MCB (A)	MLO (A)	AIC RATING	MOUNTING	LOCATION	NEMA ENCLOSURE
120 208	3	4		100	22,000	RECESSED	BACK ROOM	1

LOAD TYPE LEGEND

L	LIGHTING/CONT-LD	K	KITCHEN EQUIP	REMARKS	PROVIDE EQUIPMENT GROUNDING BUS AND FEED THRU AND/OR SUB FEED LUGS
R	RECEPTACLES	E	EXISTING		
M	MECHANICAL EQUIP	O	OTHER/MISC		

CKT #	LOAD DESCRIPTION	LOAD TYPE	WIRE SIZE	CONDUIT SIZE	CIRCUIT BREAKER TRIP	P	LOAD (VA)	PHASE	LOAD (VA)	P	CIRCUIT BREAKER TRIP	CONDUIT SIZE	WIRE SIZE	LOAD TYPE	LOAD DESCRIPTION	CKT #
1	STORE LIGHTS	L	#12	3/4"	20A	1	1100	A	1100	1	20A	3/4"	#12	L	STORE LIGHTS	2
3	STORE LIGHTS	L	#12	3/4"	20A	1	1100	B	1000	1	20A	3/4"	#12	L	KITCHEN LIGHTS	4
5	OFFICE/CASHER LIGHTS	L	#12	3/4"	20A	1	600	C	1100	1	20A	3/4"	#10	L	WALL PACKS	6
7	BACKRM LIGHTS	L	#12	3/4"	20A	1	600	A	1000	1	20A	3/4"	#12	L	RESTROOM LIGHTS	8
9	EXIT / EMERGENCY	L	#10	3/4"	20A	1	250	B	600	1	20A	3/4"	#10	L	EXTERIOR CANOPY LIGHTS	10
11	AIR PUMP	O	#10	3/4"	20A	1	250	C	600	1	20A	3/4"	#12	O	EF-3	12
13	GAS STATION LIGHTS	L	#12	3/4"	20A	1	1100	A	1500	2	30A	1"	#8	O	PYLON SIGN	14
15	GONDOLAS	R	#12	3/4"	20A	1	360	B	1500							16
17	PARKING LOT LIGHTS	L	#12	3/4"	20A	1	700	C	1100	1	20A	3/4"	#12	L	EXTERIOR SIGN	18
19	PARKING LOT LIGHTS	L	#12	3/4"	20A	1	700	A	100	1	20A	3/4"	#10	O	IRRIGATION CONTROL	20
21	PARKING LOT LIGHTS	L	#12	3/4"	20A	1	700	B	0	1	20A				SPARE	22
23	PARKING LOT LIGHTS	L	#12	3/4"	20A	1	700	C	0	1	20A				SPARE	24
25	SPARE				20A	1	0	A	0	1	20A				SPARE	26
27	SPARE				20A	1	0	B	0	1	20A				SPARE	28
29	SPARE				20A	1	0	C	0	1	20A				SPARE	30
31	SPARE				20A	1	0	A	0	1	20A				SPARE	32
33	SPARE				20A	1	0	B	0	1	20A				SPARE	34
35	SPARE				20A	1	0	C	0	1	20A				SPARE	36
37	SPARE				20A	1	0	A	0	1	20A				SPARE	38
39	SPARE				20A	1	0	B	0	1	20A				SPARE	40
41	SPARE				20A	1	0	C	0	1	20A				SPARE	42

	A	B	C	TOTAL
CONNECTED LOAD ABOVE (VA)	7200	5510	5050	17760
CONNECTED AMPACITY ABOVE (A)	60.00	45.92	42.08	

LOAD TYPE	CONN. LD(VA)	SUBPANELS (VA) PNL	PNL	PNL	PNL	CONN. LD (VA)	SIZING FACTOR	SIZING LOAD (VA)
LIGHTING/CONT-LD	13450	-	-	-	-	13450	125%	16813
RECEPTACLES	360	-	-	-	-	360	*	360
MECHANICAL EQUIP	0	-	-	-	-	0	100%	0
KITCHEN EQUIP	0	-	-	-	-	0	100%	0
#OF KITCHEN EQUIP	0	-	-	-	-	0		**
EXISTING	0	-	-	-	-	0	125%	0
OTHER/MISC	3950	-	-	-	-	3950	100%	3950
TOTAL CONNECTED (VA)						17760		21123
CONNECTED AMPACITY (A)						49.33		58.63

SIZING TOTAL (VA) PER NEC
SIZING AMPACITY (A) PER NEC

NOTES
* 1ST 10KVA @ 100%, REMAINING @ 50%
** SIZE PER NEC TABLE 220.56
*** NON-SIMULTANEOUS LOAD
G: PROVIDE GFI CIRCUIT BREAKER
S: PROVIDE SHUNT TRIP CIRCUIT BREAKER
L: PROVIDE LOCK-ON CIRCUIT BREAKER

PANELBOARD SCHEDULE — B

VOLTAGE	PHASE	WIRE	MCB (A)	MLO (A)	AIC RATING	MOUNTING	LOCATION	NEMA ENCLOSURE
120 208	3	4		100	22,000	RECESSED	BACK ROOM	1

LOAD TYPE LEGEND

L	LIGHTING/CONT-LD	K	KITCHEN EQUIP	REMARKS	PROVIDE EQUIPMENT GROUNDING BUS AND FEED THRU AND/OR SUB FEED LUGS
R	RECEPTACLES	E	EXISTING		
M	MECHANICAL EQUIP	O	OTHER/MISC		

CKT #	LOAD DESCRIPTION	LOAD TYPE	WIRE SIZE	CONDUIT SIZE	CIRCUIT BREAKER TRIP	P	LOAD (VA)	PHASE	LOAD (VA)	P	CIRCUIT BREAKER TRIP	CONDUIT SIZE	WIRE SIZE	LOAD TYPE	LOAD DESCRIPTION	CKT #
1	ICE TEA MACHINE	K	#12	3/4"	20A	1	800	A	900	1	20A	3/4"	#12	K	COFFEE BREWER	2
3	DRINK DISPENSER RECEP	K	#12	3/4"	20A	1	800	B	900	1	20A	3/4"	#12	K	COFFEE BREWER	4
5	DRINK DISPENSER RECEP	K	#12	3/4"	20A	1	800	C	1200	1	20A	3/4"	#12	K	REFRIGERATOR	6
7	ATM	O	#12	3/4"	20A	1	700	A	500	1	20A	3/4"	#12	O	CASH REGISTER	8
9	CIGARETTE VENDOR	O	#12	3/4"	20A	1	800	B	500	1	20A	3/4"	#12	K	CASH REGISTER	10
11	SAFE	O	#12	3/4"	20A	1	600	C	700	1	20A	3/4"	#12	O	ICE MERCHANDISE	12
13	CAPUCHINO MACHINE	O	#12	3/4"	20A	1	1200	A	700	1	20A	3/4"	#12	O	ICE MERCHANDISE	14
15	SPARE				20A	1	0	B	320	1	20A	3/4"	#12	K	GENERAL RECEPTACLES	16
17	SPARE				20A	1	0	C	360	1	20A	3/4"	#12		TEL. BRD. QUAD	18
19	DISPLAY RECEPTACLES	R	#12	3/4"	20A	1	800	A	900	1	20A	3/4"	#12		OFFICE RECEPTACLES	20
21	SLUSHEE MACHINE	O	#12	3/4"	20A	1	800	B	1500	1	20A	3/4"	#12	K	CARBONATORS	22
23	MILK SHAKE	O	#12	3/4"	20A	1	800	C	1500	1	20A	3/4"	#12	K	CARBONATORS	24
25	CASH REGISTER	O	#12	3/4"	20A	1	240	A	1800	1	30A	3/4"	#10	O	ICE MAKER	26
27	ROOF RECEPTACLE WP&GFI	R	#12	3/4"	20A	1	360	B	1800	1	30A	3/4"	#10	O	ICE MAKER	28
29	FOOD WARMER	R	#12	3/4"	20A	1	1000	C	700	1	20A	3/4"	#12	O	SUPPRESSION SYSTEM	30
31	SPARE				20A	1	0	A	320	1	20A	3/4"	#12	K	GENERAL RECEPTACLES	32
33	HAND. DRYER	O	#10	3/4"	20A	1	1300	B	500	1	20A	3/4"	#12	R	EXTERIOR RECEPTACLES	34
35	HAND. DRYER	O	#10	3/4"	20A	1	1300	C	700	1	20A	3/4"	#12	O	ICE MERCHANDISE	36
37	FRYER/GRILL RECEPTACLES	R	#12	3/4"	20A-S	1	500	A	800	1	20A	3/4"	#12	O	WATER MACHINE	38
39	SHUNT TRIP						0	B	360	1	20A	3/4"	#12	R	RECEPTACLES	40
41	MICROWAVE RECEPTACLE	K	#12	3/4"	20A	1	1000	C	0	1	20A				SPARE	42

	A	B	C	TOTAL
CONNECTED LOAD ABOVE (VA)	9960	9740	10460	30160
CONNECTED AMPACITY ABOVE (A)	83.00	81.17	87.17	

LOAD TYPE	CONN. LD(VA)	SUBPANELS (VA) PNL	PNL	PNL	PNL	CONN. LD (VA)	SIZING FACTOR	SIZING LOAD (VA)
LIGHTING/CONT-LD	0	-	-	-	-	0	125%	0
RECEPTACLES	3320	-	-	-	-	3320	*	3320
MECHANICAL EQUIP	0	-	-	-	-	0	100%	0
KITCHEN EQUIP	10540	-	-	-	-	10540	65%	6851
#OF KITCHEN EQUIP	12	-	-	-	-	12		**
EXISTING	0	-	-	-	-	0	125%	0
OTHER/MISC	15040	-	-	-	-	15040	100%	15040
TOTAL CONNECTED (VA)						28900		25211
CONNECTED AMPACITY (A)						80.22		69.98

SIZING TOTAL (VA) PER NEC
SIZING AMPACITY (A) PER NEC

NOTES
* 1ST 10KVA @ 100%, REMAINING @ 50%
** SIZE PER NEC TABLE 220.56
*** NON-SIMULTANEOUS LOAD
G: PROVIDE GFI CIRCUIT BREAKER
S: PROVIDE SHUNT TRIP CIRCUIT BREAKER
L: PROVIDE LOCK-ON CIRCUIT BREAKER

PANELBOARD SCHEDULE — C

VOLTAGE	PHASE	WIRE	MCB (A)	MLO (A)	AIC RATING	MOUNTING	LOCATION	NEMA ENCLOSURE
120 208	3	4		100	10,000	SURFACE	STORAGE	1

LOAD TYPE LEGEND

L	LIGHTING/CONT-LD	K	KITCHEN EQUIP	REMARKS	PROVIDE EQUIPMENT GROUNDING BUS AND FEED THRU AND/OR SUB FEED LUGS
R	RECEPTACLES	E	EXISTING		
M	MECHANICAL EQUIP	O	OTHER/MISC		

CKT #	LOAD DESCRIPTION	LOAD TYPE	WIRE SIZE	CONDUIT SIZE	CIRCUIT BREAKER TRIP	P	LOAD (VA)	PHASE	LOAD (VA)	P	CIRCUIT BREAKER TRIP	CONDUIT SIZE	WIRE SIZE	LOAD TYPE	LOAD DESCRIPTION	CKT #
1	PANAFLEX	O	#12	3/4"	20A	1	863	A	550	2	20A	3/4"	#12	O	DISPENSER #1	2
3	INTERCOM/MONEY ORDER	O	#12	3/4"	20A	1	360	B							SWITCHED NEUTRAL	4
5	CCTV CAMERA	O	#12	3/4"	20A	1	200	C	550	2	20A	3/4"	#12	O	DISPENSER #2	6
7	TELEPHONE EQUIPMENT	O	#12	3/4"	20A	1	360	A							SWITCHED NEUTRAL	8
9	SECURITY BOX	O	#12	3/4"	20A	1	228	B	550	2	20A	3/4"	#12	O	DISPENSER #3	10
11	CCTV CR MONITOR	O	#12	3/4"	20A	1	120	C							SWITCHED NEUTRAL	12
13	OFFICE COMPUTER RECEP	R	#12	3/4"	20A	1	1000	A	550	2	20A	3/4"	#12	O	DISPENSER #4	14
15	TANK MINITOR	O	#12	3/4"	20A	1	360	B							SWITCHED NEUTRAL	16
17	VEEDER ROOT	O	#12	3/4"	20A	1	360	C	550	2	20A	3/4"	#12	O	DISPENSER #5	18
19	SWITCH NEUTRAL	O	#12	3/4"	20A	1	1920	A							SWITCHED NEUTRAL	20
21	OFFICE COMPUTER RECEP	R	#12	3/4"	20A	1	600	B	1150	2	20A	3/4"	#10	O	DISEL SUB PUMP	22
23	CANOPY LIGHTS	L	#10	3/4"	20A	1	1300	C	1150							24
25	CANOPY LIGHTS	L	#10	3/4"	20A	1	1300	A	1150	2	20A	3/4"	#10	O	UNL SUB PUMP	26
27	CANOPY LIGHTS	L	#10	3/4"	20A	1	1300	B	1150							28
29	CANOPY SIGN	O	#12	3/4"	20A	1	1000	C	1150	2	20A	3/4"	#10	O	SUPER SUB PUMP	30
31	CANOPY LIGHTS	L	#10	3/4"	20A	1	1300	A	1150							32
33	SPARE				20A	1	0	B	0	1	20A				DISPENSER #6	34
35	SPARE				20A	1	0	C	0	1	20A				SWITCHED NEUTRAL	36
37	SPARE				20A	1	0	A	0	1	20A				SPARE	38
39	SPARE				20A	1	0	B	0	1	20A				SPARE	40
41	SPARE				20A	1	0	C	0	1	20A				SPARE	42

	A	B	C	TOTAL
CONNECTED LOAD ABOVE (VA)	10143	5698	6380	22221
CONNECTED AMPACITY ABOVE (A)	84.53	47.48	53.17	

LOAD TYPE	CONN. LD(VA)	SUBPANELS (VA) PNL	PNL	PNL	PNL	CONN. LD (VA)	SIZING FACTOR	SIZING LOAD (VA)
LIGHTING/CONT-LD	5200	-	-	-	-	5200	100%	5200
RECEPTACLES	1600	-	-	-	-	1600	*	1600
MECHANICAL EQUIP	0	-	-	-	-	0	100%	0
KITCHEN EQUIP	0	-	-	-	-	0	100%	0
#OF KITCHEN EQUIP	0	-	-	-	-	0		**
EXISTING	0	-	-	-	-	0	125%	0
OTHER/MISC	15421	-	-	-	-	15421	100%	15421
TOTAL CONNECTED (VA)						22221		22221
CONNECTED AMPACITY (A)						61.68		61.68

SIZING TOTAL (VA) PER NEC
SIZING AMPACITY (A) PER NEC

NOTES
* 1ST 10KVA @ 100%, REMAINING @ 50%
** SIZE PER NEC TABLE 220.56
*** NON-SIMULTANEOUS LOAD
G: PROVIDE GFI CIRCUIT BREAKER
S: PROVIDE SHUNT TRIP CIRCUIT BREAKER
L: PROVIDE LOCK-ON CIRCUIT BREAKER

ELECTRICAL SERVICE LOAD ANALYSIS

BUILDING/SPACE SQUARE FOOTAGE:	3500.00
LOAD DESCRITION	(KVA)
ESTIMATED LIGHTING LOAD PER NEC	12.25
LIGHTING @ 125% PER NEC	23.31
RECEPTACLES @ (10KVA + 50%) PER NEC	5.28
HVAC @ 100% PER NEC	30.00
KITCHEN EQUIPMENT PER NEC	6.85
EXISTING @ 125%	0.00
MISCELLANEOUS @ 100% PER NEC	76.71
WATER HEATING @ 100%	3. 0
LARGEST MOTOR @ 25%	0.00
TOTAL (KVA)	**142.16**
TOTAL (AMPS)	**394.58**

SERVICE SHALL BE 600A, 120/208V, 3PH, 4W

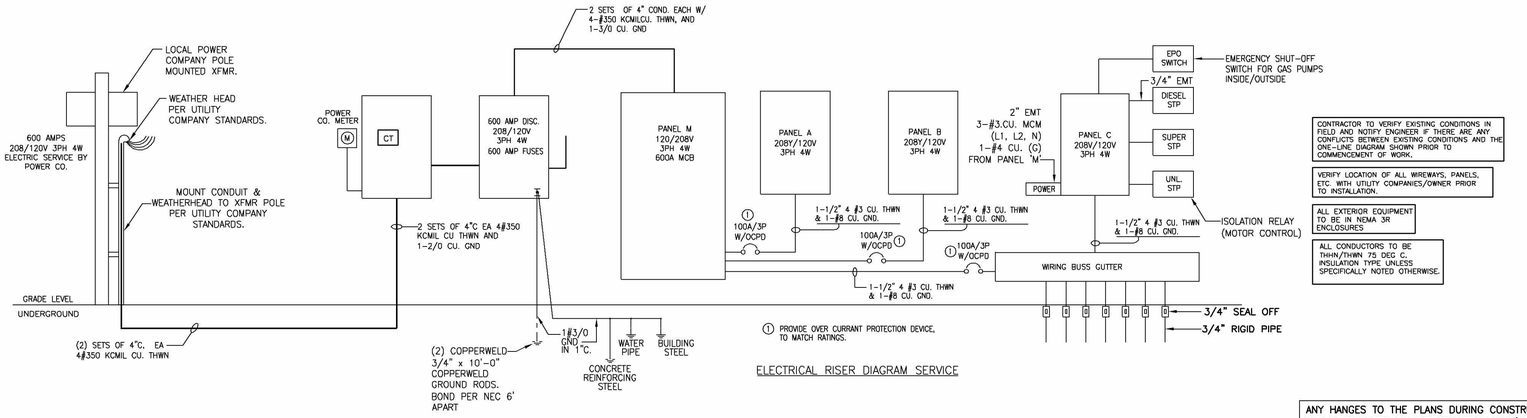
PANEL "M" - GAS STATION SERVICE

AVAILABLE FAULT CURRENT LABELING NOTE:

IN LIEU OF THE MAXIMUM AVAILABLE FAULT CURRENT MARKING AS REQUIRED BY NEC 110.24, A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2 X 3 IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRSTING BACKGROUND. LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

NOTE:

1. EMERGENCY KILL PUSH BUTTON TO CONTROL ALL CIRCUITS TO PUMPS AND, DISPENSER ISLADS PER FIRE. CODE. TO COMPLY WITH SHUT-DOWN INTERLOCK REQUIREMENTS FOR EQUIPMENT UNDER HOOD PER MECHANICAL CODE.
2. SEALING OF GAS DESPENSER AND PUMPS; GASOLINE DISPENSING STATIONS SEALING AT DISPENSER AND PUMPS ARTICLE 514.9 N.E.C.



ELECTRICAL RISER DIAGRAM SERVICE

CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE ONE-LINE DIAGRAM SHOWN PRIOR TO COMMENCEMENT OF WORK.

VERIFY LOCATION OF ALL WIREWAYS, PANELS, ETC. WITH UTILITY COMPANIES/OWNER PRIOR TO INSTALLATION.

ALL EXTERIOR EQUIPMENT TO BE IN NEMA 3R ENCLOSURES

ALL CONDUCTORS TO BE THWN/THWN 75 DEG C. INSULATION TYPE UNLESS SPECIFICALLY NOTED OTHERWISE.

ANY HANGES TO THE PLANS DURING CONSTRUCTION NEED TO BE APPROVED BY THE ARCHITECT AND/OR ENGINEER OF RECORD AND CITY

Pereda Engineering
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El Paso Tx. 79938

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GRAPHIC SCALE

6-01-2022

JOSE PEREDA-ALVAREZ 93452 LICENSED PROFESSIONAL ENGINEER

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
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RSK ENGINEERING
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PANELS AND RISER DIAGRAM SERVICE #1

DRAWN BY: TD | DATE: 3-04-2021 | SHEET: **E4.0** 4 OF 4
CHECKED BY: RSK | PROJ. NO.: VR151003.317.4

GENERAL NOTES (APPLICABLE TO ALL DRAWINGS)

1. DRAWINGS MAY NOT REFLECT EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ACTUAL EXISTING CONDITIONS PRIOR TO SUBMITTING BID. BEFORE EXECUTING CONTRACT CONTRACTOR SHALL NOTIFY ARCHITECT OF EACH EXISTING CONDITION THAT VARIES FROM THE CONDITION INDICATED ON DRAWINGS. CONTRACTOR WILL NOT BE COMPENSATED EXTRA FOR WORK RESULTING FROM FAILURE BY CONTRACTOR TO COMPLY WITH THIS REQUIREMENT.
2. CONTRACTOR SHALL COORDINATE WORK OF THE MECHANICAL, ELECTRICAL, AND PLUMBING (M.E.P.) DISCIPLINES WITH WORK OF ALL OTHER DISCIPLINES.
3. WORK OF THE M.E.P. TRADES MAY BE SHOWN ON OTHER DRAWINGS INCLUDING BUT NOT LIMITED TO ARCHITECTURAL AND STRUCTURAL DRAWINGS. WHERE FEATURES ARE INDICATED ON MORE THAN ONE DRAWING (FOR EXAMPLE, THE REFLECTED CEILING PLAN MAY APPEAR ON ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS), CONTRACTOR SHALL CONTACT ARCHITECT TO RESOLVE CONFLICTS. SUCH CONTACT SHALL BE MADE IN WRITING PRIOR TO THE COMMENCEMENT OF WORK BY THE CONTRACTOR.
4. CONTRACTOR SHALL COORDINATE DEMOLITION WORK AMONG THE TRADES. BY WAY OF EXAMPLE, BUT NOT EXCLUSION, MECHANICAL DEMOLITION SHALL BE COORDINATED WITH ELECTRICAL DEMOLITION INCLUDING POWER, CONTROL, COMMUNICATION AND MONITORING.
5. DAMAGE CAUSED TO EXISTING SYSTEMS AND/OR EXISTING FEATURES OF THE BUILDING DURING DEMOLITION OR OTHER PHASES OF CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. M.E.P. WORK REQUIRES CUTTING, PATCHING, AND REINFORCING OF ADJACENT SURFACES AND FEATURES OF THE BUILDING. CONTRACTOR SHALL PERFORM ALL SUCH WORK AT NO ADDITIONAL COST TO OWNER. REPAIRED SURFACES SHALL BE FINISHED TO MATCH THE EXISTING SURROUNDING AREA.
7. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, COUNTY, STATE, AND FEDERAL CODES, ORDINANCES, RULES AND REGULATIONS. IN THE EVENT OF CONFLICT BETWEEN CONTRACT DOCUMENTS AND CODES, ORDINANCES, RULES AND REGULATIONS, THE MOST RIGID SHALL APPLY.
8. CONTRACTOR SHALL NOT REMOVE PLUMBING AND HVAC EQUIPMENT THAT IS NOT CODED WITH HATCH MARKS ON DRAWINGS.
9. CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIAL, AND LABOR, WHETHER OR NOT SHOWN ON DRAWINGS, NECESSARY TO PROVIDE A COMPLETE, OPERATIONAL, CODE-COMPLIANT SYSTEM.
10. CONTRACTOR SHALL NOT CUT, DRILL, OR ALTER ANY ELEMENT OF WALLS, FLOORS CEILINGS, ROOFS, SLABS, ETC., WITHOUT FIRST RECEIVING ARCHITECT'S APPROVAL. ALL CUTS SHALL BE MADE WITH ARCHITECT-APPROVED CUTTING TOOLS.
11. IN THE EVENT THAT CONTRACTOR FINDS DISCREPANCIES OR OMISSIONS, OR IS IN DOUBT AS TO THE EXACT MEANING OF THE PLANS AND/OR SPECIFICATIONS, CONTRACTOR SHALL, BEFORE COMMENCING WORK ON THE AREA IN QUESTION, CONTACT ARCHITECT FOR CLARIFICATION.
12. SUBMITTALS: CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS FOR ALL M.E.P. EQUIPMENT. SAID SUBMITTALS MUST BE BOUND TOGETHER (PARTIAL SUBMITTALS NOT ACCEPTABLE) AND SHALL INCLUDE MANUFACTURER MODEL NUMBER, PHYSICAL DIMENSIONS AND PERFORMANCE RATINGS CLEARLY IDENTIFIED BY SAME IDENTIFICATION SCHEDULED ON DRAWINGS. DATA SHEETS SHALL INDICATE MODEL NUMBERS, PARTS, DIMENSIONS AND VALUES WHICH APPLY TO THE PRODUCTS BEING PROPOSED. NEATLY CIRCLE OR DRAW ARROWS TO IMPORTANT INFORMATION. IF CONTRACTOR PLACES ORDERS AND/OR PROCEEDS WITH WORK PRIOR TO RECEIPT OF ARCHITECT'S APPROVAL OF SUBMITTAL DATA, SUCH ACTION SHALL BE AT CONTRACTOR'S SOLE RISK. IN THE EVENT THAT SUBMITTAL DATA IS REJECTED BY ARCHITECT, CONTRACTOR SHALL CANCEL ALL RELATED ORDERS AND REPLACE ALL RELATED WORK AT CONTRACTOR'S SOLE EXPENSE. ANY SCHEDULE PROGRESS IMPACT CAUSED BY CONTRACTOR PROCEEDING IN ADVANCE OF ARCHITECT'S APPROVAL OF SUBMITTAL DATA SHALL BE AGAINST CONTRACTOR'S ACCOUNT.
13. IF CONTRACTOR DESIRES TO USE MATERIAL OF EQUAL QUALITY OTHER THAN THAT SPECIFIED, CONTRACTOR SHALL SUBMIT WRITTEN REQUEST FOR APPROVAL TO ARCHITECT AT LEAST SEVEN CALENDAR DAYS BEFORE THE DATE SET FOR BIDDING. BY OFFERING A SUBSTITUTION, CONTRACTOR ACCEPTS SOLE RESPONSIBILITY FOR EFFECT OF SUBSTITUTION ON THE WORK OF ALL TRADES. ALL COSTS OF CHANGES RESULTING FROM THE INCLUSION OF SUBSTITUTIONS SHALL BE BORNE BY CONTRACTOR.

GENERAL NOTES (CONT.)

14. PROVIDE TEMPORARY SERVICES AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.
15. MAINTAIN ACCESS TO EXISTING ELECTRICAL, MECHANICAL AND PLUMBING INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS AS APPROPRIATE.
16. EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING INSTALLATIONS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
17. THE CONTRACTOR SHALL PROVIDE CONTAINMENT AND DISPOSE OF DUST AND DEBRIS DURING DEMOLITION AND CONSTRUCTION.
18. AT FINAL COMPLETION OF THE PROJECT, ALL M.E.P. PRODUCTS, EQUIPMENT, AND SYSTEMS SHALL OPERATE UNDER ALL CONDITIONS OF LOAD WITHOUT ANY SOUND OR VIBRATION WHICH IS OBJECTIONABLE IN THE OPINION OF THE ENGINEER. SOUND OR VIBRATION NOTICEABLE OUTSIDE THE SPACE OF A PRODUCT WILL BE CONSIDERED OBJECTIONABLE. VIBRATION WHICH, IN THE OPINION OF ENGINEER WILL IMPACT ON THE LIFE, WARRANTY, OR PERFORMANCE OF A PRODUCT IS CONSIDERED OBJECTIONABLE. SOUND OR VIBRATION CONDITIONS CONSIDERED OBJECTIONABLE BY ENGINEER SHALL BE CORRECTED BY CONTRACTOR AT CONTRACTOR'S EXPENSE. VIBRATION CONTROL SHALL BE BY MEANS OF VIBRATION ELIMINATORS INSTALLED IN THE MANNER RECOMMENDED BY THE MANUFACTURER OF THE SUPPORTED EQUIPMENT.
19. CONTRACTOR SHALL LOCATE ALL EQUIPMENT AND PRODUCTS WHICH REQUIRE SERVICE, OPERATION, OBSERVATION, OR MAINTENANCE IN FULLY ACCESSIBLE POSITIONS. IF REQUIRED FOR BETTER ACCESSIBILITY, ANY CHANGE(S) OF LOCATION SHALL BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR REVIEW AND APPROVAL BEFORE RELOCATION IS MADE. CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR CONCEALED VALVES, FIRE DAMPERS, AND OTHER DEVICES REQUIRING SERVICE. ACCESS PANELS IN THE SURFACES OF THE PREMISES, EQUIPMENT, DUCTWORK, AND OTHER SURFACES, WHETHER OR NOT SPECIFICALLY SHOWN ON THE DRAWINGS, SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER. ACCESS PANELS SHALL BE OF A TYPE AND FINISH WHICH, IN THE OPINION OF ARCHITECT, ARE AESTHETICALLY ACCEPTABLE.
20. CONTRACTOR IS RESPONSIBLE FOR PROPER SUPPORT OF ALL EQUIPMENT, DUCTWORK, PIPING, CONDUITS, ETC. COORDINATE EXACT LOCATION OF ALL M.E.P. ITEMS (I.E., DUCTWORK, PIPING, CONDUITS, ETC.), WITH STRUCTURAL, ARCHITECTURAL, OTHER DISCIPLINES.
21. ALL PRODUCTS, MATERIALS, WORK, AND TECHNIQUES SHALL COMPLY WITH THE MOST RIGID STANDARDS AND RECOMMENDATIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA); THE INTERNATIONAL CODES (PLUMBING, GAS, MECHANICAL, ELECTRICAL, AND BUILDING) AS MODIFIED AND/OR ADAPTED BY LOCAL AUTHORITIES; THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME); THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM); AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI). ALL MATERIALS AND EQUIPMENT FOR THE ELECTRICAL PORTION OF THE MECHANICAL SYSTEMS SHALL BEAR THE APPROVAL LABEL OF UNDERWRITERS LABORATORIES, INC. (UL).
22. THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION WORK SUCH THAT OWNER'S NORMAL DAY-TO-DAY OPERATIONS CAN BE ACCOMPLISHED WITHOUT DELAY. THE CONTRACTOR SHALL COORDINATE PHASING AND SCHEDULING OF WORK WITH OWNER AND SHALL PROVIDE NIGHT AND WEEKEND CREWS IF REQUIRED BY OWNER. CONTRACTOR SHALL NOT BE COMPENSATED EXTRA FOR OVERTIME.
23. THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING DURING DEMOLITION AND CONSTRUCTION PER INDUSTRY SAFETY STANDARDS.
24. ALL MATERIALS DISCONNECTED AND REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER, AND SHALL BE NEATLY PACKAGED BY THE CONTRACTOR FOR REUSE BY THE OWNER. THE OWNER SHALL DETERMINE WHAT DEMOLITION MATERIAL ARE TO BE SALVAGED. STOCKPILE SALVAGED MATERIALS IN AREAS DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE FROM SITE ITEMS WHICH OWNER DEFINES AS NON-SALVAGABLE.
25. THE CONTRACTOR SHALL VISIT THE SITE DURING THE BIDDING PERIOD TO COMPLETELY FAMILIARIZE SELF WITH THE SCOPE OF WORK, CONDITIONS, AND VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGMENTS. INCLUDE IN THE BID ALL NECESSARY COSTS ASSOCIATED WITH PERFORMANCE OF THE WORK.

PIPING NOTES

1. PROTECT PIPING SYSTEMS FROM ENTRY OF FOREIGN MATERIALS BY TEMPORARY COVERS AND ISOLATING PARTS OF COMPLETED SYSTEM.
2. STORE PLASTIC PIPE AND OTHER MATERIALS, WHICH MAY BE DAMAGED BY ULTRAVIOLET LIGHT, UNDER COVER WHICH REFLECTS ULTRAVIOLET WAVES.
3. DO NOT INSTALL UNDERGROUND PIPING WHEN BEDDING IS WET OR FROZEN.
4. PREPARATION: REAM PIPE AND TUBE ENDS. REMOVE BURRS. BEVEL PLAIN END FERROUS PIPE. REMOVE SCALE AND DIRT, ON INSIDE AND OUTSIDE, BEFORE ASSEMBLY.
5. PIPE INSTALLATION: INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEN JOINING DISSIMILAR METALS. ROUTE PIPING IN ORDERLY MANNER AND MAINTAIN GRADIENT. INSTALL PIPE IN DIRECTIONS WHICH ARE SQUARE TO BUILDING MAIN COORDINATES. INSTALL PIPING TO CONSERVE BUILDING SPACE AND NOT INTERFERE WITH USE OF SPACE BY OTHER TRADES. GROUP PIPING WHENEVER PRACTICAL AT COMMON ELEVATIONS. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT. PROVIDE CLEARANCE FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS. PROVIDE ACCESS DOORS WHERE VALVES, ADJUSTABLE DEVICES, AND DEVICES REQUIRING MAINTENANCE OR SERVICE ARE NOT EXPOSED. WHERE PIPE SUPPORT MEMBERS ARE WELDED TO STRUCTURAL BUILDING FRAMING, SCRAPE, BRUSH CLEAN, AND APPLY ONE COAT OF ZINC RICH PRIMER TO WELDING. PREPARE PIPE, FITTINGS, SUPPORTS, AND ACCESSORIES NOT PRE-FINISHED, READY FOR PAINTING. INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED. PIPE PRESSURE AND TEMPERATURE RELIEF VALVES TO FLOOR DRAIN, FLOOR SINK, OR EXTERIOR, AS REQUIRED BY CODE.
6. PIPE TESTING:
   WATER SUPPLY: UPON COMPLETION OF A SECTION OR OF THE ENTIRE WATER SUPPLY SYSTEM, IT SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE NOT LESS THAN 25 PSI ABOVE THE WORKING PRESSURE UNDER WHICH IT IS TO BE OPERATED. THE WATER USED FOR TEST SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.
   BUILDING SEWER: GRAVITY SEWER TESTS SHALL CONSIST OF PLUGGING THE END OF THE BUILDING SEWER AT THE POINT OF CONNECTION WITH THE PUBLIC SEWER, FILLING THE BUILDING SEWER WITH WATER, TO A HEAD OF 10 FT. AND MAINTAINING SUCH PRESSURE UNTIL BACKFILL IS COMPLETED. (SEWER MAY BE TESTED IN SEGMENTS FOR REMODEL PROJECTS.)
7. PIPE TOLERANCES: ESTABLISH INVERT ELEVATIONS, SLOPES FOR DRAINAGE TO 1/4 INCH PER FOOT MINIMUM UNDERNEATH THE BUILDING AND A 1/8 INCH PER FOOT MINIMUM OUTSIDE THE BUILDING.

SUPPORT

1. ADEQUATELY SUPPORT PIPING AGAINST SAGGING, POCKETING, AND DISPLACEMENT.
2. SIZE SLEEVES LARGE ENOUGH TO ALLOW FOR MOVEMENT DUE TO EXPANSION AND CONTRACTION. PROVIDE FOR CONTINUOUS INSULATION WRAPPING. SLEEVES FOR PIPES THROUGH NONFIRE RATED FLOORS: FORM WITH 18 GAGE GALVANIZED STEEL. ALL PENETRATIONS THROUGH FLOORS, WALLS AND CEILINGS, SHALL BE SEALED IN ACCORDANCE WITH THE GOVERNING REGULATIONS. ALL PIPES PASSING THROUGH FLOORS, WALLS, AND CEILINGS SHALL BE SLEEVED, INSULATED, AND SEALED.
3. WALL SUPPORT FOR PIPE SIZES TO 3 INCHES : CAST IRON HOOK. WALL SUPPORT FOR PIPE SIZES 4 INCHES AND OVER: WELDED STEEL BRACKET AND WROUGHT STEEL CLAMP; ADJUSTABLE STEEL YOKE.
4. VERTICAL SUPPORT: STEEL RISER CLAMP.
5. FLOOR SUPPORT FOR PIPE SIZES TO 4 INCHES AND ALL COLD PIPE SIZES: CAST IRON ADJUSTABLE PIPE SADDLE, LOCKNUT NIPPLE, FLOOR FLANGE, AND CONCRETE PIER OR STEEL SUPPORT.
6. COPPER PIPE SUPPORT: CARBON STEEL RING, ADJUSTABLE, COPPER PLATED.
7. SHIELD FOR INSULATED PIPING 2 INCHES AND SMALLER: 18 GAGE GALVANIZED STEEL SHIELD OVER INSULATION IN 180 DEGREE SEGMENTS, MINIMUM 12 INCHES LONG AT PIPE SUPPORT.
8. SHIELDS FOR INSULATED COLD WATER PIPING 2-1/2 INCHES AND LAGER HARD BLOCK NON-CONDUCTING SADDLES IN 90 DEGREE SEGMENTS, 12 INCH MINIMUM LENGTH, BLOCK THICKNESS SAME AS INSULATION THICKNESS.

DUCTWORK AND ACCESSORIES

1. ALL DUCTWORK TO BE GALVANIZED STEEL, ASTM A525, LOCK-FORMING QUALITY, HAVING ZINC COATING OF 1.25 OZ PER SQ. FT. FOR EACH SIDE IN CONFORMANCE WITH ASTM A90.
2. RECTANGULAR LOW-PRESSURE DUCTS: FOLLOW STANDARDS FOR 2" POSITIVE STATIC PRESSURE PER SMACNA-85 TABLE 1-7 AND INTERMEDIATE REINFORCEMENT TABLE 1-10 AND 1-11.
3. PROVIDE ALL PURPOSE SEALANT FOR USE ON METAL DUCTS.
4. FABRICATE MANUAL VOLUME CONTROL DAMPERS IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS. PROVIDE LOCKING, INDICATING QUADRANT REGULATORS. WHERE ROD LENGTHS EXCEED 30" PROVIDE REGULATOR AT BOTH ENDS.

SUPPORTS AND ANCHORS

1. DUCT SUPPORT: PER SMACNA SECTION IV HANGERS AND SUPPORTS CHAPTER, FIG. 4-4, TABLES 4-1 FOR RECTANGULAR DUCTS AND TABLE 4-2 FOR ROUND DUCTS.
2. STEEL HANGER RODS: THREADED BOTH ENDS, THREADED ONE END, OR CONTINUOUS THREADED. WIRE HANGERS ARE NOT ALLOWED.
3. SLEEVES FOR RECTANGULAR DUCTWORK: FORM WITH GALVANIZED STEEL.

TESTING ADJUSTING AND BALANCING

1. TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH NEBB.

PIPING AND DUCTWORK INSULATION

A. PLUMBING PIPING (GLASS FIBER):

1. MANUFACTURERS: MANVILLE MICROLOK AP-T, OWENS CORNING ASJ/SSL-11, KNAUF PIPE INSULATION ASJ/SSL OR EQUAL.
2. INSULATION: ASTM C547; RIGID MOLDED, NONCOMBUSTIBLE. INSULATION: ASTM C547; RIGID MOLDED. MINIMUM SERVICE TEMPERATURE: -60 F.MAXIMUM SERVICE TEMPERATURE: 850 F. MAXIMUM MOISTURE ABSORPTION: 0.2 PERCENT BY VOLUME. ALL THERMAL SYSTEM INSULATION (TSI) SHALL BE NON-ASBESTOS CONTAINING BUILDING MATERIAL.
3. VAPOR BARRIER JACKET. ASTM C921, WHITE KRAFT PAPER REINFORCED WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM. MOISTURE VAPOR TRANSMISSION: ASTM E96; 0.02 PER INCHES. SECURE WITH SELF SEALING LONGITUDINAL LAPS AND BUTT STRIPS. SECURE OUTWARD CLINCH EXPANDING STAPLES AND VAPOR BARRIER MASTIC.

B. DUCTWORK (GLASS FIBER, FLEXIBLE):

1. MANUFACTURERS: MANVILLE R-SERIES MICROLITE, OWENS CORNING ASF(ALL SERVICE FACED), KNAUF MULTI-PURPOSE DUCT WRAP, OR EQUAL.
2. INSULATION: 'K' VALUE: ASTM C518, 0.30 BTU-IN/H-FT2-F AT 75 F. MAXIMUM SERVICE TEMPERATURE: 250 F. MAXIMUM MOISTURE ABSORPTION: 0.20 PERCENT BY VOLUME. DENSITY: 1.0 LB/CU FT. THICKNESS: 1.5 INCHES.
3. VAPOR BARRIER JACKET. KRAFT PAPER REINFORCED WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM. MOISTURE VAPOR TRANSMISSION: ASTM E96; 0.02 PERM.

PIPING MATERIALS

1. WATER PIPING BURIED WITHIN BUILDING:

   COPPER TUBING: ASTM B88, TYPE K, HARD DRAWN
   FITTINGS: ASTM B16.18, CAST BRONZE OR ASTM B16.22 WROUGHT COPPER AND BRONZE
   JOINTS: ASTM B32, SOLDER, GRADE 95TA
   CATHODIC PROTECTION: GALVANIC TYPE WITH MAGNESIUM ANODES WIRED TO PIPING. ABSOLUTELY NO JOINTS UNDER SLAB.

2. WATER PIPING ABOVE GRADE:

   COPPER TUBING: ASTM B88, TYPE L, HARD DRAWN
   FITTINGS: ASTM B16.18, CAST BRONZE OR ASTM B16.22 WROUGHT COPPER AND BRONZE
   JOINTS: ASTM B32, SOLDER, GRADE 95TA

3. SANITARY SEWER PIPING BURIED WITHIN AND BEYOND 5 FEET OF BUILDING:

   PVC PIPE: DWV WEIGHT
   FITTINGS: PVC DWV WEIGHT
   JOINTS: ASTM F477, ELASTOMERIC GASKETS

PLUMBING LEGEND

GENERAL SYMBOL	GENERAL DESCRIPTION
# / V-##	DETAIL # / # OF SHEET ON WHICH CONDITION IS DRAWN
	NORTH DIRECTION
#	KEYED NOTES
	NEW EQUIPMENT
	NEW WORK INTERFACE
EXIST.	EXISTING
A.F.F.	ABOVE FINISHED FLOOR
P.S.I.	POUNDS PER SQUARE INCH

LINETYPES AND ABBREVIATIONS SYMBOL	DESCRIPTION
GAS	NATURAL GAS LINE (LOW PRESSURE)
MPG	MEDIUM PRESSURE NATURAL GAS LINE
CD	CONDENSATE DRAIN LINE
RS	REFRIGERANT SUCTION LINE
RL	REFRIGERANT LIQUID LINE
RTU	ROOF TOP UNIT
EC	EVAPORATIVE COOLER
EF	EXHAUST FAN
RH	RELIEF HOOD
EXIST.	EXISTING
ECW	EXISTING DOMESTIC WATER LINE
ESS	EXISTING SEWER LINE
GAS	NATURAL GAS LINE
	DOMESTIC COLD WATER LINE
	DOMESTIC HOT WATER LINE
SS	SANITARY SEWER LINE
	VENT LINE
CD	CONDENSATE DRAIN LINE
GM	GAS METER
EMH	EXISTING MAN HOLE
FCO	FLOOR OUT
DCO	DOUBLE CLEAN OUT
WCO	WALL CLEAN OUT
BFP	BACKFLOW PREVENTER
KH	KITCHEN HOOD
MAU	MAKE UP AIR UNIT

DUCTWORK, VALVES AND FITTINGS SYMBOL	DESCRIPTION
	SUPPLY DUCTWORK UP
	RETURN/EXHAUST DUCTWORK UP
	SUPPLY DUCTWORK DOWN
	RETURN DUCTWORK DOWN
X SIZE cfm's	SUPPLY REGISTER CFM'S, NECK SIZE AND TYPE
SIZE cfm's X	RETURN REGISTER CFM'S, NECK SIZE AND TYPE
HOT WATER / VENT / COLD WATER	TYPICAL PLUMBING FIXTURE CONNECTIONS
	NATURAL GAS SHUT-OFF VALVE
	ISOLATION VALVE
	PIPING TURNING DOWN
	PIPING TURNING UP
	PIPING CONTINUATION
SLOPE	INDICATES DIRECTION PIPING SHOULD SLOPE
	NATURAL GAS REGULATOR (REGULATE TO 0.5 PSI)
M	WATER METER
	CIRCUIT SETTING VALVE

SEWER AND WATER LINES SCHEDULE

DESCRIPTION	W	V	C.W	H.W
HAND SINK	2"	2"	1/2"	1/2"
MOP SINK	3"	2"	1/2"	1/2"
3 COMP SINK	3"	3"	1"	1"
WATER CLOSET	3"	2"	3/4"	
E W H		1"	1"	
FLOOR SINK	3"	2"		
FOOD	3"	2"		
EXTERIOR SEWER LINE	6"			

STORE

DESCRIPTION	S.U.	TOTAL S.U
1-3 COMPARTMENT SINK 2"	4 UNITS	1
2 FLOOR SINK 3"	3 UNITS	6
3 H.S. 1.5"	0 UNITS	0
1 MOP SINK 1.5"	2 UNITS	2
7 FLOOR DRAIN 3"	3 UNITS	21
TOTAL		33

PER CITY OF BRYAN REQUIRED USE 1,188 GAL G.T.

GREASE TRAP SIZING

GRAPHIC SCALE

STATE OF TEXAS — RAWHI KHALIFEH — 79452 — REGISTERED PROFESSIONAL ENGINEER — 12/14/2022

ISSUE HISTORY	REVISIONS	
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
-	-	-
-	-	-
-	-	-
-	-	-

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FIRM # F-11211

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

PLUMBING GENERAL NOTES

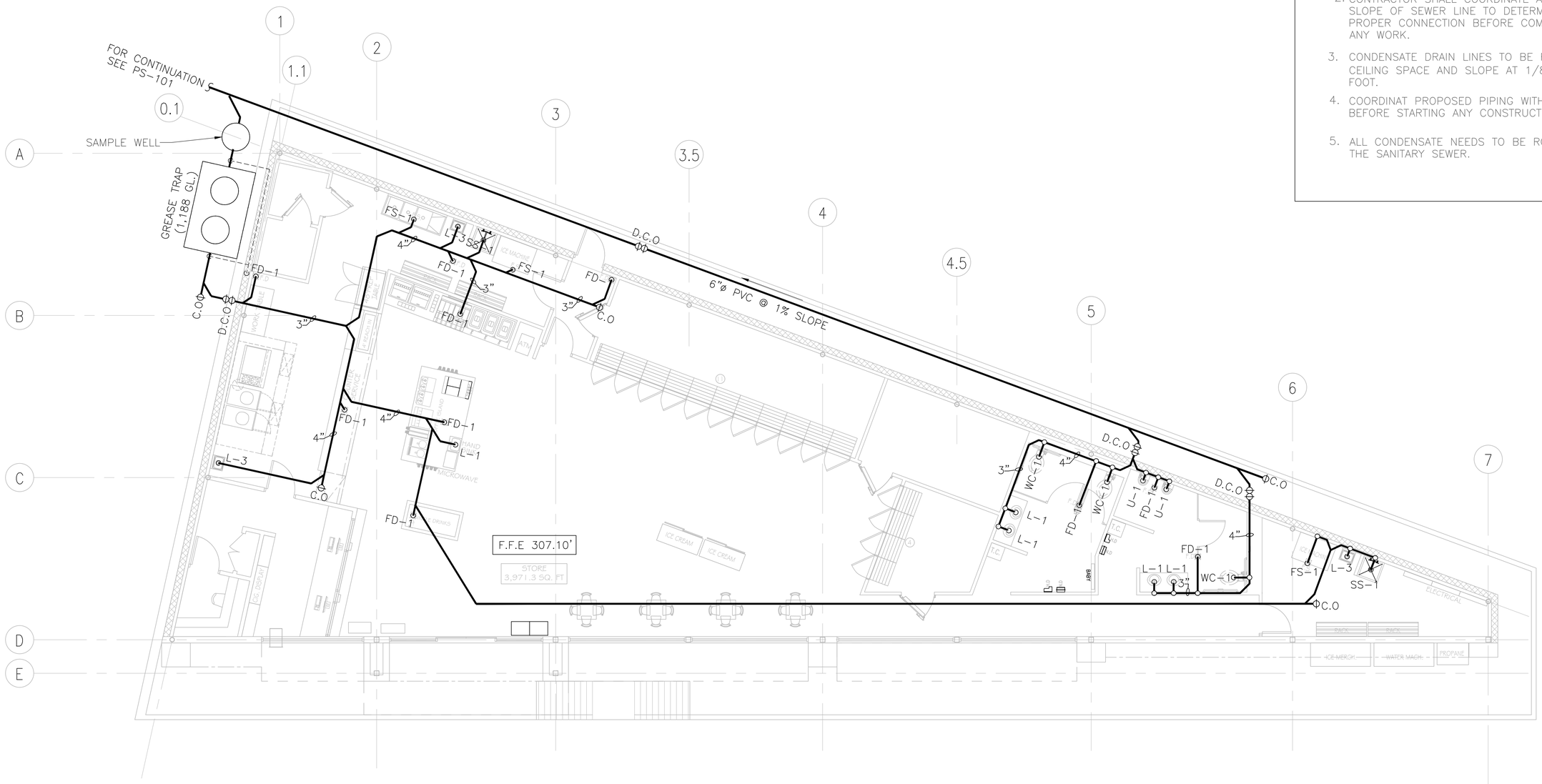
DRAWN BY: BM | DATE: 9-15-2021 | SHEET: P-00 Rev.0
CHECKED BY: RSK | PROJ. NO.: VR151003.317.4

NOTES

FOR LINES SIZE
RE: TABLE SHEET P-00

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE ACTUAL LOCATIONS OF ALL WATER, SEWER LINES BEFORE COMMENCING ANY WORK.
2. CONTRACTOR SHALL COORDINATE ACTUAL SLOPE OF SEWER LINE TO DETERMINE PROPER CONNECTION BEFORE COMMENCING ANY WORK.
3. CONDENSATE DRAIN LINES TO BE RUN IN CEILING SPACE AND SLOPE AT 1/8" PER FOOT.
4. COORDINAT PROPOSED PIPING WITH EXISTING BEFORE STARTING ANY CONSTRUCTION.
5. ALL CONDENSATE NEEDS TO BE ROUTED TO THE SANITARY SEWER.



PLUMBING ENLARGED FLOOR PLAN

SCALE: 3/16"=1'-0"

SCALE: 3/16" = 1'-0"

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED
PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY	REVISIONS	
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
–	–	–
–	–	–
–	–	–
–	–	–

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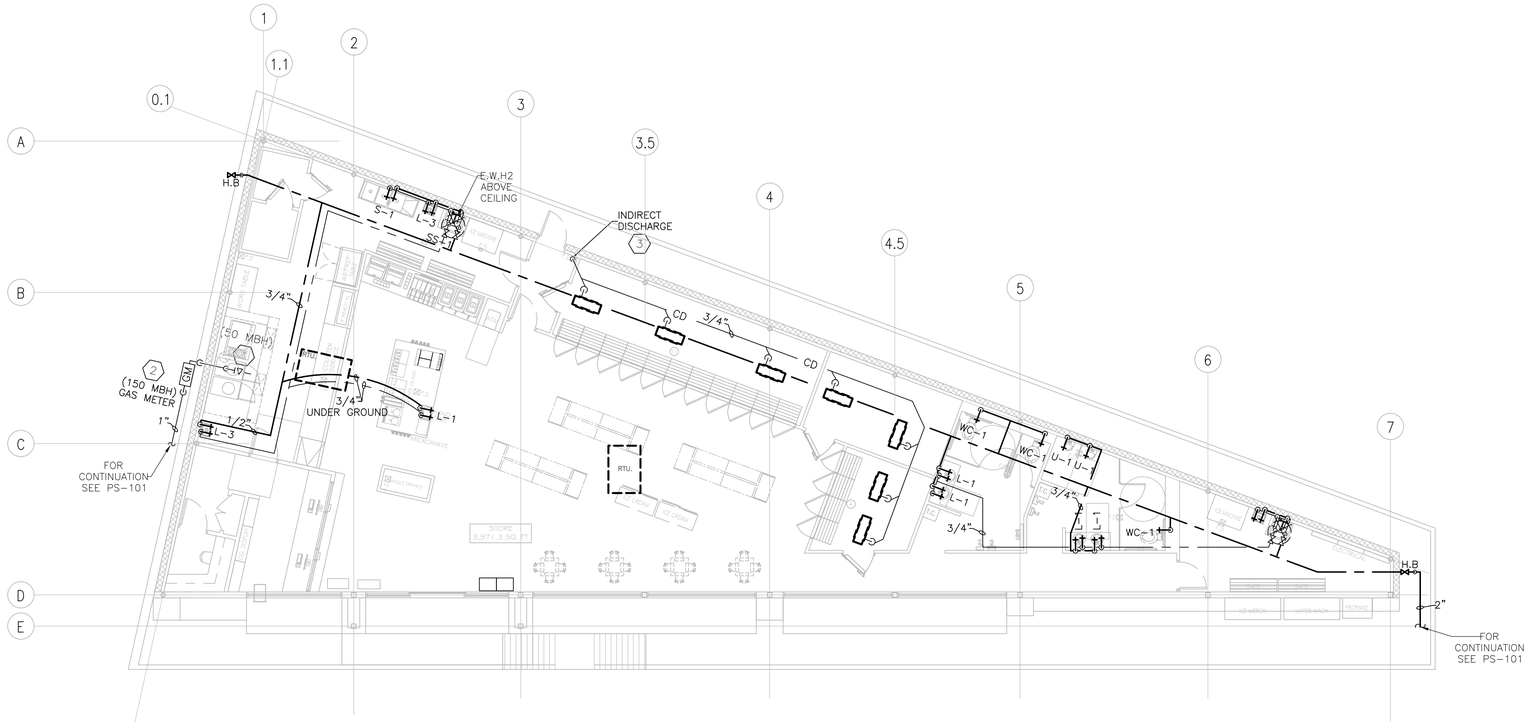
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
WASTE LINE FLOOR PLAN

DRAWN BY: BM	DATE: 9-15-2021	SHEET: **P-101** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



GENERAL NOTES:

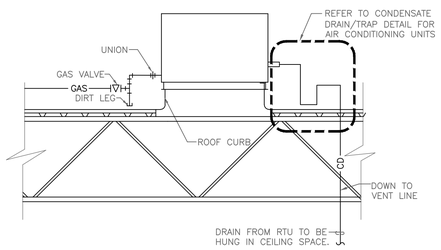
1. CONTRACTOR SHALL COORDINATE ACTUAL LOCATIONS OF ALL WATER, SEWER AND NATURAL GAS LINES BEFORE COMMENCING ANY WORK.
2. CONTRACTOR SHALL COORDINATE ACTUAL SLOPE OF SEWER LINE TO DETERMINE PROPER CONNECTION BEFORE COMMENCING ANY WORK.
3. CONDENSATE DRAIN LINES TO BE RUN IN CEILING SPACE AND SLOPE AT 1/8" PER FOOT.
4. NATURAL GAS PIPING TO RUN IN ROOF.
5. ALL VENDING MACHINES (COFFEE, TEA, SLUSHEES, ETC) SHOULD HAVE RPZ.

KEYED NOTES:

1. NATURAL GAS LINE DOWN THRU ROOF TO COOKING EQUIPMENT, FIELD TO COORDINATE ACTUAL LOCATION AND REQUIREMENTS.
2. PROVIDE NATURAL GAS METER WITH PRESSURE REGULATOR AT LOCATION SHOWN.
3. 3/4" CONDENSATE DRAIN LINE DOWN TIGHT TO WALL TO DRAIN INDIRECTLY INTO FLOOR SINK AS REQUIRED.
4. DOMESTIC WATER VALVE AND CAP FOR FUTURE USE.

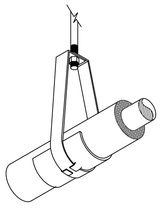
PLUMBING WATER & GAS LINE FLOOR PLAN

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



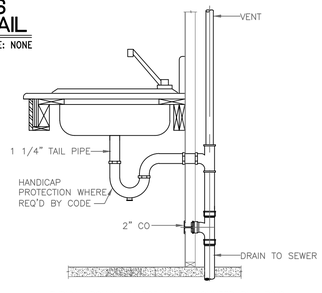
1 TYPICAL CONDENSATE DRAIN/TRAP AND GAS PIPING CONNECTION TO ROOF TOP UNIT DETAIL

SCALE: NONE



4 TYPICAL INSULATION PROTECTION SHIELD WITH "LOC" TABS DETAIL

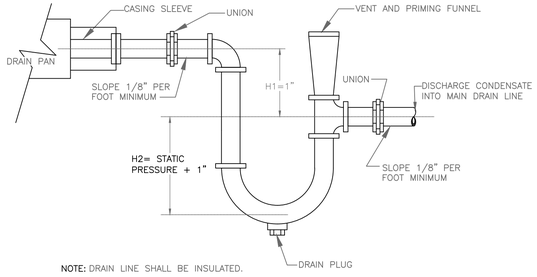
SCALE: NONE



* TYPICAL ROUGH-IN FOR WALL-MOUNTED PLUMBING FIXTURE. PROVIDE CLEAN-OUT AT EACH EVEN IF NOT SHOWN ON PLAN VIEW. FIXTURE CARRIER NOT SHOWN FOR CLARITY.

5 WALL FIXTURE DETAIL

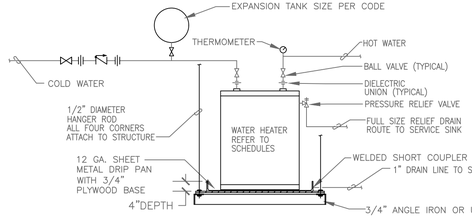
SCALE: NONE



NOTE: DRAIN LINE SHALL BE INSULATED.

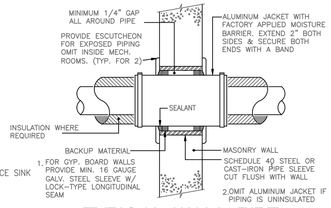
6 TYPICAL CONDENSATE DRAIN/TRAP FOR AIR CONDITION UNITS DETAIL

SCALE: NONE



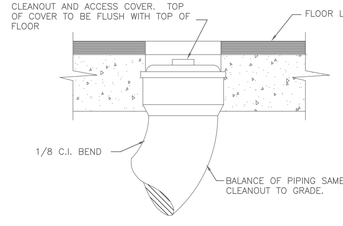
2 ELECTRIC WATER HEATER DETAIL

SCALE: NONE



3 TYPICAL WALL PIPE PENETRATION DETAIL

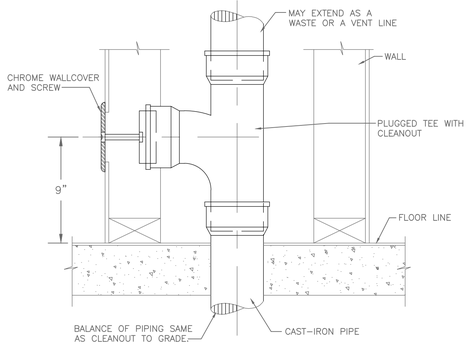
SCALE: NONE



(NOTE: CLEANOUT NOT TO BE LOCATED IN CARPETED AREA)

7 FLOOR CLEANOUT DETAIL

SCALE: NONE



8 WALL CLEANOUT DETAIL

SCALE: NONE

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

GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY		REVISIONS
DATE	ISSUED FOR	DESCRIPTION
5-16-22	ISSUE FOR PERMITTING	CONSTRUCTION DRAWINGS
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–	–	–

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11302 TANNER RD.
HOUSTON, TEXAS 77041
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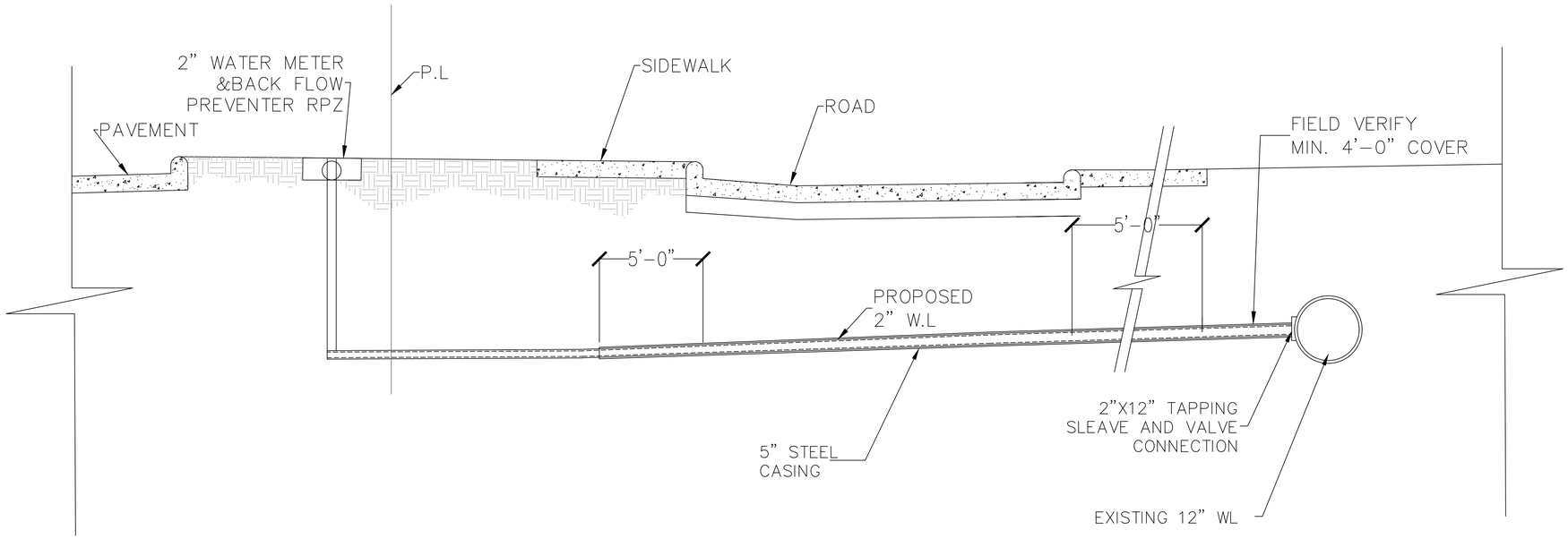
TEL. (281) 580-4585
FAX (281) 580-4399

VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807

PLUMBING WATER & GAS LINE FLOOR PLAN

DRAWN BY: BM	DATE: 9-15-2021	SHEET: P-102 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	



SECTION 1

SCALE N.T.S

GRAPHIC SCALE

STATE OF TEXAS
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12/14/2022

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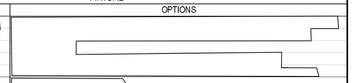
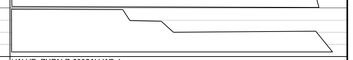
VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
WATER LINE PROFILE

DRAWN BY: BM	DATE: 12-6-2021	SHEET: **P-103** Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	

PLUMBING FIXTURE SCHEDULE

SYMBOL	MINIMUM CONNECTIONS CW	HW	VENT	WASTE	TYPE	FIXTURE MANUFACTURER	FIXTURE OPTIONS
WC-1	1"	--	2"	4"	FLOOR MOUNTED FLUSH VALVE ADA COMPLIANT WATER CLOSET ELONGATED CHINA BOWL, EXPOSED FLUSH VALVE WITH VANDAL RESISTANT STOP CAP, 1.28 GALLONS PER FLUSH, EXTRA HEAVY DUTY OPEN FRONT WHITE SEAT, EXPOSED FLUSH VALVE WITH 1" TOP SPUD, FLUSH HANDLE ON WIDE SIDE OF TOILET WHERE SHOWN FOR HANDICAPPED ACCESSIBILITY, 16-1/8" TO RIM TOP.	ZURN Z5665-BWL CT705ELN-01 UNIVERSAL COMMERCIAL FLUSHOMETER	
WC-2	1"	--	2"	4"	FLOOR MOUNTED FLOOR OUTLET FLUSH VALVE WATER CLOSET ELONGATED CHINA BOWL, BOTTOM OUTLET, EXTRA HEAVY DUTY OPEN FRONT WHITE SEAT, EXPOSED FLUSH VALVE WITH VANDAL RESISTANT STOP CAP, FLUSH HANDLE ON WIDE SIDE OF TOILET, 1.28 GALLONS PER FLUSH, 14-1/8" TO RIM TOP.	SANIFLO 003 ROUND BOWL AMERICAN STANDARD 2599.001.020	
U-1	3/4"	--	2"	2"	WALL MOUNTED WASHOUT URINAL TAPERED ELONGATED CHINA BOWL, 0.5 GALLON PER FLUSH, RIM 14" FROM WALL, EXTENDED SIDES, 3/4" TOP SPUD, VANDAL RESISTANT STOP CAP. MOUNT STANDARD OCCUPANCY URINAL'S RIM HEIGHT AT A MAXIMUM OF 24".	AMER. STD 6501.010 KOHLER K-4960-ET	VALVE: ZURN Z-6003AV-WS-1 CARRIER - ZURN Z-1221
L-1	1/2"	1/2"	1-1/2"	1-1/2"	COUNTERTOP ADA COMPLIANT LAVATORY VITREOUS CHINA, NOMINAL 20"x17" SELF-RIMMING, FRONT OVERFLOW, RECESSED FAUCET LEDGE, ADA COMPLIANT SINGLE LEVER HANDLE, SINGLE FAUCET HOLE, LESS DRAIN, WASHERLESS, DRAIN OUTLET WITH GRID STRAINER	ELJER 052-3514 LAURA AMER. STD 0475.047 AQUALYN KOHLER K-2196-1PENNINGTON CRANE1-287-H	FAUCET - ZURN AQUASPEC Z-82200, CHICAGO 2200 DRAIN - AMER. STD. 2411.015, ELJER 803-0552 WH SHALL HAVE TEMPERATURE MIXING VALVE ½"THE THERMOSTATIC MIXING VALVE 95 TO 115 F (ZW 1070XL IS ASSE 1070 LISTED)
L-2	1/2"	1/2"	1-1/2"	1-1/2"	WALL MOUNTED ADA COMPLIANT LAVATORY VITREOUS CHINA, NOMINAL 20"x18", BACK AND SIDE SPLASHES, FOR CONCEALED ARM CARRIER, SINGLE CENTERED FAUCET HOLE, ADA COMPLIANT SINGLE LEVER FAUCET, LESS ESCUTCHEON PLATE, LESS DRAIN, CAST BRASS CONSTRUCTION, WATER LESS, DRAIN OUTLET WITH GRID STRAINER	ELJER 051-2644 DELWYN AMER. STD 0356.421 LUCERNE KOHLER K-2007 KINGSTON CRANE 1-412H	FAUCET - ZURN Z-82200 AQUASPEC, CHICAGO 2200 CARRIER - ZURN Z-1231, OR EQUAL BY WADE, WATTS, JOSAM OR JR SMITH DRAIN - AMER. STD. 2411.015, ELJER 803-0552 WH SHALL HAVE TEMPERATURE MIXING VALVE ½"THE THERMOSTATIC MIXING VALVE 95 TO 115 F (ZW 1070XL IS ASSE 1070 LISTED)
L-3	1/2"	1/2"	1-1/2"	1-1/2"	WALL MOUNTED STAINLESS STEEL ADA COMPLIANT LAVATORY STAINLESS STEEL, NOMINAL 20"x18", BACK AND SIDE SPLASHES, FOR CONCEALED ARM CARRIER, FAUCET HOLES ON 4" CENTERS, ADA COMPLIANT WRIST BLADE GOOSENECK FAUCET, LESS ESCUTCHEON PLATE, LESS DRAIN, CAST BRASS CONSTRUCTION, WASHERLESS, DRAIN OUTLET WITH GRID STRAINER	BRADLEY 921-6101VFM	FAUCET - 61244 AQUASPEC , AMER. STD. 7500.170 CHICAGO 895-317 CARRIER - ZURN Z-1231 OR EQUAL BY WADE, WATTS, JOSAM OR JR SMITH DRAIN - AMER. STD. 2411.015, ELJER 803-0552
S-1	3/4"	3/4"	2"	2"	THREE COMPARTMENT SINK - COMMERCIAL 18 GA. STAINLESS STEEL, NOMINAL (15X15X12)(LXWXD) BOWL, EACH BOWL NOMINAL 12" BACK FLANGES WITH ROUNDED INTERNAL ANGLES , TWO ADA COMPLIANT WIDE SET F/ WITH AERATOR, ADA COMPLIANT WRIST BLADE HANDLE, DRAIN OUTLETS WITH GRID STRAINER	JUST TLX-2255-A-GR ELKAY LTR-5422-10	FAUCET JUST J-1147-KS, ELKAY LK-232-S-BH-5 OR EQUAL DRAIN - J-35FS
SS-1	3/4"	3/4"	2"	3"	FLOOR MOUNTED MOLDED STONE CORNER STYLE SERVICE SINK TERRAZZO OR MOLDED STONE COMPOSED OF MARBLE CHIPS IMBEDDED IN PORTLAND CEMENT, NOMINAL 24"x24"x10" HIGH, WALL MOUNTED FAUCET WITH VACUUM BREAKER, TOP BRACE, INTEGRAL STOPS, HOSE THREADED SPOUT, PROVIDE 3" DRAIN OUTLET WITH DOME STRAINER, MOP HANGER, HOSE/BRACKET COMBINATION, STAINLESS STEEL BUMPER GUARD AND STAINLESS STEEL SPLASH CATCHER PANELS.	STERN WILLAIMS SBC-902 FLORESTONE 85	FAUCET - JONESPEC SF, STERNS WILLIAM T-10-VB MOP HANGER - JONESPEC MH, STERNS WILLIAM T-40 HOSE BRACKET - JONESPEC HH, STERNS WILLIAM T-35 SINK SHALL BE LAID IN A GROUT BED COVERING THE ENTIRE BASE OF THE SINK.
HB	3/4"	--	--	--	INTERIOR HOSE BIBB ANTI-SIPHON VACUUM BREAKER, STAINLESS STEEL STEM, LOOSE TEE HANDLE WITH LOCK SHIELD, ROUGH CHROME PLATED FINISH.	WOODFORD #24 CHICAGO FAUCET #387-E27 ZURN Z-80200-VB	
EWH	3/4"	--	--	--	EXTERIOR ENCASED WALL HYDRANT ANTI-SIPHON VACUUM BREAKER, POLISHED BRASS AUTOMATIC DRAINING, FREEZE RESISTANT, WALL CLAMP, STEM FOR 8" THICK WALL, PROVIDE 12" x 12" WALL OR CEILING ACCESS DOOR.	ZURN Z-1300 ECOLOTROL WOODFORD B65P-PB JR SMITH 5509 OR EQUAL BY WATTS	
SA	3/4"	3/4"	--	--	SHOCK ABSORBER STAINLESS STEEL NESTED BELLOWS TYPE. CASING & BELLOWS SHALL BE TYPE 304 STAINLESS STEEL. PROVIDE ISOLATION BALL VALVE WITH ACCESS DOOR (IF REQUIRED) AT INLET. CONTRACTOR SHALL SIZE EACH UNIT FOR PROPER DISPLACEMENT FOR THE FIXTURES COUNT ON CW OR HW LINE AS REQUIRED AT LOCATION SHOWN.	ZURN Z-1700 SHOCKTROLS JR SMITH 5000 HYDROTROLS OR EQUAL BY WADE, PRECISION PRODUCTS OR WATTS	
CSV	AS SHOWN ON DWG	AS SHOWN ON DWG	--	--	CIRCUIT SETTING VALVE FLOW CONTROL VALVE, SIZE EQUAL TO PIPING SHOWN ON PLANS, VISIBLE SET GAUGE W MEMORY STOP, BALL VALVE STYLE METERING WITH MODIFIED VENTURI FLOW MEASUREMENT VIA DIFFERENTIAL PRESSURE PORT ACCESS. POSITIVE SHUT OFF ABILITY, LOW FLOW (<1GPM) CAPABILITY.	TACO: ACCU-FLO SERIES	
BFP	AS SHOWN ON DWG	AS SHOWN ON DWG	--	--	REDUCED PRESSURE BACKFLOW PREVENTER ANSI/ASSE 1013, AND AWWA C506; BRONZE BODY WITH BRONZE INTERNAL PARTS AND STAINLESS STEEL SPRINGS; NON-THREADED VENT OUTLET; ASSEMBLED WITH TWO FULL PORTED BALL VALVES AND STRAINER.	WILKIN 975XL OR EQUAL BY FEBCO	PROVIDE WITH PROTECTIVE ENCLOSURE.
FD-1	--	--	2"	3"	FLOOR DRAIN 6" ROUND ADJUSTABLE NICKEL BRONZE STRAINER, CAST IRON BODY, SEDIMENT BUCKET, ADJUSTABLE FLASHING COLLAR, 3/4" TRAP PRIMER ADAPTER	ZURN ZN-415-B-P JR SMITH 2005 OR EQUAL BY WATTS, JOSAM	SURE SEAL-TRAP SEAL BY PRO SEAL, RUBBER FLAPPER STYLE VAPOR BARRIER RUBBER SELF CLOSING ONE-WAY TRAP SEAL. IMPORTAINT: CLEAR THIS FITTING OF ALL DEBRIS PRIOR TO PROJECT CLOSEOUT!
FS-1	--	--	2"	3"	FLOOR SINK 12" x 12" x 6" DEEP CAST IRON BODY, SQUARE SLOTTED MEDIUM DUTY 1/2 GRATING, WHITE ACID RESISTING PORCELAIN ENAMEL INTERIOR AND TOP, ALUMINUM ANTISPLASH INTERIOR WITH BOTTOM DOME STRAINER, AND 3/4" TRAP PRIMER ADAPTER.	ZURN Z-1900-P-3 OR EQUAL BY JR SMITH, WADE OR WATTS	SURE SEAL-TRAP SEAL BY PRO SEAL, RUBBER FLAPPER STYLE VAPOR BARRIER RUBBER SELF CLOSING ONE-WAY TRAP SEAL. IMPORTAINT: CLEAR THIS FITTING OF ALL DEBRIS PRIOR TO PROJECT CLOSEOUT!
FCO	--	--	---	AS SHOWN	FLOOR CLEANOUT CAST IRON BODY WITH SQUARE ADJUSTABLE SCORIATED NICKEL BRONZE TOP, GASKET SEAL BRASS THREADED PLUG WITH RECESSED SOCKET.	ZURN ZN-1400-BP, OR EQUAL BY JR SMITH, WADE OR WATTS	OR EQUAL BY WADE
WCO	--	--	---	AS SHOWN	WALL CLEANOUT NO-HUB CAST IRON CLEANOUT TEE WITH ROUND STAINLESS STEEL COVER AND CENTER SCREW, GASKETED SEAL IRON THREADED PLUG WITH RECESSED SOCKET	ZURN Z-1446-BP, OR EQUAL BY JR SMITH, WADE OR WATTS	OR EQUAL BY WADE
ECO	--	--	---	AS SHOWN ON DWG	EXTERIOR CLEANOUT CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED CAST IRON TOP, GASKET SEAL CAST IRON PLUG WITH RECESSED SOCKET. INSTALL IN MINIMUM OF 12" x 12" x 4" REINFORCED CONCRETE PAD WITH BEVELED EDGES.	ZURN Z-1400-HD OR EQUAL BY JR SMITH, WADE OR WATTS	OR EQUAL BY JR SMITH OR WADE

NOTES:
1. MANUFACTURERS WITH MODEL NUMBERS ARE BASE ITEMS. OTHER MANUFACTURERS LISTED ARE EQUIVALENT MANUFACTURERS.
2. FOR MOUNTING HEIGHTS OF INDIVIDUAL WALL-MOUNTED FIXTURES, REFER TO ARCHITECTURAL ELEVATION DRAWINGS.
3. EACH UNDERSLAB OR CONCEALED P-TRAP SHALL BE A DEEP-SEAL TYPE.
4. PROVIDE EACH WALL MOUNTED PLUMBING FIXTURE, SUCH AS SINKS, LAVATORIES, ELECTRIC WATER COOLERS, DRINKING FOUNTAINS, ETC., WITH A FLOOR MOUNTED FIXTURE SUPPORT CARRIER WITH RECTANGULAR LEGS.
5. UNLESS SCHEDULED OTHERWISE, PROVIDE EACH LAVATORY, SINK, WATER COOLER, ETC. WITH A P-TRAP ASSEMBLY CONSISTING OF A CHROME-PLATED (C.P.) CAST BRASS TRAP WITH CLEANOUT PLUG, C.P. TUBING OUTLET (MIN. 17 GA.), AND C.P. CAST BRASS ESCUTCHEON WITH SETSCREW.
6. PROVIDE EACH FIXTURE WHICH REQUIRES COLD AND/OR HOT WATER (EXCEPT FLUSH VALVES) WITH A SUPPLY/STOP ASSEMBLY CONSISTING OF A C.P. BRASS STOP VALVE (MIN. 1/2") WITH LOOSE KEY HANDLE AND LOCK SHIELD, STAINLESS STEEL FLEXIBLE RISER, C.P. BRASS NIPPLE, AND C.P. CAST BRASS ESCUTCHEON WITH SETSCREW.
7. FOR EACH PUBLIC LAVATORY OR SINK WITH EXPOSED DRAIN AND BOTH COLD AND HOT SUPPLY COMPONENTS, PROVIDE A MANUFACTURED INSULATION KIT MADE FROM MOLDED CLOSED CELL VINYL THAT IS ANTI-MICROBIAL, FORM FITTING, AND SEAMLESS. EACH KIT SHALL COVER THE TAILPIECE, P-TRAP, WALL BEND, BOTH WATER SUPPLY STOPS, AND BOTH WATER RISERS. KITS SHALL BE EQUAL OR EQUIVALENT TO "PROWRAP" BY McGUIRE OR LAV-GUARD BY TRUEBRO.

ELECTRIC WATER HEATER SCHEDULE

SYMBOL	SERVES	STORAGE GALLONS	HEATING. ELEMENTS QTY/KW	RECOVERY GAL/HOUR	TEMPERATURES INLET	RISE	MANUFACTURER & MODEL
WH-1	RESTROOMS	30	2 / 24 KW (SEE NOTE 2)	197	60	50	A.O. SMITH DSE-30
WH-2	KITCHEN	30	2 /24 KW (SEE NOTE 2)	197	60	50	A.O. SMITH DSE-30

NOTES:
1. MANUFACTURER IS A. O. SMITH. STATE AND RHEEM ARE CONSIDERED EQUIVALENT MANUFACTURERS.
2. KW RATINGS @ 208 VOLTS, 1-PHASE. ELEMENTS ARE SEQUENTIALLY OPERATED BY THERMOSTAT.
3. EACH WATER HEATER SHALL HAVE LONG LIFE INCOLOY ELEMENTS, BRASS DRAIN VALVE, GLASS LINED TANK, THERMOSTAT, AND HIGH LIMIT.
4. EACH WATER HEATER SHALL HAVE TANK INSULATION WITH A MINIMUM R-VALUE OF 20 AND SHALL MEET THE REQUIREMENTS OF ICC ENERGY CONSERVATION CODE 2000, SECTION 504.2
5. PROVIDE AND INSTALL EXPANSION TANK. TANK CAPACITY SHALL BE 4.0 GALLON ASME RATED FOR 160 PSI. TANK SHALL BE AMTROL MODEL THERM-X-TROL ST-4 OR APPROVED EQUIVALENT.
6. WATER HEATER SHALL HAVE A COMMERCIAL WARRANTY OF 3 YEARS ON THE TANK AND 1 YEAR ON PARTS

NOTE:
1. PROVIDE THERMOSTATIC MIXING VALVES THAT LIMIT TEPERED WATER AT PUPLIC LAVATORIES OR SINKS TO NOT MORE THAN 110 DEGREEES.
2. PROVIDE TRAP PRIMERS OR DEEP SEAL TRAPS AT ALL FLOOR DRAINS OR FLOOR SINKS SUBJECT TO INFREQUENT USE.

CIRCULATION PUMP SCHEDULE

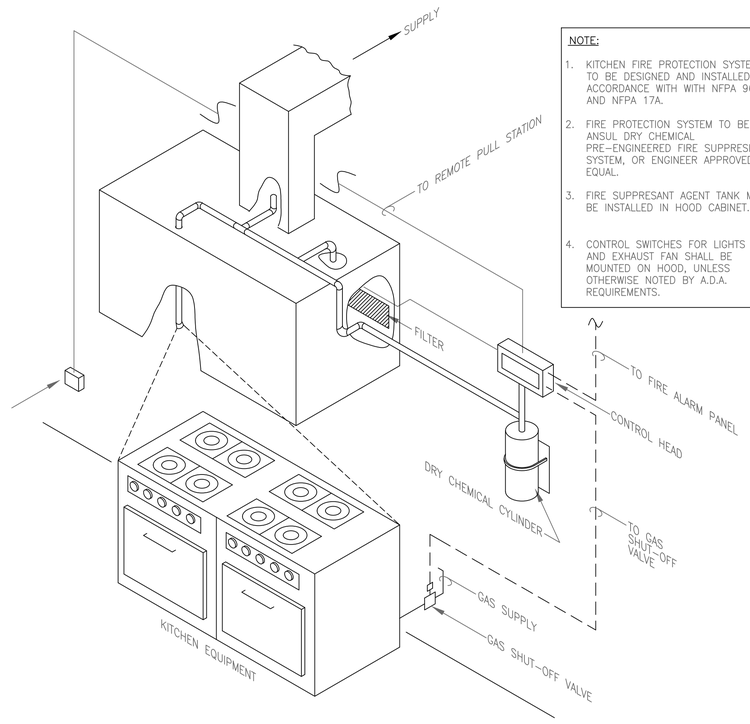
SYMBOL	CP-1
SERVES	DOMESTIC HOT WATER RETURN
MOUNTING	IN-LINE
CONNECTION SIZES (IN)	1"
FLOW (GPM)	3
TOTAL DEVELOPED HEAD (FT)	15
SPEED (RPM)	1750
TEMPERATURE SET POINT (F)	110
MOTOR HORSEPOWER	1/6
ELECTRICAL POWER	120V /1P
WEIGHT (LB)	35
MANUFACTURER / MODEL	TACO MODEL 113
MANUFACTURER / MODEL	B&G PR

NOTES
1. PUMPS ARE SCHEDULED TO BE BY B&G OR TACO. PACO ARMSTRONG, AND AURORA SHALL BE CONSIDERED EQUIVALENT MANUFACTURERS.
2. REFER TO HOT WATER HEATER DETAIL FOR PIPING.
3. UNIT SHALL BE CONTROLLED FOR AN AQUASTAT. INSTALL UP STREAM OF THE PUMP. SET AT TEMPERATURE SHOWN. PUMP "ON" WHEN BELOW SETPOINT.
4. PROVIDE EACH PUMP WITH CHECK-OUT AND START-UP SERVICES FROM AN AUTHORIZED PUMP MANUFACTURER'S REPRESENTATIVE.

NOTE:

1- WH-1 SHALL HAVE MIXING VALVE ½"THE THERMOSTATIC MIXING VALVE 95 TO 115 F (ZW 1070XL IS ASSE 1070 LISTED

2- AUTOMATIC GAS SHUT OF GAS VALVE REQUIRED AT ALL COOKING EQUIPMENT LOCATED BENEATH THE EXHAUST HOOD AND PROTECTED BY THE SUPPRESSION SYSTEM PER NFPA 96-20, 10.4.1



NOTE:
1. KITCHEN FIRE PROTECTION SYSTEM TO BE DESIGNED AND INSTALLED IN ACCORDANCE WITH WITH NFPA 96 AND NFPA 17A.
2. FIRE PROTECTION SYSTEM TO BE ANSUL DRY CHEMICAL PRE-ENGINEERED FIRE SUPPRESION SYSTEM, OR ENGINEER APPROVED EQUAL.
3. FIRE SUPPRESANT AGENT TANK MAY BE INSTALLED IN HOOD CABINET.
4. CONTROL SWITCHES FOR LIGHTS AND EXHAUST FAN SHALL BE MOUNTED ON HOOD, UNLESS OTHERWISE NOTED BY A.D.A. REQUIREMENTS.

1 TYPICAL FIRE PROTECTION SYSTEM FOR KITCHEN EXHAUST HOOD DETAIL
SCALE: NONE

GRAPHIC SCALE

STATE OF TEXAS · RAWHI KHALIFEH · 79452 · REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY / REVISIONS

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VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
PLUMBING SCHEDULES

DRAWN BY: BM | DATE: 9-15-2021 | SHEET: **P-601** Rev.0
CHECKED BY: RSK | PROJ. NO.: VR151003.317.4

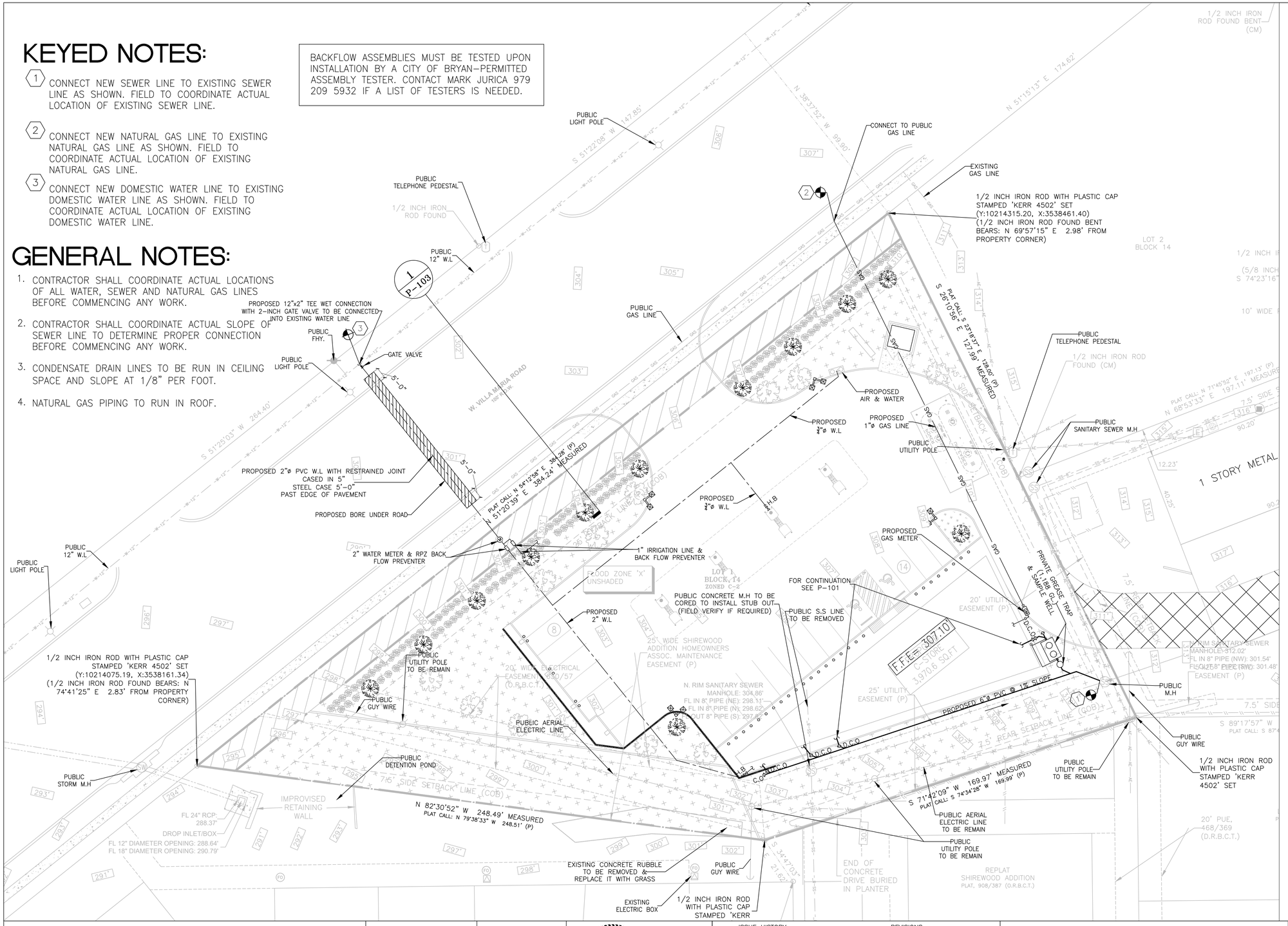
KEYED NOTES:

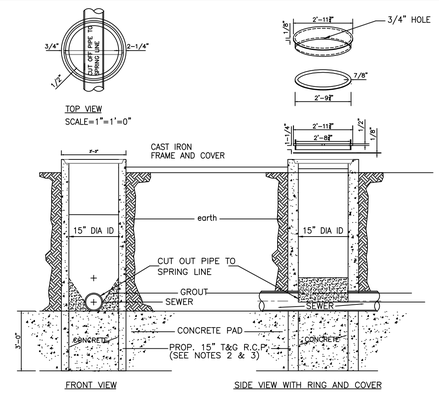
1. CONNECT NEW SEWER LINE TO EXISTING SEWER LINE AS SHOWN. FIELD TO COORDINATE ACTUAL LOCATION OF EXISTING SEWER LINE.
2. CONNECT NEW NATURAL GAS LINE TO EXISTING NATURAL GAS LINE AS SHOWN. FIELD TO COORDINATE ACTUAL LOCATION OF EXISTING NATURAL GAS LINE.
3. CONNECT NEW DOMESTIC WATER LINE TO EXISTING DOMESTIC WATER LINE AS SHOWN. FIELD TO COORDINATE ACTUAL LOCATION OF EXISTING DOMESTIC WATER LINE.

BACKFLOW ASSEMBLIES MUST BE TESTED UPON INSTALLATION BY A CITY OF BRYAN–PERMITTED ASSEMBLY TESTER. CONTACT MARK JURICA 979 209 5932 IF A LIST OF TESTERS IS NEEDED.

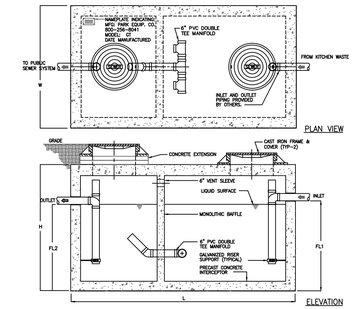
GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE ACTUAL LOCATIONS OF ALL WATER, SEWER AND NATURAL GAS LINES BEFORE COMMENCING ANY WORK.
2. CONTRACTOR SHALL COORDINATE ACTUAL SLOPE OF SEWER LINE TO DETERMINE PROPER CONNECTION BEFORE COMMENCING ANY WORK.
3. CONDENSATE DRAIN LINES TO BE RUN IN CEILING SPACE AND SLOPE AT 1/8" PER FOOT.
4. NATURAL GAS PIPING TO RUN IN ROOF.





SAMPLE WELL BASIN



GREASE INTERCEPTOR SCHEDULE								
MODEL NO.	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
GT-1250	1,250	2,900	14,650	9'-2"	5'-8"	6'-0"	4'-9"	4'-6"

* PARK EQUIPMENT CO. OR EQUAL

1000,GALLON–GREASE–TRAP

Typical applications include commercial and industrial food service kitchens where excessive grease may interfere with the proper drainage of the sewer system. The grease interceptor is generally buried below grade for gravity flow sewer systems. A sample well is utilized on the outlet side for sampling by the local water authority.

Specifications

CONCRETE: Class 1 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor, first stage of wall and baffle with sectional riser to required depth. (Monolithic baffle required, slide–in type is not acceptable)

REINFORCEMENT: Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

C.I. CASTINGS: Manhole frames, covers or grates are manufactured of grey cast iron conforming to ASTM A48–76 Class 30. Manhole shall be nominal 24 inch diameter and be traffic duty.

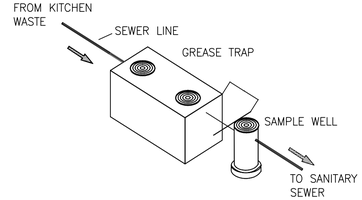
OTHER SIZES ARE AVAILABLE. CONTACT US FOR MORE INFORMATION

Engineering Data

The grease interceptor is structurally & hydraulically engineered to conform to regional plumbing codes recommended in most cities. Consult with local authorities for specific application requirements.

Shop drawings shall include complete structural & buoyancy calculations certified by a licensed professional engineer.

Consult with Park Equipment Company for exact excavation dimensions & shipping information.



1 GREASE INTERCEPTOR DETAIL
SCALE: NONE

SCALE: 1"=20'-0"
GRAPHIC SCALE

STATE OF TEXAS
RAWHI KHALIFEH
79452
REGISTERED PROFESSIONAL ENGINEER
12/14/2022

ISSUE HISTORY	REVISIONS	
DATE	ISSUED FOR	DESCRIPTION
–	–	–
–	–	–
–	–	–
–	–	–

RSK ENGINEERING
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VILLA MARIA GAS STATION
1919 WEST VILLA MARIA ROAD
BRYAN , TX 77807
PLUMBING SITE PLAN

DRAWN BY: BM	DATE: 12–6–2021	SHEET: PS-101 Rev.0
CHECKED BY: RSK	PROJ. NO.: VR151003.317.4	