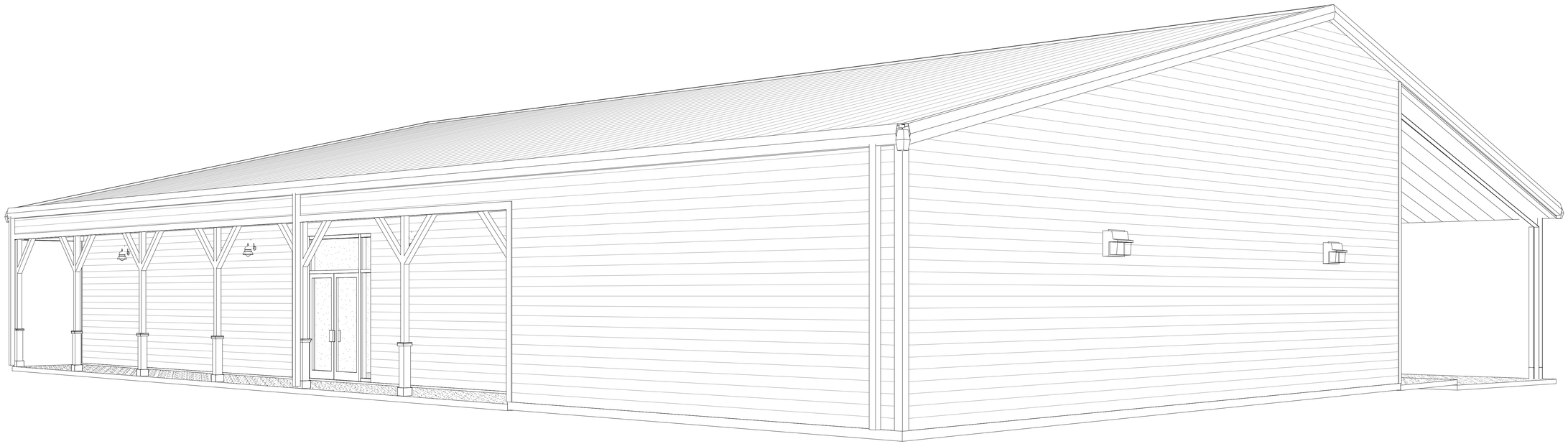

SHEET INDEX:

MATAGORDA COUNTY JUSTICE OF THE PEACE OFFICE PRECINT 2

ISSUE FOR BID

AUGUST 18, 2025

PLANNING PLACE CONSULTING
1504 W. GAYLE STREET, EDNA, TEXAS 77957
210-413-0650

LYNNENGINEERING
2200 AVENUE A, BAY CITY, TEXAS, 77414
979-245-8900

SUTTON ENGINEERING, LLC
5600 Tennyson Parkway
Suite 240
Plano, Texas 75024
214.763.7300

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
STATE OF TEXAS
2012

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

TITLE SHEET

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

PRINTED

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REVISIONS

NO.	REMARKS

SHEET NO:

G 0.1

USE AND OCCUPANCY CLASSIFICATION

MAJOR USE OF BUILDING : BUILDING B

FLOOR AREA (INTERIOR GROSS SQUARE FEET): 4329 SF

TYPES OF CONSTRUCTION

BUILDING CONSTRUCTION TYPE : TYPE 1A

FIRE RESISTANCE RATING REQUIREMENTS
PRIMARY STRUCTURAL FRAME : 3 HOURS
BEARING WALLS, INTERIOR AND EXTERIOR : 3 HOURS

NON-BEARING WALLS AND PARTITIONS : 0 HOURS

FIRE PROTECTION SYSTEMS

THE BUILDING IS NOT EQUIPPED WITH A AUTOMATIC SPRINKLER SYSTEM

REFER TO EGRESS PLAN THIS SHEET FOR FIRE EXTINGUISHER LOCATIONS

FIRE EXTINGUISHER TYPE: CLASS A FIRE EXTINGUISHER IN SEMI-RECESSED CABINET: JL INDUSTRIES AMBASSADOR SERIES 8117V10 WITH 2 ½" ROLLED TRIM AND VERTICAL LETTERING, OR EQUAL.

PROJECT INFORMATION

PROJECT DESCRIPTION:
NEW CONSTRUCTION OF AN OFFICE FOR THE MATAGORDA COUNTY JUSTICE OF THE PEACE, PRECINCT 2.

PROJECT ADDRESS:
MAGNOLIA STREET
MATAGORDA, TX 77457

APPLICABLE CODES:
2021 International Building Code, as amended with appendixes.
2021 International Existing Building Code, as amended with appendixes.
2021 International Residential Code, as amended with appendixes.
2021 International Mechanical Code, as amended with appendixes.
2021 International Plumbing code, as amended with appendixes.
2021 International Fuel Gas Code, as amended with appendixes.
2021 International Energy Conservation Code, as amended with appendixes.
2021 International Property Maintenance Code, as amended with appendixes.
2023 National Electrical Code, as amended.

TDLR PROJECT NUMBER : TABS2025026060

MEANS OF EGRESS AND OCCUPANCY

OCCUPANCY LOAD

FUNCTION	LOAD FACTOR	SPACE SIZE	OCC. LOAD
BUSINESS AREA	150/SF	2981 SF	18
COURTROOM - JUDGE/JURY AREA	40/SF	336 SF	5
COURTROOM - SEATING W/O FIXED SEATS	15/SF		23
ASSEMBLY WITHOUT FIXED SEATS	15/SF	145 SF	10
ACCESSORY AREAS	300/SF	882 SF	3
TOTAL BUILDING OCCUPANT LOAD			59

EGRESS SIZING

2 EXITS FROM BUILDING REQUIRED - 3 PROVIDED		
NO STAIRWAYS		
OTHER EGRESS COMPONENTS	.2 INCH PER OCCUPANT	9.6 INCHES OF WIDTH REQUIRED
REFER TO EGRESS PLAN FOR PROVIDED WIDTHS		

EXIT TRAVEL DISTANCE LIMITATIONS

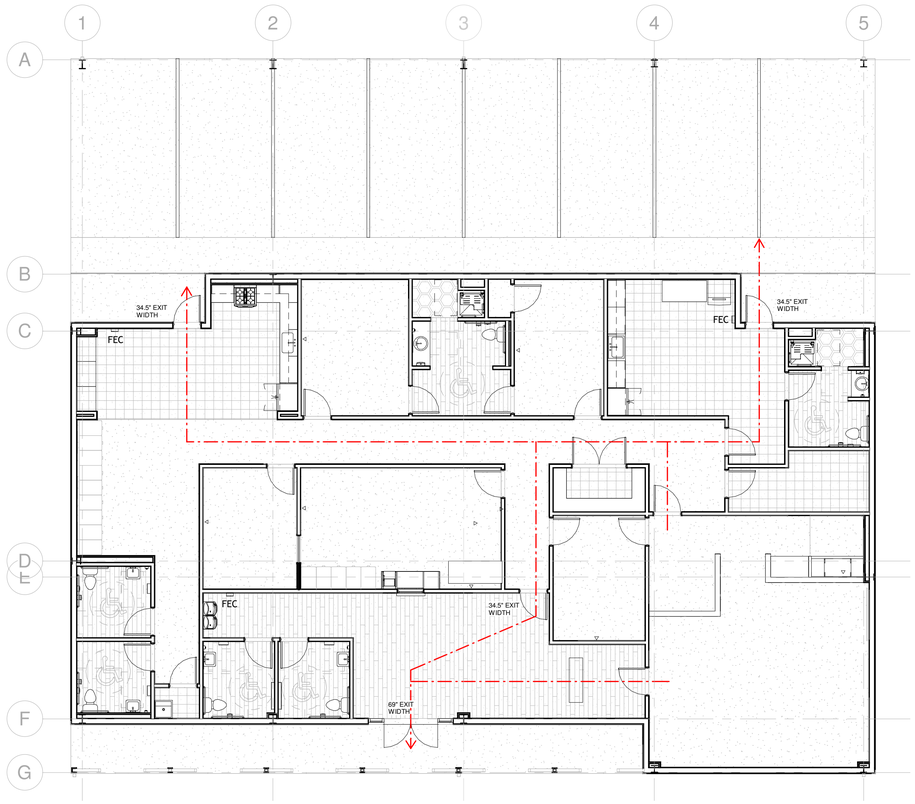
MAXIMUM ACCESS TRAVEL DISTANCE	200 FEET

REQUIRED PLUMBING FIXTURES

OCCUPANCY LOAD

CLASSIFICATION	OCC. LOAD		WC MEN		WC WOMEN		LAV MEN		LAV WOMEN		DRINKING FOUNTAIN		SERVICE SINK	
	MEN	WOMEN	REQD	PROVD	REQD	PROVD	REQD	PROVD	REQD	PROVD	REQD	PROVD	REQD	PROVD
BUSINESS	30	30	2	2*	2	2*	1	3*	1	3*	2	2	1	1

* 2 ADDITIONAL UNISEX RESTROOMS PROVIDED



1 EGRESS PLAN
1/8" = 1'-0"

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
STATE OF TEXAS

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINCT 2
SARGENT, TX.

PROJ. INFORMATION AND CODE

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	COMMENTS
PL01	WATER CLOSET - FLOOR MOUNTED ADA HEIGHT	AMERICAN STANDARD	CADET - 215AA.104	FLOOR MOUNTED ADA HEIGHT, 1.25GPF, PROVIDE WITH CHURCH MODEL #295CT WHITE ELONGAGED SEAT, OPEN FRONTLESS COVER
PL02	SINK - LAVATORY UNDERMOUNT	KOHLER	BRAZN K-21056 16 1/4" SQUARE UNDERMOUNT BATHROOM SINK	
PL03	SINK - LAVATORY WALL HUNG	KOHLER	PINOIR K-2035-4 WHITE	
PL04	SINK - KITCHEN DROP-IN	ELKAY	GECR2521 - CELEBRITY STAINLESS STEEL	
PL05	SINK - UTILITY	FIAT	MSB2424	FLOOR MOUNTED PRE-CAST TERRAZO
PL06	FAUCET(W/PL02 AND PL03)	KOHLER	K-45800-4-CP	ALTEO SINGLE HANDLE BATHROOM SINK FAUCET FINISH: POLISHED CHROME
PL07	FAUCET(W/PL04)	KOHLER	K-596-CP	SIMPLICE PULL DOWN KITCHEN SINK FAUCET WITH THREE FUNCTION SPRAYHEAD; FINISH: POLISHED CHROME
PL08	FAUCET(W/PL05)	ELKAY	LK406GN05L2	4" CENTERSET WITH 5" GOOSENECK SPOUT, 2" LEVER HANDLES, CHROME
PL09	SHOWER CONTROLS AND HEAD	SYMMONS	TEMPTROL' C-96-500-B30-VX-1.5	RITE-TEMP VALVE TRIME WITH POLISHED CHROME
PL10	SHOWER RECEPTOR	INPRO		PRISM SOLID SURFACE SHOWER RECEPTOR FOR ADA TRANSFER SHOWER - 36"x36" COLOR: TBD USE MANUFACTURERS RECOMMENDATED DRAIN PRODUCTS
PL11	DRINKING FOUNTAIN / BOTTLE FILLING STATION	ELKAY	LZSTL8LC	BI -LEVEL ADA COOLER

TOILET ACCESSORY SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL INFORMATION	NOTES
TA01	SHOWER SEAT	INPRO	DSGBFLDSST L-SHAPED FOLDING SEAT WITH LEGS	COORDINATE EITHER LEFT OR RIGHT LEG FOR INSTALLATION
TA02	SHOWER GRAB BARS	BOBRICK	B-6861 SATIN FINISH	
TA03	PAPER TOWEL DISPENSER W/ WASTE RECEPTACLE	BOBRICK	B-380349	SURFACE MOUNTED
TA04	PAPER TOWEL DISPENSER	BOBRICK	B-4262	SURFACE MOUNTED
TA05	SOAP DISPENSER	BOBRICK	B-2111	SURFACE MOUNTED
TA06	TOILET TISSUE DISPENSER	BOBRICK	B-4288 MULTI- ROLL DISPENSER	SURFACE MOUNTED
TA07	SANITARY NAPKIN DISPENSER	BOBRICK	B-270	SURFACE MOUNTED
TA08	24" x 36" MIRROR	BOBRICK	B-290 2436	
TA09	36" GRAB BAR	BOBRICK	B-6806 36" SATIN FINISH	
TA10	42" GRAB BAR	BOBRICK	B-6806 42" SATIN FINISH	
TA11	CHANGING TABLE	KOALA KARE	KB300-05 WHITE GRANITE	SURFACE MOUNTED

EQUIPMENT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	COMMENTS
EQ01	RANGE HOOD 30" WIDE	NUTONE	RL6230SS	DUCT TO EXTERIOR
EQ02	ELECTRIC RANGE 30" WIDE	GE	GRF400SV	
EQ03	FRENCH DOOR REFRIGERATOR	GE	PYD22KYN COUNTER DEPTH	115V 15 AMPS
EQ04	ICE MAKER	HOSHIZAKI	KM161BAJ	
EQ05	FREEZER - CHEST 65" WIDE	GE	FCM7STWW 15.6 CU FT MANUAL DEFROST CHEST FREEZER WHITE	
EQ06	TRANSACTION DRAWER	TOTAL SECURITY SYSTEMS	TSS TRANSACTION DRAWER INTERIOR, STAINLESS STEEL WITH LEXAN LID MANUAL OPERATION BOX OUTSIDE DIMENSION 17" W x 10" H x 24" D	

LIGHTING FIXTURE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	COMMENTS
LF01	TROFFER LIGHT - 2'x2' PARABOLIC	LITHONIA LIGHTING	2LVTL2-33L-ADP-EZ1-LP835	REFER TO ELECTRICAL FOR BATTERY BACK UP FIXTURES
LF02	CEILING LIGHT - FLAT ROUND	LIGHTOLIER	P6SDL10_Z10U/3	
LF03	DOWNLIGHT - RECESSED CAN	LIGHTOLIER	P6SDL10_Z10U/3	FOR DAMP LOCATION
LF04	DOWNLIGHT - UNDER CABINET	MAXIM LIGHTING	COUNTERMAX MX-L-24-SS	
LF05	SCONCE - EXTERIOR	BARN LIGHT ELECTRIC	SYDNEY SERIES; 12" DIA. GOOSNECK G19; BRONZEBLE-G-USL12-600-G19-NA-600-NA-NA-600-FST-NA-E26	
LF06	WALL PACK LIGHT - EXTERIOR	LITHONIA LIGHTING	WPX LED WALL PACK; DARK BRONZE	

ROOM FINISH SCHEDULE

NUMBER	NAME	FLOOR FINISH	WALL FINISH	BASE FINISH	CEILING FINISH	COMMENTS
101	LOBBY	TL01	GYP BD, PT01	BS01	AC01	
102	MEN'S RESTROOM 1	TL01	TL02 UP TO 64" AFF GYP BOARD, PT03 ABOVE	TL02	AC01	
103	WOMEN'S RESTROOM 1	TL01	TL02 UP TO 64" AFF GYP BOARD, PT03 ABOVE	TL02	AC01	
104	CLERK 1	CP 01	GYP BD, PT01	BS01	AC01	
105	CLERK 2	CP 01	GYP BD, PT01	BS01	AC01	
106	CIRCULATION HALL	CP 01	GYP BD, PT01	BS01	AC01	
107	COURTROOM	CP 01	GYP BD, PT01	BS01	AC01	
108	JURY / CONFERENCE ROOM	CP 01	GYP BD, PT01	BS01	AC01	
109	JUDGE	CP 01	GYP BD, PT01	BS01	AC01	
110	CONSTABLE	CP 01	GYP BD, PT01	BS01	AC01	
111	CONSTABLE CLOSET	CP 01	GYP BD, PT01	BS01	AC01	
112	BATHROOM 1	TL01	TL02	TL02	AC01	REFER TO PLANS AND ELEVATIONS FOR DIFFERENT FINISHES IN THE SHOWER AREA
113	BREAK ROOM 1	VCT 01	GYP BD, PT01	BS01	AC01	REFER TO ELEVATIONS FOR ADDITIONAL FINISH INFORMATION
114	BATHROOM 2	TL01	TL02	TL02	AC01	REFER TO PLANS AND ELEVATIONS FOR DIFFERENT FINISHES IN THE SHOWER AREA
115	BREAKROOM 2	VCT 01	GYP BD, PT01	BS01	AC01	REFER TO ELEVATIONS FOR ADDITIONAL FINISH INFORMATION
116	STORAGE	VCT 01	GYP BD, PT01	BS01	AC01	
117	ELEC./SERVER ROOM	VCT 01	GYP BD, PT01	BS01	AC01	
118	MEN'S RESTROOM 2	TL01	TL02 UP TO 64" AFF GYP BOARD, PT03 ABOVE	TL02	AC01	
119	WOMEN'S RESTROOM 2	TL01	TL02 UP TO 64" AFF GYP BOARD, PT03 ABOVE	TL02	AC01	
120	JANITOR	VCT 01	GYP BD, PT01	BS01	AC01	

MATERIAL SCHEDULE

TAG	MATERIAL TYPE	MANUFACTURER	MATERIAL DESCRIPTION	CODE INFORMATION	INSTALLATION NOTES
ACOUSTIC CEILINGS AND WALL PANELS					
AC01	ACOUSTIC CEILING TILE	ARMSTRONG	TYPE: OPTIMA LAY IN SIZE: 24"x24" SUSPENSION SYSTEM: PRELUDE 15/16" BLIZZARD WHITE	FLAME/SMOKE INDEX CLASS (ASTM E 84): A	LOCATION: CEILINGS
WALL BASE					
BS01	RUBBER BASE	ROPPE	TYPE: PINNACLE PROFILE: COVE HEIGHT: 4" COLOR: TO BE SELECTED FROM MANUFACTURER'S STD RANGE		LOCATION: ALL PAINTED WALLS INSIDE CORNERS - JOB FORMED OUTSIDE CORNERS - JOB FORMED
PLASTIC LAMINATE					
LM01	PLASTIC LAMINATE	WILSONART	STYLE: HPL COLOR AND FINISH: LINEN D427-60 MATTE FINISH MILLWORK GRADE: CUSTOM	FLAME/SMOKE INDEX CLASS (ASTM E 84); E	LOCATION: BATHROOMS 112 AND 114 AND STORAGE 116
LM02	PLASTIC LAMINATE	WILSONART	STYLE: HPL COLOR AND FINISH: CARBON MESH 4880-38 FINE VELVET FINISH MILLWORK GRADE: CUSTOM	FLAME/SMOKE INDEX CLASS (ASTM E 84); E	LOCATION: BREAK ROOMS 113 AND 115, LOBBY 101 AND CLERK 104
LM03	PLASTIC LAMINATE	WILSONART	STYLE: HPL COLOR AND FINISH: EBONY RECON MILLWORK GRADE: CUSTOM	FLAME/SMOKE INDEX CLASS (ASTM E 84); E	LOCATION: INTERIOR DOORS
PAINTS AND STAINS					
PT01	PAINT	SHERWIN WILLIAMS	TYPE: LATEX COLOR: SW7570 EGRET WHITE SHEEN: EGGSHELL	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: WALLS APPLICATION: ONE(1) PRIMER COAT AND TWO(2) FINISH COATS.
PT02	PAINT	SHERWIN WILLIAMS	TYPE: LATEX COLOR: SW7005 PURE WHITE SHEEN: FLAT	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: CEILINGS APPLICATION: ONE(1) PRIMER COAT AND TWO(2) FINISH COATS.
PT03	PAINT	SHERWIN WILLIAMS	TYPE: LATEX COLOR: XXX SHEEN: EGGSHELL	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: WALLS
PT04	PAINT	SHERWIN WILLIAMS	TYPE: LATEX ACRYLIC COLOR: SW7053 ADAPTIVE SHADE SHEEN: SEMI-GLOSS	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: EXTERIOR APPLICATION: TWO (2) FINISH COATS ON PRE-PRIMED
PT05	PAINT	SHERWIN WILLIAMS	TYPE: LATEX ACRYLIC COLOR: SW7675 SEALSKIN SHEEN: SEMI-GLOSS	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: EXTERIOR APPLICATION: TWO (2) FINISH COATS ON PRE-PRIMED
PT06	PAINT	SHERWIN WILLIAMS	TYPE: LATEX ACRYLIC COLOR: SW7675 SEALSKIN SHEEN: SEMI-GLOSS	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: EXPOSED STRUCTURAL STEEL AS NOTED AND HM DOORS AND FRAMES APPLICATION: ONE (1) PRIMER COAT AND TWO(2) FINISH COATS.
PT07	PAINT	SHERWIN WILLIAMS	TYPE: LATEX ACRYLIC COLOR: SW6244 NAVAL SHEEN:GLOSSY	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: COURTROOM MILLWORK APPLICATION: ONE (1) PRIMER COAT AND TWO (2) FINISH COATS
COUNTERTOPS					
SS01	QUARTZ	MSI	TYPE: NATURAL QUARTZ COLOR: SOAPSTONE MIST THICKNESS: 3 CM JOINT THICKNESS: 1/16" JOINT COLOR: TO MATCH SOLID SURFACE MATCHING:END MATCH		LOCATION: BATHROOMS 112 AND 114
SS02	QUARTZ	MSI	TYPE: NATURAL QUARTZ COLOR: CONCERTO THICKNESS: 3 CM JOINT THICKNESS: 1/16" JOINT COLOR: TO MATCH SOLID SURFACE MATCHING:END MATCH		LOCATION: BREAK ROOMS 113 AND 115, LOBBY 101 AND CLERK 104
SS03	SOLID SURFACE	INPRO	TYPE: PRISM™ SOLID SURFACE SHOWER WALLS COLOR: FROM MANUFACTURER'S STANDARD RANGE THICKNESS: 1/4 INCH SIZE: 36 INCHES WIDE, FLOOR TO CEILING		LOCATION: BATHROOMS 112 AND 114
FLOOR AND WALL TILE					
TL01	PORCELAIN TILE	DALTILE	TYPE: SLEIGH CREEK GLAZED PORCELAIN COLOR! LANDAU SK35 SIZE: 6x36 PLANKS STAGGERED GROUT: MAPE SANDED, CEMENTITIOUS; KERACOLOR SP COLOR TBD FROM STANDARD RANGE	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: LOBBY AND RESTROOM FLOORS USE SCHLUTER AHK COVE BASE, SATIN NICKEL FINISH AT TILE FLOOR TO TILE WALL TRANSITION
TL02	CERAMIC TILE	DALTILE	TYPE: MYTHOLOGY GLAZED CERAMIC COLOR: AURA MY95 GLOSSY SIZE: 4X12 UNDULATED PATTERN: HORIZONTAL BRICK GROUT: MAPEI SANDED CEMENTITIOUS, KERACOLOR SF - COLOR TO BE FROM STANDARD RANGE	FLAME/SMOKE INDEX CLASS (ASTM E 84): E	LOCATION: RESTROOM WALLS USE SCHLUTER QUADEC, SATIN NICKEL FINISH AT OUTSIDE CORNERS
TL03	CERAMIC TILE	DALTILE	TYPE: RETROREMIX GLAZED CERAMIC COLOR: MERCURY GREY RS31 GLOSSY SIZE: 3X6 PATTERN: HORIZONTAL BRICK GROUT: MAPEI SANDED CEMENTITIOUS, KERACOLOR SF - COLOR TO BE FROM STANDARD RANGE	FLAME / SMOKE INDEX CLASS (ASTM E 84): E	BREAKROOM BACKSPLASH
TL04	CERAMIC TILE	DALTILE	TYPE: COLOR WHEEL MOSAIC COLOR: ARCHITECTURAL GRAY 0709 MATTE SIZE: 1.5 INCH HEXAGON MOSAIC PATTERN: MOSAIC GROUT: MAPEI SANDED CEMENTITIOUS, KERACOLOR SF - COLOR TO BE FROM STANDARD RANGE	FLAME / SMOKE INDEX CLASS (ASTM E 84): E	SHOWER FLOOR
CARPET					
CP01	CARPET TILE	SHAW CONTRACT	COLLECTION: CREATIVE ZONE TYPE: DAYDREAMER TILE SIZE: 24x24 COLOR: TBD		INSTALL PATTERN QUARTER TURN
VINYL TILE FLOORING					
VCT01	VINYL COMPOSITION TILE	ARMSTRONG	TYPE: STANDARD EXCELON IMPERIAL TEXTURE SIZE: 12x12 COLOR! :59234 SILK		LOCATION: BREAKROOMS

F-324

ARCH'ENG SEAL:

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

JUSTICE OF THE PEACE OFFICE PRECINT 2
SARGENT, TX.

SCHEDULES

PROJECT NAME / LOCATION:

MATAGORDA COUNTY

CUSTOMER NAME:

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO:
SA	KM	KM	20.105017

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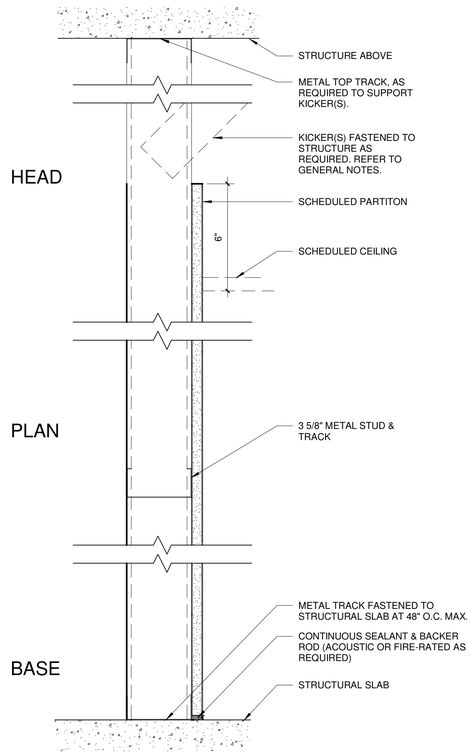

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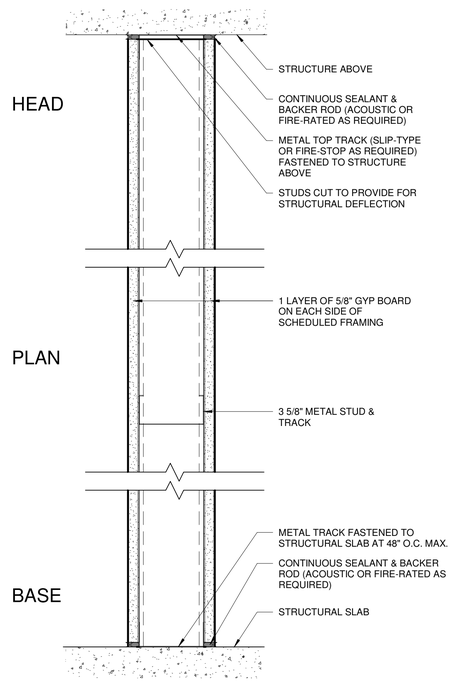

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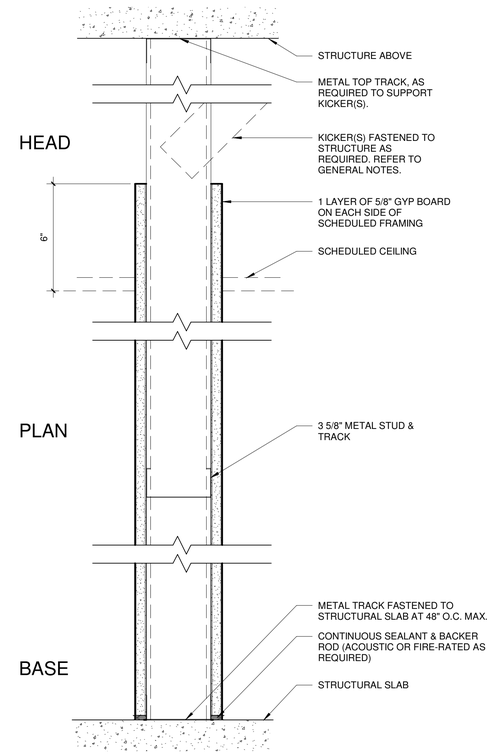

TYPE A

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BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

WALL TYPES

CUSTOMER NAME:

MATAGORDA COUNTY

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SHEET NO:

G 0.4

GENERAL CONSTRUCTION NOTES:

1. THERE WILL BE NO SEPARATE PAYMENT FOR WORK SHOWN ON THESE PLANS, UNLESS SPECIFICALLY ESTABLISHED IN THE BID PROPOSAL OF THE CONTRACT DOCUMENTS. UNIT PRICE FOR ITEMS OF WHICH THIS WORK IS A COMPONENT OR INCIDENTAL.
2. ALL UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION FO EXISTING FACILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT (800)-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH AN EXCAVATION.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE EXISTING PUBLIC OR PRIVATE UTILITY LINES, INCLUDING BUT NOT LIMITED TO WATER LINES, WASTEWATER COLLECTION SYSTEMS AND STORM SEWERS, DURING CONSTRUCTION. ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE MATAGORDA DISPOSAL AND WATER SUPPLY CORPORATION
4. CONTRACTOR SHALL NOTIFY THE OFFICE OF MATAGORDA WASTE DISPOSAL AND WATER SUPPLY CORPORATION 979-863-7261, IN WRITING, PRIOR RO COMMENCING CONSTRUCTION ON ANY UTILITY.
5. AUTHORIZATION NOTICE ISSUED BY MATAGORDA COUNTY – PERMIT OFFICE – REQUIRED PRIOR TO CONSTRUCTION OF UTILITIES OR TURN LANES WITHIN MATAGORDA COUNTY RIGHT-OF-WAY. CONTACT MATAGORDA COUNTY PERMIT OFFICE AT 979-244-6801
6. CONTRACTOR SHALL REMOVE EXISTING PLUGS AND CONNECT PROPOSED UTILITY LINES AS INDICATED ON THE PLANS.
7. EXISTING PAVEMENTS, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO MATAGORDA COUNTY STANDARDS.
8. CONTRACTOR SHALL ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN BE ISSUED TO CONTRACTOR WILL BE OBTAINED AT HIS EXPENSE.
9. CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITY LINES AND SHALL NOTIFY THE FOLLOWING AGENCIES 48 HOURS PRIOR TO EXCAVATION NEAR EXISTING FACILITIES:
   A).TEXAS ONE CALL SYSTEM AT 1-800-245-4545
   B).LONE STAR NOTIFICATION CENTER AT 713-223-4567
   C). TEXAS EXCAVATION SAFETY SYSTEM INC. AT 1-800-344-8377
10. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE. AND LOCAL LAWS AND ALL REGULATION OF UTILITY COMPANIES CONCERNING SAFETY AND HEALTH PRACTICES.
11. FLOW LINE ELEVATIONS ARE BASED ON LENGTHS BETWEEN MANHOLES' VERTICAL CENTERLINE.
12. ALL TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL BE IN CONFORMANCE WITH PLAN DETAILS.
13. ALL SEWER TRENCHES UNDER OR WITHIN ONE FOOT OF PROPOSED AND/OR FUTURE PAVEMENT OR CURB SHALL BE BACKFILLED WITH 1-1/2 SACKS OF CEMENT PER CUBIC YARD CEMENT-STABILIZED SAND TO A POINT ONE FOOT BELOW PAVEMENT SUBGRADE. DESIGN SAND-CEMENT MIXTURE TO PRODUCE A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 100 PSI IN 48 HOURS. THE REMAINING BACKFILL SHALL BE MADE WITH COMPACTED SUITABLE MATERIAL.
14. BASIC CONSTRUCTION PRODUCTS AS DESIGNATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON PLANS, SHALL BE FURNISHED BY A MANUFACTURER OR SUPPLIER AND PRE-APPROVED BY THE GOVERNING REGULATORY ENTITIES FOR THIS PROJECT. THOSE PRODUCTS NOT APPEARING ON A PRE-APPROVED PRODUCTS LIST SHALL BE IN FULL COMPLIANCE WITH TECHNICAL SPECIFICATION AND/OR STANDARD CONSTRUCTION DETAILS OF THAT REGULATORY ENTITY OR IN THE CASE OF A SPECIAL PROVISION, THAT OF THE ENGINEER.
15. ALL MANHOLES IN UNPAVED AREAS SHALL BE ENCAPSULATED WITH CEMENT-STABILIZED SAND A MINIMUM OF 1-FOOT BELOW BASE AND A MINIMUM OF 1-FOOT AROUND WALL UP TO 1-FOOT ABOVE HIGHEST ADJOINING PIPE STRUCTURE. THE REMAINING BACKFILL SHALL BE MADE WITH SELECT FILL MATERIAL PLACED IN UNIFORM 8-INCH MAXIMUM LOOSE LIFTS COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM STANDARD PROCTOR DENSITY.
16. ALL MANHOLES IN PAVED AREAS SHALL BE ENCAPSULATED WITH CEMENT-STABILIZED SAND A MINIMUM OF 1-FOOR BELOW BASE AND A MINIMUM OF 1-FOOT AROUND WALL AND UP TO WITHIN 1-FOOT OF PAVEMENT SUBGRADE. INCLUDE PRICE OF ALL BEDDING AND BACKFILL OF TYPE REQUIRED IN PRICE OF MANHOLE.
17. WHEN TRENCH CONDITION WARRANTS THE USE OF DEWATERING SYSTEMS, THEIR USE SHALL BE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE OWNER.
18. COUNTY WILL FURNISH INITIAL LABORATORY TESTS. SUBSEQUENT TESTING DUE TO FAILED DENSITIES SHALL BE AT CONTRACTOR'S EXPENSE. A COPY OF ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER.
19. CONTRACTOR SHALL REMOVE ALL MUD, DIRT AND DEBRIS DEPOSITED OR DROPPED ON EXISTING PAVEMENT DUE TO HIS CONSTRUCTION ACTIVITY DAILY. MATERIAL THAT IS HAZARDOUS TO TRAFFIC SHALL BE REMOVED IMMEDIATELY.
20. CONTRACTOR SHALL PROTECT ALL TREES ADJACENT TO WORK AREA. NO TREES SHALL BE REMOVED WITHOUT PERMISSION OF OWNER.
21. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OR PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL OBTAIN ALL CONSTRUCTION PERMITS PRIOR TO STARTING CONSTRUCTION.
22. 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.
23. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
24. THE CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.

PAVING CONSTRUCTION NOTES:

1. PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH CONSTRUCTION DRAWINGS OR CONTACT SPECIFICATIONS.
2. CONTRACTOR SHALL NOTIFY LYNN ENGINEERING (979) 245-8900 AND THE DESIGNATED MATERIAL TESTING LABORATORY FOR CONSTRUCTION QUALITY CONTROL AT LEAST 48 HOURS PRIOR TO ANY CONCRETE PLACEMENT.
3. CONTRACTOR SHALL USE CONTINUOUS LONGITUDINAL REINFORCING BAR FOR 6-INCH CURB, AND 4-INCH BY 12-INCH CURB.
4. SUBGRADE STABILIZATION SHALL BE LIME AND/OR LIME-FLY ASH MIXTURE AT A RATE AS ESTABLISHED BY LABORATORY TESTING OF SUBGRADE MATERIAL.
5. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT ALL RADII RETURNS AND AT MAXIMUM SPACING OF 60-FOOT INTERVALS. LOAD TRANSMISSION UNITS TO BE SPACED AT 12-INCHES ON CENTER. DO NOT LOCATE TRANSVERSE EXPANSION JOINTS WITHIN DEPRESSIONS FOR INLETS.
6. ALL PAINT STRIPING SHALL BE THERMAL REFLECTORIZED STRIPING. PRIOR THE PLACEMENT OF THERMAL STRIPING THE ROADWAY SHALL BE (1) SURFACE PREPPED IN ACCORDANCE WITH TXDOT SPECIFICATION ITEM 678 AND (2) PRIMED AND SEALED IN ACCORDANCE WITH TXDOT SPECIFICATION ITEM 666.
7. ALL SAWCUTS MADE INTO THE EXISTING PAVEMENT SHALL BE COMPLETELY THROUGH TO THE SUBGRADE.
8. CONTRACTOR TO PROVIDE EXPANSION AND CONTROL JOINTS IN ALL KNUCKLES AND CUL-DE-SACS TO PREVENT CRACKING.
9. 6-INCH CONCRETE PAVEMENT TO BE MIN. 6 SACK MIX: 28 DAY COMPRESSIVE STRENGTH 4000 PSI.
10. LAP-SPLICES WILL BE STAGGERED WITHIN THE REBAR MAT.
11. PLACE INDIVIDUAL BARS SUPPORT IN ROWS AT MAXIMUM SPACING OF 40" C/C IN EACH DIRECTION.
12. NO LOADS OR TRAFFIC ON THE CONCRETE UNTIL CONCRETE MEETS OR EXCEEDS 80% OF ITS MAXIMUM TARGET DESIGNED STRENGTH.

WATER LINE CONSTRUCTION NOTES:

1. ALLOWABLE WATER LINE PIPE MATERIAL:
   A). POLYVINYL CHLORIDE PIPE, CLASS 150, DR 18 (AWWA C900 FOR 4-INCH THRU 12-INCH) AND CLASS 235, DR 18 (AWWA C900 FOR 16-INCH), BOTH WITH GASKETED PUSH-ON JOINTS (ASTM D3139) AND ELASTOMERIC GASKETS (ASTM F477). 18-INCH AND LARGER DUCTILE IRON PIPE, 150 PSI RATED WATER WORKING PRESSURE (AWWA C151).
2. ALL NEWLY INSTALLED PIPES, COATING, AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION ANSI/NSF-61) STANDARDS AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI. ALL PIPE IS STAMPED WITH THE NSH-PW SEAL PER 30 TAC §290.44(A)(2)
3. ALL WATER LINES SHALL HAVE BACK FILL IN ACCORDANCE WITH CONSTRUCTION DETAILS.
4. CONTRACTOR SHALL CONTACT THE MATAGORDA WASTE DISPOSAL AND WATER SUPPLY CORPORATION OPERATOR PRIOR TO MAKING ANY CONNECTION TO THE EXISTING WATER LINES OR ANYTIME A VALVE ON AN EXISTING WATERLINE IS TO BE OPENED OR CLOSED.
5. WHEN A WATER LINE IS PLACED NEAR A SANITARY SEWER MANHOLE, IT SHALL HAVE A MINIMUM OF 9-FEET WALL TO WALL SEPARATION. WHERE A WATER LINE PARALLELS A SANITARY SEWER, 9-FEET OF SEPARATION WILL BE MAINTAINED IN ALL DIRECTIONS. IF THE 9-FEET SEPARATION CANNOT BE ACHIEVED, BOTH THE SEWER PIPE AND JOINTS SHALL HAVE A PRESSURE RATING OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND THE WATER LINE IS ENCASED IN A CARRIER PIPE THAT IS TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT. MANHOLES SHALL BE WATER TIGHT. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF 2-FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF 4-FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATER LINE.
6. 4-INCH THRU 12-INCH WATER LINES SHALL HAVE A NORMAL COVER OF 4-FEET BELOW FINISHED TOP OF CURB GRADE. 16-INCH THRU 20-INCH WATER LINES SHALL HAVE A NORMAL COVER OF 5-FEET BELOW FINISHED TOP OF CURB GRADE. VARY FLOW LINE UNIFORMLY FROM DEPTH AND LOCATION AS SHOWN ON PLANS.
7. CONTRACTOR SHALL INSTALL RESTRAINT JOINT PIPE, FITTING, AND RESTRAINT DEVICES AS REQUIRED FOR CONSTRUCTION OF WATER LINE.
8. ALL WATERLINE FITTINGS SHALL BE SUPPORTED WITH CONCRETE THRUST BLOCKING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY OF THE BLOCKING SO AS TO PREVENT ANY LATERAL MOVEMENT OF SUCH FITTINGS WHEN THE WATER LINE IS PRESSURE TESTED AND OPERATED.
9. WATER VALVES ON MAIN LINES SHALL BE LOCATED AS CLOSE AS POSSIBLE TO EXTENDED PROPERTY LINE AND SHALL CONFORM TO AWWA C-500, OPEN LEFT, EQUIPPED WITH 2" SQUARE OPERATING NUT.
10. FLUSHING VALVES/FIRE HYDRANTS SHALL BE FROM MATAGORDA WASTE DISPOSAL AND WATER SUPPLY CORPORATION APPROVED LIST.
11. ALL FLUSHING VALVES/FIRE HYDRANTS THAT ARE DELIVERED EXHIBITING RUST AND/OR THE COATING IS DAMAGED DURING INSTALLATION SHALL BE SURFACE PREPPED AND RECOATED (NO SEPARATE PAY). (CHAINS TO BE REPLACED IF RUSTED).
12. LOCATOR WIRE TO BE PLACED ON ALL MAINS AND SERVICES. (MAIN 20 GA. COPPER)
13. SINGLE METER SERVICE LINES SHALL BE INSTALLED PER DETIAL.
14. CONTRACTOR TO FURNISH AND INSTALL DOUBLE SERVICE METER BOXES AT FINISH GRADE.
15. ALL WATER METER BOXES SHALL MEET THE REQUIREMENTS OF MATAGORDA WASTE DISPOSAL AND WATER SUPPLY CORPORATION
16. ALL 2" BLOW-OFF VALVES TO BE PLACED IN A BOX AND INSTALLED PER MATAGORDA WASTE DISPOSAL AND WATER SUPPLY CORPORATION STANDARD DETAIL.
17. ALL FIRE HYDRANTS TO BE INSTALLED PER MATAGORDA WASTE DISPOSAL AND WATER SUPPLY CORPORATION STANDARD DETAIL.
18. ALL WATER DISTRIBUTION MAINS TO BE BEDDED AND BACKFILLED PER STANDARD DETAIL.
19. METERING DEVICES WILL BE INSTALLED AT EACH WATER LINE SERVICE CONNECTION PER 30 TAC §290.44(A)(5).
20. AN APPOINTED ENGINEER SHALL NOTIFY IN WRITING THE LOCAL TCEQ'S REGIONAL OFFICE WHEN CONSTRUCTION WILL START. PLEASE KEEP IN MIND THAT UPON COMPLETION OF THE WATER WORKS PROJECT, THE ENGINEER OR OWNER SHALL NOTIFY THE COMMISSION'S WATER SUPPLY DIVISION, IN WRITING, AS TO ITS COMPLETION AND ATTEST TO THE FACT THAT THE WORK HAS BEEN COMPLETED ESSENTIALLY ACCORDING TO THE PLANS CHANGE ORDERS ON FILE WITH THE COMMISSION AS REQUIRED IN PURSUANT TO 30 TAC §290.39(H)(3).
21. THIS WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE CHAPTER 290 SUBCHAPTERS D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS, AT A MINIMUM, MEET TCEQ'S RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS.
22. THE CONTRACTOR SHALL DISINFECT THE NEW WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C-651 AND THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK THE EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1000 FEET OF COMPLETED WATER LINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1000 FEET AS DESIGNATED BY THE DESIGN ENGINEER, IN ACCORDANCE WITH 30 TAC §290.44(F)(3).
23. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION PER 30 TAC §290.44(F)(1).
24. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION PER 30 TAC §290.44(E)(6).
25. THE USE OF PIPES AND PIPE FITTINGS THAT CONTAIN MORE THAN 0.25% LEAD OR SOLDERS AND FLUX THAT CONTAINS MORE THAN 0.2% LEAD IS PROHIBITED PURSUANT TO 30 TEXAS ADMINISTRATIVE CODE (TAC) §290.44(b)(1).
26. THE HYDROSTATIC LEAKAGE RATE FOR POLYVINYL CHLORIDE (PVC) PIPE (C-605) AND DUCTILE IRON (DI) PIPE (C-600) AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED B FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) AS REQUIRED IN 30 TAC §290.44(A)(5),

    Q=(LD(P)^/148,000

    Q= THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR

    L = THE LENGTH OF PIPE SECTION BEING TESTED, IN FEET.

    D= THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND

    P= THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUND PER SQUARE INCH (PSI)

SANITARY SEWER CONSTRUCTION NOTES:

1. SANITARY SEWER MANHOLES SHALL BE STANDARD PRECAST CONCRETE MANHOLES, 4-FOOT DIAMETER, UNLESS OTHERWISE NOTED, CONSTRUCTED IN ACCORDANCE WITH MATAGORDA WASTE DISPOSAL AND WATER SUPPLY CORPORATION STANDARD DETAILS. NO BRICK MATERIAL ALLOWED. CONTRACTOR SHALL UTILIZE CONCRETE RING COLLAR FOR MANHOLE ADJUSTMENT. NO GROUTING PERMITTED INSIDE MANHOLE.
2. PROTECTION REQUIREMENTS AT WATER LINE-SANITARY SEWER CROSSING

PROTECTION REQUIREMENTS AT
WATERLINE (WL) – SANITARY SEWER (SS) CROSSINGS

PRIMARY CONDITIONS	PROPOSED WATER LINE EXISTING SANITARY				PROPOSED WATER/ PROPOSED SANITARY OR EXISTING WATER/ PROPOSED SANITARY			
SECONDARY CONDITIONS	WATER OVER SANITARY		WATER UNDER SANITARY		WATER OVER SANITARY		WATER UNDER SANITARY	
IF THE CLEARANCE IS	LESS THAN 2'	GREATER THAN 2' BUT LESS THAN 10'	LESS THAN 2'	GREATER THAN 2' BUT LESS THAN 10'	LESS THAN 2'	GREATER THAN 2' BUT LESS THAN 10'	LESS THAN 2'	GREATER THAN 2' BUT LESS THAN 10'
*PROTECTION REQUIREMENT NOTE BELOW	1	2	3	4A OR 4B	5	6A	3	6B & 6C

1. ONE 20-FOOT JOINT OF C-900 OR C-905 PVC, 150 PSI CENTERED OVER SS; 12-INCH MINIMUM CLEARANCE.
2. IF NO EVIDENCE OF SS LEAKAGE, CENTER ONE JOINT OF WL OVER SS; 24-INCH MINIMUM CLEARANCE. IF THE SS LINE IS LEAKING, THE SS LINE SHALL BE REPLACED WITH 150 PSI LINED DUCTILE IRON PIPE OR OTHER APPROVED PRESSURE PIPE WITH APPROPRIATE ADAPTERS ON ALL PORTIONS OF SS WITHIN 10 FEET OF THE WL.
3. NOT ALLOWED.
4. A. AUGER, BORE & JACK OR MICROTUNNEL 10 FEET MINIMUM EACH SIDE OF SS. PLACE ONE 20-FOOT JOINT OF C- 900 OR C-905, 150 PSI CENTERED UNDER SANITARY SEWER. FILL BORE HOLE WITH BENTONITE/CLAY MIXTURE OR GROUT; 2-FOOT MINIMUM CLEARANCE. OR
   B. REPLACE THE EXISTING SS WITH 150 PSI LINED DUCTILE IRON PIPE, C-900 OR OTHER APPROVED PRESSURE PIPE WITH APPROPRIATE ADAPTERS ON ALL PORTIONS OF THE SS WITHIN 10 FEET OF THE WL.
5. MINIMUM 20 FOOT JOINT OF SS WITH 150 PSI LINED DUCTILE IRON PIPE, C-900 OR OTHER APPROVED PRESSURE PIPE CENTERED AT THE WL, 6-INCH MINIMUM SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR ONE PIPE SEGMENT PLUS 1 FOOT BEYOND EACH JOINT.
6. A. CENTER A MINIMUM 20FT OF SS, 150 PSI, LINED DUCTILE IRON PIPE, C-900 OR OTHER APPROVED PRESSURE PIPE ON WL.
   B. USE CEMENT STABILIZED SAND BACKFILL FOR ALL PORTIONS OF THE SEWER WITHIN 10 FOOT OF THE WL, MEASURED PERPENDICULARLY FROM ANY POINT ON THE WATER PIPE TO THE WASTEWATER PIPE (MINIMUM 2.5 SACKS CEMENT PER CY OF SAND). THE CEMENT STABILIZED SAND BEDDING SHALL START AT A POINT 6 INCHES BELOW THE BOTTOM OF THE SS TO 6 INCHES ABOVE THE TIP OF THE SS AND ONE QUARTER OF THE PIPE DIAMETER ON EITHER SIDE.
   C. CENTER A MINIMUM 20 FOOT JOINT OF WL ON THE SS LINE. BOTH WATER LINES AND WASTEWATER MAIN OR LATERAL MUST PASS A PRESSURE AND LEAKAGE TEST AS SPECIFIED IN AWWA C600 STANDARDS. SANITARY SEWERS (SS) IS APPLICABLE TO BOTH GRAVITY SANITARY SEWERS AND FORCE MAINS.
7. CONTRACTOR SHALL AIR TEST ALL GRAVITY SANITARY SEWER LINES.
8. SERVICE LATERALS SHALL BE MARKED FOR LOCATION AS INDICATED ON MISCELLANEOUS DETAIL SHEET.
9. WHERE SEWER MANHOLES ARE LOCATED WITHIN THE STREET R-O-W, THE CONTRACTOR SHALL SET RIM ELEVATIONS TO MATCH FINISHED GROUND ELEVATIONS PLUS 3" (MIN) TO 6" (MAX). FINISHED GROUND ELEVATION IS A STRAIGHT LINE BETWEEN NATURAL GROUND AND/OR FINISHED GRADE AT PROPERTY LINE TO TOP OF CURB. MANHOLES WITHIN EASEMENTS, RIM ELEVATION SHALL BE SET 3- INCHES ABOVE NATURAL GROUND AND/OR FINISHED GRADE.
10. ALLOWABLE SANITARY FORCE MAIN PIPE MATERIAL:
    A). POLYVINYL CHLORIDE PIPE, 150 PSI, DR 18 (AWWA C900), WITH GASKETED PUSH-ON JOINTS (ASTM D3139) AND ELASTOMERIC GASKETS (ASTM F477).
11. FORCE MAIN LINES SHALL BE HYDROSTATIC TESTED IN ACCORDANCE WITH CITY OF HOUSTON STANDARD SPECIFICATION NO. 02532-SANITARY SEWER FORCE MAIN.
12. CONTRACTOR SHALL PROVIDE ADEQUATE CONCRETE THRUST BLOCKING AT ALL FORCE MAIN BENDS TO WITHSTAND PRESSURE TEST.
13. CONTRACTOR SHALL INSTALL OVER THE FORCE MAIN LINES "TERRA TAPE" OR SIMILAR PRODUCT APPROVED BY OWNER. TAPE TO BE CONTINUOUSLY LABELED "NONPOTABLE WATER". INCLUDE COST OF MATERIAL AND INSTALLATION IN UNIT PRICE BID FOR PIPE.
14. SANITARY SEWER CONSTRUCTION WHERE UNSATISFACTORY SOIL CONDITIONS EXIST SHALL HAVE BEDDING AS SHOWN DETAILS IN THIS PLAN SET.

F-324

ARCH/ENG SEAL:

STATE OF TEXAS
N. MITCHELL CARROLL
125070
LICENSED
PROFESSIONAL ENGINEER

8/18/25

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TEXAS 77414
PH: (979) 245-8900
FAX: (979) 245-5345

PROJECT NAME:
MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

GENERAL CONSTRUCTION NOTES

CUSTOMER NAME:
MATAGORDA COUNTY

PROJECT NO.:	NAME	DRAWN BY: RMM	CHECKED BY: NMC	DESIGNED BY:RMM	JOB NO. 20.105017

PRINTED

DATE	REMARKS
00/00/00	PRELIMINARY
00/00/00	PERMIT
00/00/00	FOR CONSTRUCTION

REVISIONS

NO.	REMARKS
00/00/00	REVISION 1
00/00/00	REVISION 2
00/00/00	REVISION 3
00/00/00	REVISION 4

PAGE NO:
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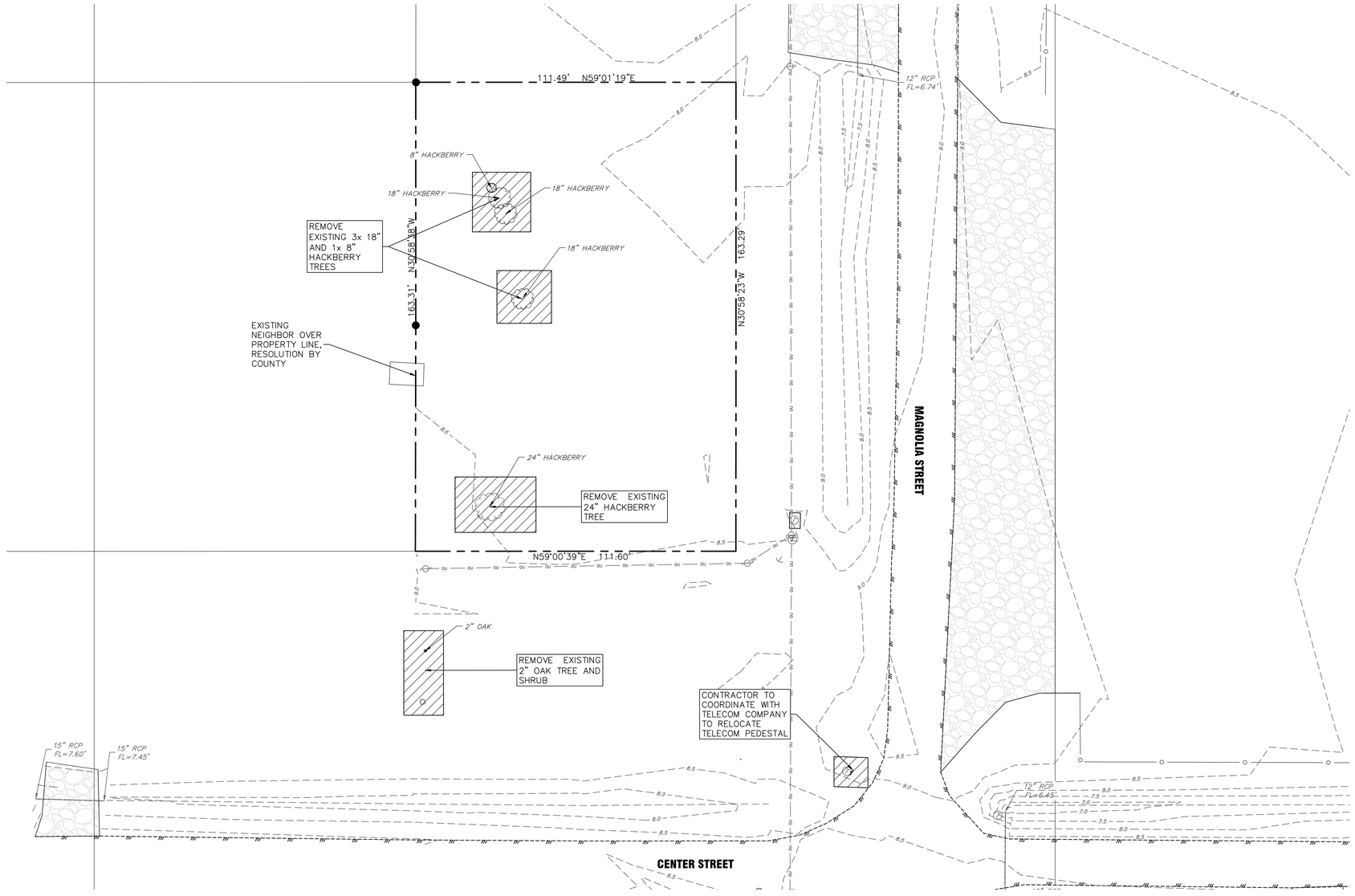

0 20 40

GRAPHIC SCALE IN FEET

SCALE: 1"=20'

LEGEND

EXISTING	PROPOSED	
●		1/2" IRON ROD FOUND
○		1/2" IRON ROD SET
⊙		IRON PIPE FOUND
▲		NAIL FOUND
△		COMPUTED POINT
■		MONUMENT FOUND
P.O.B.		POINT OF BEGINNING
		BENCHMARK
(XXX)		RECORD INFORMATION
		LIGHT POLE
		POWER POLE
		DOWN GUY
		FIRE HYDRANT
		WATER VALVE
		WATER METER
		GAS METER
		GAS VALVE
		WOOD FENCE
		CHAIN LINK FENCE
		WIRE FENCE
EMH	EMH	ELECTRICAL MANHOLE
WWMH	WWMH	WASTEWATER MANHOLE
SSMH	SSMH	STORMSEWER MANHOLE
WTR	WTR	WATER MANHOLE
CO	CO	CLEAN OUT
		DRAINAGE INLET
		CURB INLET
		CURB & GUTTER
		SIGN
E	E	ELECTRIC METER
T	T	ELECTRIC TRANSFORMER
T	T	TELEPHONE PEDESTAL
		BOLLARD
—OHE—	—OHE—	OVER HEAD ELEC. LINE
—OT—	—OT—	OVER HEAD TELEPHONE
—SD—	—SD—	STORM SEWER LINE
—W—	—W—	WATER LINE
—WW—	—WW—	WASTEWATER LINE
—FM—	—FM—	FORCE MAIN
—UE—	—UE—	UNDERGROUND ELECTRIC
—UT—	—UT—	UNDERGROUND TELEPHONE
—G—	—G—	GAS LINE
		PROPERTY LINE
		FLOW DIRECTION
		GRAVEL BASE SURFACE

BEFORE YOU DIG CALL:
1-800-245-4545

TEXAS ONE CALL SYSTEM

NOTE:
CONTRACTOR TO VERIFY HORIZONTAL & VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION/EXCAVATION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON COMBINATION OF FIELD SURVEY & CITY RECORD DRAWINGS

F-324

ARCH/ENG SEAL:

STATE OF TEXAS
N. MITCHELL CARROLL
125070
LICENSED PROFESSIONAL ENGINEER

8/18/25

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TEXAS 77414
PH: (979) 245-8900
FAX: (979) 245-5345

PROJECT NAME:

MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

EXISTING CONDITION AND DEMOLITION PLAN

CUSTOMER NAME:

MATAGORDA COUNTY

PROJECT NO.:	DRAWN BY: RMM	CHECKED BY: NMC	DESIGNED BY: RMM	JOB NO.
NAME				20.105017

PRINTED

DATE	REMARKS
00/00/00	PRELIMINARY
00/00/00	PERMIT
00/00/00	FOR CONSTRUCTION

REVISIONS

NO.	REMARKS	
00/00/00	REVISION	1
00/00/00	REVISION	2
00/00/00	REVISION	3
00/00/00	REVISION	4

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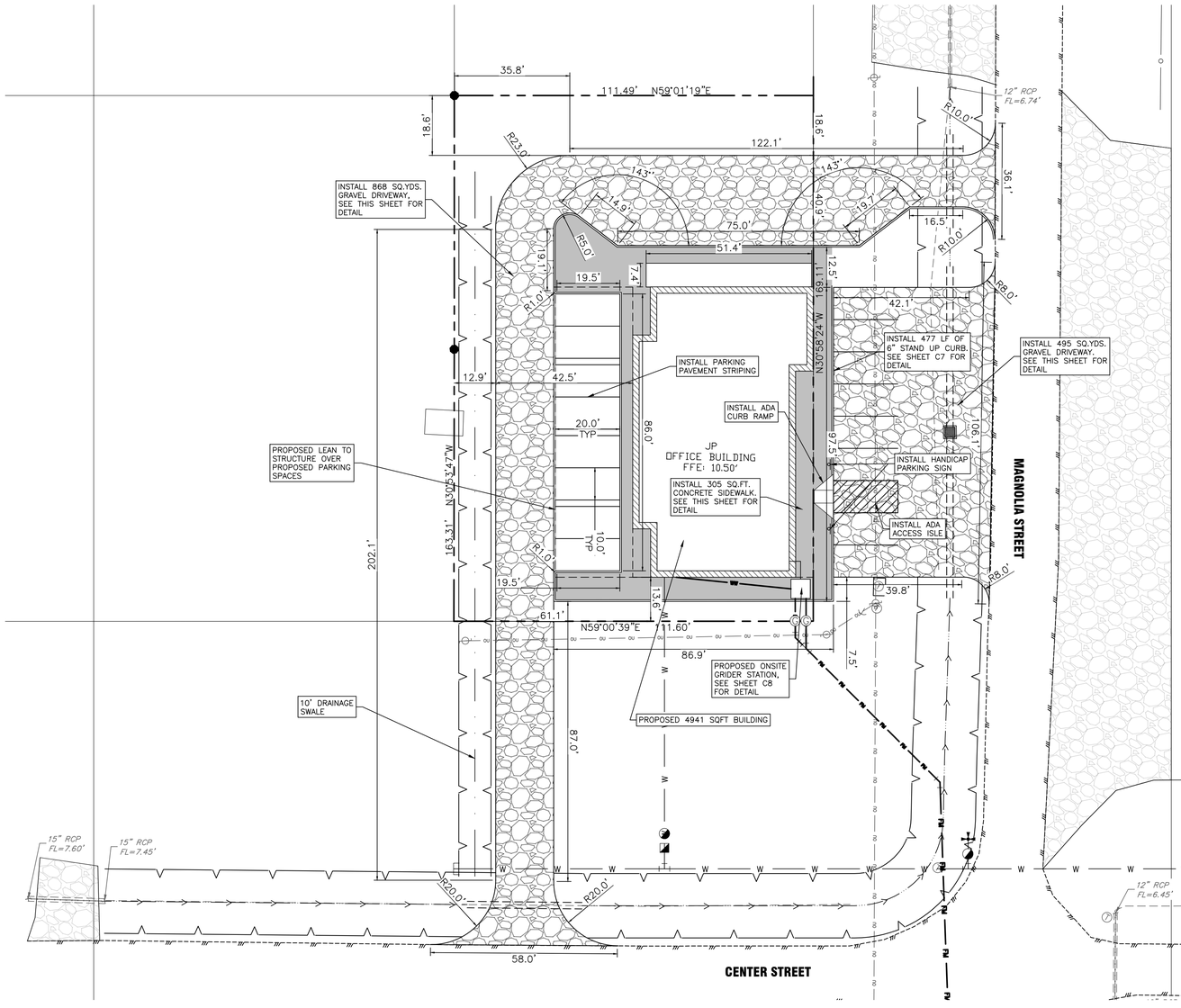
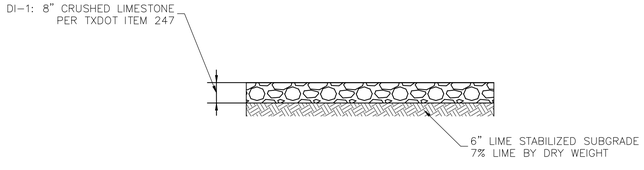
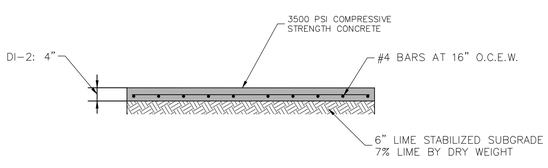
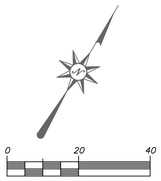




GRAVEL PARKING SECTION



CONCRETE SIDEWALK SECTION



GRAPHIC SCALE IN FEET
SCALE: 1"=20'

LEGEND

EXISTING	PROPOSED	
●		1/2" IRON ROD FOUND
○		1/2" IRON ROD SET
⊙		IRON PIPE FOUND
▲		NAIL FOUND
△		COMPUTED POINT
■		MONUMENT FOUND
P.O.B.		POINT OF BEGINNING
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(XXX)		RECORD INFORMATION
		LIGHT POLE
		POWER POLE
		DOWN GUY
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		WATER VALVE
		WATER METER
		GAS METER
		WASTEWATER GATE VALVE
		WOOD FENCE
		CHAIN LINK FENCE
		WIRE FENCE
EMH	EMH	ELECTRICAL MANHOLE
WWMH	WWMH	WASTEWATER MANHOLE
SSMH	SSMH	STORMSEWER MANHOLE
WTR	WTR	WATER MANHOLE
CO	CO	CLEAN OUT
		DRAINAGE INLET
		CURB INLET
		CURB & GUTTER
		SIGN
		ELECTRIC METER
		ELECTRIC TRANSFORMER
		TELEPHONE PEDESTAL
		BOLLARD
—OHE—	—OHE—	OVER HEAD ELEC. LINE
—OT—	—OT—	OVER HEAD TELEPHONE
—SD—	—SD—	STORM SEWER LINE
—W—	—W—	WATER LINE
—WW—	—WW—	WASTEWATER LINE
—FM—	—FM—	FORCE MAIN
—UE—	—UE—	UNDERGROUND ELECTRIC
—UT—	—UT—	UNDERGROUND TELEPHONE
—G—	—G—	GAS LINE
		PROPERTY LINE
		PR SWALE
		SWALE/DITCH TOP BANK
		BOTTOM DITCH WITH FLOW DIRECTION
		GRAVEL BASE SURFACE
		CONCRETE SURFACE
		SIDEWALK
		FLOW DIRECTION

PAVING NOTES:

DI-2: 8" GRAVEL, 6" LIME TREATED SUBGRADE 7% LIME BY DRY WEIGHT

DI-3: 4" 3500 PSI CONCRETE SIDEWALK WITH #4 BARS AT 16" OCEW. 6" LIME TREATED SUBGRADE 7% LIME BY DRY WEIGHT

CONTRACTION JOINTS SHOULD BE PLACED AT A MAXIMUM SPACING OF 15 FEET EACH WAY. EXPANSION JOINTS SHALL BE SMOOTH DOWEL JOINTS WITH THE PAVEMENT THICKNESS INCREASED 25%. ONE END OF DOWELS IS TO BE GREASED AND CAPPED USING 1 INCH EXPANSION JOINT MATERIAL IN THE JOINT.

DIMENSION NOTES:
ALL DIMENSIONS ARE TO THE INSIDE OF THE CURB FACE

PAVEMENT AREA QUANTITIES:
DI-1: 1364 SQ.YDS.
DI-2: 305 SQ.YDS.
STEP-UP CURB: 477 LF

BEFORE YOU DIG CALL:
1-800-245-4545

TEXAS ONE CALL SYSTEM

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STATE OF TEXAS
N. MITCHELL CARRILLO
125070
LICENSED PROFESSIONAL ENGINEER
8/18/25

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2200 AVENUE A
BAY CITY, TEXAS 77414
PH: (979) 245-8900
FAX: (979) 245-5345

PROJECT NAME:
MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

PAVING PLAN

CUSTOMER NAME:
MATAGORDA COUNTY

PROJECT NO.:	DRAWN BY: RMM	CHECKED BY: NMC	DESIGNED BY: RMM	JOB NO.
NAME				20.105017

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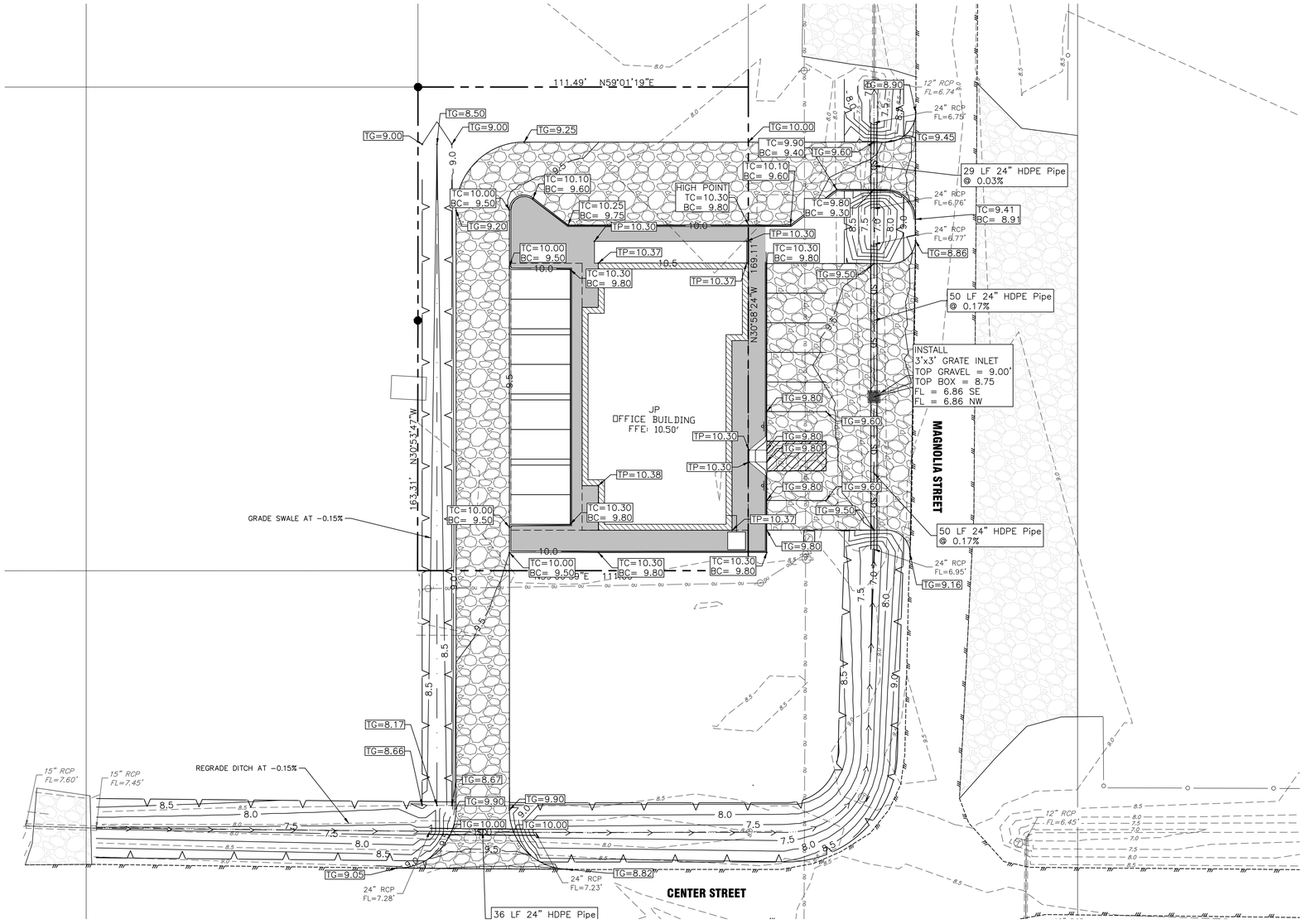

0 20 40

GRAPHIC SCALE IN FEET

SCALE: 1"=20'

LEGEND

EXISTING	PROPOSED	
●		1/2" IRON ROD FOUND
○		1/2" IRON ROD SET
⊙		IRON PIPE FOUND
▲		NAIL FOUND
△		COMPUTED POINT
■		MONUMENT FOUND
P.O.B.		POINT OF BEGINNING
⊕		BENCHMARK
(XXX)		RECORD INFORMATION
☼	★	LIGHT POLE
⌀	⌀	POWER POLE
⌀	⌀	DOWN GUY
		FIRE HYDRANT
⊘	⊘	WATER VALVE
⊠	⊠	WATER METER
G	G	GAS METER
G	G	GAS VALVE
		WOOD FENCE
		CHAIN LINK FENCE
		WIRE FENCE
EMH	EMH	ELECTRICAL MANHOLE
WWMH	WWMH	WASTEWATER MANHOLE
SSMH	SSMH	STORMSEWER MANHOLE
WTR	WTR	WATER MANHOLE
CO	CO	CLEAN OUT
		DRAINAGE INLET
		CURB INLET
		CURB & GUTTER
		SIGN
E	E	ELECTRIC METER
T	T	ELECTRIC TRANSFORMER
T	T	TELEPHONE PEDESTAL
		BOLLARD
—OHE—	—OHE—	OVER HEAD ELEC. LINE
—OT—	—OT—	OVER HEAD TELEPHONE
—SD—	—SD—	STORM SEWER LINE
—W—	—W—	WATER LINE
—WW—	—WW—	WASTEWATER LINE
—FM—	—FM—	FORCE MAIN
—UE—	—UE—	UNDERGROUND ELECTRIC
—UT—	—UT—	UNDERGROUND TELEPHONE
—G—	—G—	GAS LINE
		PROPERTY LINE
		FLOW DIRECTION
	TG=8.XX	TOP OF GROUND ELEV
	TC=8.XX	TOP OF CURB ELEV
	BC=8.XX	BOTTOM OF CURB ELEV
	TP=8.XX	TOP OF PAVEMENT ELEV

BEFORE YOU DIG CALL:
1-800-245-4545

TEXAS ONE CALL SYSTEM

NOTE:
CONTRACTOR TO VERIFY HORIZONTAL & VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION/EXCAVATION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON COMBINATION OF FIELD SURVEY & CITY RECORD DRAWINGS

F-324

ARCH/ENG SEAL:

STATE OF TEXAS
N. MITCHELL CARROLL
125070
LICENSED PROFESSIONAL ENGINEER

8/18/25

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TEXAS 77414
PH: (979) 245-8900
FAX: (979) 245-5345

PROJECT NAME:

MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

GRADING PLAN

CUSTOMER NAME:

MATAGORDA COUNTY

PROJECT NO.:	NAME	DRAWN BY: RMM	CHECKED BY: NMC	DESIGNED BY: RMM	JOB NO. 20.105017

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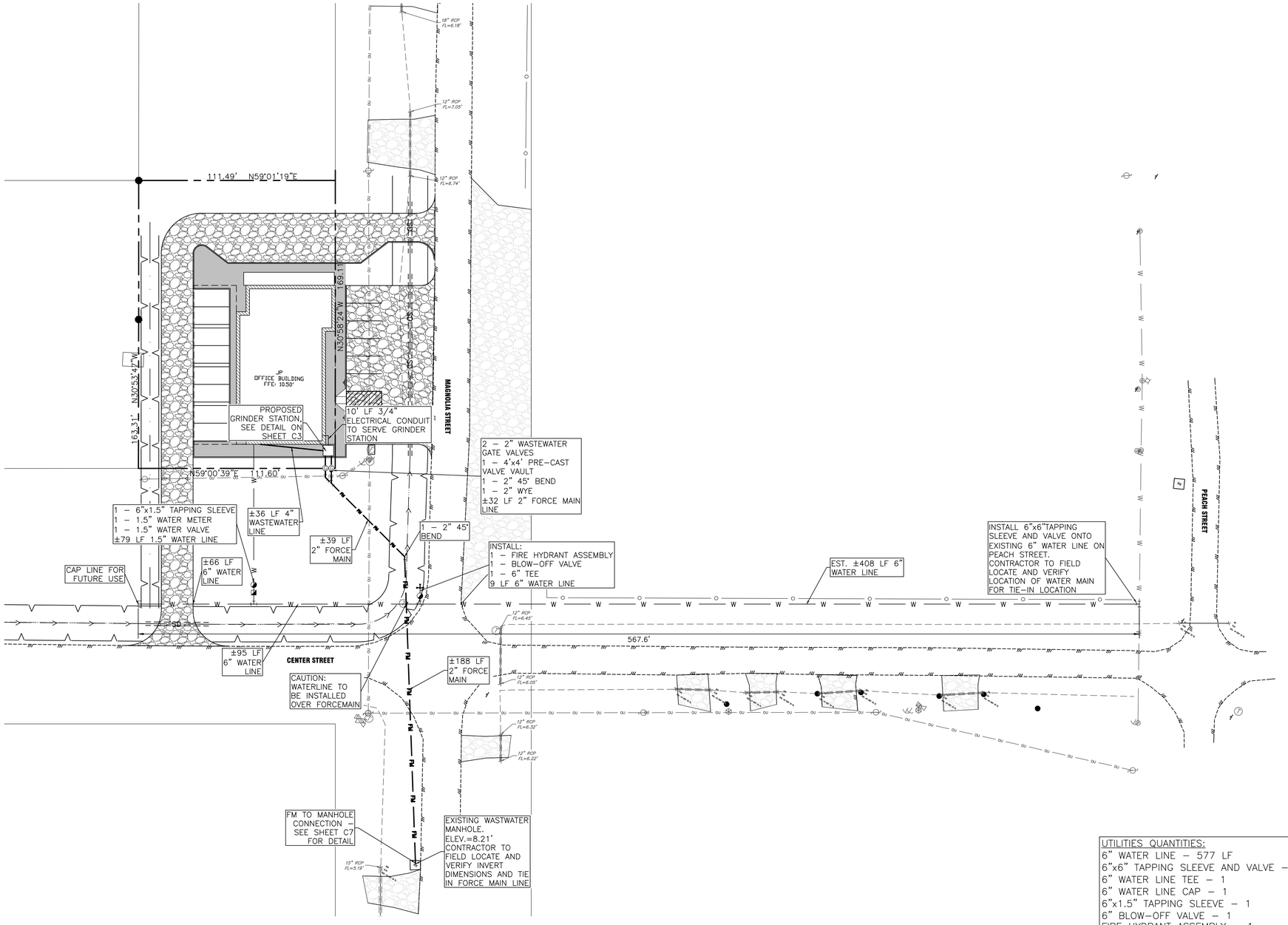

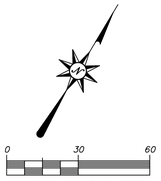

LEGEND

EXISTING	PROPOSED	
●		1/2" IRON ROD FOUND
○		1/2" IRON ROD SET
⊙		IRON PIPE FOUND
▲		NAIL FOUND
△		COMPUTED POINT
■		MONUMENT FOUND
P.O.B.		POINT OF BEGINNING
⊕		BENCHMARK
(XXX)		RECORD INFORMATION
☆	★	LIGHT POLE
ø	ø	POWER POLE
⟋	⟋	DOWN GUY
		FIRE HYDRANT
⊘	⊘	WATER VALVE
⊠	⊠	WATER METER
G	G	GAS METER
G	G	GAS VALVE
		WOOD FENCE
		CHAIN LINK FENCE
		WIRE FENCE
EMH ○	EMH ●	ELECTRICAL MANHOLE
WWMH ○	WWMH ●	WASTEWATER MANHOLE
SSMH ○	SSMH ●	STORMSEWER MANHOLE
WTR ○	WTR ●	WATER MANHOLE
CO ○	CO ●	CLEAN OUT
▤	▤	DRAINAGE INLET
▭	▭	CURB INLET
▭	▭	CURB & GUTTER
○	○	SIGN
E	E	ELECTRIC METER
T	T	ELECTRIC TRANSFORMER
T	T	TELEPHONE PEDESTAL
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—OHE—	—OHE—	OVER HEAD ELEC. LINE
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—W—	—W—	WATER LINE
—WW—	—WW—	WASTEWATER LINE
—FM—	—FM—	FORCE MAIN
—UE—	—UE—	UNDERGROUND ELECTRIC
—UT—	—UT—	UNDERGROUND TELEPHONE
— G —	— G —	GAS LINE
		PROPERTY LINE
		FLOW DIRECTION

UTILITIES QUANTITIES:
6" WATER LINE – 577 LF
6"x6" TAPPING SLEEVE AND VALVE – 1
6" WATER LINE TEE – 1
6" WATER LINE CAP – 1
6"x1.5" TAPPING SLEEVE – 1
6" BLOW–OFF VALVE – 1
FIRE HYDRANT ASSEMBLY – 1
1.5" WATER LINE – 79 LF
1.5" WATER METER – 1
1.5" WATER VALVE – 1
4" WASTEWATER LINE – 36 LF
2" FORCE MAIN LINE – 260 LF
2" 45° BEND – 2
2" WYE – 1
2" WASTEWATER GATE VALVE – 2

BEFORE YOU DIG CALL:
1–800–245–4545

TEXAS ONE CALL SYSTEM

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N. MITCHELL CAMILLO
125070
LICENSED PROFESSIONAL ENGINEER

8/18/25

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PROJECT NAME:
MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

UTILITY PLAN

CUSTOMER NAME:
MATAGORDA COUNTY

PROJECT NO.: NAME	DRAWN BY: RMM	CHECKED BY: NMC	DESIGNED BY:RMM	JOB NO. 20.105017

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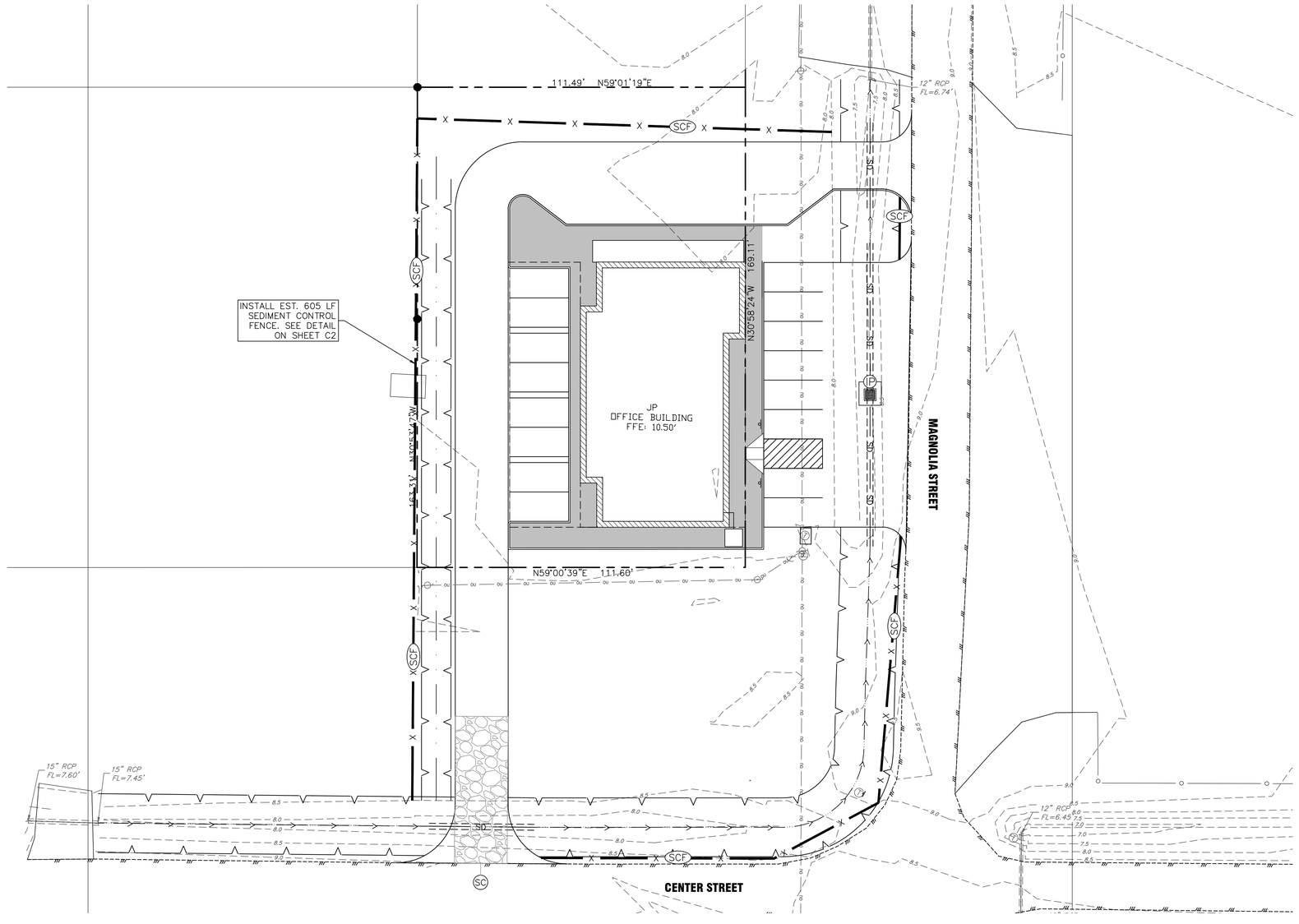

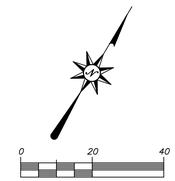

LEGEND

- EXISTING CONTOURS
- SEDIMENT CONTROL FENCE
- PROPOSED INLET PROTECTION. SEE DETAIL
- STABILIZED CONSTRUCTION ENTRANCE (50' MIN LENGTH OF TRAVEL). SEE DETAIL

BEFORE YOU DIG CALL:
1-800-245-4545

TEXAS ONE CALL SYSTEM

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PH: (979) 245-8900
FAX: (979) 245-5345

PROJECT NAME:
MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

EROSION CONTROL PLAN

CUSTOMER NAME:
MATAGORDA COUNTY

PROJECT NO.: NAME	DRAWN BY: RMM	CHECKED BY: NMC	DESIGNED BY: RMM	JOB NO. 20.105017

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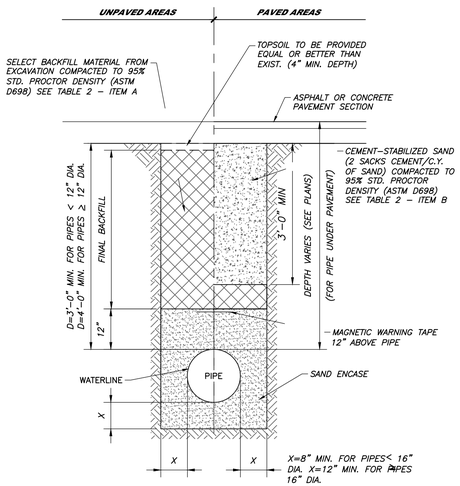
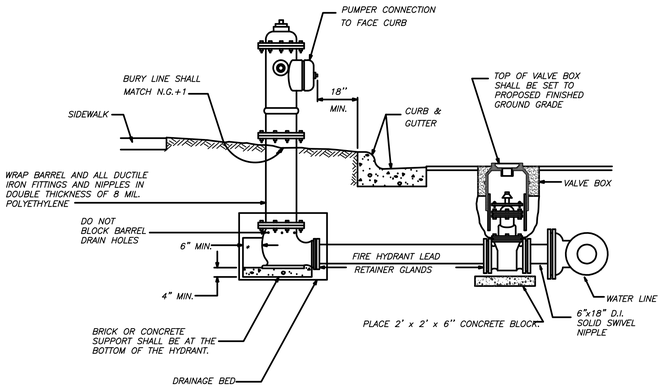


TYP. PIPE TRENCHING, BEDDING AND BACKFILL FOR WATERLINE

N.T.S.

NOTE: (CONCRETE PAVEMENT ONLY)
CONTRACTOR HAS OPTION TO USE CEMENT STABILIZED SAND OR BACKFILL WITH SELECT BACKFILL MATERIAL

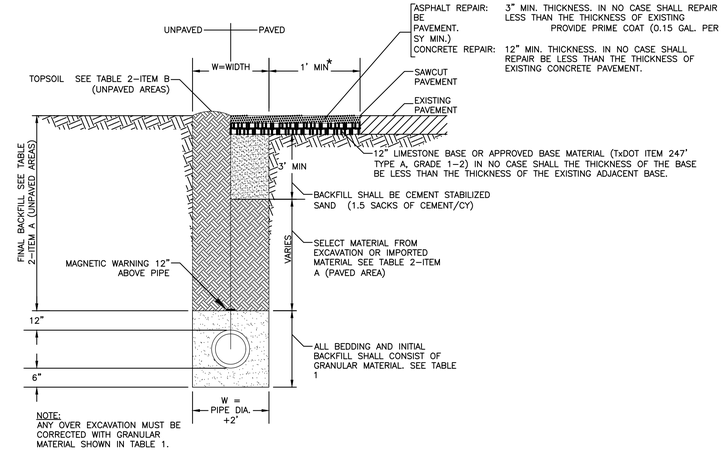


FIRE HYDRANT ASSEMBLY DETAIL (TYPE 1)

N.T.S.

* NOTE:
1. ANYTHING LESS THAT 20' WILL BE DUCTILE IRON LOCKED TO THE VALVE.
2. ANYTHING MORE THAN 20' SHALL REQUIRE CONCRETE THRUST BLOCK BEHIND HYDRANT AGAINST UNDISTURBED SOIL.

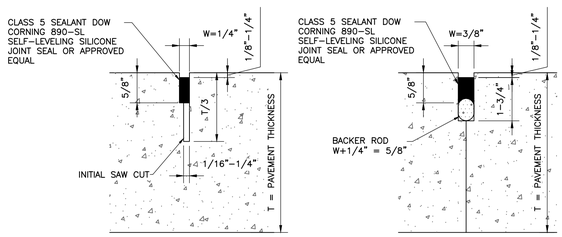
FIRE HYDRANTS:
1. DRAINAGE BED SHALL CONSIST OF CRUSHED STONE OR COARSE GRAVEL W/ COARSE SAND, MIN. VOLUME 7 CU. FT., DRAIN BED SHALL EXTEND A MIN. 6" ABOVE DRAIN OUTLET.
2. ALL FIRE HYDRANT FITTINGS SHALL BE LOCKED TOGETHER BY LOCKING RETAINER GLANDS.
3. FIRE HYDRANT TO BE BLOCKED AGAINST FIRM SOIL AS SHOWN.
4. ALL HYDRANTS SHALL BE INSTALLED PLUMB.
5. LARGE NOZZLE FACES ROAD, UNLESS OTHERWISE NOTED. ROTATE BARREL AS REQUIRED.
6. HYDRANT SHOULD NOT BE SET CLOSER THAN 4' TO OBSTRUCTIONS THAT ARE IN LINE WITH NOZZLE.
7. FIRE HYDRANT SHALL BE SET TO MANUFACTURER'S BURY LINE AT PROPOSED/EXISTING GRADE PLUS 1".
8. NO TAPS ARE TO BE MADE ON FIRE HYDRANT LEAD.



NOTE:
ANY OVER EXCAVATION MUST BE CORRECTED WITH GRANULAR MATERIAL SHOWN IN TABLE 1.

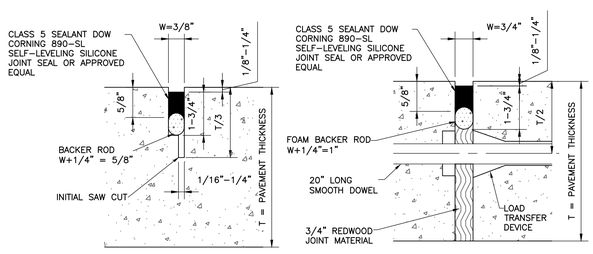
TRENCH BACKFILL FOR WASTEWATER LINES AND PAVEMENT REPAIR FOR UTILITIES

N.T.S.



SAWED LONGITUDINAL JOINT

LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINT



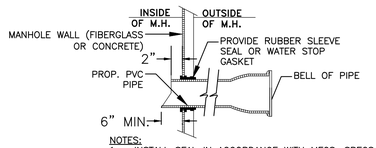
TRANSVERSE SAWED CONTRACTION JOINT

EXPANSION JOINT

JOINT SEALANT COMPOUND

N.T.S.

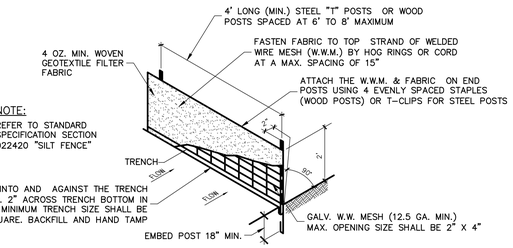
GENERAL NOTES:
1. THE LOCATION OF JOINTS SHALL BE AS SHOWN ELSEWHERE IN THE DRAWINGS.
2. THE JOINT RESERVOIR FOR SEALANT SHALL BE SAWED UNLESS OTHERWISE SHOWN ON THE PLANS FOR THE LONGITUDINAL AND TRANSVERSE CONSTRUCTION AND THE TWO SAWED JOINTS.
3. THE JOINTS SHALL BE CLEANED IN ACCORDANCE WITH THE SEALANT MANUFACTURE'S RECOMMENDATION. PRIOR TO BEGINNING OPERATIONS, THE CONTRACTOR SHALL SUBMIT A STATEMENT FROM THE SEALANT MANUFACTURER SHOWING THE RECOMMENDED EQUIPMENT AND INSTALLATION PROCEDURES TO BE USED.
4. THE SAW CUT FOR THE LONGITUDINAL JOINT SHALL BE ONE FOURTH THE SLAB THICKNESS WHEN CRUSHED LIMESTONE IS USED AS THE COARSE AGGREGATE.



NOTES:
1. INSTALL SEAL IN ACCORDANCE WITH MFGS. SPECS.
2. USE RUBBER SEAL ASSEMBLY APPROVED BY UTILITY DEPARTMENT. (TPSMHA OR PIPECONX OR INSERT A TEE)

PIPE SEAL DETAIL

N.T.S.



NOTE:
REFER TO STANDARD SPECIFICATION SECTION 022420 "SILT FENCE"

PLACE 6" OF FABRIC INTO AND AGAINST THE TRENCH WALL AND APPROX. 2" ACROSS TRENCH BOTTOM IN UPSTREAM DIRECTION MINIMUM TRENCH SIZE SHALL BE 6" SQUARE. BACKFILL AND HAND TAMP

TEMPORARY SEDIMENT CONTROL FENCE DETAIL

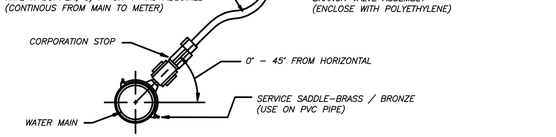
N.T.S.

SEDIMENT CONTROL FENCE USAGE GUIDELINES:

SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

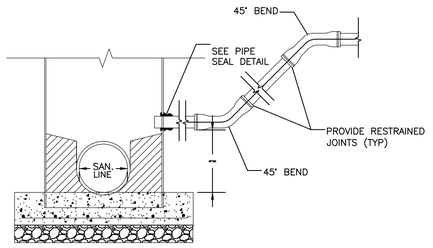
SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 100 GPM/FT. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE LARGER THEN 2 ACRES.

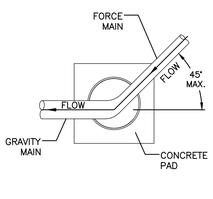
* THE GUIDELINES SHOWN HERE ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



SERVICE WITHOUT SIDEWALK

N.T.S.

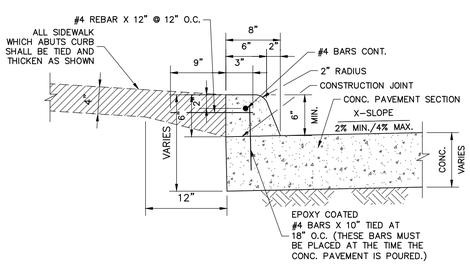




NOTES:
1. ALL BENDS SHALL BE DUCTILE IRON WITH RESTRAINED JOINTS.
2. INFLUENT FORCE MAIN MUST BE NO MORE THAN 45° FROM PARALLEL WITH DOWNSTREAM FLOW DIRECTION.

FORCE MAIN DISCHARGE MANHOLE DETAIL

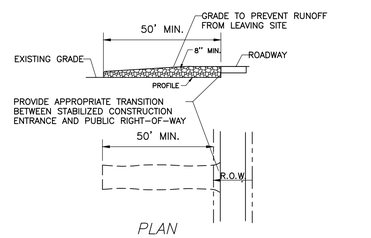
N.T.S.



TYPICAL 6" CURB DETAIL

N.T.S.

6" CURB NOTES:
1. EXPANSION AND CONSTRUCTION JOINTS OF THE 6" SEPARATE CURB SHALL MATCH THOSE OF THE TIED SIDEWALK AND/OR CONCRETE PAVEMENT, AND SHALL NOT EXCEED 39' O.C. (MAX) SPACING.
2. TRANSVERSE GROOVES 1/8" WIDE BY 1/2" DEEP SHALL BE MADE AT 10' O.C. (MAXIMUM).
3. WHERE NEW CURB JOINS EXISTING CURB AND GUTTER, TRANSITION THE LAST 10' OF THE NEW TO MATCH THE OLD IN SHAPE.
4. EXPANSION JOINTS ON ALL SIDEWALK AND CURB SHALL BE REDWOOD. ALL JOINTS IN 6" SEPARATE CURB SHALL BE SEALED WITH JOINT SEALANT.
5. TRANSVERSE CONTRACTION JOINTS 1/8": WIDE BY 1/2" DEEP SHALL BE CUT IN ALL SIDEWALKS AT 5'–0" INTERVALS (MAXIMUM).



STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

CONSTRUCTION ENTRANCE NOTES:
1. STONE SIZE: 3–5" OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 50'.
3. THICKNESS: NOT LESS THAN 8".
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

F-324

ARCH/ENG SEAL:
STATE OF TEXAS
N. MITCHELL CAMILLO
125070
LICENSED PROFESSIONAL ENGINEER
8/18/25

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PH: (979) 245-8900
FAX: (979) 245-5345

PROJECT NAME:
MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

DETAILS

CUSTOMER NAME:
MATAGORDA COUNTY

PROJECT NO.:	DESIGNED BY:	CHECKED BY:	DRAWN BY:	NAME
JOB NO. 20.105017	RMM	NMC	RMM	

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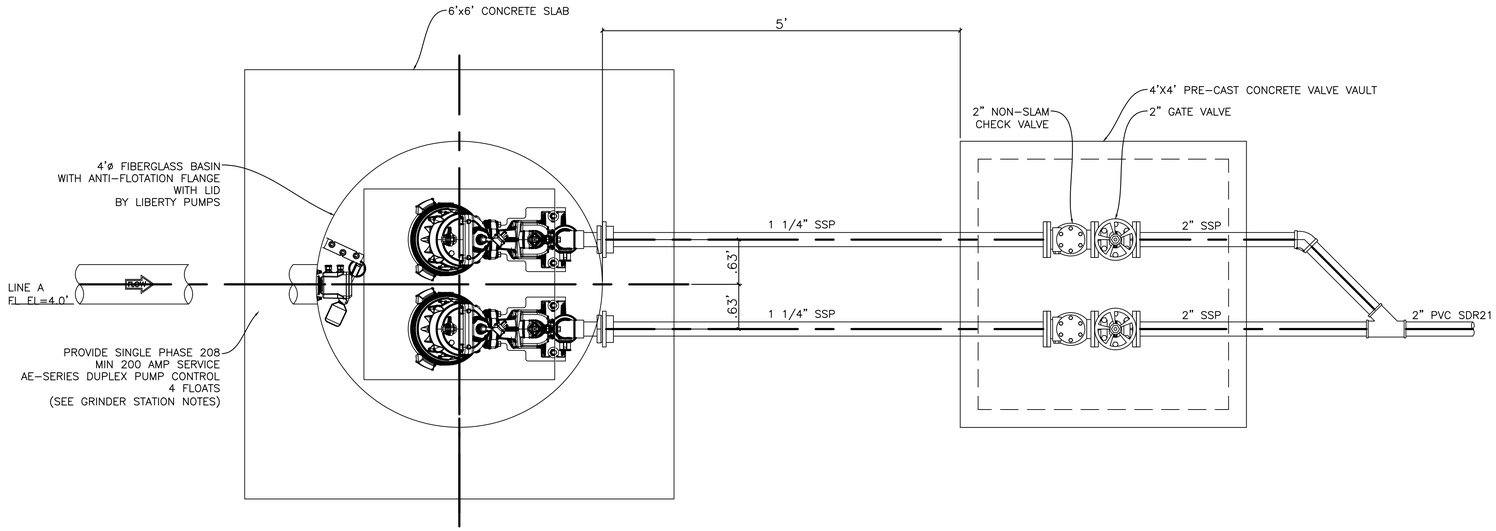
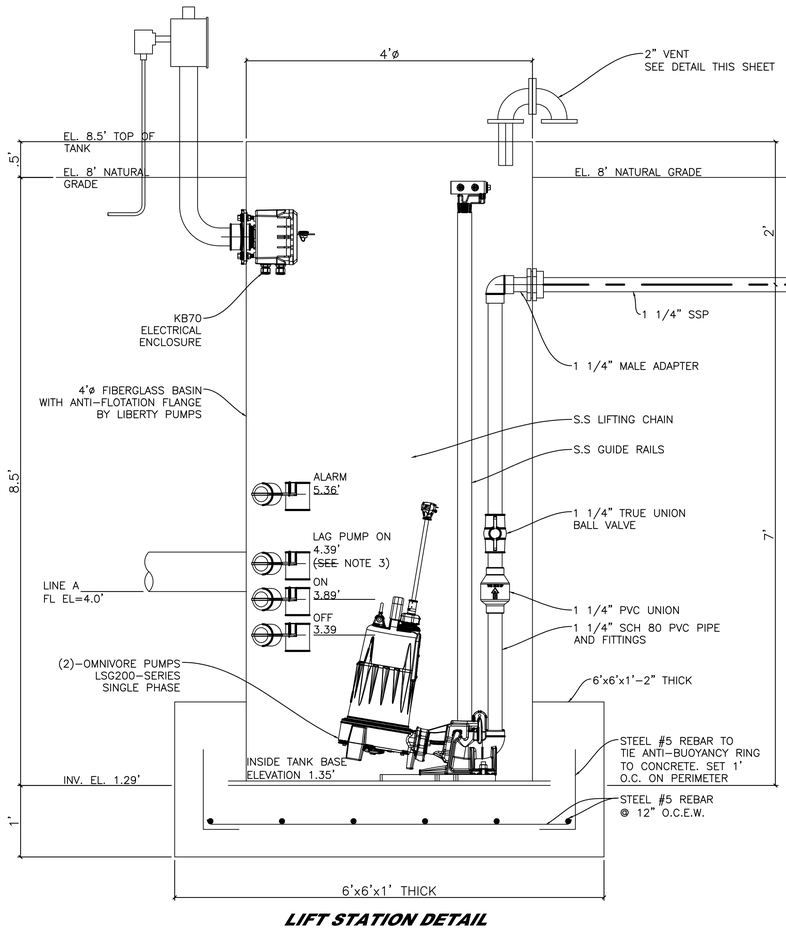
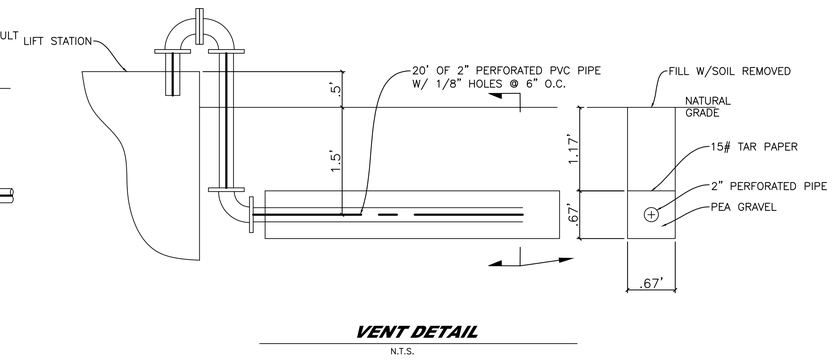




LIFT STATION DETAIL
N.T.S.



VENT DETAIL
N.T.S.

GRINDER STATION NOTES:

1. A LICENSED MASTER ELECTRICIAN IS REQUIRED FOR ALL ELECTRICAL WORK.

2. PUMP, CONTROL PANEL, PUMP FLOATS, PUMP RAILS, CHECK VALVES & GATE VALVES SHALL BE INSTALLED PER MANUFACTURER SPECIFICATIONS.

3. FLOAT LEVEL THREE FUNCTION IS TO START 2ND PUMP ONLY IF 1ST PUMP FAILS TO START. ONLY ONE PUMP TO OPERATE AT A TIME. AT NO TIME SHOULD BOTH PUMPS RUN AT ONCE.

4. CONTRACTOR TO COORDINATE WITH OWNER OF ALARM LOCATION.

F-324

ARCH/ENG SEAL:
STATE OF TEXAS
N. MITCHELL CARRILLO
125070
LICENSED PROFESSIONAL ENGINEER
8/18/25

LYNN ENGINEERING
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PROJECT NAME:
MATAGORDA COUNTY
JUSTICE OF THE PEACE OFFICE #2

DETAILS

CUSTOMER NAME:
MATAGORDA COUNTY

PROJECT NO.: NAME	DRAWN BY: RMM	CHECKED BY: NMC	DESIGNED BY: RMM	JOB NO. 20.105017

PRINTED

DATE	REMARKS
00/00/00	PRELIMINARY
00/00/00	PERMIT
00/00/00	FOR CONSTRUCTION

REVISIONS

NO.	REMARKS
00/00/00	REVISION 1
00/00/00	REVISION 2
00/00/00	REVISION 3
00/00/00	REVISION 4

PAGE NO:
C8

A DESIGN CRITERIA:

1. GENERAL BUILDING CODE:
   - INTERNATIONAL BUILDING CODE 2021 EDITION.
   - MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES ASCE 7-16.
2. CONCRETE:
   - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE ACI 318-19.
3. STRUCTURAL STEEL:
   - STEEL CONSTRUCTION MANUAL, AISC 360-22.
4. MASONRY:
   - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES TMS 402/602-22.
5. TIMBER:
   - WOOD FRAME CONSTRUCTION MANUAL 2021.

DESIGN LOADS (PSF):

1. DEAD LOADS:
   - ROOF = 10 PSF
   - FLOOR = 20 PSF
2. LIVE LOADS:
   - ROOF = 20 REDUCIBLE
   - FLOOR = 40 PSF
3. WIND LOADS:
   - BASIC WIND SPEED = 150 MPH
   - RISK CATEGORY = II
   - EXPOSURE CATEGORY = C
   - INTERNAL PRESSURE COEFFICIENTS = ±0.18
   - ENCLOSURE CLASSIFICATION = ENCLOSED OR PARTIALLY ENCLOSED

B GENERAL REQUIREMENTS:

1. ALL STRUCTURAL COMPONENTS MUST MEET THE DESIGN CRITERIA FOR THE SPECIFIED WIND SPEED, EXPOSURE CATEGORY, AND IMPORTANCE FACTOR APPLICABLE TO THE SITE LOCATION.
2. ALL CONSTRUCTION WITHIN A FEMA-DESIGNATED FLOOD ZONE SHALL COMPLY WITH FEMA AND NFIP REGULATIONS.
3. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST ADOPTED EDITIONS OF THE INTERNATIONAL BUILDING CODE (IBC), ASCE 7-22, AND THE TEXAS DEPARTMENTS OF INSURANCE (TDI) WINDSTORM INSPECTION PROGRAM.
4. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS ARE A PORTION OF THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL REFERENCE AND COORDINATE WITH OTHER DISCIPLINE'S DRAWINGS. ANY DISCREPANCIES OR OMISSIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT OR ENGINEER OF RECORD.
5. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS PRIOR TO FABRICATION AND OR CONSTRUCTION. NOTIFY STRUCTURAL ENGINEER AND ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
6. WHERE SHOP DRAWINGS, CALCULATIONS, OR ANY SUBMITTALS THAT ARE NOTED WITHIN THE PROJECT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) AND ARE NOT PROVIDED BY THE CONTRACTOR, THE CONTRACTOR ASSUMES TOTAL RESPONSIBILITY FOR THE PROJECT DESIGN AND THE ASSOCIATED WORK.
7. ENGINEER'S SHOP DRAWING REVIEW IS LIMITED TO REVIEW FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT REFLECTED IN THE STRUCTURAL PORTION OF THE CONTRACT DOCUMENTS. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS AND OR OTHER PROJECT CONTRACT DOCUMENTS. NO RESPONSIBILITY IS ASSUMED OR IMPLIED FOR THE CORRECTNESS OF DIMENSIONS OR DETAILS. THIS REVIEW DOES NOT AUTHORIZE CHANGES TO THE CONTRACT SUM UNLESS STATED IN A SEPARATE WRITTEN FORM OR CHANGE ORDER. CONTRACTOR SHALL CONFIRM AND CORRELATE ALL QUANTITIES AND DIMENSIONS, SELECT FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATE HIS WORK WITH THAT OF OTHER TRADES, AND PERFORM HIS WORK IN A SAFELY MANNER. CONTRACTOR SHALL ALSO REFER TO THE REQUIREMENTS OF THE GENERAL AND SUPPLEMENTARY GENERAL CONDITIONS.
8. VERIFY ALL DIMENSIONS AND DETAILS SHOWN ON THESE DRAWINGS. ANY DISCREPANCIES OR OMISSIONS FOUND SHALL BE REPORTED TO THE ENGINEER AND OTHER DESIGN PROFESSIONALS AS APPROPRIATE FOR RESOLUTION PRIOR TO PROCEEDING WITH ANY RELATED WORK.
9. THESE DRAWINGS DO NOT INCLUDE PROVISIONS TO SATISFY JOB SITE SAFETY REQUIREMENTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING SAFETY DURING CONSTRUCTION, AND FOR CONFORMANCE TO ALL APPLICABLE OSHA STANDARDS. FIELD OBSERVATIONS BY ENGINEER AND OR STAFF SHALL NOT CONSTITUTE APPROVAL, AWARENESS, OR LIABILITY FOR ANY HAZARDOUS CONDITIONS.
10. THE CONTRACTOR IS RESPONSIBLE FOR BRACING AND SHORING ALL EXCAVATIONS, DEWATERING OF EXCAVATION FROM EITHER SURFACE WATER, AND OR GROUND WATER.
11. ALL SUBMITTALS, IF THERE ARE CLARIFICATIONS, MODIFICATIONS, OR ITEMS WHERE INFORMATION, A RESPONSE, OR APPROVAL IS REQUESTED, SUCH ITEMS SHALL BE WRITTEN ON THE TRANSMITTAL OR COVER SHEET. INDICATING SUCH ITEMS ON THE SHOP DRAWINGS, WITHIN ANY CALCULATIONS, OR PRODUCT DATA IS NOT SUFFICIENT. WHERE SUCH ITEMS ARE NOT SPECIFICALLY LISTED ON THE TRANSMITTAL OR COVER SHEET IN ACCORDANCE WITH THESE GENERAL NOTES, SUCH ITEMS ARE NOT TO BE CONSIDERED APPROVED OR CONSIDERED. IF REQUEST FOR INFORMATION IS MADE AND NOT SPECIFICALLY RESPONDED TO BY THE ENGINEER OF RECORD, NO APPROVAL OR CONSENT SHALL BE ASSUMED. THE CONTRACTOR SHALL ASSUME TOTAL RESPONSIBILITY AND LIABILITY IN ALL CASES WHERE SPECIFIC WRITTEN RESPONSE FROM THE ENGINEER OF RECORD IS NOT OBTAINED, REGARDLESS OF ANY OTHER ACTIONS TAKEN.

C WINDSTORM AND FRAMING INSPECTIONS:

1. AS STATED IN GENERAL REQUIREMENTS ALL CONSTRUCTION MUST COMPLY WITH THE TEXAS DEPARTMENT OF INSURANCE (TDI) WINDSTORM INSPECTION PROGRAM REQUIREMENTS TO ENSURE STRUCTURAL INTEGRITY AND RESISTANCE TO WIND LOADS. THE ENGINEER OF RECORD AND DESIGNATED INSPECTORS MUST BE NOTIFIED A MINIMUM OF 24 HOURS BEFORE CRITICAL INSTALLATION PHASES.
2. FOUNDATION AND STRUCTURAL ELEMENTS:
   - VERIFY FOUNDATION REINFORCEMENT AND ANCHOR BOLT PLACEMENT PRIOR TO CONCRETE PLACEMENT.
   - CONFIRM PROPER INSTALLATION OF ANCHOR RODS, EMBEDDED ITEMS, AND HOLD-DOWNS.
3. WALL FRAMING AND SHEATHING:
   - INSPECT WALL FRAMING INCLUDING PROPER SPACING, NAILING, AND BRACING FOR LATERAL WIND RESISTANCE
   - VERIFY INSTALLATION OF SHEAR ALLS PER APPROVED CONSTRUCTION PLANS.
   - ENSURE EXTERIOR WALL SHEATHING IS INSTALLED WITH REQUIRED FASTENER REQUIREMENTS PER SHEAR WALL PLAN.
4. ROOF FRAMING AND DECKING:
   - INSPECT ROOF TRUSSES OR RAFTERS FOR PROPER ATTACHMENT FOR UPLIFT RESISTANCE.
   - CONFIRM DECKING MATERIAL AND PROPER FASTENER SPACING.
5. ROOF UNDERLAYMENT AND COVERING:
   - ENSURE UNDERLAYMENT INSTALLATION MEETS TDI SPECIFICATIONS.
   - ROOF COVERINGS SHALL BE AN APPROVED SYSTEM THROUGH TDI AND INSTALLATION RECOMMENDATIONS FOR UPLIFT RESISTANCE.
6. EXTERIOR OPENINGS (WINDOWS, DOORS, & SHUTTERS):
   - INSPECT WINDOW AND DOOR INSTALLATION VERIFY FASTENERS, ANCHORAGE, AND WIND PRESSURE RATINGS.
   - CONFIRM IMPACT-RESISTANT GLASS OR PROTECTIVE COVERINGS (IF REQUIRED).
   - ENSURE GARAGE DOORS COMPLY WITH TDI WINDSTORM STANDARDS.
7. SIDING, STUCCO, & VENEER INSTALLATION:
   - VERIFY WALL COVERINGS ARE INSTALLED WITH PROPER ANCHORAGE AND SPACING.
8. FINAL STRUCTURAL INSPECTION:
   - PERFORM FINAL WINDSTORM COMPLIANCE INSPECTION TO CONFIRM ALL COMPONENTS MEET TDI REQUIREMENTS.
   - ENSURE ALL REQUIRED FASTENERS, CONNECTIONS, AND STRUCTURAL ELEMENTS ARE INSTALLED AS PER APPROVED ENGINEERING DRAWINGS.
9. ADDITIONAL REQUIREMENTS:
   - ANY MODIFICATIONS OR DEVIATIONS FROM APPROVED CONSTRUCTION PLANS MUST BE REVIEWED BY THE ENGINEER OF RECORD AND APPROVED BEFORE PROCEEDING.
   - PHOTOGRAPHIC DOCUMENTATION AND WRITTEN REPORTS MAY BE REQUIRED TO VERIFY COMPLIANCE WITH TDI STANDARDS.
   - CERTIFICATION DOCUMENTS MUST BE SUBMITTED TO TDI UPON COMPLETION FOR FINAL WINDSTORM COMPLIANCE APPROVAL.

D BUILT-UP PAD CONSTRUCTION AND COMPACTION REQUIREMENTS:

1. ALL BUILT-UP PADS SHALL CONSIST OF FILL MATERIAL WITH A LIQUID LIMIT OF LESS THAN 35 AND A PLASTICITY INDEX RANGING FROM 8 TO 15. THE FILL MATERIAL MUST BE FREE FROM ANY ORGANIC OR PERISHABLE SUBSTANCES AND SHOULD NOT CONTAIN STONES OR AGGREGATES LARGER THAN 6" IN DIAMETER. THIS ENSURES THE STABILITY AND CONSISTENCY OF THE FOUNDATION MATERIAL.
2. FILL SHALL BE PLACED IN UNIFORM, HORIZONTAL LAYERS WITH A MAXIMUM THICKNESS OF 6" AFTER COMPACTION. THE FILL SHOULD BE EVENLY DISTRIBUTED DURING PLACEMENT TO AVOID THE FORMATION OF DISTINCT OR DISSIMILAR MATERIAL LAYERS, WHICH COULD AFFECT THE STRUCTURAL INTEGRITY AND UNIFORMITY OF THE PAD.
3. THE FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (OR GREATER), AS PER ASTM D698 STANDARDS. A COMPACTION TEST MUST BE CONDUCTED AT REGULAR INTERVALS TO VERIFY THAT THIS COMPACTION REQUIREMENT IS ACHIEVED THROUGHOUT THE PAD AREA. ONLY MATERIALS MEETING THESE COMPACTION STANDARDS SHALL BE ACCEPTED.
4. POSITIVE DRAINAGE SHALL BE PROVIDED TO ENSURE THAT WATER IS DIRECTED AWAY FROM ALL FORMS AND THE SURROUNDING FOUNDATION AREA. PROPER GRADING AND DRAINAGE SYSTEMS MUST BE IN PLACE TO PREVENT WATER ACCUMULATION OR POOLING AROUND THE BUILT-UP PAD WHICH COULD COMPROMISE THE INTEGRITY OF THE STRUCTURE.
5. THE CURRENT SITE SUBGRADE CONDITIONS ARE BASED ON SOILS REPORT PROVIDED BY: TSI LABORATORIES G-251175

E SLAB-ON-GRADE FOUNDATION NOTES:

1. THE CONTRACTOR SHALL PREPARE THE SITE FOR THE CONSTRUCTION OF A BUILDING PAD IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PROVIDED BY THE CLIENT OR AN ENGINEERING FIRM. THE CLIENT SHALL FURNISH THE GEOTECHNICAL REPORT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SITE PREPARATION INCLUDES, BUT IS NOT LIMITED TO CLEARING AND GRADING THE SITE AS PER THE GEOTECHNICAL RECOMMENDATIONS, EXCAVATION AND COMPACTION PER ENGINEERING SPECIFICATIONS, REMOVAL OF UNSUITABLE SOIL AND PLACEMENT OF APPROVED FILL MATERIAL, AND ENSURING SITE CONDITIONS MEET REQUIRED LOAD-BEARING CAPACITIES.
2. EXCAVATE AND SHAPE GRADE BEAMS AND SLAB TURNDOWNS UTILIZING A SMOOTH-MOUTHED BUCKET FOR PRECISION. IN THE EVENT A TOOTHED BUCKET IS USED, CEASE EXCAVATION OF 6" ABOVE THE FINAL GRADE ELEVATION. THE REMAINING EXCAVATION SHALL BE COMPLETED USING A SMOOTH-MOUTHED BUCKET OR BY MANUAL LABOR TO REMOVE ALL DISTURBED AND LOOSE SOILS CAUSED BY THE TOOTHED BUCKET TEETH.
3. INSTALL A 10 MIL POLYOLEFIN VAPOR BARRIER (STEGO WRAP OR AN APPROVED EQUIVALENT) OVER THE PREPARED SELECT FILL. OVERLAP THE SEAMS BY 12" ENSURING THE JOINTS ARE PROPERLY TAPED AND SEALED. WHEN CUTTING AROUND ROUGH-IN PIPES, CAREFULLY SEAL THE CUTS WITH TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER. DO NOT INSTALL THE VAPOR BARRIER ON BEAM SOFFITS OR IN THE BOTTOM 6" OF TRENCHES. SECURE THE BARRIER ALONG TRENCH WALLS TO PREVENT ANY SAGGING OR DISPLACEMENT DURING CONSTRUCTION.
4. FORM EXPOSED FACES OF GRADE BEAMS WITH WOOD FORMS TO A DEPTH OF 8" BELOW THE FINISHED GRADE, ENSURING THE FORMS ARE SECURELY ANCHORED AND POSITIONED.
5. ALL GRADE BEAM SOFFITS SHALL BEAR A MINIMUM OF 12" INTO NATURAL, DISTURBED SOIL OR COMPACTED FILL. AT THE PERIMETER, IF THE BEAM DEPTH EXCEEDS THE MINIMUM, INCREASE THE BEAM DEPTH AS NECESSARY TO ENSURE THE SOFFIT BEARS A MINIMUM OF 24" BELOW FINISHED GRADE. THE CONTRACTOR SHALL COORDINATE THE BEAM DEPTHS WITH THE REINFORCING STEEL SUPPLIER TO ENSURE THAT THE BEAM REINFORCEMENTS ARE PROPERLY ACCOMMODATED AT ALL TRANSITIONS AND INTERSECTIONS.
6. VERIFY THE DIMENSIONS AND SIZES OF ALL TRENCHES TO ENSURE THE REQUIRED CLEARANCES AROUND REINFORCEMENT ARE MAINTAINED BEFORE PLACING REINFORCING STEEL. THIS IS CRUCIAL FOR ENSURING PROPER STEEL PLACEMENT AND ACHIEVING THE DESIRED STRUCTURAL STRENGTH AND STABILITY.
7. PROVIDE A 5" THICK CONCRETE SLAB, REINFORCED WITH #4 BARS AT 12" ON CENTER IN BOTH DIRECTIONS, UNLESS NOTED OTHERWISE ON PLANS. THE REINFORCING STEEL MAT SHALL BE SUPPORTED AT 4'-0" INTERVALS USING CONCRETE BLOCKS OR BRICKS. ADDITIONALLY, ENSURE THE BOTTOM BEAM REINFORCEMENT IS SUPPORTED AT 4'-0" INTERVALS TO MAINTAIN PROPER POSITIONING DURING CONCRETE PLACEMENT.
8. REINFORCEMENT FOR GRADE BEAMS AND SLAB SHALL BE CONTINUOUS WITH LAP SPLICES OF 60 BAR DIAMETERS ENSURING THE CONTINUITY AND STRENGTH OF THE REINFORCEMENT SYSTEM. THIS APPLIES TO ALL AREAS OF THE SLAB AND GRADE BEAM, UNLESS OTHERWISE SPECIFIED IN THE STRUCTURAL FOUNDATION DETAILS.
9. PROVIDE FOUR CORNER BARS AT ALL GRADE BEAM CORNERS AND T-INTERSECTIONS WITH TWO BARS PLACED ON THE TOP AND TWO BARS PLACED ON THE BOTTOM. THE SIZE OF THESE BARS SHALL MATCH THE SCHEDULED BEAM REINFORCEMENT AND THEY SHALL LAP THE BEAM REINFORCEMENT BY 60 BAR DIAMETERS. REFER TO TYPICAL DETAILS SHOWN ON FOUNDATION SECTIONS AND DETAILS FOR FURTHER CLARIFICATION OF PLACEMENT AND BAR SIZES.
10. IN CASES WHERE THE BEAM DEPTH EXCEEDS 36", ADDITIONAL REINFORCEMENT SHALL BE REQUIRED. PROVIDE #4 BARS SPACED AT 12" ON CENTER IN EACH FACE OF THE BEAM TO ENSURE ADEQUATE STRUCTURAL INTEGRITY AND LOAD-BEARING CAPACITY.
11. ALL CONDUITS WITHIN THE SLAB SHALL B PLACED UNDER THE TOP LAYER OF SLAB REINFORCING, MAINTAINING A MINIMUM CLEARANCE OF 1 1/2" BETWEEN CONDUITS, AND BETWEEN CONDUITS AND PARALLEL REINFORCEMENT. DO NOT BUNDLE CONDUITS TOGETHER, AND ENSURE THAT INDIVIDUAL CONDUITS ARE PROPERLY SPACED TO AVOID INTERFERENCE WITH THE SLAB REINFORCEMENT. THIS WILL ENSURE EASE OF CONSTRUCTION AND MAINTAIN THE STRUCTURAL INTEGRITY OF THE SLAB.

F ANCHOR BOLTS AND POST-INSTALLED ANCHOR NOTES:

1. ALL ANCHOR BOLTS (INCLUDING THREADED RODS) AND REBAR SHELL BE INSTALLED WITH CORRECT HOLE SIZE AND DEPTH, PROPER CLEANING AND PREPARATION OF THE CONCRETE SURFACE, CORRECT EPOXY APPLICATION ENSURING UNIFORM COATING AND FULL BOND COVERAGE BETWEEN THE THREADED ROD AND CONCRETE, CORRECT ALIGNMENT OF THE ANCHOR BOLTS WITH THE STRUCTURAL COMPONENTS BEING FASTENED (BASE PLATES, SHEAR WALL, ETC) ALLOWANCE FOR FULL CURING OF THE EPOXY BEFORE AND LOADS ARE APPLIED, AND AVOIDING THE INSTALLATION OF ANCHOR BOLTS IN WET CONDITIONS, WHERE THE EFFECTIVENESS OF THE EPOXY COULD BE COMPROMISED.
2. ALL ANCHOR BOLTS USED IN THE PROJECT SHALL CONFORM TO ASTM A36 STANDARDS, ENSURING PROPER MECHANICAL PROPERTIES AND MATERIAL QUALITY. ANCHOR BOLTS MUST BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 OR AN EQUIVALENT STANDARD TO PROVIDE ADEQUATE CORROSION RESISTANCE IN ENVIRONMENTS SUBJECT TO MOISTURE OR WEATHER EXPOSURE.
3. THE BOTTOM "SOLE" PLATE OF ALL WOOD SHEAR WALLS OR BEARING WALLS MUST BE SECURELY ANCHORED TO THE CONCRETE FOUNDATION USING 5/8" DIAMETER ANCHOR BOLTS. THE ANCHOR BOLTS MUST BE SPACED AT A MAXIMUM OF 32" ON CENTER, ENSURING SUFFICIENT HOLD-DOWN STRENGTH FOR THE WALL SYSTEM.
4. MINIMUM EMBEDMENT DEPTH OF THE ANCHOR BOLTS INTO THE CONCRETE SHALL BE 7" ENSURING ADEQUATE ANCHORAGE AND STRENGTH TRANSFER BETWEEN THE WOOD AND CONCRETE ELEMENTS. WHEN PLACEMENT OF ANCHOR BOLTS, ENSURE THAT THE LOCATION COMPLIES WITH ALL STRUCTURAL DRAWINGS FOR PRECISE ALIGNMENT AND STRENGTH.
5. UNLESS NOTED OTHERWISE INDICATED IN THE PROJECT SPECIFICATIONS THE FOLLOWING SIMPSON STRONG-TIE PRODUCTS OR EQUIVALENT SHALL BE USED FOR ANCHOR BOLT APPLICATIONS: DRILLED AND EPOXY-SET ANCHOR BOLTS FOR PLACEMENT IN CONCRETE, AND DRILLED AND EPOXY-SET REBAR FOR PLACEMENT IN CONCRETE (BOTH FOR CRACKED OR UNCRACKED CONCRETE). THE USE OF SIMPSON STRONG-TIE SET-3G EPOXY IS REQUIRED FOR ALL EPOXY-SET ANCHOR BOLTS AND REBAR. EPOXY PRODUCTS SHOULD MEET ALL LOCAL BUILDING CODES, ENSURING PROPER LOAD TRANSFER AND DURABILITY OVER TIME.
6. WHEN APPLYING THE EPOXY ENSURE THAT THE CONCRETE SURFACES ARE FREE OF DIRT, DUST, AND OIL AND THAT THE DRILL HOLES ARE PROPERLY CLEANED AND DRIED BEFORE APPLYING THE EPOXY. THE ANCHOR BOLTS MUST BE PLACED INTO THE EPOXY-FILLED HOLES AND THE EPOXY MUST BE ALLOWED TO CURE FULLY BEFORE SUBJECTION THE INSTALLATION TO ANY LOAD FOLLOWING THE MANUFACTURER'S RECOMMENDED CURING TIME.

G CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. CONSTRUCTION TOLERANCES SHALL COMPLY WITH ACI 117 "STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".
3. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING SHOP DRAWINGS:
   A. THE LATEST EDITION OF ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE.
   B. CONCRETE MIX DESIGN FOR EACH TYPE OF CONCRETE TO BE USED, BASED ON AGGREGATE SIZE AND CEMENT PORTION. THE MIX DESIGN MUST INCLUDE CERTIFICATION OF COMPLIANCE WITH SPECIFIED MATERIALS, BASED ON FIELD SAMPLES AND COMPRESSION TEST DATA FROM EITHER LABORATORY-PREPARED TRIAL MIXES OR FIELD TESTS. FIELD TEST DATA MUST BE FROM AN IDENTICAL MIX DESIGN SUPPLIED BY THE PROPOSED BATCH PLANT AND PREPARED WITHIN THE LAST SIX MONTHS.
4. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, ERECT, SHORE, BRACE, AND MAINTAIN FORMWORK IN ACCORDANCE WITH ACI 301. WOOD FORMWORK SHALL BE NO. 2 COMMON OR BETTER PLYWOOD, AND EXPOSED SURFACES SHALL BE NEW OR LIKE-NEW MOISTURE-RESISTANT FIR FORM PLYWOOD. FORM SURFACES SHOULD BE LIGHTLY COATED WITH NON-STAINING FORM OIL, AND SURPLUS OIL MUST BE REMOVED.
5. REINFORCING STEEL SHALL BE DOMESTIC NEW BILLET STEEL CONFORMING TO ASTM A615 GRADE 60, EXCEPT FOR TIES AND STIRRUPS, WHICH MAY BE GRADE 40. BARS DESIGNATED AS CONTINUOUS SHALL BE LAPPED 48 BAR DIAMETERS. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND BE LAPPED A MINIMUM OF 8" AT SLICE POINTS OR 1 1/2" MESHES, WHICHEVER IS GREATER.
6. PORTLAND CEMENT SHALL COMPLY WITH ASTM C-150, TYPE 1. FLY ASH SHALL CONFORM TO ASTM C-618. NORMAL WEIGHT AGGREGATE SHALL COMPLY WITH ASTM C33. WATER SHALL BE POTABLE AND CONFORM TO ASTM C1 COLUMN 602. ADMIXTURES MUST COMPLY WITH THE FOLLOWING:
   A. WATER REDUCTION AND SETTING TIME MODIFICATION: ASTM C494.
   B. PRODUCING FLOWING CONCRETE: ASTM C1 COLUMN 017.
   C. AIR ENTRAINMENT: ASTM C260.
   D. INHIBITING CHLORIDE-INDUCED CORROSION: ASTM C1 COLUMN 582.
7. CONCRETE SHALL BE NORMAL WEIGHT, LABORATORY-DESIGNED TO DEVELOP THE MINIMUM SPECIFIED 28-DAY COMPRESSIVE STRENGTH, AND PROPORTIONED AS REQUIRED FOR THE SPECIFIED EXPOSURE CLASS PER ACI 301. WATER-TO-CEMENT (W/C) RATIOS NOT SPECIFIED SHOULD BE ADJUSTED TO ACHIEVE DESIGN STRENGTH.
8. ALL REINFORCING STEEL MUST BE FREE FROM RUST, SCALE, AND DRIED CONCRETE, AND MUST BE ACCURATELY BENT AND SECURELY TIED IN PLACE TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT. RAISING REINFORCEMENT DURING POURING IS NOT PERMITTED.
9. CONCRETE COVER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
   A. CONCRETE CAST AGAINST EARTH: 3"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER: 2"
   C. CONCRETE NOT EXPOSED TO WEATHER OR GROUND: 1 1/2" FROM TOP OF SLAB
10. ANCHORAGES AND OTHER EMBEDDED ITEMS SHALL BE SET AND BUILT INTO FORMWORK AS REQUIRED FOR SUBSEQUENT WORK ATTACHED TO OR SUPPORTED BY CONCRETE. COORDINATE WITH OTHER DISCIPLINES.
11. CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94 "STANDARD SPECIFICATION FOR READY-MIXED CONCRETE".
12. CONCRETE TEMPERATURE WHEN DEPOSITED SHALL NOT BE BELOW 50°F OR ABOVE 90°F. MEASURES SHALL BE TAKEN TO MAINTAIN THIS TEMPERATURE RANGE AND PREVENT WATER EVAPORATION FOR 5 DAYS AFTER PLACEMENT. SALT OR OTHER CHEMICALS SHALL NOT BE ADDED TO PREVENT FREEZING.
13. CONCRETE FOUNDATION SHALL BE CONVEYED TO AND DEPOSITED IN FORMWORK NEAR ITS FINAL POSITIONS WITH A FREE VERTICAL DROP NOT EXCEEDING 3 FEET. PLACE CONCRETE IN LAYERS NO MORE THAN 12" THICK AND COMPACT EACH LAYER USING MECHANICAL VIBRATION.
14. CONSTRUCTION JOINTS IN MONOLITHIC FRAMING SHALL BE APPROVED BY THE ARCHITECT/ENGINEER, UNLESS NOTED OTHERWISE.
15. SCREENING, RE-STRAIGHTENING, AND FINISHING OPERATIONS SHALL COMPLY WITH ACI 302.1R. COORDINATE FINISHED WITH ARCHITECTURAL DRAWINGS AND FLOOR FINISH REQUIREMENTS. ALL EXPOSED EDGES MUST BE CAREFULLY TOOLED.
16. CURE CONCRETE FOR AT LEAST 7 DAYS BY MOISTURE CURING, SEALED MOISTURE-RETAINING COVERS, OR CLEAR WATERBORNE CURING COMPOUND CONFORMING TO ASTM C309.
17. SIDE FORMS MAY BE REMOVED AFTER A CUMULATIVE CURING PERIOD OF AT LEAST 24 HOURS AT NOT LESS THAN 50°F. SOFFITS OF SUSPENDED CONCRETE MAY BE REMOVED AFTER CURING FOR AT LEAST SEVEN DAYS, PROVIDED COMPRESSIVE TEST RESULTS SHOW AT LEAST 75% OF SPECIFIED DESIGN STRENGTH. RE-SHORE AS REQUIRED FOR CONSTRUCTION LOADS.
18. PATCH HONEYCOMB, TIE HOLES, AND MINOR DEFECTS WITH A MIXTURE OF ONE PART CEMENT AND TWO PARTS SAND IMMEDIATELY AFTER REMOVING FORMS.
19. EXPOSED CONCRETE SHALL BE RUBBED WITH CARBORUNDUM BRICKS AND WATER AFTER 48 HOURS, BUT BEFORE ONE WEEK. STUCCO MAY BE APPLIED TO EXPOSED CONCRETE MEMBERS PER THE ARCHITECTURAL PLANS AND ICF WATERPROOFING DETAILS.
20. NOTIFY THE ENGINEER WHEN FORMWORK AND REINFORCING ARE IN PLACE SO THE ENGINEER CAN OBSERVE THE REINFORCING STEEL PRIOR TO ALL CONCRETE POURS.
21. ALL INDEPENDENT TESTING LABORATORY SHALL TAKE SAMPLES AND PERFORM SLUMP AND COMPRESSION TESTS PER ASTM C-39 ON CONCRETE PLACED EACH DAY. ONE SET OF FOUR CYLINDERS IS REQUIRED FOR EVERY 80 CUBIC YARDS OR FRACTION THEREOF, WITH A MINIMUM INTERVAL OF 50 CUBIC YARDS BETWEEN SAMPLES.

ITEM	28 DAY COMPRESSIVE CYLINDER STRENGTH			REMARKS
	3000 PSI	4000 PSI	5000 PSI	
ALL CONCRETE (UNO)	●			1" MAX AGGREGATE SLUMP = 4" ± 1"

SPLICE SCHEDULE

STEEL STRENGTH	BAR SIZE	MINIMUM DEVELOPMENT LENGTH	LAP SPLICE LENGTH (CLASS B TENSIONS)
60 KSI	#3	2'-2"	2'-6"
	#4	3'-0"	3'-2"
	#5	3'-2"	3'-10"
	#6	3'-8"	4'-6"

H PRE-ENGINEERED METAL BUILDING NOTES:

1. THE PRE-ENGINEERED METAL BUILDING (PEMB) SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITIONS OF FOLLOWING STANDARDS UNLESS NOTED OTHERWISE:
   - AISC 360 (SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS)
   - AISI S100 (NORTH AMERICAN SPECIFICATION FOR COLD-FORMED STEEL)
   - ASCE7 (MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES)
   - IBC (APPLICABLE BUILDING CODE YEAR FOR THE PROJECT JURISDICTION)
2. THE PEMB MANUFACTURER SHALL PROVIDE AN ANCHOR BOLT PLAN AND REACTIONS FOR FOUNDATION DESIGN. ANCHOR BOLT LOCATIONS AND SIZES SHALL BE COORDINATED WITH STRUCTURAL FOUNDATION DRAWINGS.
3. IT IS THE RESPONSIBILITY OF THE PEMB SUPPLIER TO COORDINATE WITH ALL MECHANICAL, ELECTRICAL, PLUMBING (MEP) PENETRATIONS, ROOFTOP UNITS, AND OTHER REQUIRED OPENINGS. STRUCTURAL FRAMING SHALL BE MODIFIED AS NECESSARY TO ACCOMMODATE THESE ELEMENTS AND MAINTAIN STRUCTURAL INTEGRITY.
4. THE PEMB SUPPLIER SHALL PROVIDE A COMPLETE SET OF FRAMING REACTIONS, INCLUDING GRAVITY, UPLIFT, AND LATERAL LOADS, FOR ALL PRIMARY AND SECONDARY STRUCTURAL MEMBERS.
5. COMPLETE PEMB SHOP DRAWINGS AND STRUCTURAL DESIGN CALCULATIONS SHALL BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
6. ALL PURLINS AND GIRTS SHALL BE DESIGNED TO CARRY APPLICABLE COLLATERAL LOADS, AND ANY POINT LOADS FROM SUPPORTED SYSTEMS SUCH AS LIGHTING, HVAC DUCTWORK, OR SPRINKLERS.
7. THE PEMB ERECTOR SHALL FOLLOW THE MANUFACTURER'S INSTALLATION GUIDELINES. TEMPORARY BRACING REQUIRED DURING ERECTION IS THE RESPONSIBILITY OF THE ERECTOR.
8. VAPOR BARRIERS, INSULATION SUPPORT, AND ANY THERMAL BREAKS (IF REQUIRED) SHALL BE COORDINATED WITH ARCHITECTURAL AND MEP PLANS. PEMB SUPPLIER SHALL PROVIDE FRAMING CAPABLE OF SUPPORTING INSULATION SYSTEMS.
9. ALL STRUCTURAL BRACING SHALL BE LOCATED IN THE BAYS INDICATED ON THE STRUCTURAL PLANS. IF ADDITIONAL BAYS ARE REQUIRED FOR BRACING, THE ENGINEER OF RECORD MUST BE CONTACTED OR APPROVAL PRIOR TO FABIRCATION OR ERECTION.
10. TESTING DATA FROM AN ACCREDITED LABORATORY OR TEXAS DEPARTMENT OF INSURANCE (TDI) PRODUCT EVALUATION IS REQUIRED FOR BOTH ROOF AND WALL COVERING IN ORDER TO VERIFY PURLIN LAYOUT AND GAUGE. APPROVAL OF ROOF AND WALL SYSTEMS WILL NOT BE GRANTED WITHOUT THIS DOCUMENTATION. NOTE: TABULATED VALUES BASED SOLELY ON MAXIMUM BENDING STRESS OR GENERALIZED PHYSICAL/SECTION PROPERTIES WILL NOT BE ACCEPTED UNDER ANY CIRCUMSTANCES.
11. MAXIMUM ALLOWABLE DEFLECTIONS SHALL BE AS FOLLOWS:
    - RIGID FRAMES AND ENDWALL COLUMNS: LIMITED TO L/240.
    - PURLINS, GIRTS, AND PANELS: LIMITED TO L/180.

I STEEL GENERAL NOTES:

1. MATERIALS: MINIMUM YIELD STRENGTHS

MATERIAL TYPE:	MINIMUM YIELD STENGTH (Fy)
HOT ROLLED BAR	Fy = 50 KSI (MIN)
STRUCTURAL STEEL SHEET	Fy = 50 KSI (MIN)
STRUCTURAL STEEL PLATE	Fy = 50 KSI (MIN)
COLD FORMED SHAPES	Fy = 57 KSI (MIN)
WALL SHEATHING	Fy = 60 KSI (MIN)
ROOF SHEATHING	Fy = 60 KSI (MIN)
BOLTS	Fy = 60 KSI (MIN)

THE METAL BUILDING MANUFACTURER RESERVES THE RIGHT TO SUBSTITUTE ANY OF THE MATERIALS ABOVE WITH EQUAL OR BETTER PERFORMING MATERIALS, SUBJECT TO COMPLIANCE WITH APPLICABLE CODES AND SPECIFICATIONS.

2. BOLT TIGHTENING REQUIREMENTS:
   - ALL HIGH-STRENGTH BOLTS SHALL BE ASTM A325 UNLESS NOTED OTHERWISE.
   - HIGH-STRENGTH BOLTS SHALL BE INSTALLED AND TIGHTENED USING THE "TURN-OF-THE-NUT" METHOD IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
   - WASHERS ARE NOT REQUIRED WHEN USING THE TURN-OF-THE-NUT METHOD UNLESS SPECIFICALLY DETAILED OTHERWISE.
   - A325 BOLTS WITH THREADS EXCLUDED FROM THE SHEAR PLANE SHALL BE INSTALLED SNUG-TIGHT.
3. PRIMER AND COATING:
   - ALL STRUCTURAL STEEL SHALL RECEIVE A RUST-INHIBITIVE GRAY OR RED OXIDE PRIMER IMMEDIATELY AFTER FABRICATION.
   - THIS PRIMER IS NOT INTENDED FOR LONG-TERM EXTERIOR EXPOSURE OR FINAL FINISH ADDITIONAL PROTECTIVE COATINGS MAY BE REQUIRED BASED ON ENVIRONMENTAL CONDITIONS AND FINAL USE.
4. ALL FRAMING MEMBERS SHALL BE ACCURATELY SET, ALIGNED, AND PLUMBED PER MANUFACTURER TOLERANCES AND ERECTION DRAWINGS.
5. ANCHOR BOLTS SHALL BE SET USING TEMPLATES TO ENSURE ACCURATE PLACEMENT IN ACCORDANCE WITH THE PEMB OR STRUCTURAL STEEL FOUNDATION PLANS.
6. ALL ANCHOR BOLT LOCATIONS, SIZES, AND EMBEDMENTS SHALL BE VERIFIED PRIOR TO CONCRETE PLACEMENT.
7. ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF ASTM F1554 OR AS OTHERWISE SPECIFIED.
8. THE CONTRACTOR SHALL COORDINATE ALL STEEL PENETRATIONS, FRAMING OPENINGS, AND SUPPORT ANGLES FOR MECHANICAL, ELECTRICAL, PLUMBING SYSTEMS PRIOR TO FABRICATION.
9. ANY REQUIRED CUTTING, NOTCHING, OR DRILLING OF STEEL MEMBERS IN THE FIELD SHALL BE APPROVED BY THE ENGINEER OF RECORD.

DETAIL IDENTIFICATION SYSTEM

ANNOTATION

△	REVISION TRIANGLE	CLR	CLEAR
Ⓧ	COLUMN GRID	CL	CENTER LINE
UNO	UNLESS NOTED OTHERWISE	DBL	DOUBLE
NTS	NOT TO SCALE	EQ	EQUAL
TOC	TOP OF CONCRETE	EXIST	EXISTING
TOS	TOP OF STEEL	GALV	GALVANIZED
OCEW	ON CENTER EACH WAY	TRTD	TREATED
FOC	FACE OF CONCRETE	REINF	REINFORCEMENT

F-324

ARCH/ENG SEAL:

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PROJECT NAME:
MATAGORDA COUNTY

GENERAL NOTES

CUSTOMER NAME:
MATAGORDA JP PUBLIC DEPT.

PROJECT INFO.:
NAME
DRAWN BY: LLC
CHECKED BY: NMC
DESIGNED BY: LLC
JOB NO. 20.105017

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	PERMIT
	CONSTRUCTION

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	REVISION 3
	REVISION 4

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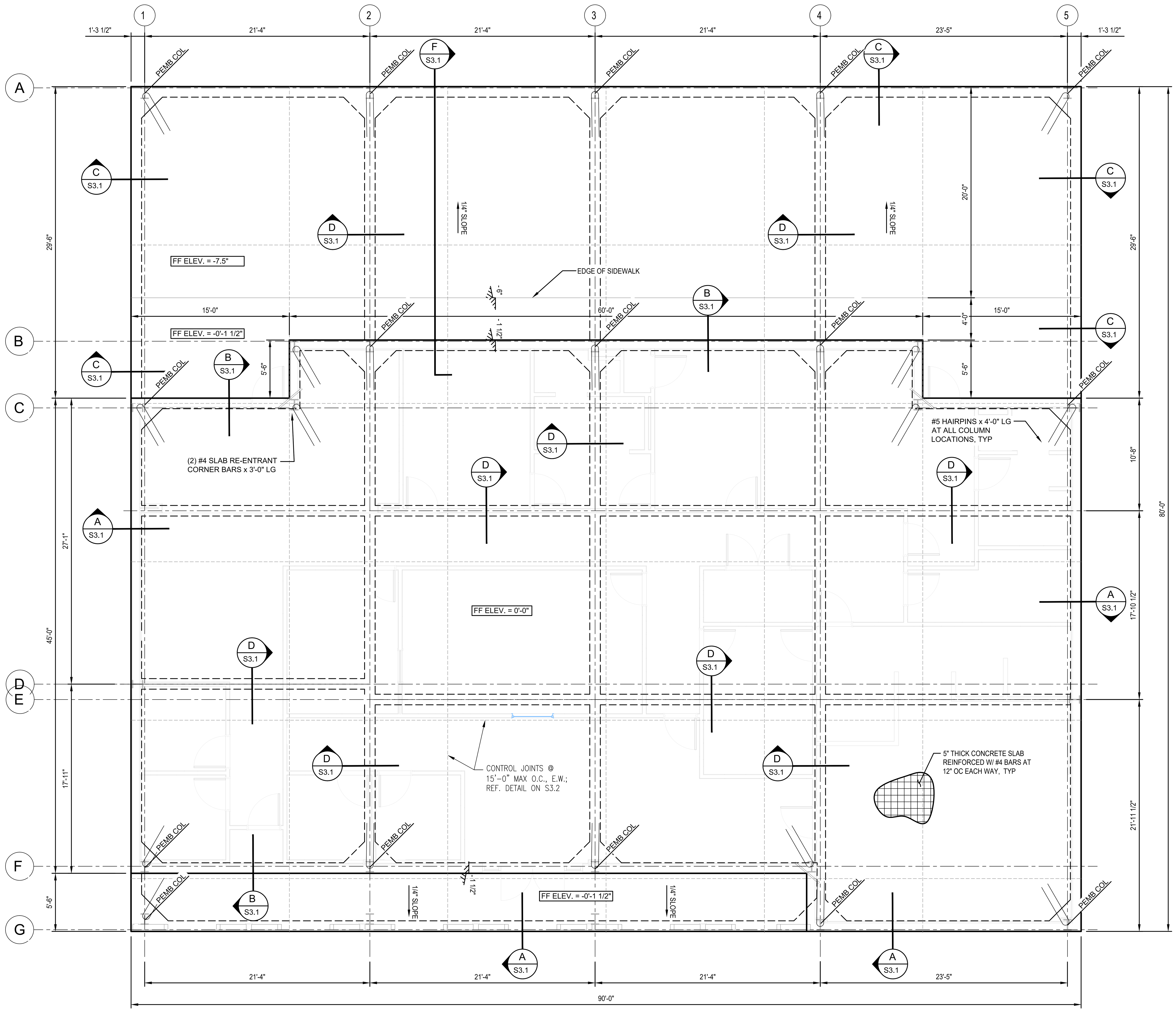

1 S1.1 FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

FOUNDATION NOTES & LEGEND:

1. THE EXISTING GROUND LEVEL SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 6 INCHES AND EXTENDED AT LEAST 5 FEET BEYOND THE FOUNDATION LIMITS AS INDICATED ON PLAN. THE EXCAVATION SHALL BE CARRIED OUT UNIFORMLY TO ENSURE PROPER FOUNDATION SUPPORT AND STABILITY.
2. BUILT-UP PADS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR DENSITY WITH COMPACTION TESTING CONDUCTED TO VERIFY COMPLIANCE. PROPER MOISTURE CONTROL MUST BE MAINTAINED DURING COMPACTION TO ACHIEVE THE REQUIRED DENSITY.
3. A MINIMUM OF 12 INCHES (1'-0") OF NON-EXPANSIVE SELECT FILL MATERIAL SHALL BE PLACED OVER THE PREPARED SUBGRADE. THE FILL MATERIAL SHALL BE INSTALLED IN SUCCESSIVE LIFTS, WITH EACH COMPACTED LIFT NOT EXCEEDING 6 INCHES IN HEIGHT. PROPER COMPACTION TESTING SHALL BE PERFORMED TO CONFIRM COMPLIANCE WITH THE PROJECT SPECIFICATIONS.
4. THE INDICATED FINISH FLOOR ELEVATION O 0'-0" IS PROVIDED FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL REFER TO ALL RELEVANT CONSTRUCTION DOCUMENTS INCLUDING ARCHITECTURAL AND CIVIL DRAWINGS FOR EXACT ELEVATIONS AND ADDITIONAL CLARIFICATIONS IN SLAB DROPS.

←	SLAB SLOPE	(symbol)	SLAB SLOPE
FD	FLOOR DRAIN	CBXX	COLUMN BASE TYPE

F-324

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PROJECT NAME:
MATAGORDA COUNTY
FOUNDATION PLAN

CUSTOMER NAME:
MATAGORDA JP PUBLIC DEPT.

PROJECT INFO.:
NAME
DRAWN BY: LLC
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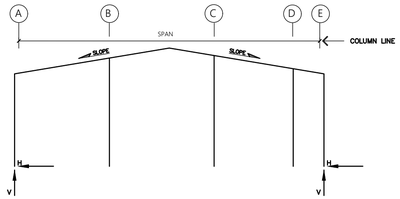
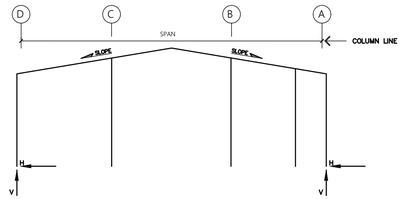
PEMB – FRAME LINES 1



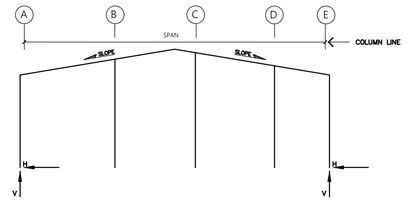
RIGID FRAME: MAX. REACTION (COLUMN LINES 1)					
		-----COLUMN REACTIONS (k)-----			
FRAME LINE	COL LINE	Hmax H	V Vmax	Hmin H	V Vmin
1	A	5.1	9.6	2.4	6.7
1	E	7.4	9.6	3.8	5.8

PEMB – FRAME LINES 2 3 4



RIGID FRAME: MAX. REACTION (COLUMN LINES 1)					
		-----COLUMN REACTIONS (k)-----			
FRAME LINE	COL LINE	Hmax H	V Vmax	Hmin H	V Vmin
2, 3, 4	A	7.2	16.2	1.0	8.5
2, 3, 4	E	10.8	16.3	6.8	10.2

PEMB – FRAME LINES 5



RIGID FRAME: MAX. REACTION (COLUMN LINES 1)					
		-----COLUMN REACTIONS (k)-----			
FRAME LINE	COL LINE	Hmax H	V Vmax	Hmin H	V Vmin
5	A	5.7	10.2	2.9	7.0
5	E	8.0	10.2	4.2	6.3

F-324

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PROJECT NAME:

MATAGORDA COUNTY

ANCHOR BOLT REACTIONS

CUSTOMER NAME:

MATAGORDA JP
PUBLIC DEPT.

PROJECT INFO.:

NAME:	
DRAWN BY:	LLC
CHECKED BY:	NMC
DESIGNED BY:	LLC
JOB NO.	20.105017

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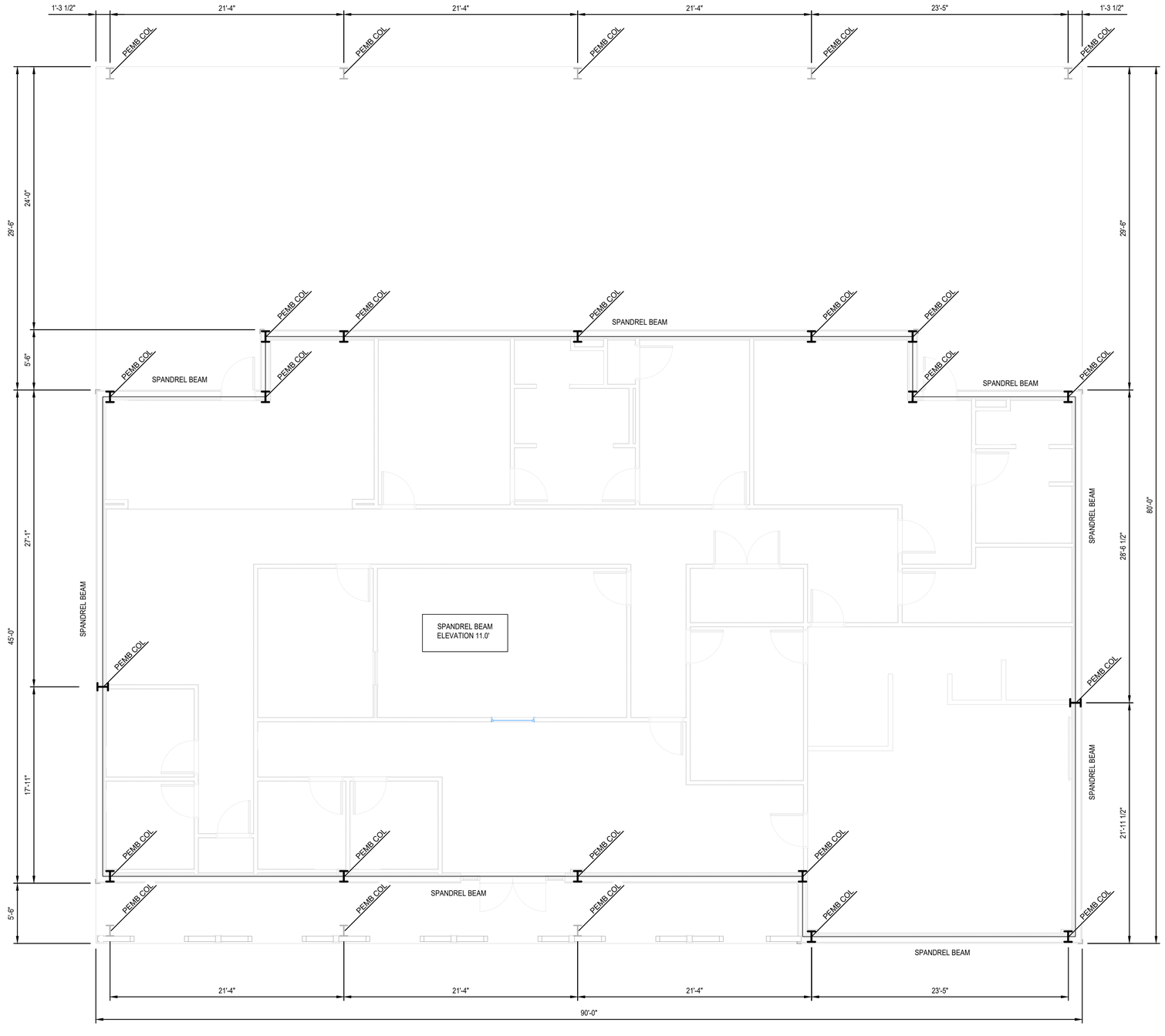

1 S2.1 LOWER FRAMING PLAN

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

NOTE:
ALL EXTERIOR STUDS SHALL BE 6" DEPTH, 16GA, 2" FLANGE

F-324

ARCH/ENG SEAL:

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PROJECT NAME:
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LOWER FRAMING PLAN

CUSTOMER NAME:
MATAGORDA JP
PUBLIC DEPT.

PROJECT INFO.:
DRAWN BY: NAME LLC
CHECKED BY: NMC
DESIGNED BY: LLC
JOB NO. 20.105017

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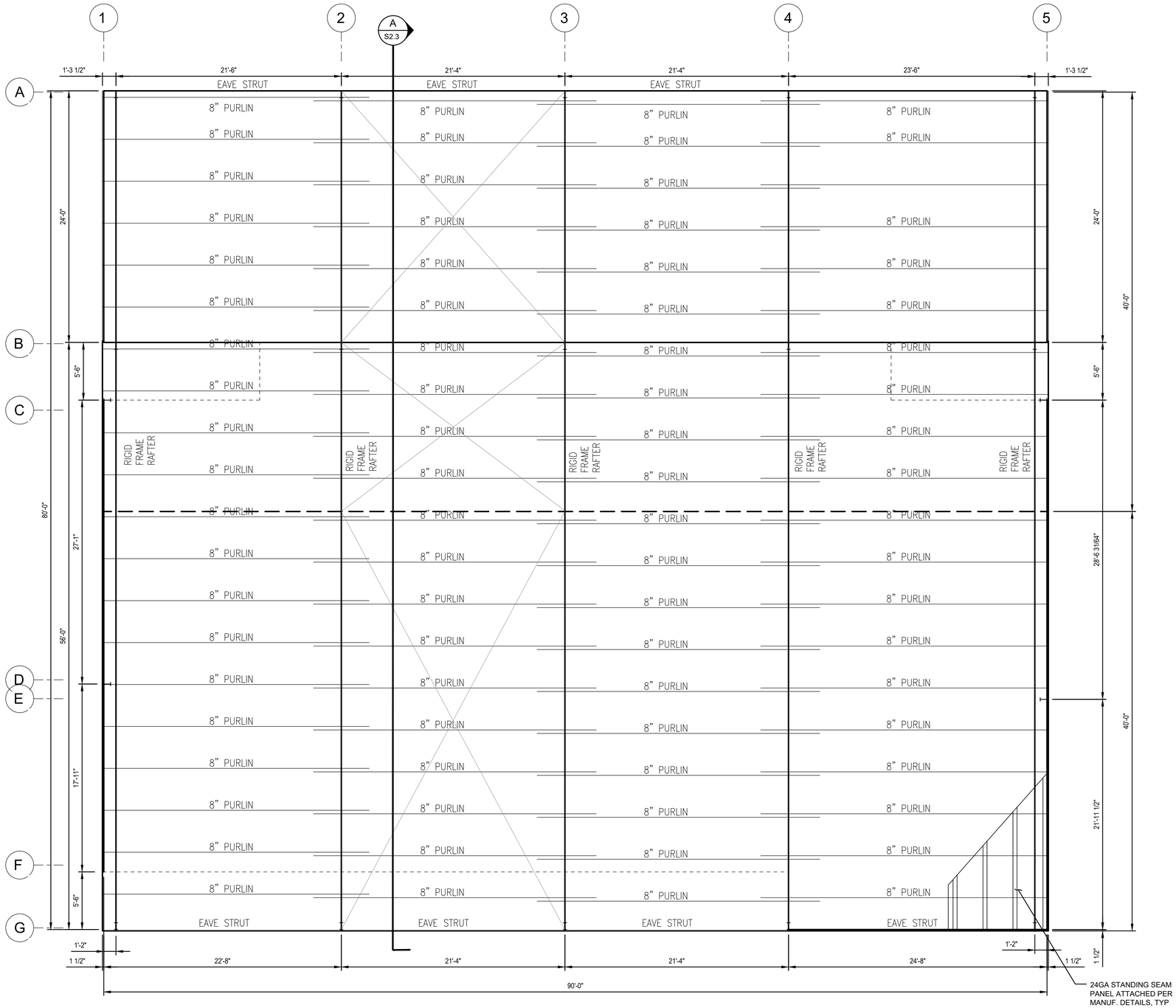

NOTE:
SPACING OF ALL PURLINS SHALL BE DETERMINED BY PEMB MANUFACTURER

1 / S2.2 ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"

F-324

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ROOF FRAMING PLAN

CUSTOMER NAME:
MATAGORDA JP
PUBLIC DEPT.

PROJECT INFO.: NAME
DRAWN BY: LLC
CHECKED BY: NMC
DESIGNED BY: LLC
JOB NO. 20.105017

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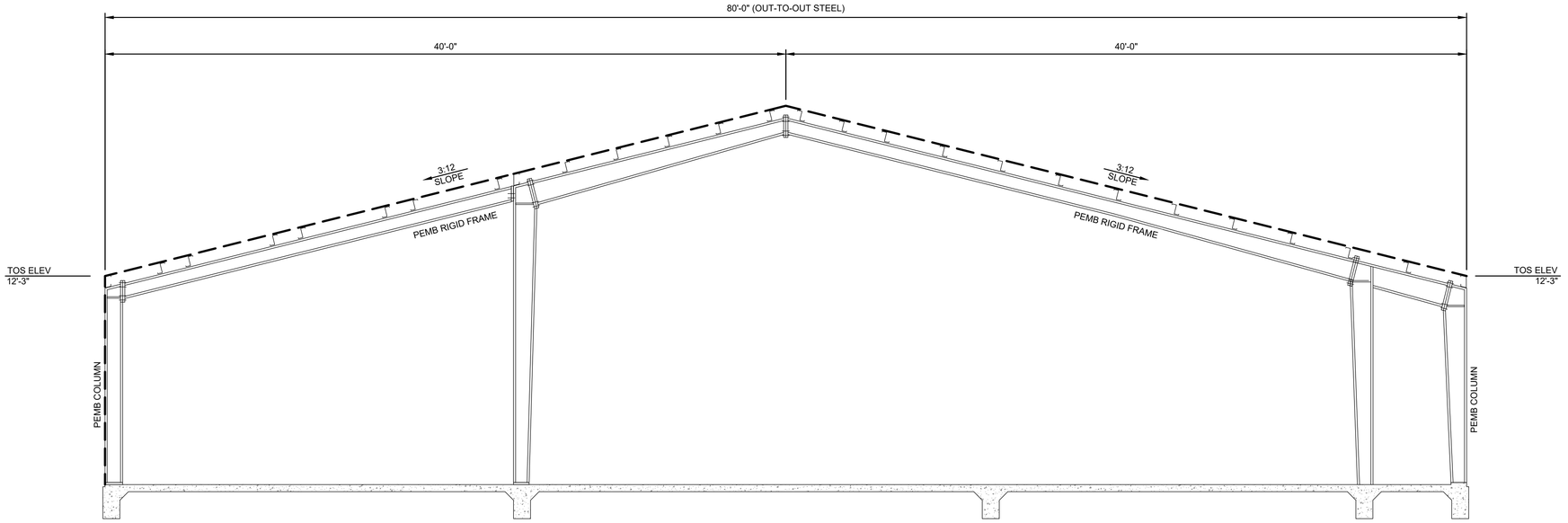
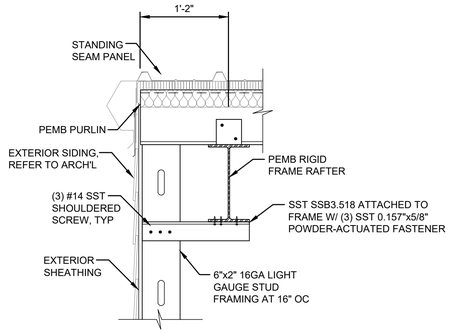
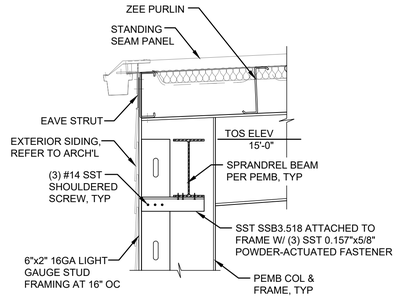


A S2.3 BUILDING SECTION - (FRAME LINE 1-5)
SCALE: 1/4" = 1'-0"



1 S2.3 TYP. STUD TO RIDGE FRAME RAFTER AT END WALL CONNECTION DETAIL
SCALE: 1/2" = 1'-0"



2 S2.3 TYP. STUD TO SPANDREL BEAM AT SIDE WALL CONNECTION DETAIL
SCALE: 1/2" = 1'-0"

F-324
ARCH/ENG SEAL:
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PROJECT NAME:
MATAGORDA COUNTY

BUILDING SECTION

CUSTOMER NAME:
MATAGORDA JP
PUBLIC DEPT.

PROJECT INFO.: NAME: LLC
DRAWN BY: LLC
CHECKED BY: NMC
DESIGNED BY: LLC
JOB NO. 20.105017

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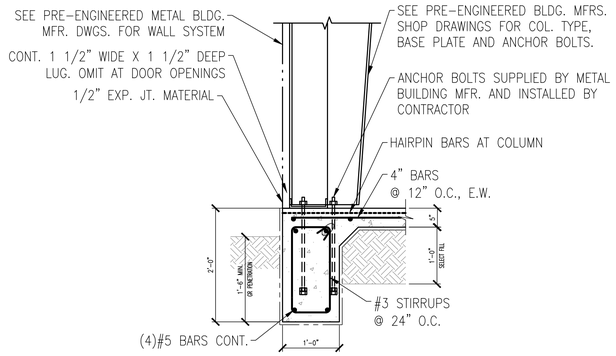
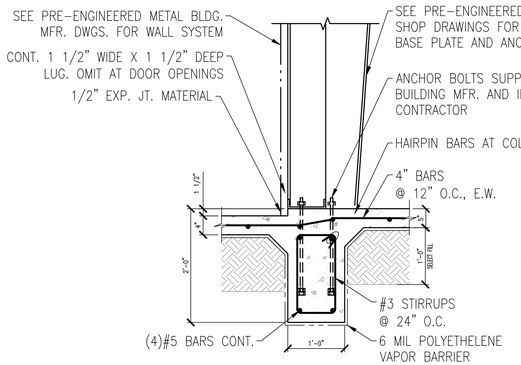


A SECTION
S1.1 SCALE: 3/4"=1'-0"



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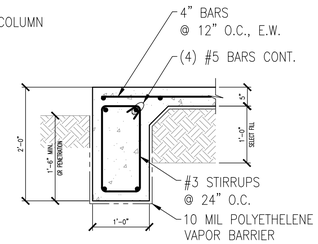

C SECTION
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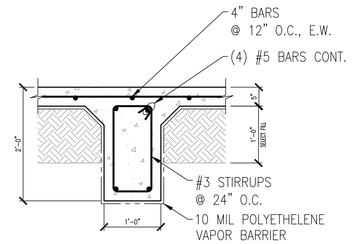

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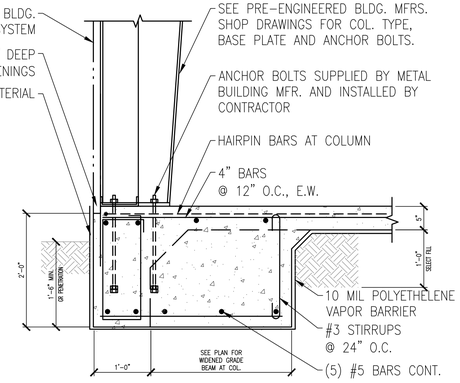

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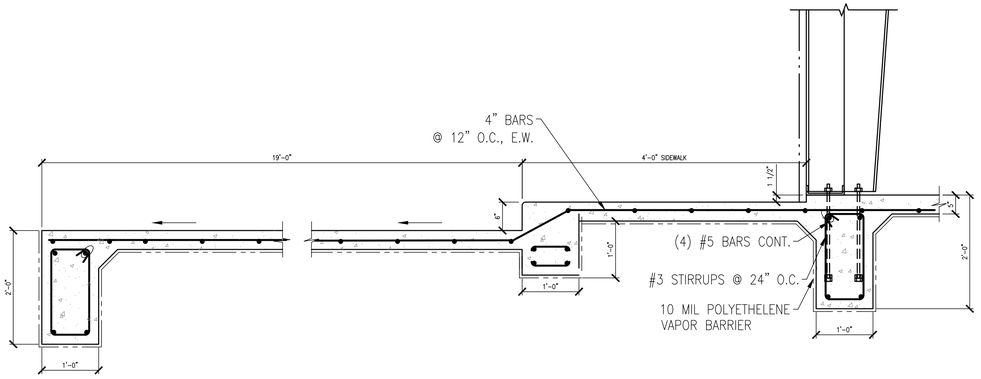

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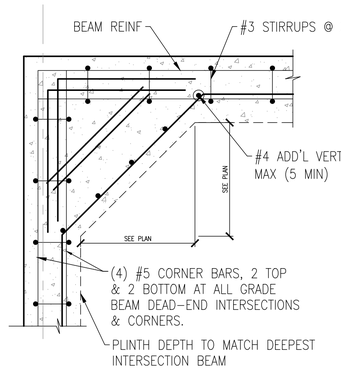
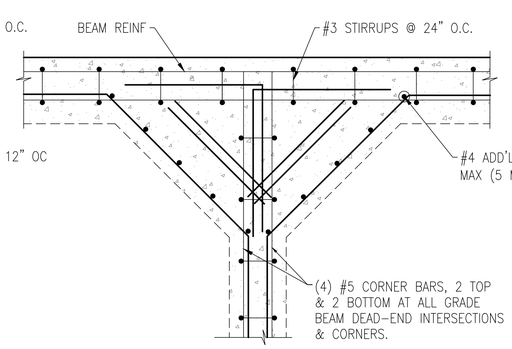


TYP. OUTSIDE CORNER
SCALE: 3/4"=1'-0"



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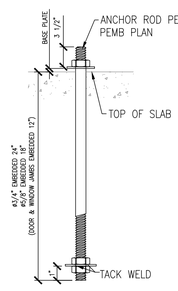
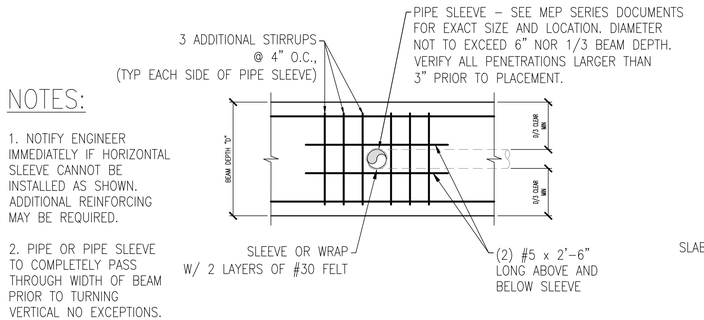


1 ANCHOR BOLT DETAIL
S1.1 SCALE: 3/4"=1'-0"

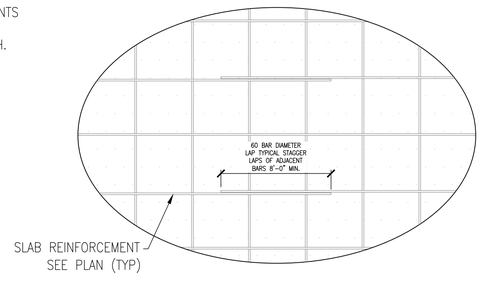


NOTES:

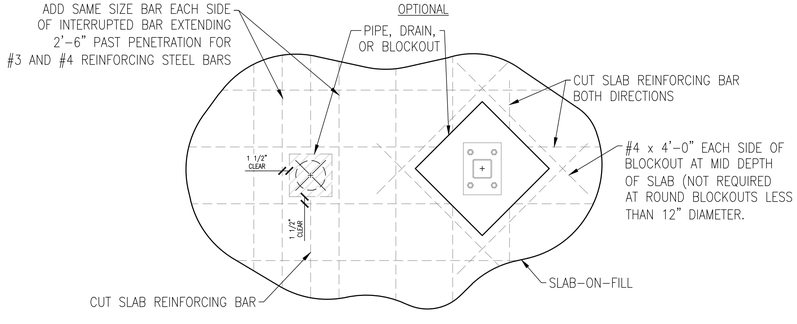
1. NOTIFY ENGINEER IMMEDIATELY IF HORIZONTAL SLEEVE CANNOT BE INSTALLED AS SHOWN. ADDITIONAL REINFORCING MAY BE REQUIRED.

2. PIPE OR PIPE SLEEVE TO COMPLETELY PASS THROUGH WIDTH OF BEAM PRIOR TO TURNING VERTICAL NO EXCEPTIONS.

TYPICAL HORIZONTAL GRADE BEAM PENETRATION DETAIL ADDITIONAL REINFORCING
SCALE: 3/4"=1'-0"



TYPICAL ADDITIONAL SLAB REINFORCING STEEL DETAIL AT INTERRUPTED BARS AT SLAB-ON-FILL CONSTRUCTION
SCALE: 3/4"=1'-0"



TYPICAL ADDITIONAL SLAB REINFORCING STEEL DETAIL AT INTERRUPTED BARS AT SLAB-ON-FILL CONSTRUCTION
SCALE: 3/4"=1'-0"

F-324

ARCH/ENG SEAL:
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PROJECT NAME:
MATAGORDA COUNTY
FOUNDATION SECTIONS & DETAILS

CUSTOMER NAME:
MATAGORDA JP PUBLIC DEPT.

PROJECT INFO.:
DRAWN BY: LLC
CHECKED BY: NMG
DESIGNED BY: LLC
JOB NO. 20.105017

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Date: Aug 19, 2025, 4:18pm User ID: lindsay.carrillo
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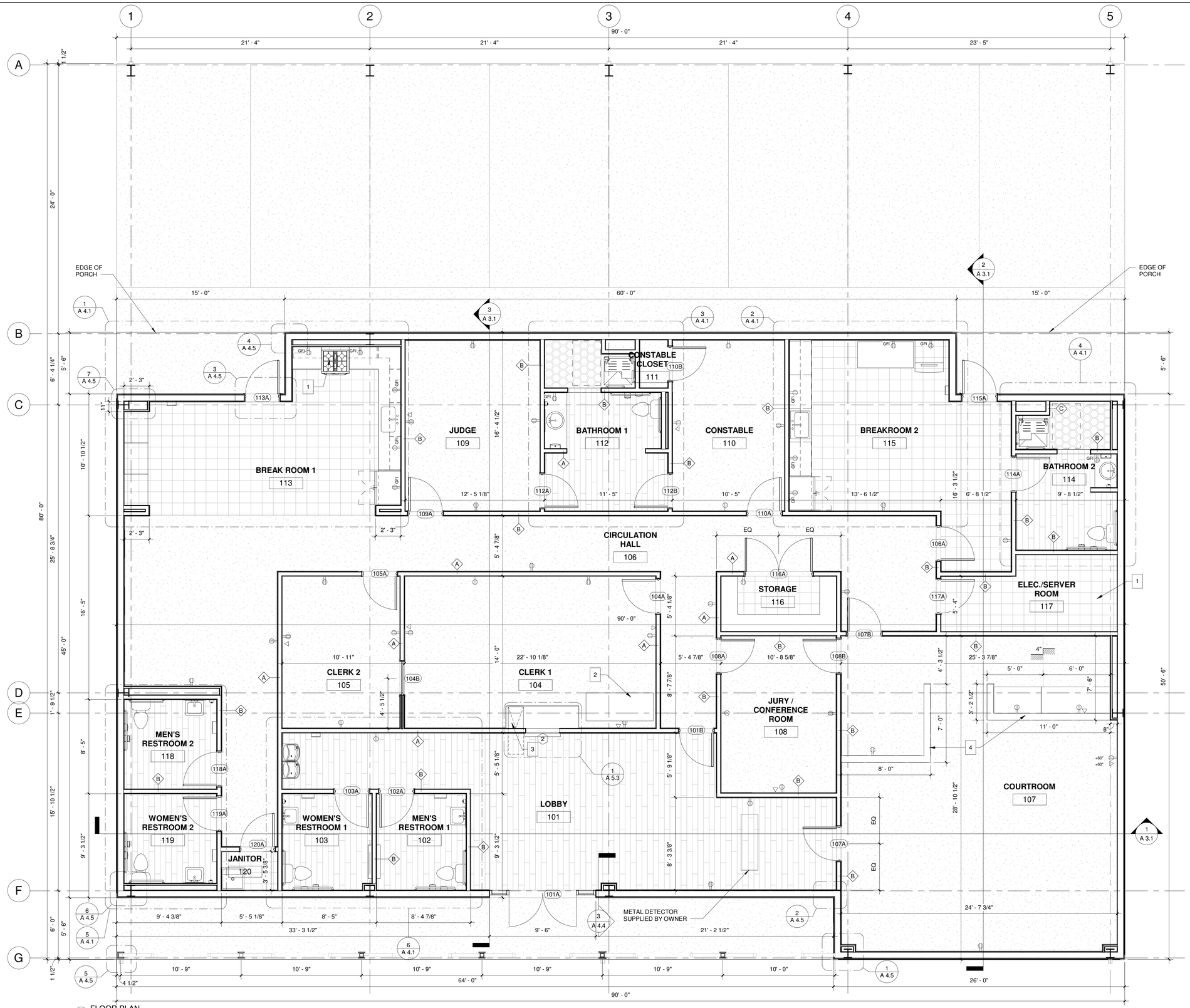

GENERAL NOTES:

A. THE CONTRACT DOCUMENTS ARE A COMPLIMENTARY SET OF DRAWINGS TO DESCRIBE THE SCOPE OF WORK. THE CONTRACTOR SHALL REVIEW AND CORRELATE THE INTENT OF EACH PART IN THE EXECUTION OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT ON ANY ITEMS OR ISSUES IN QUESTION BEFORE PROCEEDING.
B. ALL DIMENSIONS ARE MEASURED FROM FINISHED FACE TO FINISHED FACE, UNLESS OTHERWISE NOTED.
C. LOCATE NEW DOORS SUCH THAT THE INSIDE FACE OF THE HINGE JAMB IS 4 INCHED FROM THE NEAREST INTERSECTING PARTITION, UNLESS OTHERWISE NOTED.
D. WHERE PARTITIONS ARE SHOWN ALIGNED WITH MORE THAN ONE SURFACE OR ELEMENT, ALIGN WITH THE FURTHEST PROJECTION AND BUILD OUT OTHER SURFACES TO THAT LINE.
E. ALL WOOD BLOCKING NOTED IN CONTRACT DOCUMENTS TO BE FIRE-RETARDENT TREATED.
F. REFER TO MATERIAL SCHEDULE FOR SPECIFICATIONS, INSTALLATION INFORMATION, AND OTHER APPLICABLE DATA. REFER TO REFLECTED CEILING PLANS, ELEVATIONS, AND DOOR TYPES SHEET FOR ADDITIONAL FINISH MATERIAL LOCATIONS.
G. ADHESIVES, SEALERS, AND PAINTS TO BE LOW VOC UNLESS OTHERWISE NOTED.
H. FLOORING TRANSITIONS AT DOOR OPENINGS ARE TO ALIGN WITH THE CENTERLINE OF THE CLOSED DOOR, UNLESS OTHERWISE NOTED.
I. LOCATE TELECOMMUNICATIONS, POWER, AND OTHER OUTLETS AND DEVICES AS SHOWN ON THIS DRAWING. IF ANY OUTLET OR DEVICE CANNOT BE INSTALLED AS NOTED OR CONFLICTS, OBTAIN CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING.

KEY NOTES:

1. REFER TO ELECTRICAL FOR POWER AND DATA IN SERVER ROOM
2. MULTI-FUNCTION PRINTER BY OWNER
3. TRANSACTION DRAWER, EQ06
4. JURY AND JUDGE PARTIAL HEIGHT WALLS. PAINTED WOOD TRIM AND FINISH ON STUD WALL WITH BULLET RESISTANT SURFACE BEHIND THE WOOD SURFACE.

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT · KIMBERLY E. MERCER · 27012 · STATE OF TEXAS

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

FLOOR PLAN

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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DATE	REMARKS
08/18/25	ISSUE FOR BID

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A 1.1

1 REFLECTED CEILING PLAN
1/4" = 1'-0"

GENERAL NOTES:

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B. CEILING TYPE IS 2' X 2' DROP CEILING TILE UNLESS OTHERWISE NOTED.
C. CEILING TILE ARE TO BE CENTERED WITH ROOM UNLESS OTHERWISE NOTED.
D. REFER TO ELECTRICAL DRAWING FOR LIGHTING FIXTURE INFORMATION.
E. ALL CEILINGS ARE TO BE PLACED AT 10' ELEVATION UNLESS OTHERWISE NOTED.

KEY NOTES:

1. FIBER CEMENT PORCH SOFFIT PANELS, PAINTED
2. PRE-ENGINEERED METAL BUILDING EAVE TRIM AND GUTTER
3. PRE-ENGINEERED METAL BUILDING SOFFIT PANELS
4. PRE-ENGINEERED METAL BUILDING RAKE TRIM
5. DOWNSPOUT
6. FIBER CEMENT TRIM, PAINTED

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
32012
STATE OF TEXAS

2025.08.18

LYNNENGINEERING
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BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

REFLECTED CEILING PLAN

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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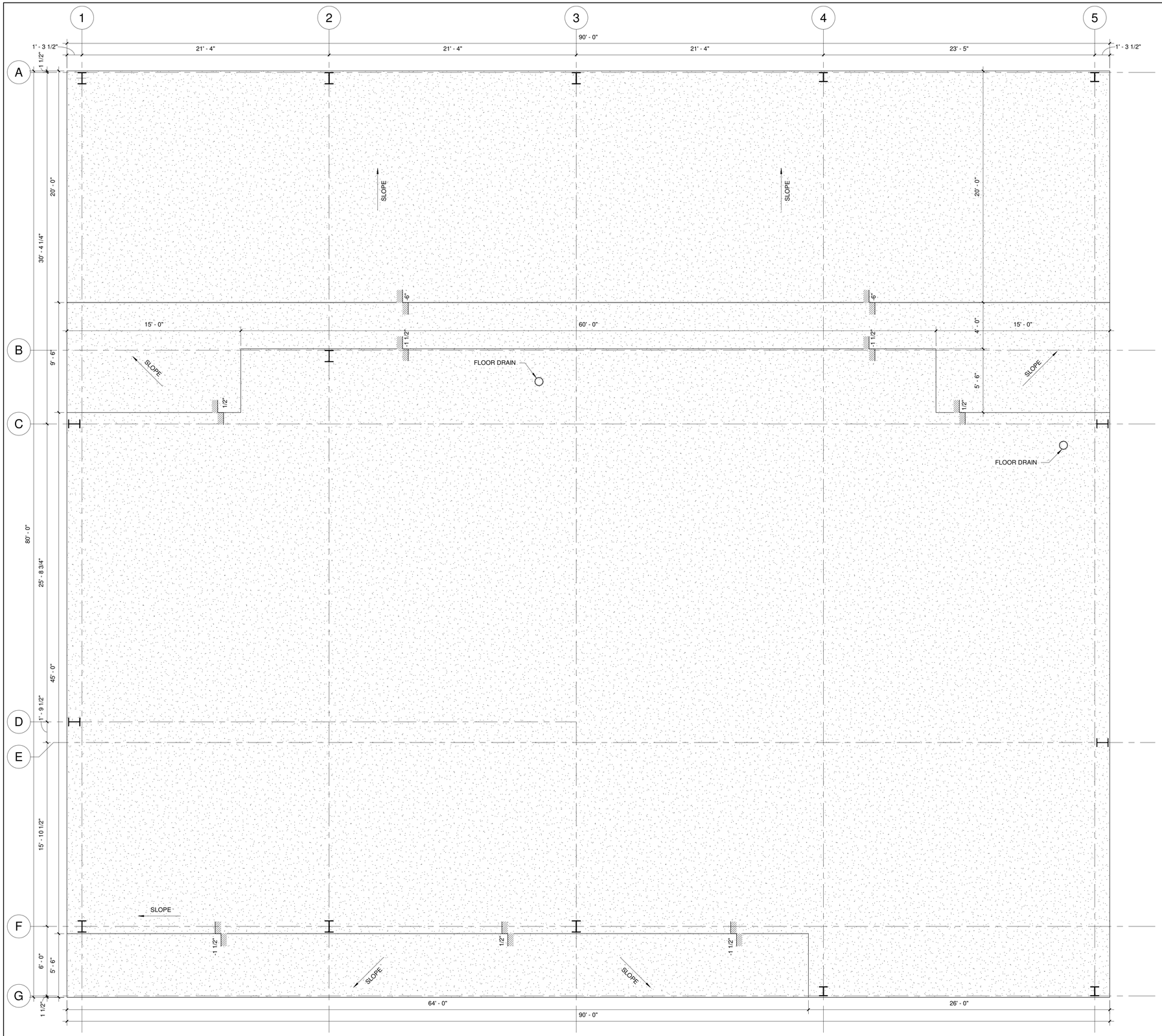
DATE	REMARKS
08/18/25	ISSUE FOR BID

REVISIONS

NO.	REMARKS

SHEET NO:

A 1.2



1 FINISHED FLOOR
1/4" = 1'-0"

F-324

REGISTERED ARCHITECT
KIMBERLY E. MERCER
STATE OF TEXAS
ARCH/ENG SEAL:
2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

STRUCTURAL LAYOUT

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	SA
CHECKED BY:	KM
DESIGNED BY:	KM
JOB NO.	20.105017

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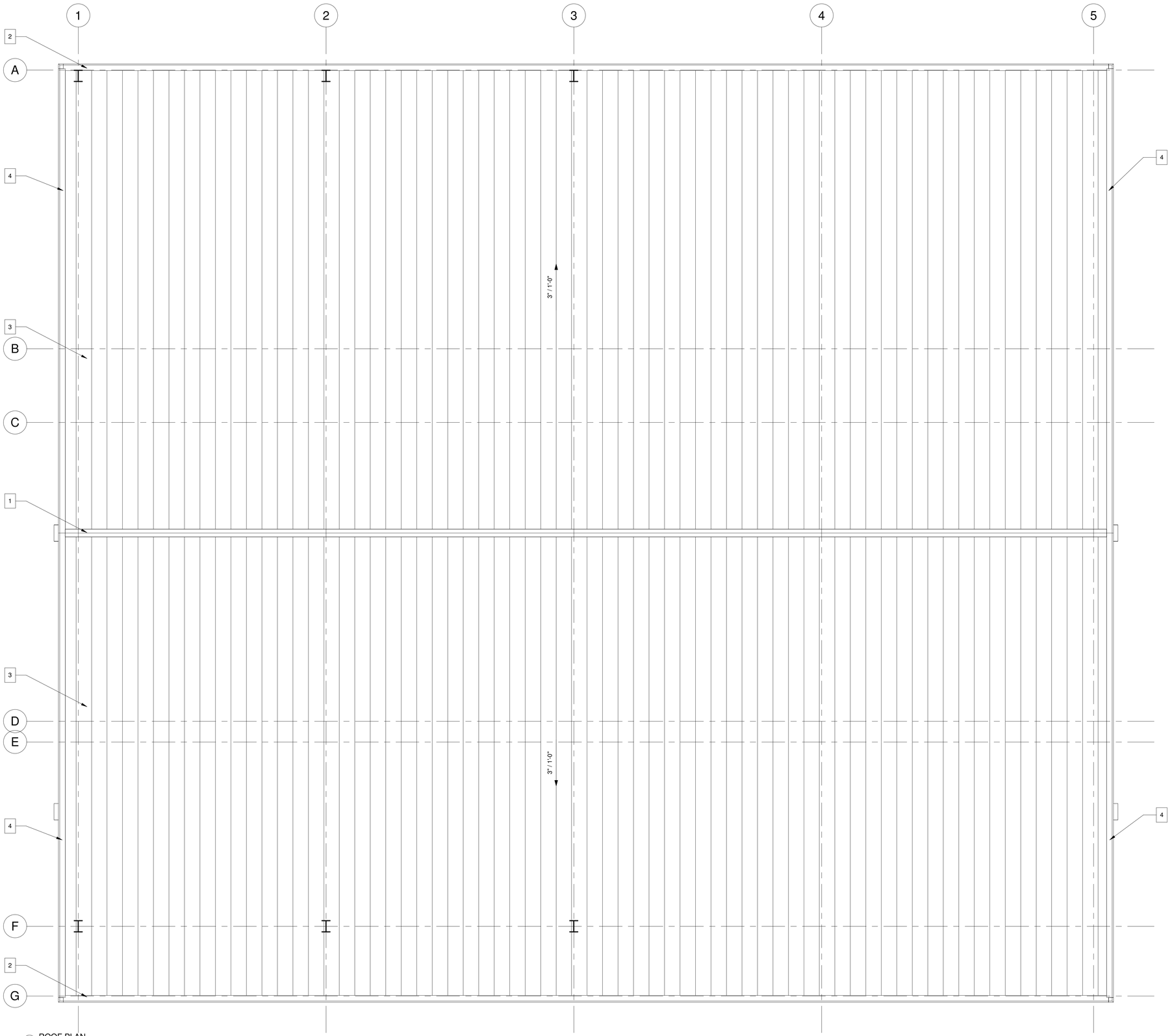
NO.	REMARKS

SHEET NO:

A 1.3



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

GENERAL NOTES:

A. THE CONTRACT DOCUMENTS ARE A COMPLIMENTARY SET OF DRAWINGS TO DESCRIBE THE SCOPE OF WORK. THE CONTRACTOR SHALL REVIEW AND CORRELATE THE INTENT OF EACH PART IN THE EXECUTION OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT ON ANY ITEMS OR ISSUES IN QUESTION BEFORE PROCEDING.

KEY NOTES:

1. PRE-ENGINEERED METAL BUILDING RIDGE CAP
2. PRE-ENGINEERED METAL BUILDING EAVE TRIM AND GUTTER
3. PRE-ENGINEERED METAL BUILDING STANDING SEAM ROOF PANELS
4. PRE-ENGINEERED METAL BUILDING RAKE TRIM
5. DOWNSPOUT

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
27012
STATE OF TEXAS

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

ROOF PLAN

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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DATE	REMARKS
08/18/25	ISSUE FOR BID

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SHEET NO:

A 1.4

GENERAL NOTES:

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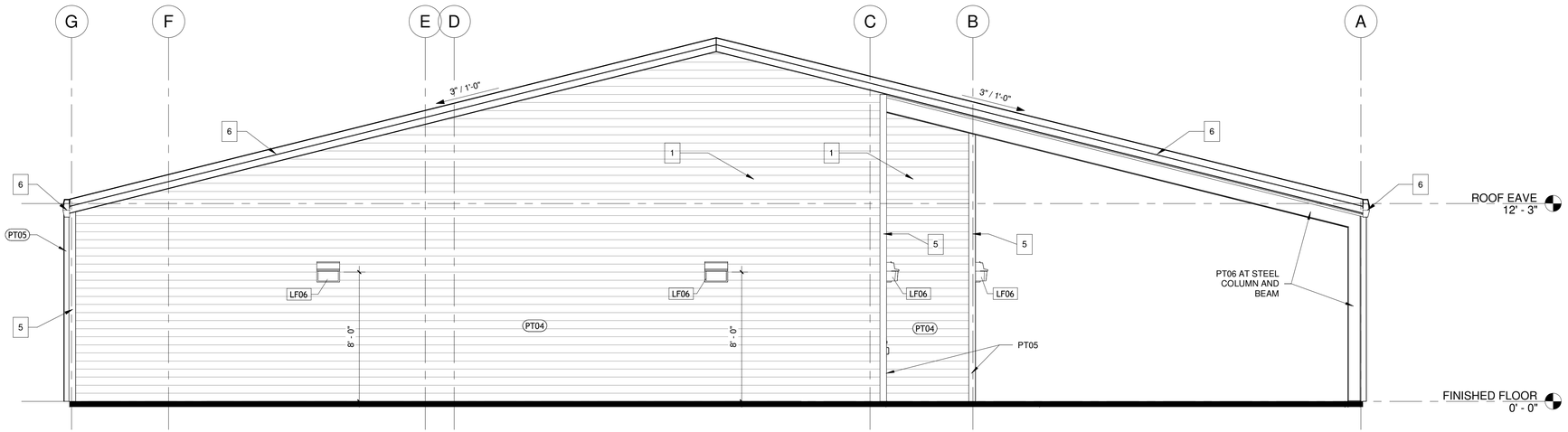
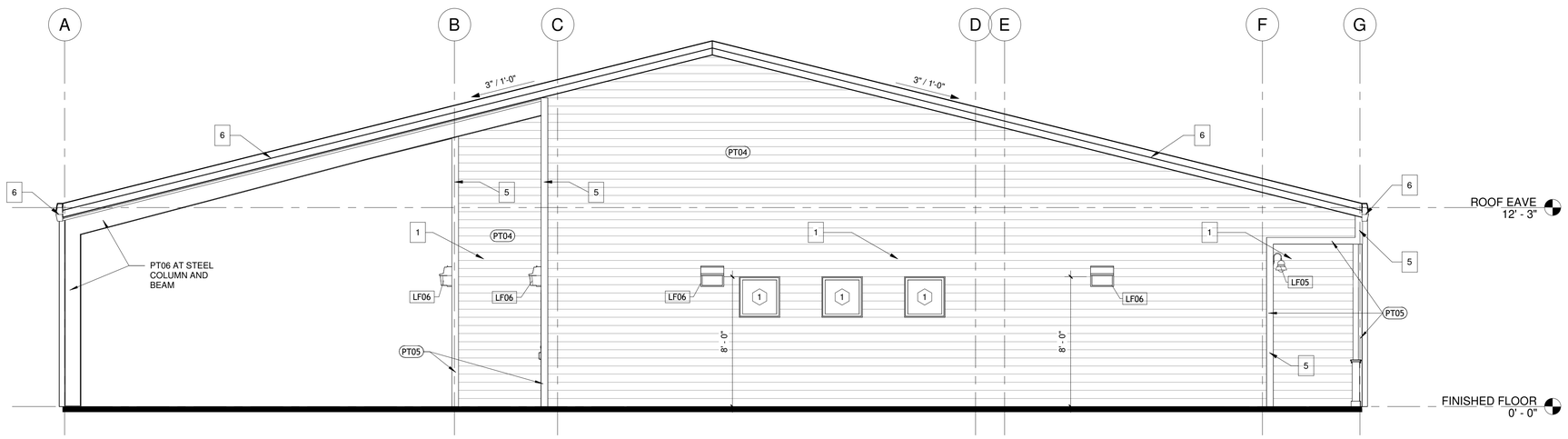
KEY NOTES:

1. FIBER CEMENT HORIZONTAL LAP SIDING ,PAINTED
2. FIBER CEMENT PORCH SOFFIT PANELS, PAINTED
3. PRE-ENGINEERED METAL BUILDING STANDING SEAM ROOF PANELS
4. PRE-ENGINEERED METAL BUILDING PBR WALL PANELS
5. PRE-ENGINEERED METAL BUILDING CORNER TRIM
6. PRE-ENGINEERED METAL BUILDING EAVE TRIM AND GUTTER
7. PRE-ENGINEERED METAL BUILDING SOFFIT PANELS
8. PRE-ENGINEERED METAL BUILDING RIDGE CAP
9. DOWNSPOUT



1 EAST
1/4" = 1'-0"



2 WEST
1/4" = 1'-0"

F-324

ARCH/ENG SEAL:

KIMBERLY E. MERCER
REGISTERED ARCHITECT
STATE OF TEXAS
25012

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

EXTERIOR ELEVATIONS 1

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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DATE	REMARKS
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NO.	REMARKS

SHEET NO:

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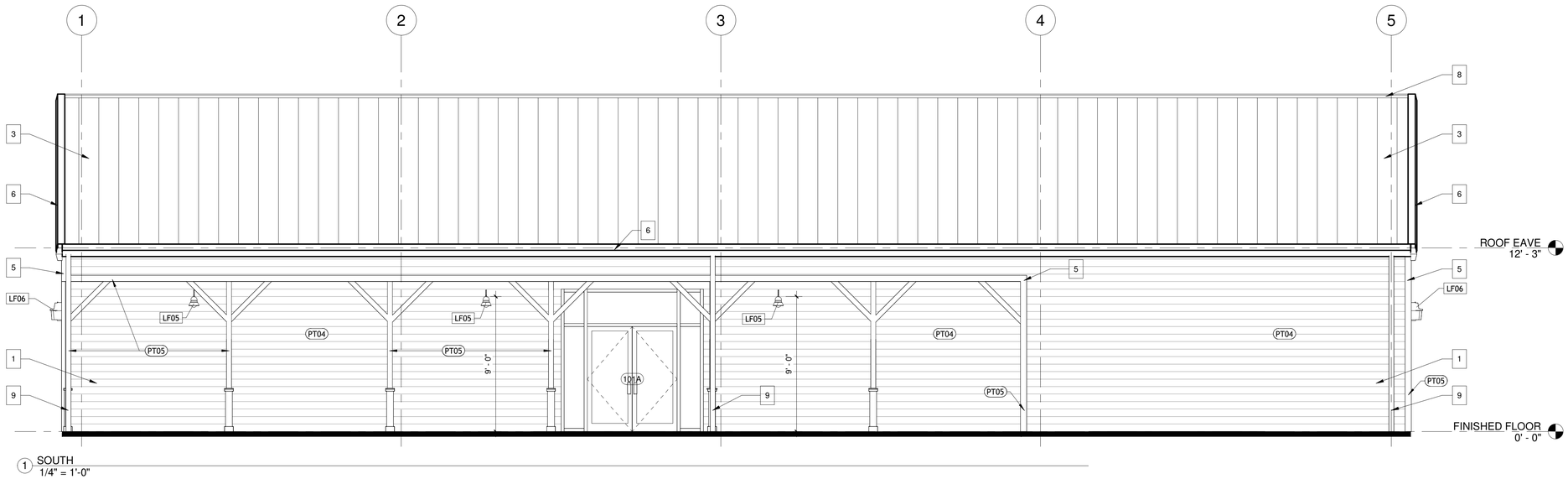
GENERAL NOTES:

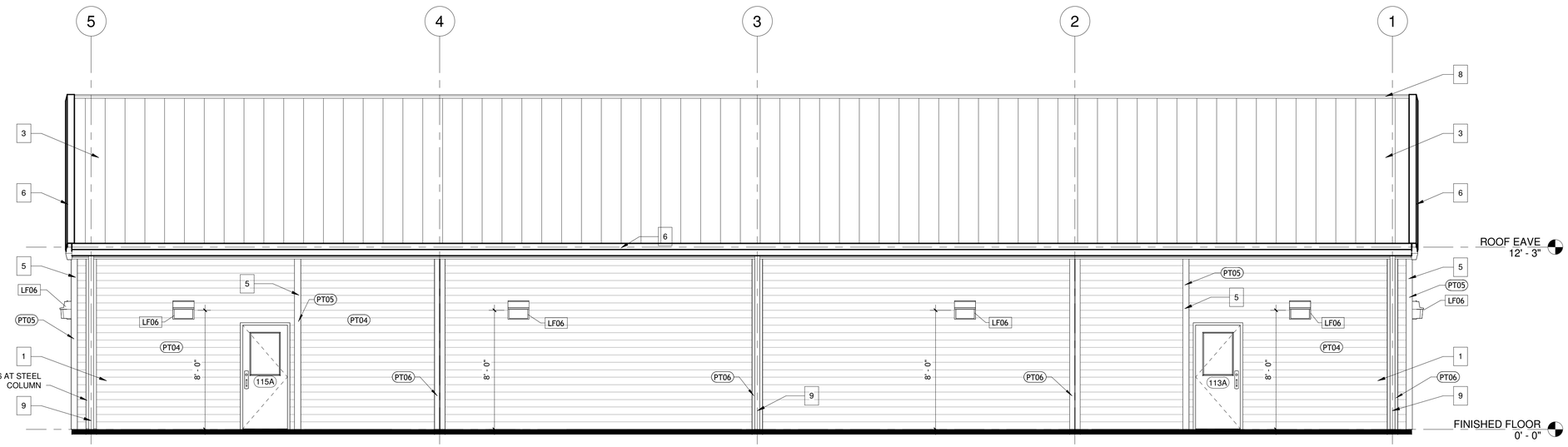
A. THE CONTRACT DOCUMENTS ARE A COMPLIMENTARY SET OF DRAWINGS TO DESCRIBE THE SCOPE OF WORK. THE CONTRACTOR SHALL REVIEW AND CORRELATE THE INTENT OF EACH PART IN THE EXECUTION OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT ON ANY ITEMS OR ISSUES IN QUESTION BEFORE PROCEDING.

KEY NOTES:

1. FIBER CEMENT HORIZONTAL LAP SIDING ,PAINTED
2. FIBER CEMENT PORCH SOFFIT PANELS, PAINTED
3. PRE-ENGINEERED METAL BUILDING STANDING SEAM ROOF PANELS
4. PRE-ENGINEERED METAL BUILDING PBR WALL PANELS
5. PRE-ENGINEERED METAL BUILDING CORNER TRIM
6. PRE-ENGINEERED METAL BUILDING EAVE TRIM AND GUTTER
7. PRE-ENGINEERED METAL BUILDING SOFFIT PANELS
8. PRE-ENGINEERED METAL BUILDING RIDGE CAP
9. DOWNSPOUT



1 SOUTH
1/4" = 1'-0"



2 NORTH
1/4" = 1'-0"

F-324

ARCH/ENG SEAL:

KIMBERLY E. MERCER — REGISTERED ARCHITECT — 27012 — STATE OF TEXAS

2025.08.18

LYNNENGINEERING

2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

EXTERIOR ELEVATIONS 2

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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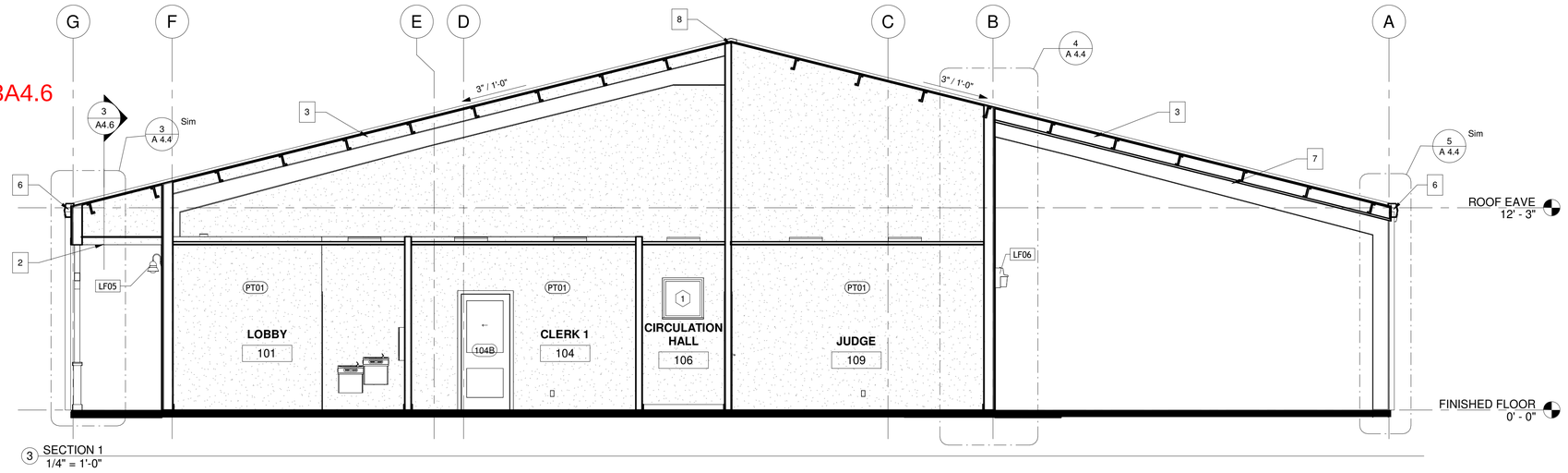
REVISIONS

NO.	REMARKS

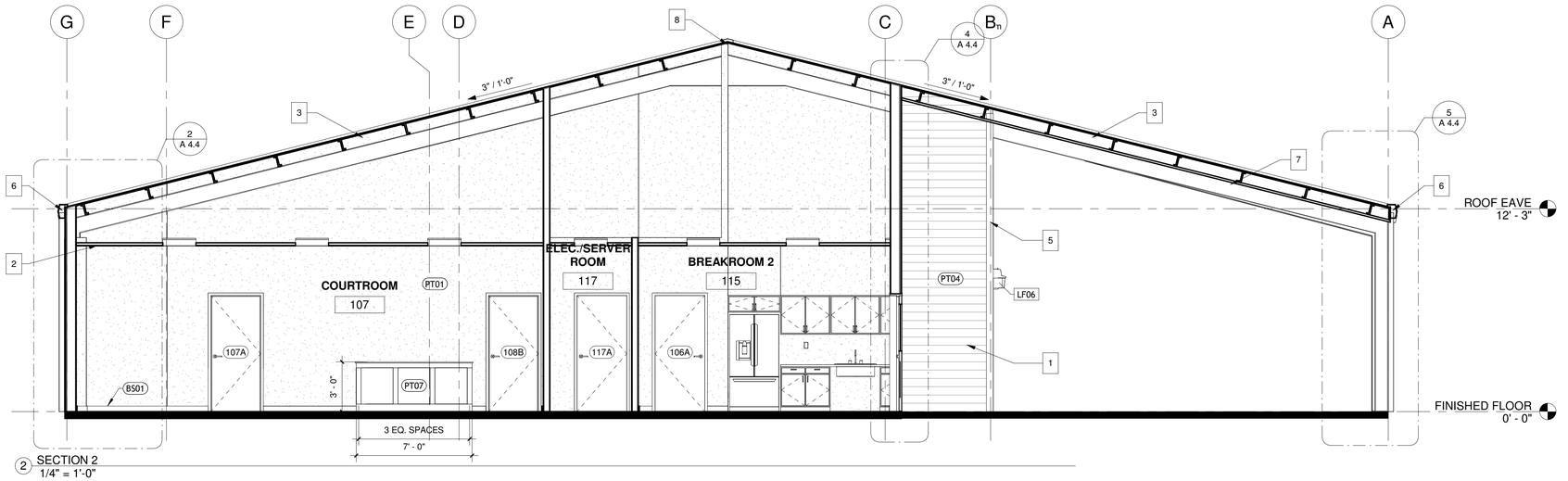
SHEET NO:

A 2.2

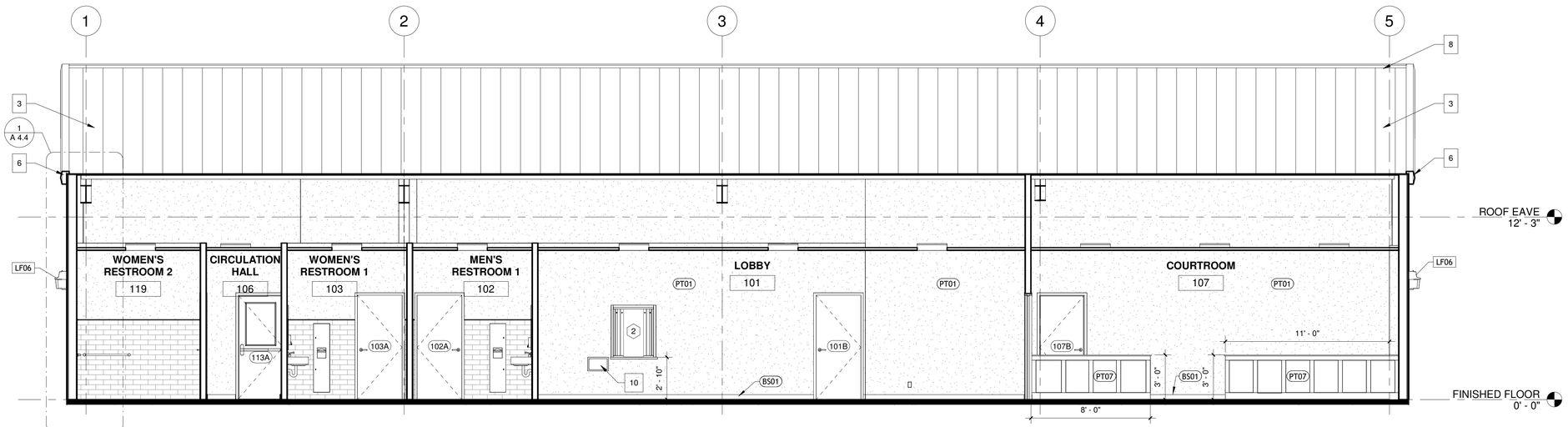
3A4.6



3 SECTION 1
1/4" = 1'-0"



2 SECTION 2
1/4" = 1'-0"



1 SECTION 4
1/4" = 1'-0"

GENERAL NOTES:

A. THE CONTRACT DOCUMENTS ARE A COMPLIMENTARY SET OF DRAWINGS TO DESCRIBE THE SCOPE OF WORK. THE CONTRACTOR SHALL REVIEW AND CORRELATE THE INTENT OF EACH PART IN THE EXECUTION OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT ON ANY ITEMS OR ISSUES IN QUESTION BEFORE PROCEEDING.
B. LOCATE CEILING-MOUNTED DEVICES, SUCH AS LIGHT FIXTURES, PROJECTION EQUIPTMENT, ETC. AS SHOWN ON THIS DRAWING. VERIFY DISCREPANCIES WITH THE ARCHITECT ON ANY ITEMS OR ISSUES IN QUESTION BEFORE PROCEEDING.
C. REFER TO MATERIAL SCHEDULE FOR FINISH TAGS SHOWN ON PLAN.
D. PROVIDE AND INSTALL APPROPRIATE BRACING AND / OR REINFORCEMENT AS REQUIRED FOR FURR DOWNS, SOFFITS, TOILET PARTITIONS, ETC.
E. SWITCH ONLY LIGHT FIXTURES TOGETHER, UNLESS NOTED OTHERWISE.
F. WALL PACKS ARE DIMENSIONED TO FACE OF EXTERIOR WALL

KEY NOTES:

1. FIBER CEMENT HORIZONTAL LAP SIDING ,PAINTED
2. FIBER CEMENT PORCH SOFFIT PANELS, PAINTED
3. PRE-ENGINEERED METAL BUILDING STANDING SEAM ROOF PANELS
4. PRE-ENGINEERED METAL BUILDING PBR WALL PANELS
5. PRE-ENGINEERED METAL BUILDING CORNER TRIM
6. PRE-ENGINEERED METAL BUILDING EAVE TRIM AND GUTTER
7. PRE-ENGINEERED METAL BUILDING SOFFIT PANELS
8. PRE-ENGINEERED METAL BUILDING RIDGE CAP
9. DOWNSPOUT
10. THROUGH WALL TRANSACTION DRAWER

F-324

ARCH/ENG SEAL:

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

SECTIONS

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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DATE	REMARKS
08/18/25	ISSUE FOR BID

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NO.	REMARKS

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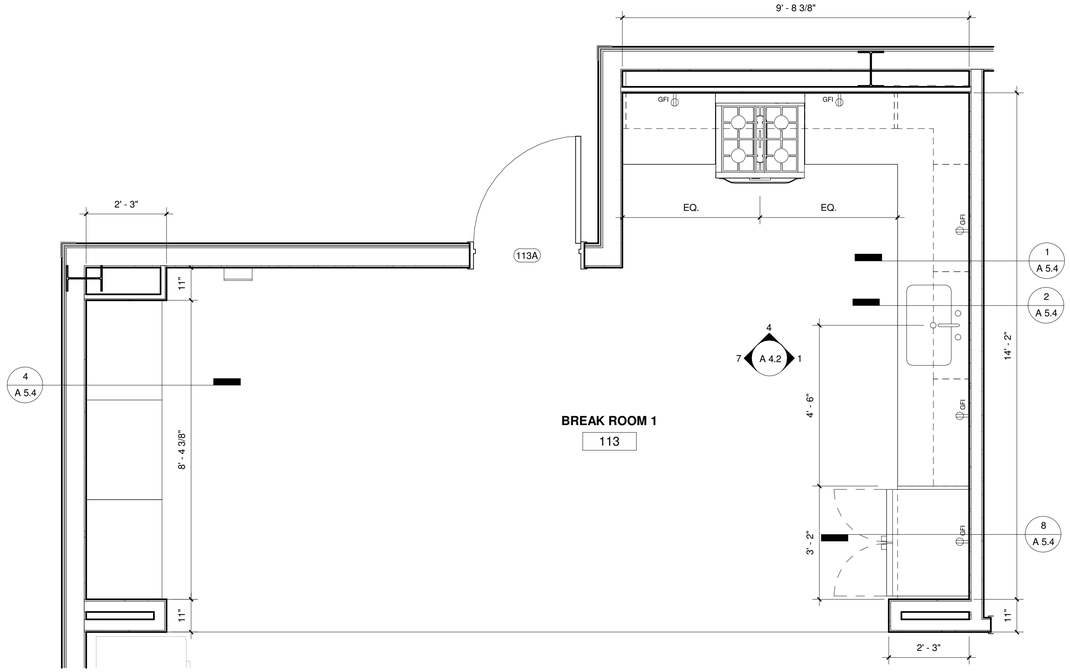
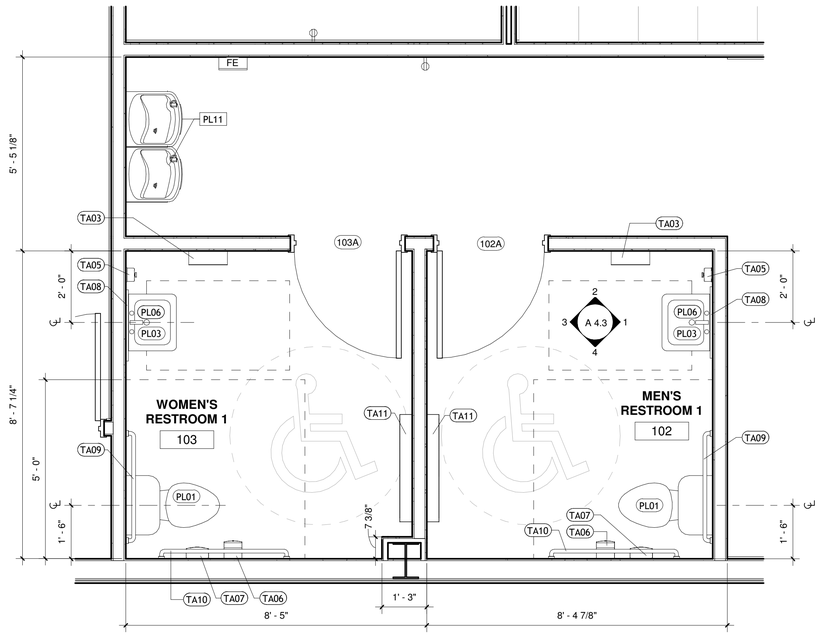
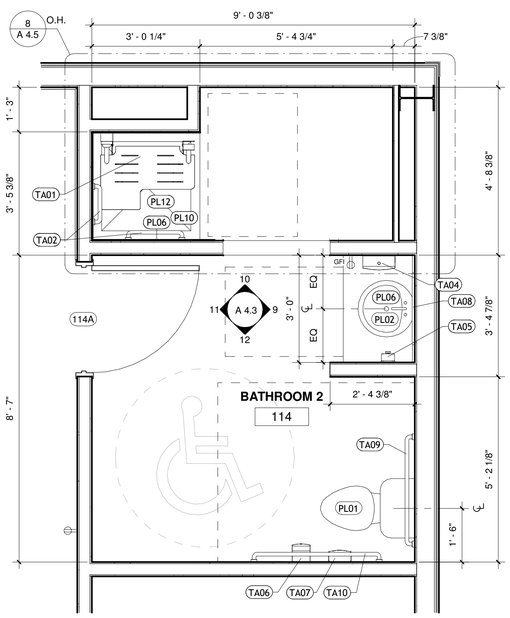


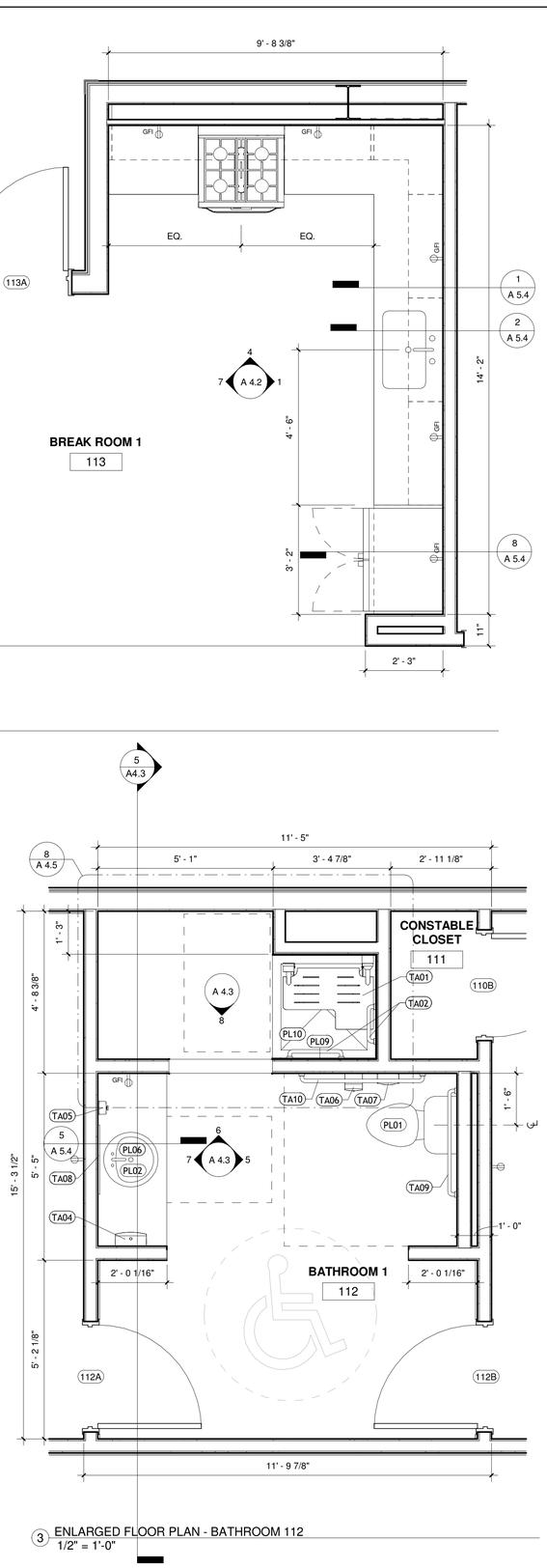
1 ENLARGED FLOOR PLAN - BREAKROOM 113
1/2" = 1'-0"



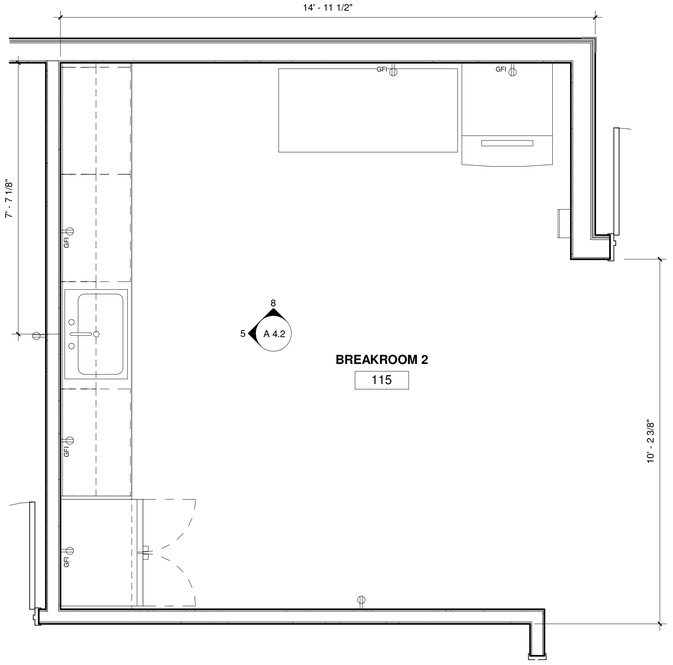
6 ENLARGED FLOOR PLAN - RESTROOMS 102 AND 103
1/2" = 1'-0"



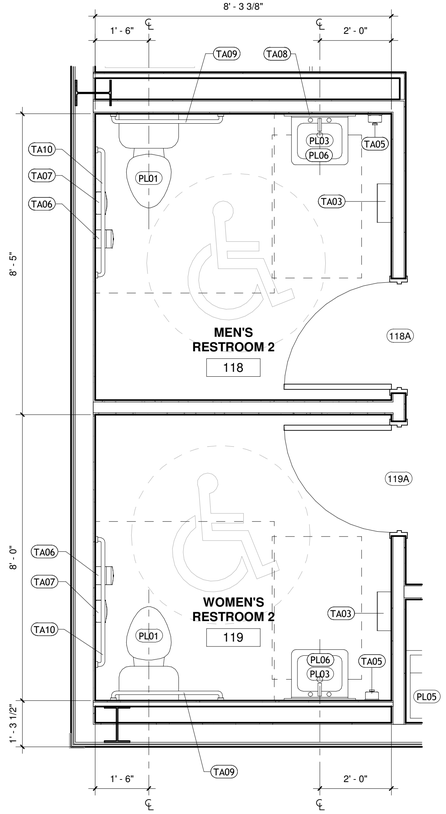
4 ENLARGED FLOOR PLAN - BATHROOM 114
1/2" = 1'-0"



3 ENLARGED FLOOR PLAN - BATHROOM 112
1/2" = 1'-0"



2 ENLARGED FLOOR PLAN - BREAKROOM 115
1/2" = 1'-0"



5 ENLARGED FLOOR PLAN - RESTROOMS 118 AND 119
1/2" = 1'-0"

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
STATE OF TEXAS

2025.08.18

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PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINCT 2
SARGENT, TX.

PLAN CALLOUTS

MATAGORDA COUNTY

CUSTOMER NAME:

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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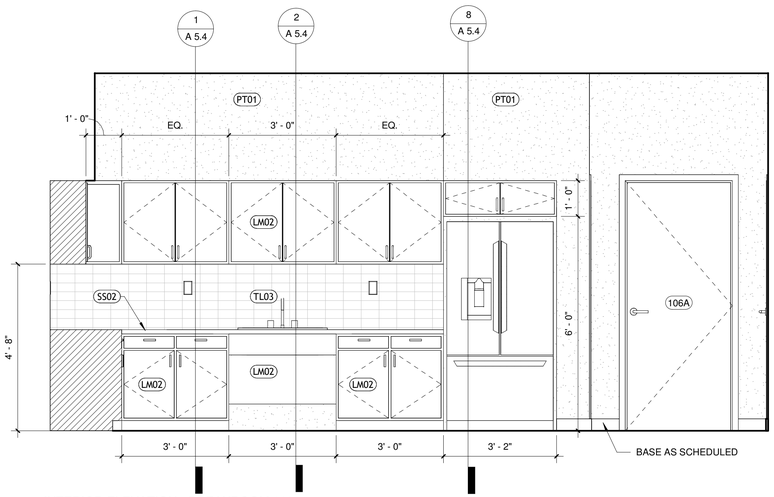
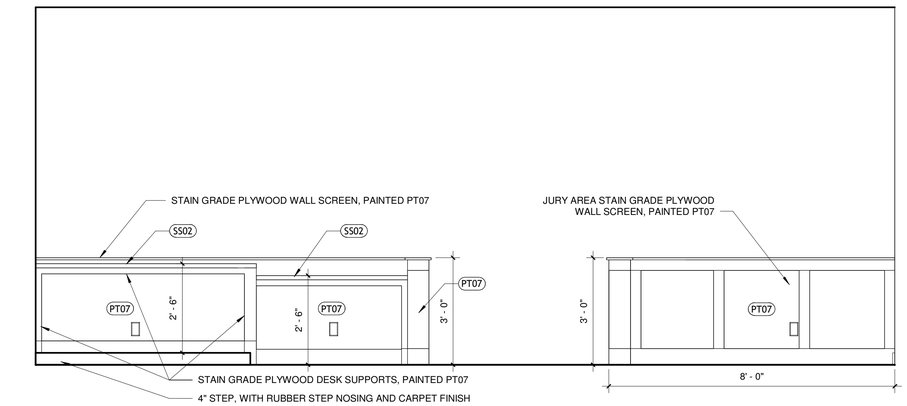
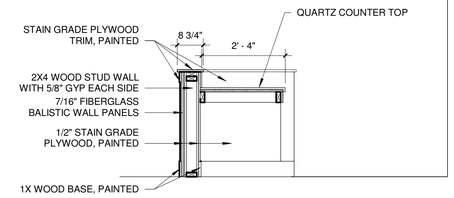


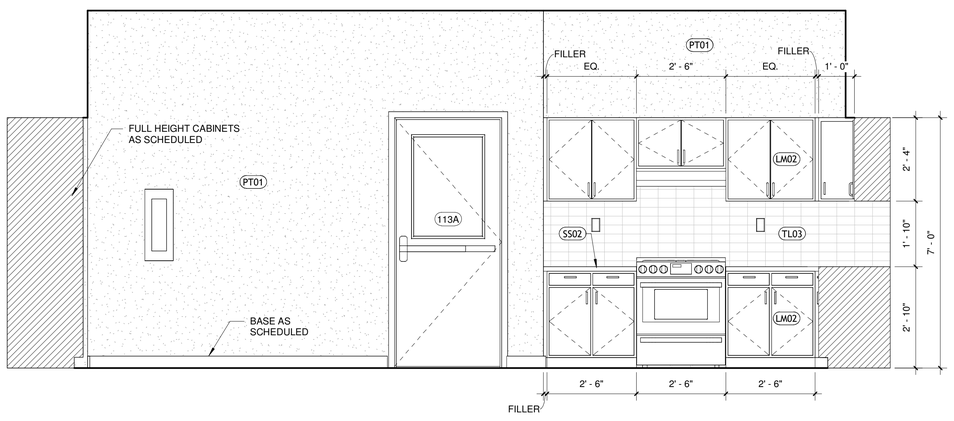
1 INTERIOR ELEVATION - BREAKROOM 113
1/2" = 1'-0"



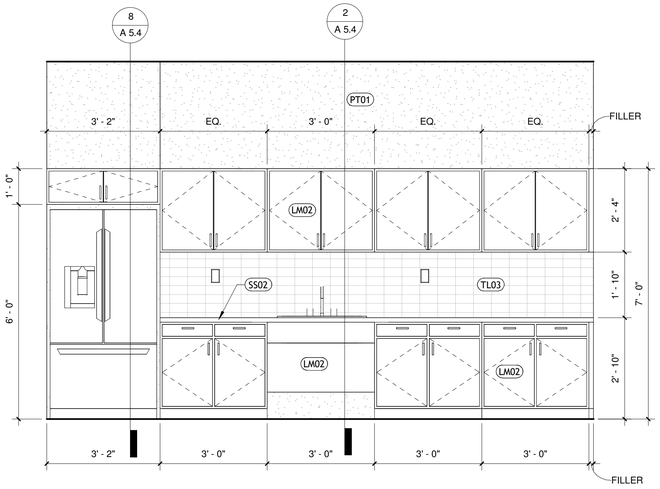
2 BACK OF JUDGE AND JURY
1/2" = 1'-0"



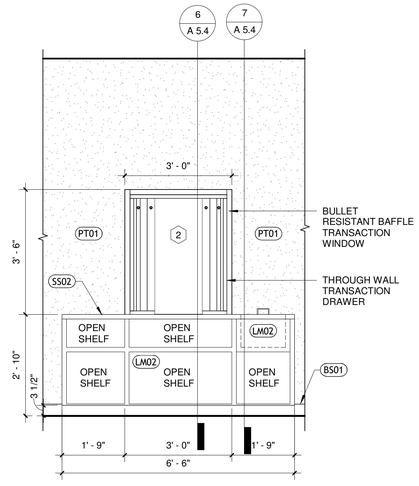
3 JUDGE AND BAILIFF DESK
1/2" = 1'-0"



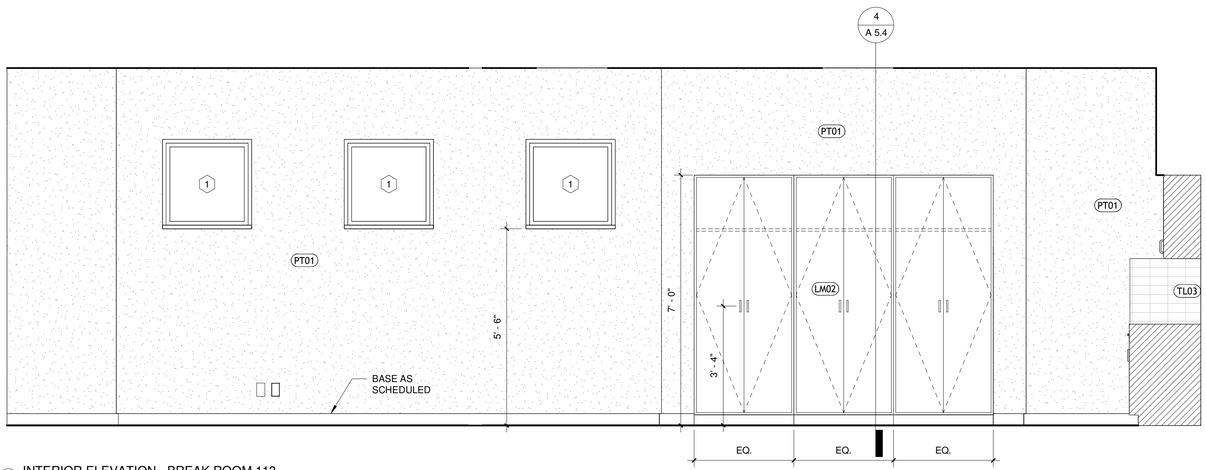
4 INTERIOR ELEVATION - BREAKROOM 113.
1/2" = 1'-0"



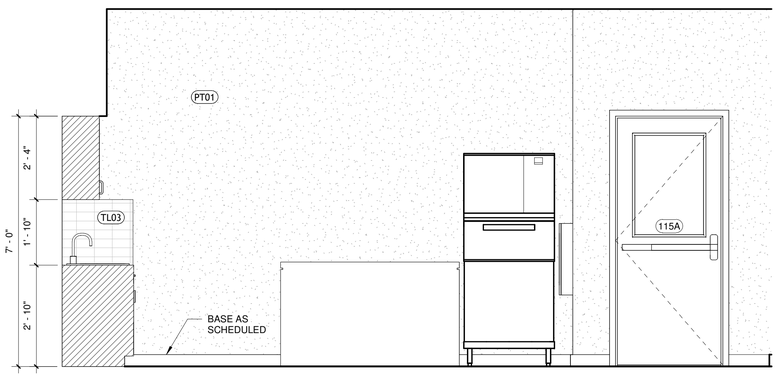
5 INTERIOR ELEVATION - BREAKROOM 115
1/2" = 1'-0"



6 TRANSACTION COUNTER - CLERK 1
1/2" = 1'-0"



7 INTERIOR ELEVATION - BREAK ROOM 113
1/2" = 1'-0"



8 INTERIOR ELEVATION - BREAK ROOM 115
1/2" = 1'-0"

F-324

ARCH-ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
STATE OF TEXAS

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

INTERIOR ELEVATIONS 1

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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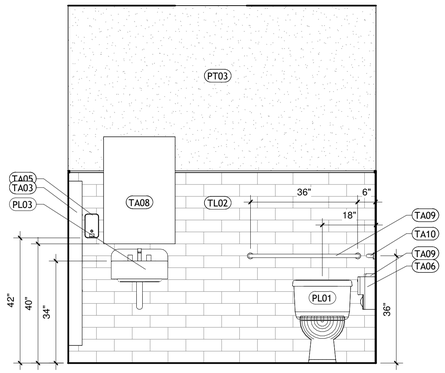
DATE	REMARKS
08/18/25	ISSUE FOR BID

REVISIONS

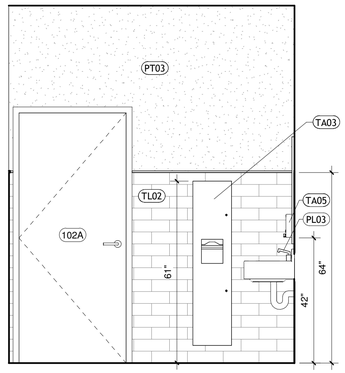
NO.	REMARKS

SHEET NO:

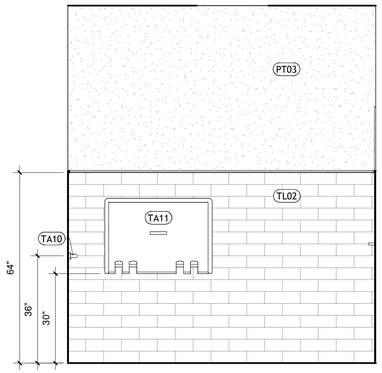
A 4.2



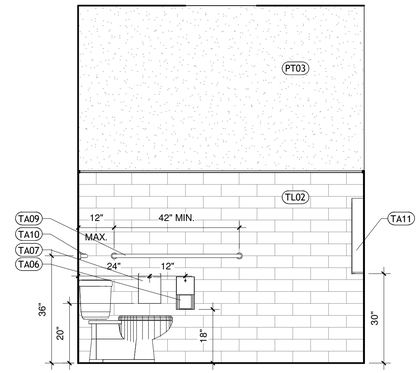
1 INTERIOR ELEVATION - TYPICAL RESTROOM WALL 1
1/2" = 1'-0"



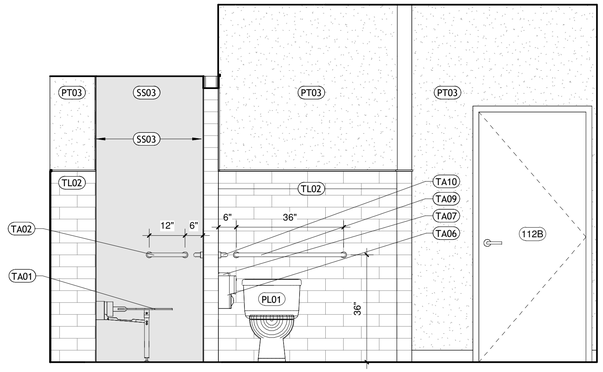
2 INTERIOR ELEVATION - TYPICAL RESTROOM WALL 2
1/2" = 1'-0"



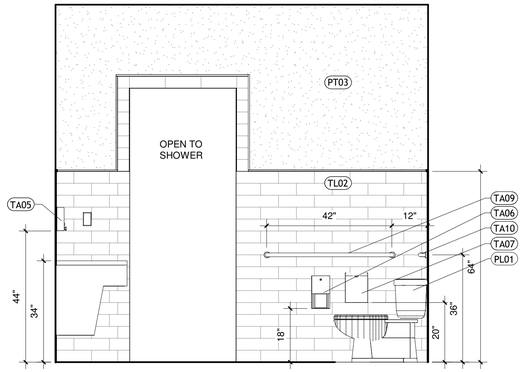
3 INTERIOR ELEVATION - TYPICAL RESTROOM WALL 3
1/2" = 1'-0"



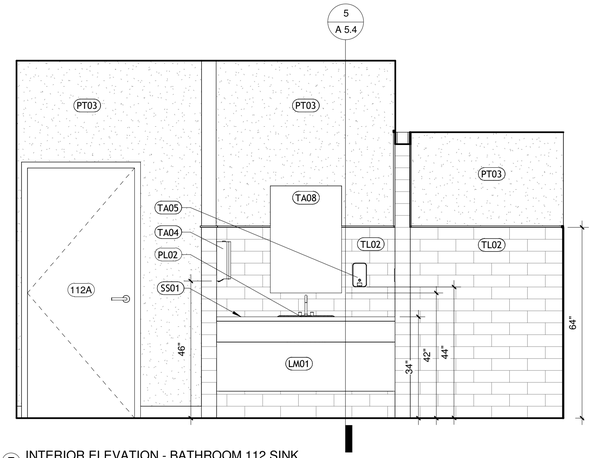
4 INTERIOR ELEVATION - TYPICAL RESTROOM WALL 4
1/2" = 1'-0"



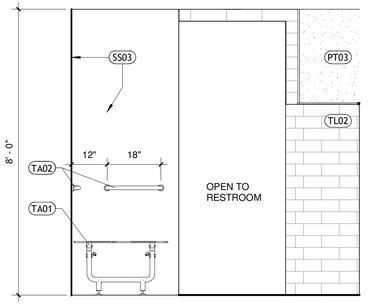
5 INTERIOR ELEVATION - BATHROOM 112 SHOWER / TOILET
1/2" = 1'-0"



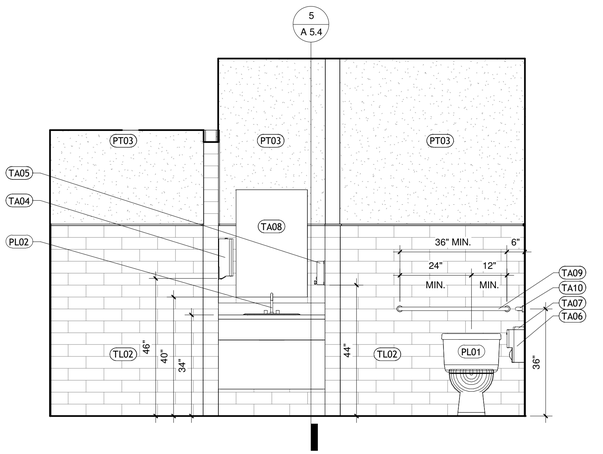
6 INTERIOR ELEVATION - BATHROOM 112 SINK / TOILET
1/2" = 1'-0"



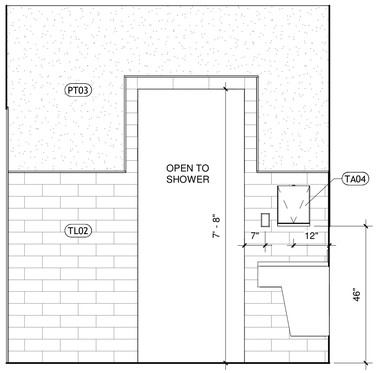
7 INTERIOR ELEVATION - BATHROOM 112 SINK
1/2" = 1'-0"



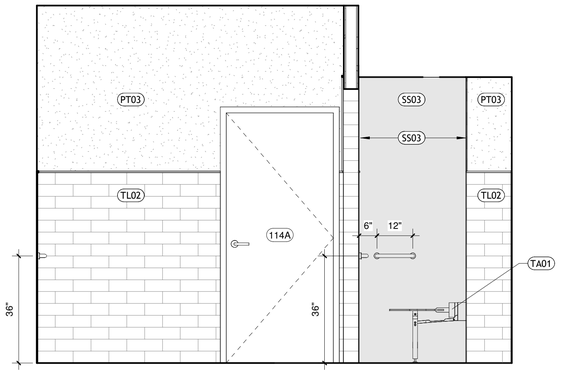
8 INTERIOR ELEVATION - AT SHOWER
1/2" = 1'-0"



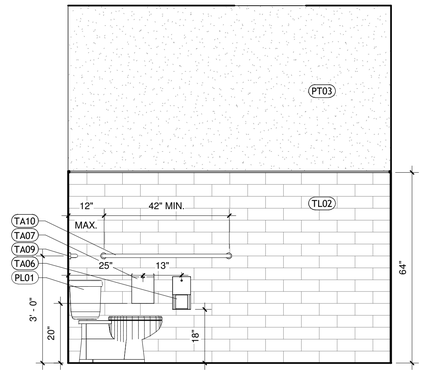
9 INTERIOR ELEVATION - BATHROOM 114 SHOWER / SINK / TOILET
1/2" = 1'-0"



10 INTERIOR ELEVATION - BATHROOM 114 SINK
1/2" = 1'-0"



11 INTERIOR ELEVATION - BATHROOM 114 SHOWER
1/2" = 1'-0"



12 INTERIOR ELEVATION - BATHROOM 114 TOILET
1/2" = 1'-0"

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ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
STATE OF TEXAS
2012

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINCT 2
SARGENT, TX.

INTERIOR ELEVATIONS 2

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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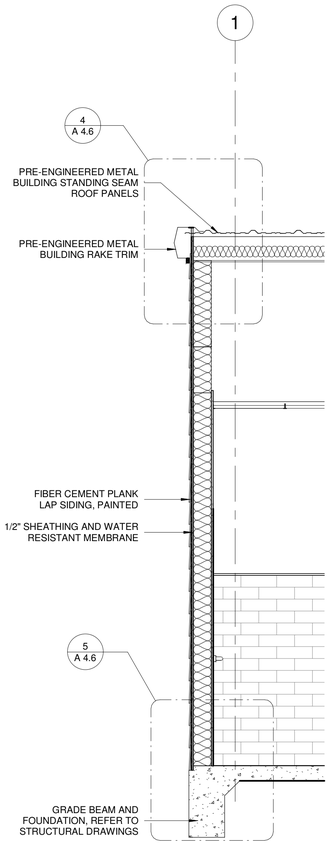
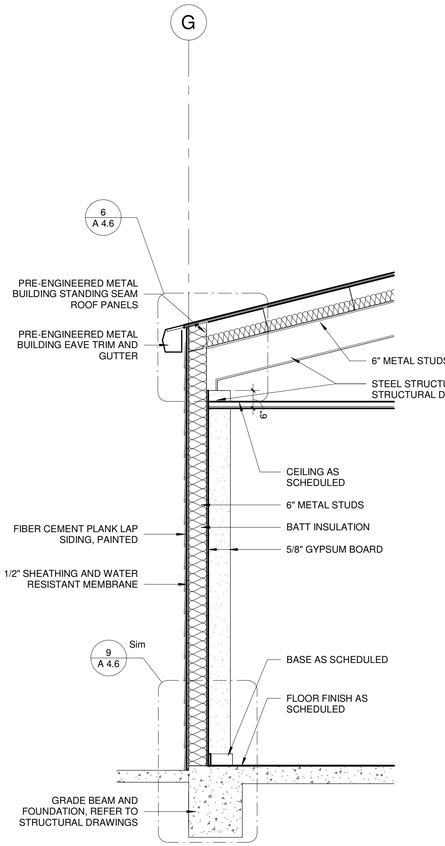


1 WALL SECTION
1/2" = 1'-0"



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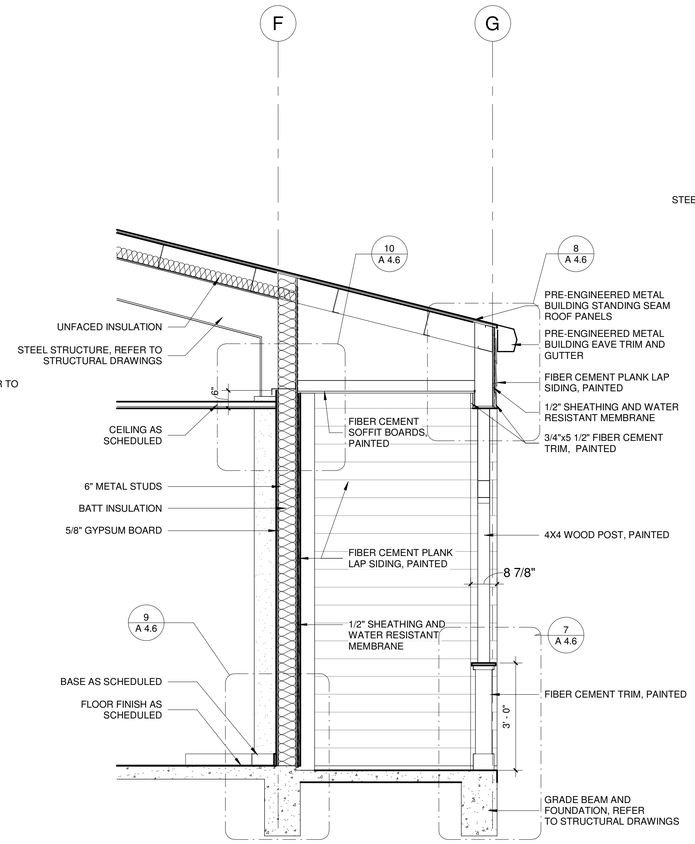
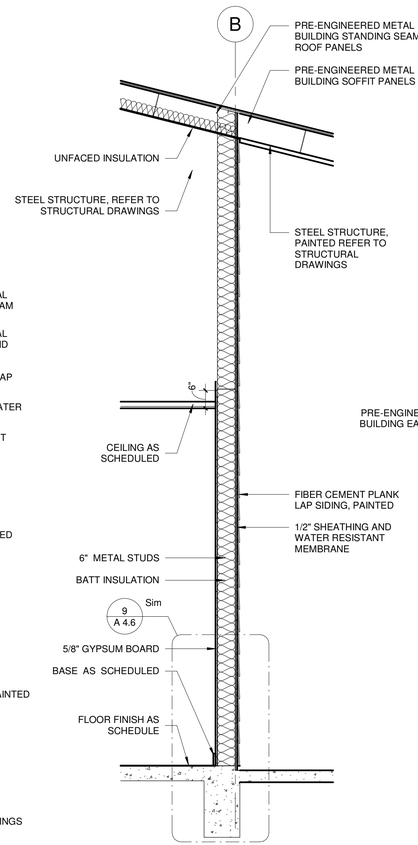
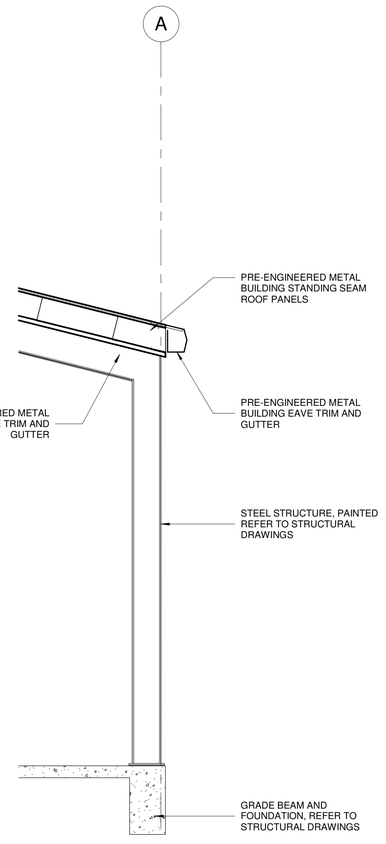
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"



5 WALL SECTION
1/2" = 1'-0"

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
32012
STATE OF TEXAS

2025.08.18

LYNNENGINEERING

2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

WALL SECTIONS

MATAGORDA COUNTY

CUSTOMER NAME:

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO:
SA	KM	KM	20.105017

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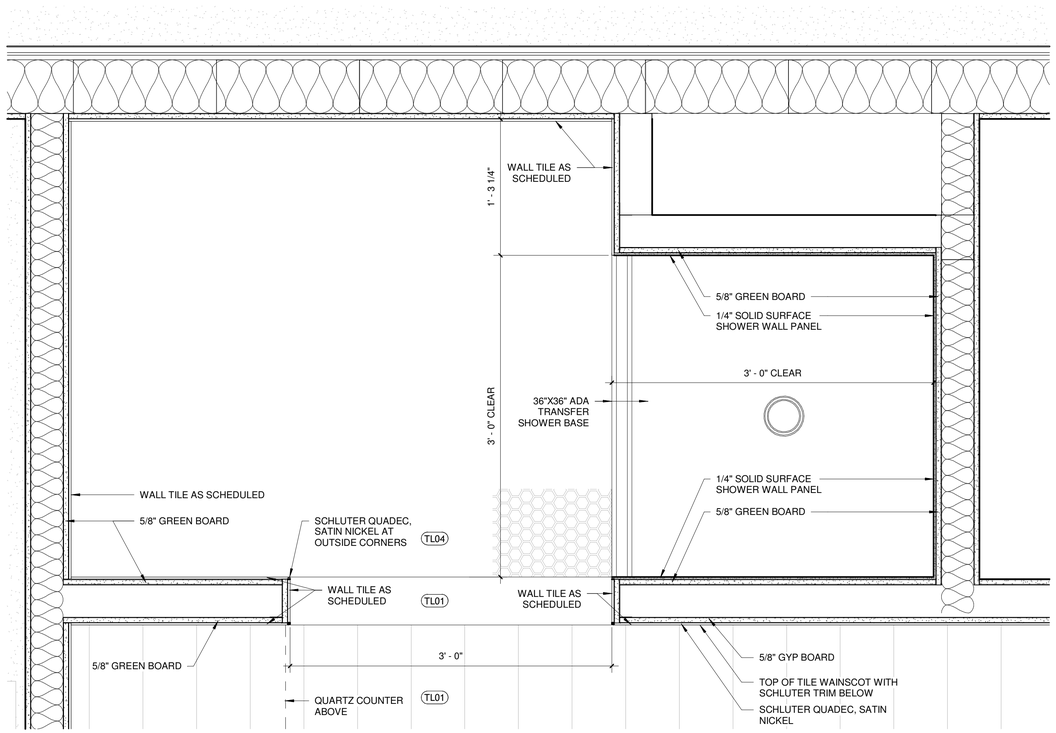
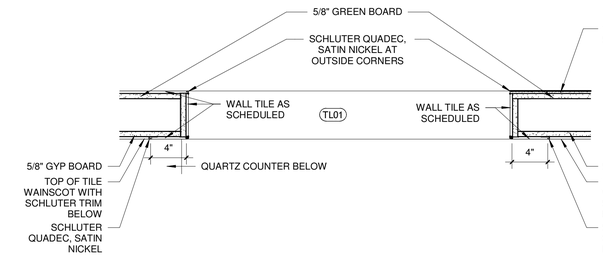
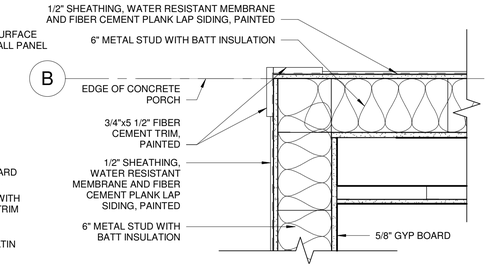


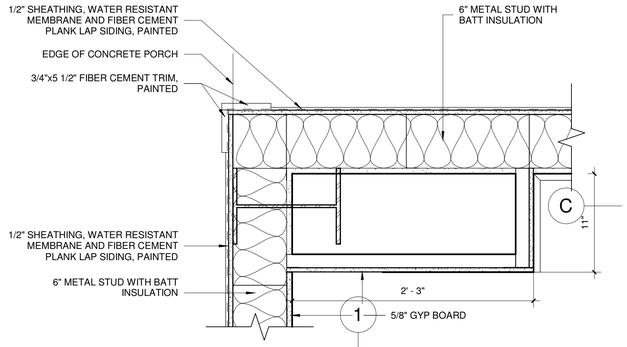
8 PLAN DETAIL AT SHOWER
1 1/2" = 1'-0"



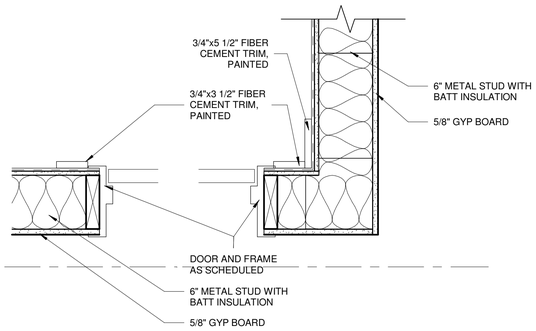
9 PLAN DETAIL ABOVE WAINSCOT
1 1/2" = 1'-0"



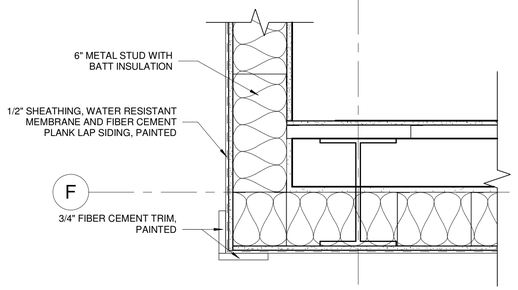
4 PLAN DETAIL
1 1/2" = 1'-0"



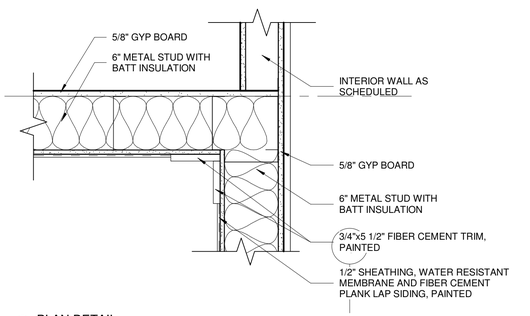
7 PLAN DETAIL
1 1/2" = 1'-0"



3 PLAN DETAIL
1 1/2" = 1'-0"

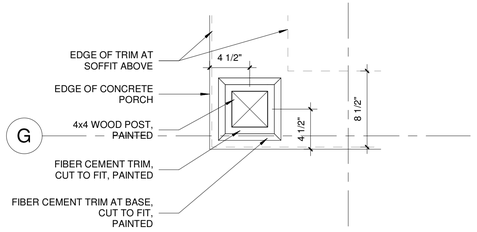


6 PLAN DETAIL
1 1/2" = 1'-0"

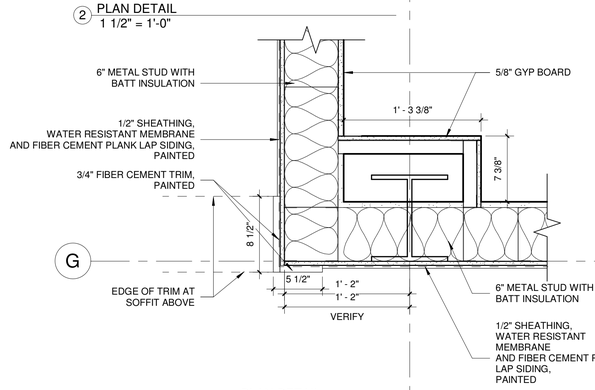


2 PLAN DETAIL
1 1/2" = 1'-0"

1



5 PLAN DETAIL
1 1/2" = 1'-0"



1 PLAN DETAIL
1 1/2" = 1'-0"

F-324

REGISTERED ARCHITECT
KIMBERLY E. MERCER
32012
STATE OF TEXAS

ARCH/ENG SEAL:

2025.08.18

LYNNENGINEERING

2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

PLAN DETAILS

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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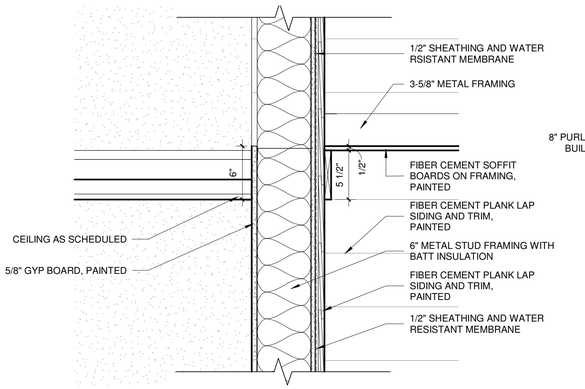
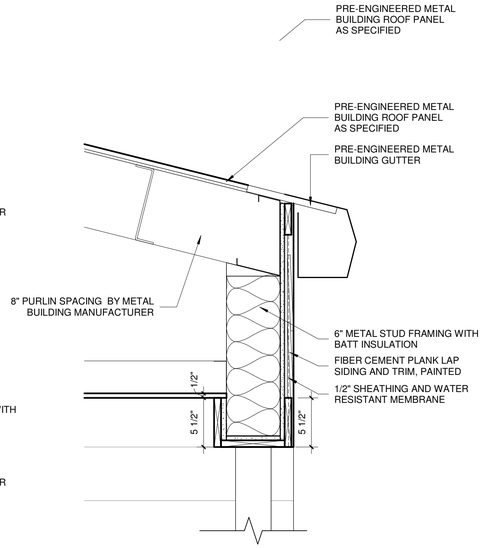
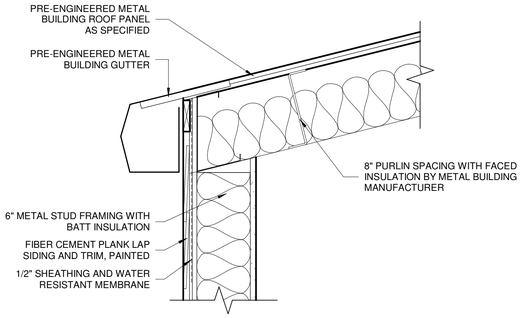


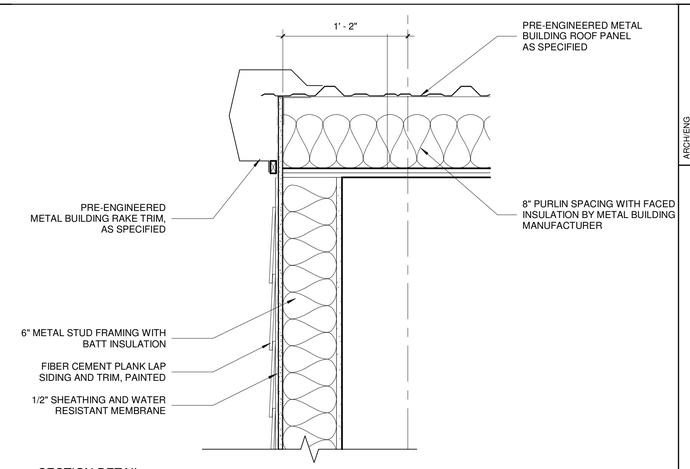
10 SECTION DETAIL
1 1/2" = 1'-0"



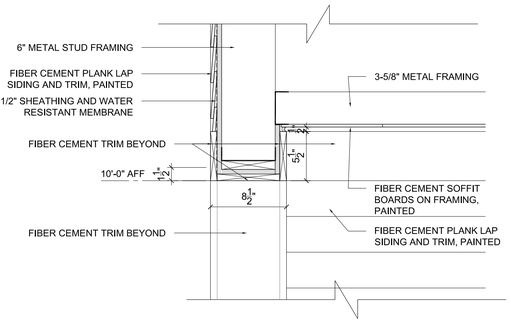
8 SECTION DETAIL
1 1/2" = 1'-0"



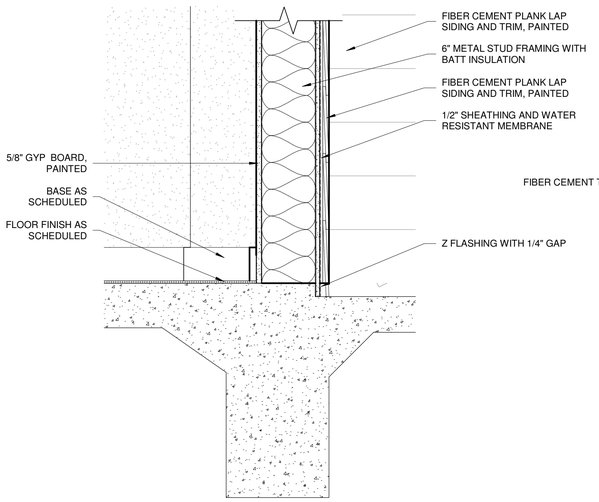
6 SECTION DETAIL
1 1/2" = 1'-0"



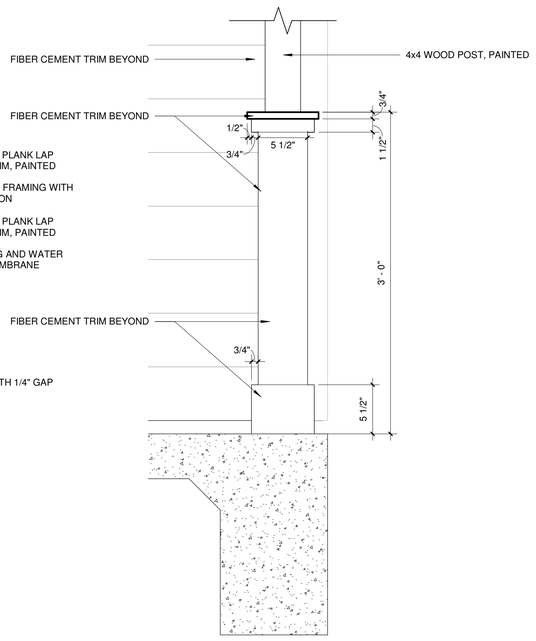
4 SECTION DETAIL
1 1/2" = 1'-0"



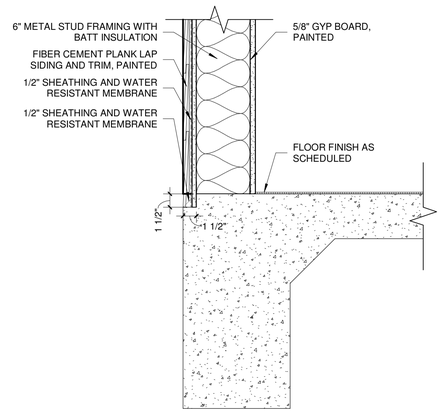
3 SECTION DETAIL
1 1/2" = 1'-0"



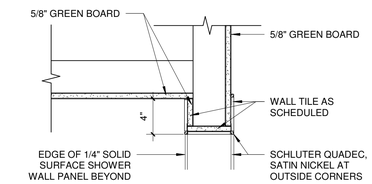
9 SECTION DETAIL
1 1/2" = 1'-0"



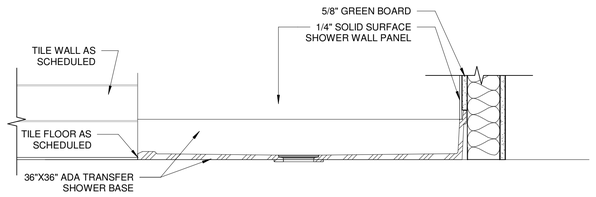
7 SECTION DETAIL
1 1/2" = 1'-0"



5 SECTION DETAIL
1 1/2" = 1'-0"



2 SECTION DETAIL AT OPENING HEADER
1 1/2" = 1'-0"



1 SECTION DETAIL AT FLOOR
1 1/2" = 1'-0"

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
37012
STATE OF TEXAS

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

SECTION DETAILS

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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DATE	REMARKS
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REVISIONS

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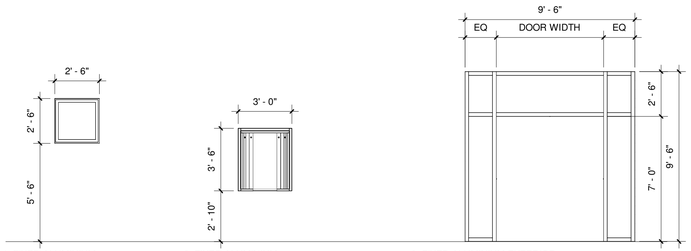
SHEET NO:

A 4.6

COUNT	TYPE	DESCRIPTION	MANUFACTURER	FINISH
SET 11 - DUAL ENTRY BATHROOM				
3	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	LOCKSET	8266 PRIVACY/BATH BEDROOM; L LEVER; V21 INDICATOR; VN1 ESCUTCHEON	SARGENT	US10B
1	KICK PLATE	K SERIES KICK PLATE: 12" TALL ON INSIDE	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
3	SILENCER	1229	TRIMCO	BLACK
1	PERIMETER SEAL	S773BL	PEMKO	BLACK



1 FIXED ALUMINIUM EXTERIOR WINDSTORM RATED

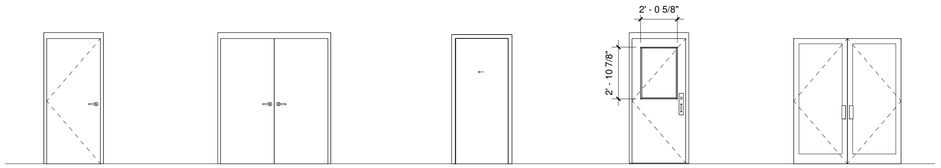
2 FIXED ALUMINIUM INTERIOR BULLET RESISTANT

3 FIXED ALUMINIUM EXTERIOR WINDSTORM RATED DOOR SURROUND

WINDOW TYPE LEGEND
1/4" = 1'-0"

WINDOW SCHEDULE

TYPE	MANUFACTURER	HEIGHT	WIDTH	SILL HEIGHT	GLAZING TYPE	FRAME FINISH	SILL DETAIL	JAMB DETAIL	HEAD DETAIL	COMMENTS
1	KAWNEER	2' - 6"	2' - 6"	5' - 6"	7/16" TEMPERED	ANODIZED DARK BRONZE #40	3/A5.3	2/A5.3	10/A5.2 SIM	
2	TOTAL SECURITY SOLUTIONS	3' - 6"	3' - 0"	2' - 10"	BULLET RESISTANT	ANODIZED DARK BRONZE #40	6/A5.4	1/A5.3	6/A5.4	
3	KAWNEER	9' - 6"	9' - 6"	0' - 0"	7/16" TEMPERED	ANODIZED DARK BRONZE #40	4/A5.3	1/A5.2 & 2/A5.3 SIM	10/A5.2	



1

2 FLUSH SOLID CORE SWING DOOR INTERIOR PAIR

3 FLUSH SOLID CORE SLIDING DOOR INTERIOR

4 HOLLOW METAL INSULATED SWING DOOR WITH LITE EXTERIOR SINGLE

5 ALUMINUM STILE AND RAIL SWING DOOR EXTERIOR PAIR

DOOR TYPE LEGEND
1/4" = 1'-0"

DOOR SCHEDULE

DOOR	ROOM	DOOR TYPE	MANUFACTURER	GLAZING TYPE	WIDTH	HEIGHT	THICKNESS	LEAVES	DOOR FINISH	FRAME TYPE	FRAME FINISH	FIRE RATING	HARDWARE SET	SILL DETAIL	JAMB DETAIL	HEAD DETAIL	COMMENTS
101A	LOBBY	5	KAWNEER	9/16" TEMPERED	6' - 0"	7' - 0"	0' - 1 3/4"	PAIR	ANODIZED DARK BRONZE #40	ALUMINUM	ANODIZED DARK BRONZE #40	90 MIN.	1	8/A5.2	1/A5.2	9/A5.2	
101B	LOBBY	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	3	3/A5.2	2/A5.2	4/A5.2	
102A	MEN'S RESTROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	10	3/A5.2	2/A5.2	4/A5.2	
103A	WOMEN'S RESTROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	10	3/A5.2	2/A5.2	4/A5.2	
104A	CLERK 1	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	4	3/A5.2	2/A5.2	4/A5.2	
104B	CLERK 1	3			3' - 0"	7' - 0"	0' - 1 3/8"	SINGLE POCKET	LAMINATE	WOOD	PAINTED	-	7	3/A5.2	2/A5.2	4/A5.2	
105A	CLERK 2	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	4	3/A5.2	2/A5.2	4/A5.2	
106A	CIRCULATION HALL	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	3	3/A5.2	2/A5.2	4/A5.2	
107A	COURTROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	6	3/A5.2	2/A5.2	4/A5.2	
107B	COURTROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	5	3/A5.2	2/A5.2	4/A5.2	
108A	JURY/CONFERENCE ROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	6	3/A5.2	2/A5.2	4/A5.2	
108B	JURY/CONFERENCE ROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	5	3/A5.2	2/A5.2	4/A5.2	
109A	JUDGE	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	4	3/A5.2	2/A5.2	4/A5.2	
110A	CONSTABLE	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	4	3/A5.2	2/A5.2	4/A5.2	
110B	CONSTABLE/CLOSET	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	8	3/A5.2	2/A5.2	4/A5.2	
112A	BATHROOM 1	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	11	3/A5.2	2/A5.2	4/A5.2	
112B	BATHROOM 1	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	11	3/A5.2	2/A5.2	4/A5.2	
113A	BREAK ROOM 1	4		9/16" TEMPERED	3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	PAINTED	HOLLOW METAL	PAINTED	90 MIN.	2	6/A5.2	5/A5.2	7/A5.2	
114A	BATHROOM 2	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	10	3/A5.2	2/A5.2	4/A5.2	
115A	BREAK ROOM 2	4		9/16" TEMPERED	3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	PAINTED	HOLLOW METAL	PAINTED	90 MIN.	2	6/A5.2	5/A5.2	7/A5.2	
116A	STORAGE	2			6' - 0"	7' - 0"	0' - 1 3/4"	PAIR	LAMINATE	HOLLOW METAL	PAINTED	-	9	3/A5.2	2/A5.2	4/A5.2 SIM	
117A	ELEC/SERVER ROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	8	3/A5.2	2/A5.2	4/A5.2	
118A	MEN'S RESTROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	10	3/A5.2	2/A5.2	4/A5.2	
119A	WOMEN'S RESTROOM	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	10	3/A5.2	2/A5.2	4/A5.2	
120A	JANITOR	1			3' - 0"	7' - 0"	0' - 1 3/4"	SINGLE	LAMINATE	HOLLOW METAL	PAINTED	-	8	3/A5.2	2/A5.2	4/A5.2	

COUNT	TYPE	DESCRIPTION	MANUFACTURER	FINISH
SET 1 - EXTERIOR SECURE DOUBLE				
8	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING OR APPROVED BY KAWNEER (DOOR MANUFACTURER	STANLEY	POLISHED
2	TRIM AND HANDLES	700 SERIES ET; L LEVER; COORDINATING CYLINDER; KEYED LOCK ON RIGHT LEAF ONLY; NIGH LATCH OPERATION	SARGENT	US10B
2	PANIC HARDWARE	AD8400 WITH CONCEALED ROD; TOP AND BOTTOM LATCHING	SARGENT	US10B
4	STRIKE	640 FOR TOP AND BOTTOM	SARGENT	US10B
2	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
1	THRESHOLD	157 SERIES - OFFSET SADDLE THRESHOLD - COORDINATE WITH DOOR MANUFACTURER	PEMKO	US10BE
2	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
2	PERIMETER SEAL	S773BL OR PER DOOR MANUFACTURER'S RECOMMENDATION	PEMKO	BLACK
SET 2 - EXTERIOR SECURE SINGLE				
4	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	TRIM AND HANDLES	700 SERIES ET; L LEVER; COORDINATING CYLINDER; KEY UNLOCKS DOOR AND RETACTS LATCH, RELOCKS WHEN KEY REMOVED	SARGENT	US10B
1	PANIC HARDWARE	8800 SERIES MULTI-FUNCTION RIM EXIT DEVICE AND TRIMS; PANIC BAR ALWAYS UNLOCKS AND OPENS DOOR	SARGENT	US10B
1	STRIKE	649 STANDARD STRIKE	SARGENT	US10B
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
1	THRESHOLD	157 SERIES - OFFSET SADDLE THRESHOLD - COORDINATE WITH DOOR MANUFACTURER	PEMKO	US10BE
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	PERIMETER SEAL	S773BL	PEMKO	BLACK
SET 3 - INTERIOR SECURE DOUBLE				
3	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	TRIM AND HANDLES	700 SERIES ET; L LEVER; COORDINATING CYLINDER; KEY UNLOCKS DOOR AND RETACTS LATCH, RELOCKS WHEN KEY REMOVED	SARGENT	US10B
1	PANIC HARDWARE	8800 SERIES MULTI-FUNCTION RIM EXIT DEVICE AND TRIMS; PANIC BAR ALWAYS UNLOCKS AND OPENS DOOR	SARGENT	US10B
1	STRIKE	649 STANDARD STRIKE	SARGENT	US10B
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
3	SILENCER	1229	TRIMCO	BLACK
SET 4 - INTERIOR OFFICE SINGLE				
3	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	OFFICE LOCKSET	8256 OFFICE LOCK: L LEVER; SL ROSE	SARGENT	US10B
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
3	SILENCER	1229	TRIMCO	BLACK
1	PERIMETER SEAL	S773BL	PEMKO	BLACK
SET 5 - PASSAGE / DOUBLE LOCKING SINGLE				
3	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	DOUBLE LOCKING LOCKSET	8259 DOUBLE LOCKING: L LEVER; SL ROSE	SARGENT	US10B
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
3	SILENCER	1229	TRIMCO	BLACK
1	PERIMETER SEAL	S773BL	PEMKO	BLACK
SET 6 - PASSAGE SINGLE				
3	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	PASSAGE SET	8215 PASSAGE; L LEVER; SL ROSE	SARGENT	US10B
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
3	SILENCER	1229	TRIMCO	BLACK
1	PERIMETER SEAL	S773BL	PEMKO	BLACK
SET 7 - POCKET DOOR SINGLE				
1	DOOR TRACK	12610 - POCKET DOOR TRACK AND HARDWARE	EVERBILT	NA
1	DOOR PULLS	RM 3341 MEGATEK PULL - 1.25" DIAMETER, 3" PROJECTION; 12" HEIGHT; TYPE 5 BACK TO BACK MOUNTING	ROCKWOOD	US10BE
SET 8 - INTERIOR STORAGE/MECHANICAL/ELECTRICAL SINGLE				
3	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	STOREROOM LOCKSET	8204 STOREROOM LOCK: L LEVER; SL ROSE	SARGENT	US10B
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
3	SILENCER	1229	TRIMCO	BLACK
1	PERIMETER SEAL	S773BL	PEMKO	BLACK
SET 9 - INTERIOR STORAGE DOUBLE				
6	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	STOREROOM LOCKSET	8204 STOREROOM LOCK: L LEVER; SL ROSE	SARGENT	US10B
1	DUMMY TRIM	8294 TRIM DUMMY; L LEVER; SL ROSE	SARGENT	US10B
2	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
6	SILENCER	1229	TRIMCO	BLACK
SET 10 - INTERIOR RESTROOM SECURE				
3	HINGES	CB168 - 5 KNUCKLE FULL MORTISE HINGES; HEAVY WEIGHT CONCEALED BEARING	STANLEY	POLISHED
1	LOCKSET	8266 PRIVACY/BATH BEDROOM; L LEVER; V21 INDICATOR; VN1 ESCUTCHEON	SARGENT	US10B
1	KICK PLATE	K SERIES KICK PLATE: 12" TALL ON INSIDE	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	DOOR STOP	1211 SERIES	TRIMCO	613 DARK OXIDIZED SATIN BRONZE, OIL RUBBED
1	SURFACE CLOSER	8501 PARALLEL ARM CLOSER	NORTON	US10BE
3	SILENCER	1229	TRIMCO	BLACK
1	PERIMETER SEAL	S773BL	PEMKO	BLACK

3 DOOR HAREDWARE SCHEDULE
3/4" = 1'-0"

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT KIMBERLY E. MERCER 27012 STATE OF TEXAS

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINCT 2
SARGENT, TX.

DOOR / WINDOW SCHEDULES

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO:
SA	KM	KM	20.105017

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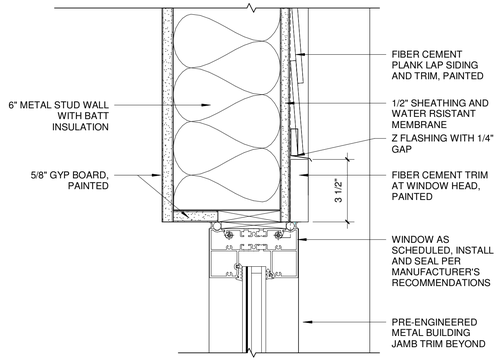
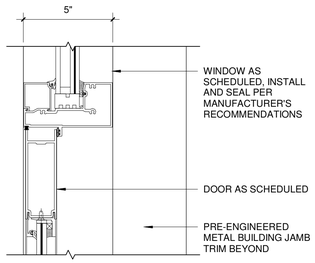


10 ENTRY WINDOW HEAD
3" = 1'-0"



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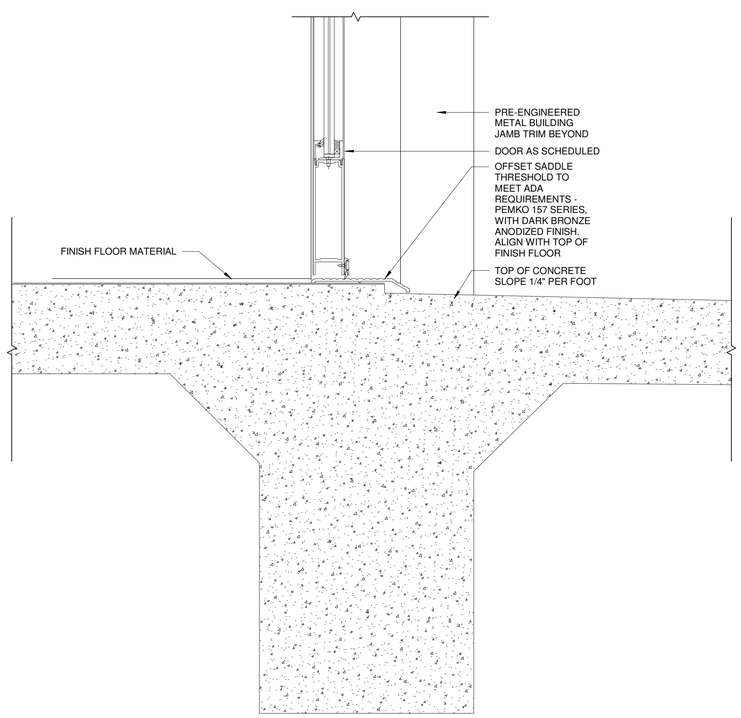

8 ENTRY DOOR SILL
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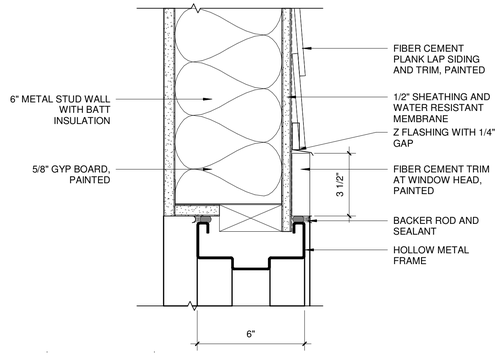
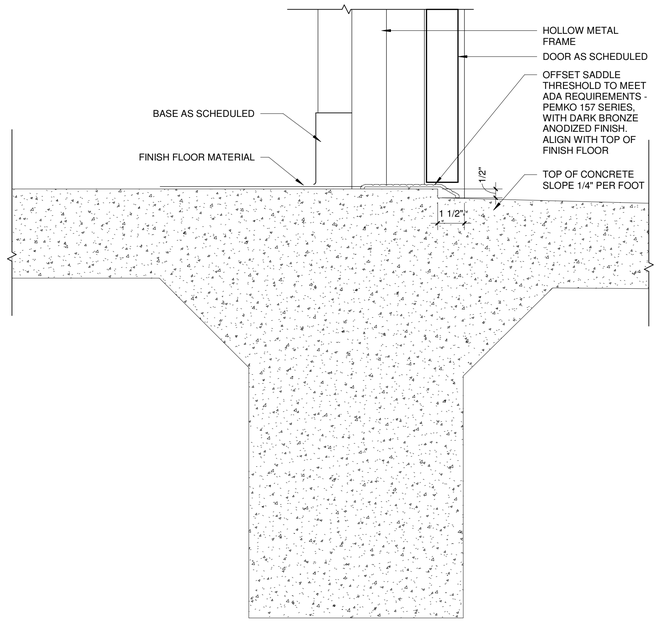
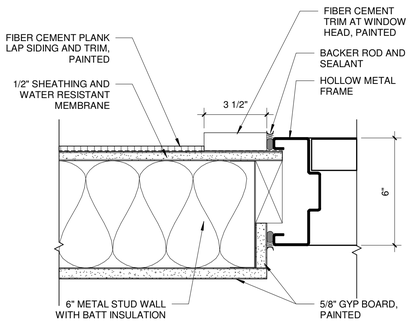


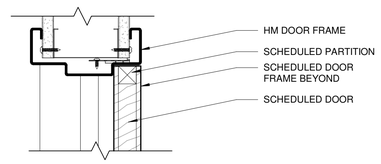
7 ENTRY DOOR HEAD DETAILS - DOOR TYPE 3
3" = 1'-0"



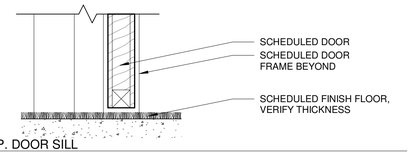
6 ENTRY DOOR SILL DETAILS - DOOR TYPE 3
3" = 1'-0"



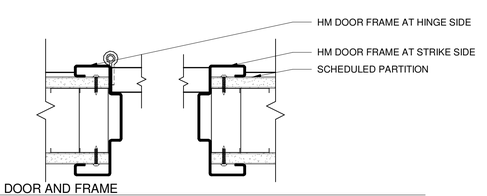
5 ENTRY DOOR JAMB DETAILS - DOOR TYPE 3
3" = 1'-0"



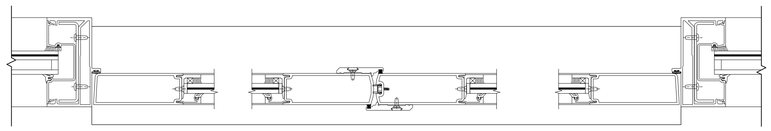
4 TYP. HM HEAD DETAIL
3" = 1'-0"



3 TYP. DOOR SILL
3" = 1'-0"



2 H.M. DOOR AND FRAME
3" = 1'-0"



1 ENTRY DOOR PLAN DETAILS - DOOR TYPE 4
3" = 1'-0"

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ARCH/ENG SEAL:

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

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JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

DOOR / WINDOW DETAILS

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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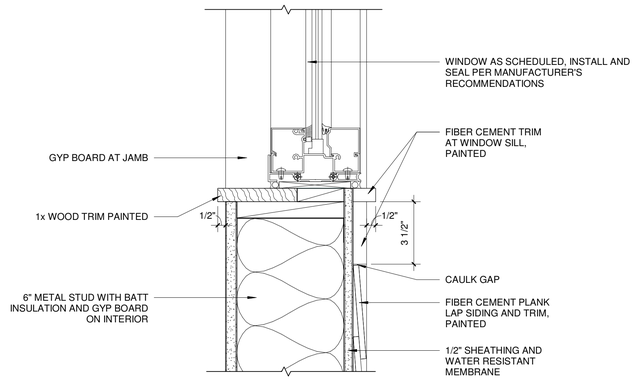
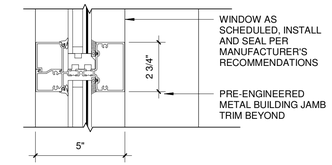
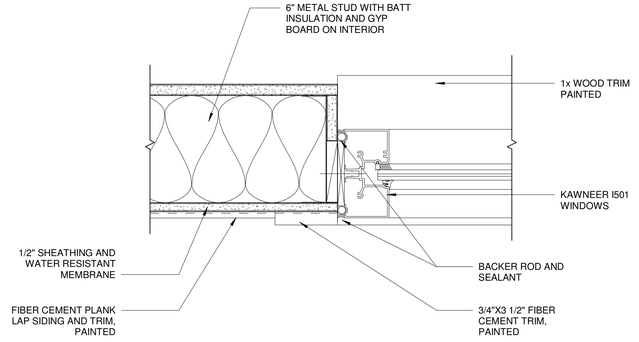


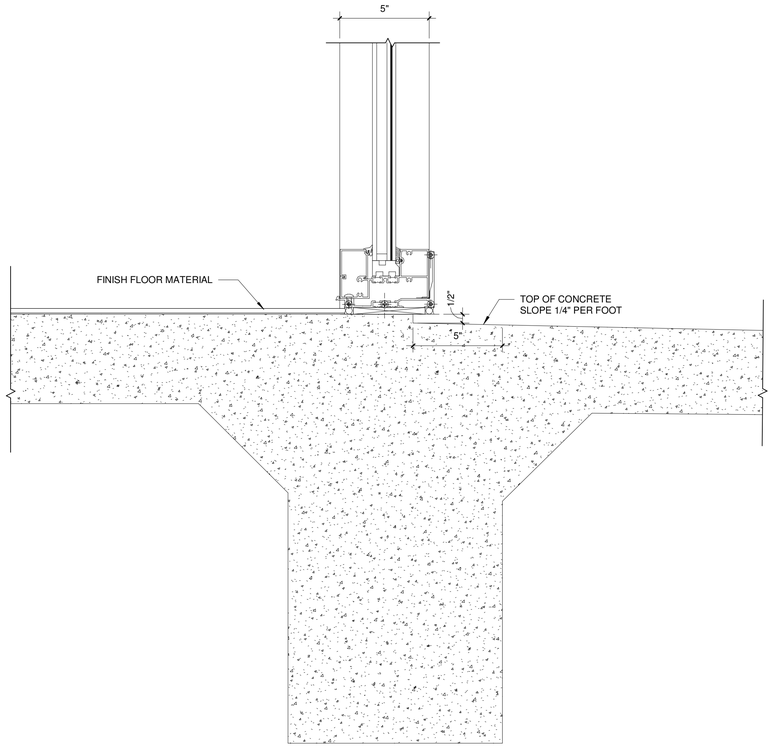
3 WINDOW SILL
3" = 1'-0"



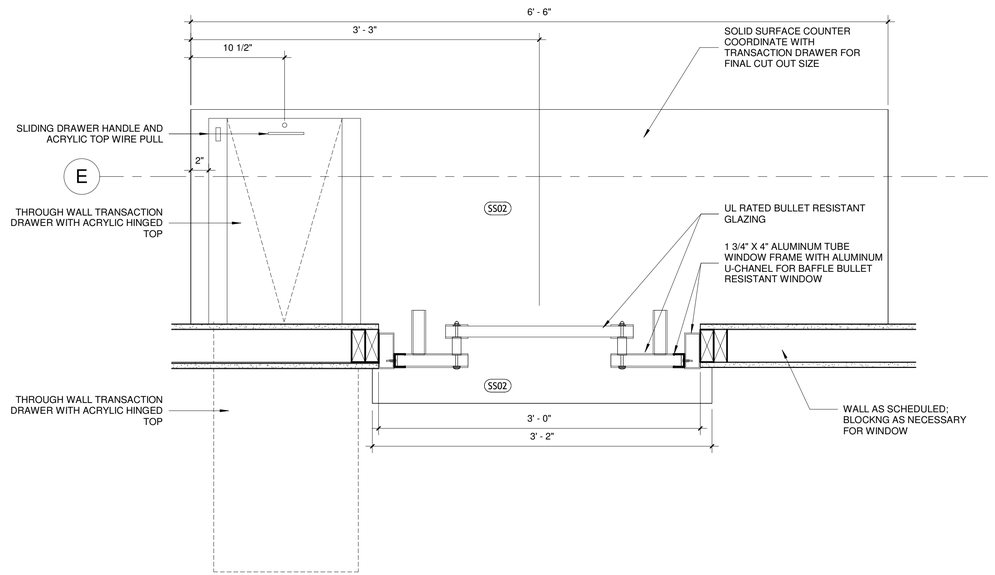
5 ENTRY WINDOW MULLION
3" = 1'-0"



2 WINDOW JAMB
3" = 1'-0"



4 ENTRY WINDOW SILL
3" = 1'-0"



1 TRANSACTION COUNTER/WDW - ON WINDOW DETAIL
1 1/2" = 1'-0"

F-324

ARCH/ENG SEAL:

REGISTERED ARCHITECT
KIMBERLY E. MERCER
37012
STATE OF TEXAS

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINT 2
SARGENT, TX.

DOOR / WINDOW DETAILS

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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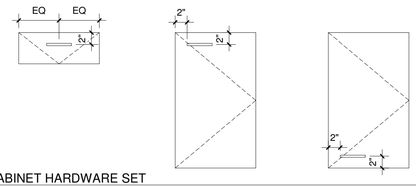
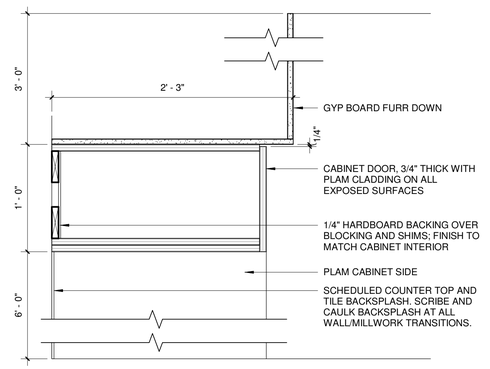
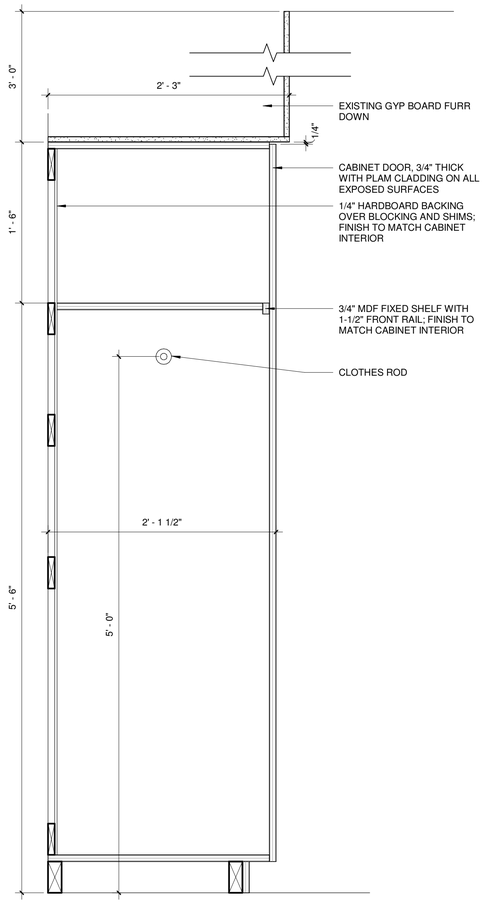


HARDWARE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
PULL	HAFELE	155.00.951	HORIZONTAL INSTALLATION, MATTE NICKEL FINISH
HINGES	GRASS	NEXIS 125 SERIES	125 DEGREE OPENING, SELF-CLOSING
DRAWER GLIDES	ACCURIDE	38E2EC	LIGHT-DUTY (100LB), STEEL BALL BEARING, FULL EXTENSION, SOFT CLOSING
SILENCERS	3M	BUMPON SJ6553	CLEAR, SELF-ADHESIVE, 2 PER DOOR OR DRAWER
SHELF SUPPORT PINS	HAFELE	282.04.711	STEEL, NICKEL-PLATED

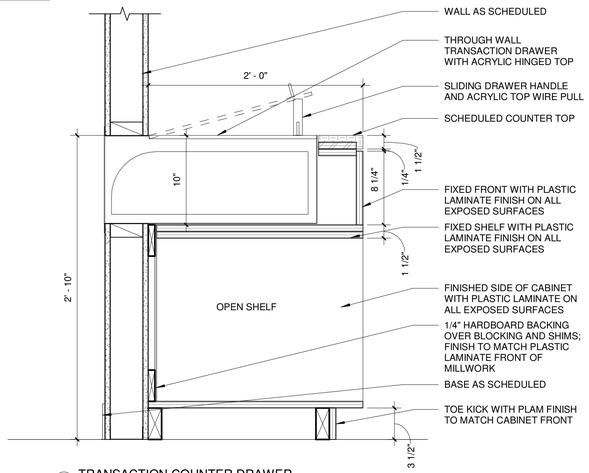
CABINET HARDWARE SET



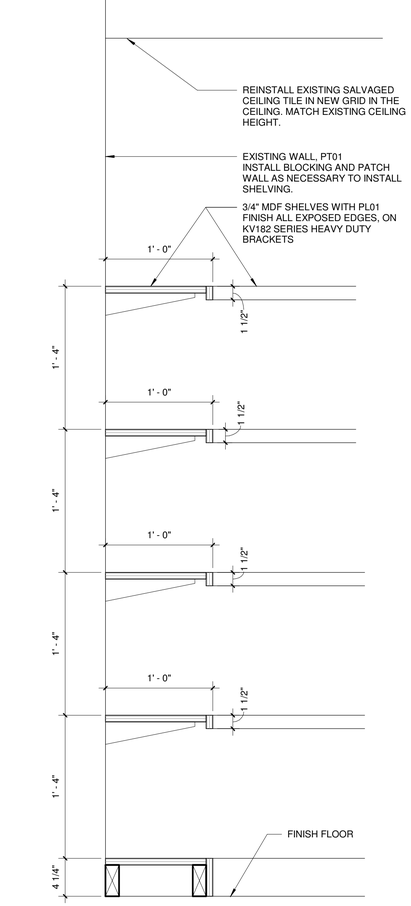
8 AT REFRIGERATOR
1 1/2" = 1'-0"



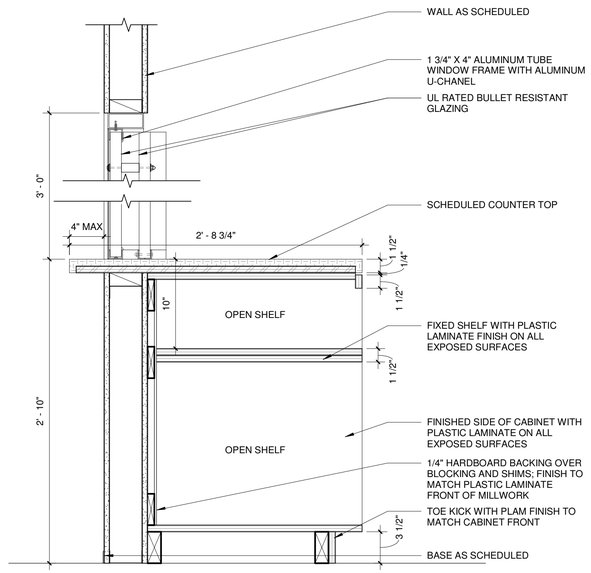
4 FULL HEIGHT CABINET
1 1/2" = 1'-0"



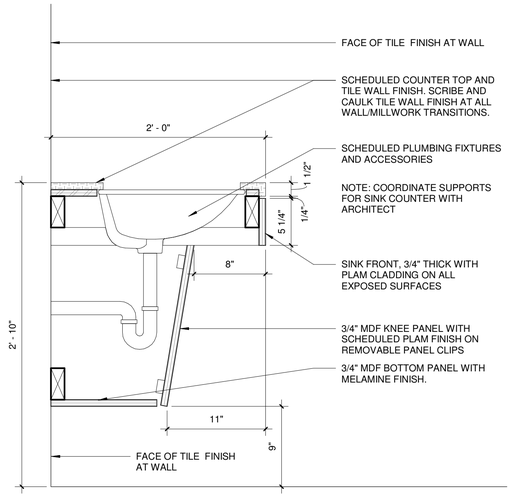
7 TRANSACTION COUNTER DRAWER
1 1/2" = 1'-0"



3 PANTRY SHELVES
1 1/2" = 1'-0"



6 TRANSACTION COUNTER WINDOW
1 1/2" = 1'-0"



5 RESTROOM SINK COUNTER
1 1/2" = 1'-0"

2 BREAK ROOM SINK
1 1/2" = 1'-0"

1 BREAK ROOM
1 1/2" = 1'-0"

F-324

ARCH/ENG SEAL:

2025.08.18

LYNNENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JUSTICE OF THE PEACE OFFICE
PRECINCT 2
SARGENT, TX.

MILLWORK DETAILS

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SA	KM	KM	20.105017

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SHEET NO:

A 5.4

COMMISSIONING NOTES

MECHANICAL AND ELECTRICAL SYSTEM COMMISSIONING PER INTERNATIONAL ENERGY CODE (IECC) SECTION C408

THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A REGISTERED PROFESSIONAL ENGINEER TO COMMISSION THE NEW MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS DESIGNED AND SPECIFIED FOR THIS PROJECT.

THE REGISTERED PROFESSIONAL ENGINEER SHALL DEVELOP A COMMISSIONING PLAN AND ACT AS THE PROJECT'S COMMISSIONING AUTHORITY. THE COMMISSIONING PLAN AND ACTIVITIES SHALL INCLUDE THE FOLLOWING:

1. A NARRATIVE DESCRIBING THE ACTIVITIES TO ACCOMPLISH DURING EACH COMMISSIONING PHASE.
2. PUBLISHED START-UP, PRE-FUNCTIONAL AND FUNCTIONAL TESTING FORMS AND SCRIPTS FOR EACH SPECIFIC EQUIPMENT, APPLIANCE AND SYSTEM. THE COMMISSIONING PLAN SHALL SATISFY THE REQUIREMENTS OF IECC SECTION C408 FOR FUNCTIONAL PERFORMANCE TESTING.
3. THE COMMISSIONING AUTHORITY SHALL MAINTAIN AN OPEN ISSUE LOG ITEMIZING DEFICIENCIES FOUND DURING SITE VISITS AND COMMISSIONING ACTIVITIES. THE COMMISSIONING AUTHORITY SHALL PUBLISH THIS OPEN ISSUE LOG AND COMPLETED COMMISSIONING FORMS TO THE BUILDING OWNER AT THE COMPLETION OF THE COMMISSIONING ACTIVITIES.
4. THE COMMISSIONING AUTHORITY IS RESPONSIBLE FOR ASSEMBLING AND ISSUING TO THE BUILDING OWNER THE FOLLOWING DOCUMENTATION WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATION OF OCCUPANCY:

   A. EQUIPMENT OPERATIONS AND MAINTENANCE MANUALS INCLUDING THE INFORMATION PER IECC SECTION C408.2.5.2.
   B. SYSTEMS' TESTING AND BALANCING REPORTS.
   C. FINAL COMMISSIONING REPORT.

THE FOLLOWING MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE INCLUDED IN THE COMMISSIONING PLAN:

1. ROOFTOP UNITS AND MINISPLIT FAN COIL UNITS AND CONTROLS.
2. INSTANTANEOUS WATER HEATER.
3. LIGHTING CONTROLS.

PROJECT DESIGN CRITERIA

LOCATION	
CITY	SARGENT
STATE	TX
CLIMATE ZONE	2A
APPLICABLE CODES	
BUILDING (IBC)	2015
MECHANICAL (IMC)	2015
PLUMBING (IPC)	2015
ENERGY (IECC)	2015
ELECTRICAL (NEC)	2014
OUTDOOR DESIGN CONDITIONS	
ELEVATION (FT)	45
SUMMER [DB (°F) / MCWB (°F)]	96.2 / 78.4
WINTER [DB (°F)]	32.1
INDOOR DESIGN CONDITIONS	
COOLING [DB (°F) / RH (%)]	75 / 50%
HEATING [DB (°F)]	70

GENERAL MECHANICAL NOTES

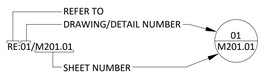
1. "CONSTRUCTION DOCUMENTS" ARE DEFINED AS ALL DRAWINGS AND SPECIFICATIONS TOGETHER. CONTRACTOR SHALL FULLY EXAMINE AND BECOME FAMILIAR WITH THE CONSTRUCTION DOCUMENTS IN THEIR ENTIRETY. ANY DISCREPANCY OR UNCLEAR INFORMATION FOUND IN THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT PRIOR TO PERFORMING ANY WORK INVOLVING ANY CONFLICTING INFORMATION. ALL COSTS SUBMITTED SHALL BE BASED ON THOROUGH KNOWLEDGE OF ALL PRODUCTS, MATERIALS, AND LABOR REQUIRED FOR COMPLETE, COORDINATED, PROPERLY INSTALLED, AND FUNCTIONING SYSTEMS. ANY ADDITIONAL COSTS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. DRAWINGS ARE DIAGRAMATIC AND SHOW ONLY GENERAL ARRANGEMENT OF WORK. NOT ALL TRANSITIONS, OFFSETS, SLOPES, ETC. ARE SHOWN THAT MAY BE REQUIRED FOR PROPER INSTALLATION. DRAWINGS DO NOT SHOW DIMENSIONS FOR LOCATING ANY WORK AND SHALL NOT BE SCALED FOR BIDDING, ORDERING, INSTALLATION, OR ANY OTHER PURPOSE.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS OF HIS WORK WITH ALL OTHER TRADES. THIS INCLUDES, BUT IS NOT LIMITED TO: POWER REQUIREMENTS; LOCATIONS OF EQUIPMENT, AIR DEVICES, DUCTWORK, AND PIPING; PROPER SERVICE AND CODE-REQUIRED WORKING CLEARANCES; CONTROLS REQUIREMENTS; ETC.
4. SUBMITTAL REVIEW: SUBMITTALS ARE REVIEWED BY THE ENGINEER ONLY FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, MEANS AND METHODS OF CONSTRUCTIONS, AND COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR IS FULLY RESPONSIBLE FOR ALL SUBMITTALS PROVIDED - EITHER BY HIM DIRECTLY, OR INDIRECTLY BY HIS VENDORS OR SUB-CONTRACTORS. SUBMITTALS PROVIDED BY VENDORS OR SUB-CONTRACTORS SHALL BE THOROUGHLY REVIEWED BY THE SUBMITTING CONTRACTOR FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS AND COORDINATION WITH ALL OTHER TRADES PRIOR TO SUBMITTAL TO THE ENGINEER.
5. IN THE EVENT THERE ARE ANY ISSUES RELATED TO QUALITY OF MATERIALS AND/OR OPERATIONS OF ANY MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT, THE OWNER SHALL PUT INTO FORCE ANY ARTICLES OF THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR RELATED TO ITEMS STATED ABOVE.
6. IN THE EVENT ANY ITEMS ARE DEEMED TO BE POOR QUALITY, NOT IN WORKING ORDER OR ANY OTHER DEFICIENCY, THE CONTRACTOR SHALL HAVE THE RIGHT TO ENFORCE ANY AND ALL WARRANTY LANGUAGE AS STATED BETWEEN THEIR (OWNER AND CONTRACTOR) AGREEMENT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY MATERIALS AND LABOR WHETHER SHOWN ON THE DRAWINGS OR NOT. THE OWNER MAINTAINS ALL RIGHTS AND FIRST REFUSAL FOR ANY SUBSTITUTIONS FOR ANY MATERIALS REQUIRED FOR THE COMPLETION OF THIS CONSTRUCTION PROJECT.
8. THE ARCHITECT AND ENGINEER SHALL BE HELD HARMLESS FOR ANY INSTALLATIONS NOT PREVIOUSLY REVIEWED OR DESIGNED.
9. ALL CONDUIT, RACEWAYS, PIPING, DUCTWORK, AND EQUIPMENT SHALL BE APPROVED BY OWNER PRIOR TO INSTALLATION AND COMMENCEMENT OF ANY WORK.
10. INSTALL ALL NEW CONDUIT, PIPING, UTILITIES, ETC. WITHIN NEW WALLS. ALL DUCTWORK SHALL BE INSTALLED CONCEALED ABOVE THE CEILING UNLESS NOTED OTHERWISE.

HVAC MATERIALS SCHEDULE

SYSTEM	MATERIAL	INSULATION VALUE
SUPPLY/RETURN (INDOORS)	G-90 OR BETTER GALVANIZED SHEET METAL, SEE NOTE 1	R-6
SUPPLY/RETURN (OUTDOORS)		R-8
GENERAL EXHAUST		N/A
SUPPLY/RETURN FLEX DUCT	UL 181 HELICAL SPRING STEEL W/ VINYL FILM	R-6
CONDENSATE DRAIN (INDOORS)	TYPE L COPPER	R-3
CONDENSATE DRAIN (OUTDOORS)	TYPE L COPPER	N/A
REFRIGERANT PIPING (SUCTION)	TYPE K COPPER	R-3
REFRIGERANT PIPING (LIQUID)	TYPE K COPPER	N/A

NOTES:
A. LOW PRESSURE DUCT THICKNESS WHEN LARGE DIMENSION IS:
   a. UP TO 12" - 26 GA
   b. 13" TO 30" - 24 GA
   c. 21" TO 54" - 22 GA
B. REFER TO EQUIPMENT MANUFACTURER'S INSTALLATION MANUAL FOR REFRIGERANT PIPING SIZE AND LINE LENGTH LIMITATIONS.
C. ALL MATERIALS LOCATED IN ANY RETURN AIR PLENUM SHALL BE RATED WITH A 25/50 FLAMESPREAD/SMOKE RATING. MECHANICAL CONTRACTOR SHALL ADVISE OTHER TRADES OF MATERIALS REQUIREMENTS WHERE NECESSARY.
D. NOT ALL SYSTEMS MAY APPEAR IN PROJECT.

DRAWING DETAIL REFERENCE KEY



PIPING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	BALL VALVE
	BUTTERFLY VALVE
	CALIBRATED BALANCING VALVE
	CHECK VALVE
	GATE VALVE
	GLOBE VALVE
	PRESSURE REDUCING VALVE
	RELIEF VALVE
	THREE WAY CONTROL VALVE
	TWO WAY CONTROL VALVE
AAV	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	AIR SEPERATOR
	ALIGNMENT GUIDE
	ANCHOR
	EXPANSION JOINT
	FLEXIBLE CONNECTOR
	VENTURI FLOWMETER
FM	INSERTION FLOWMETER
	PRESSURE GAUGE AND SHUT-OFF COCK
	STRAINER WITH BLOW OFF VALVE W/ CAP AND CHAIN
PT	TEMPERATURE AND PRESSURE TEST PORT
	THERMOMETER
	PUMP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	WATER HAMMER ARRESTOR
	AIR BREAK

HVAC SYMBOL LEGEND

SYMBOL	DESCRIPTION
T	THERMOSTAT
T	TEMPERATURE SENSOR
H	HUMIDISTAT
H	HUMIDITY SENSOR
P	PRESSURE SENSOR
CO	CARBON MONOXIDE SENSOR
CO_2	CARBON DIOXIDE SENSOR
S	SMOKE DETECTOR
	DISCONNECT FROM EXISTING
	CONNECT TO EXISTING

HVAC DUCTWORK LEGEND

DESCRIPTION	DOUBLE LINE DUCTWORK
ROUND ELBOW DOWN	
ROUND ELBOW UP	
OFFSET TO CHANGE ELEVATION (AT 30° WHEN POSSIBLE. ARROW SLOPES DOWN, UNO)	
ROUND RADIUS ELBOW R = 1	
90° STRAIGHT TEE	
90° CONICAL TEE	
45° LATERAL TAP	
45° LATERAL CONICAL TEE	
SIZE OR SHAPE TRANSITION	
ROUND FLEXIBLE DUCT	
RECTANGULAR ELBOW DOWN	
RECTANGULAR ELBOW UP	
OFFSET TO CHANGE ELEVATION (AT 30° WHERE POSSIBLE. ARROW SLOPES DOWN., UNO)	
RECTANGULAR RADIUS ELBOW R = 1	
RECTANGULAR ELBOW WITH TURNING VANES	
SPLIT BRANCH TAKE-OFF WITH SQUARE ELBOW & SPLITTER DAMPER	
SPLIT BRANCH TAKE-OFF WITH RADIUS ELBOW & SPLITTER DAMPER	
SPLIT BRANCH TAKE-OFF TEE WITH STATIONARY SPLITTER DAMPER	
BRANCH TAKE-OFF WITH 45° LEAD IN TAP	
INSULATED / LINED DUCTWORK (UNO)	
SQUARE FACED CEILING SUPPLY DIFFUSER 4-WAY DIRECTIONAL THROW (UNO)	
ROUND FACED CEILING DIFFUSER	
CEILING RETURN AIR GRILLE OR REGISTER	
CEILING EXHAUST AIR GRILLE OR REGISTER	
DUCT ENDCAP	
SIDEWALL SUPPLY GRILLE OR REGISTER	
SUPPLY OR OUTSIDE AIR DUCT RISER	
RETURN AIR DUCT RISER	
EXHAUST AIR DUCT RISER	
MANUAL BALANCING DAMPER	
AUTOMATIC (MOTOR-OPERATED) DAMPER	M
1-HOUR RATED FIRE DAMPER	FD_1
2-HOUR RATED FIRE DAMPER	FD_2
3-HOUR RATED FIRE DAMPER	FD_3
GRAVITY BACKDRAFT DAMPER	GD
COMBINATION FIRE AND SMOKE DAMPER WITH SMOKE DETECTOR	FSD
SMOKE DAMPER (AUTOMATIC) WITH SMOKE DETECTOR	SD
RETURN GRILLE W/ RETURN AIR BOOT	
STATIC PRESSURE SENSOR	SP
BREAK LINE	

NOTE: NOT ALL SYMBOLS USED

MECHANICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
ACCH	AIR COOLED CHILLER	KEF	KITCHEN EXHAUST FAN
AD	ACCESS DOOR	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	L"	LENGTH (INCHES)
AFMS	AIR FLOW MONITORING STATION	LV	LOUVER
AHU	AIR HANDLING UNIT	LAT	LEAVING AIR TEMPERATURE
AP	ACCESS PANEL	LBS	POUNDS
AS	AIR SEPARATOR	LFT	LEAVING FLUID TEMPERATURE
B	BOILER	LWT	LEAVING WATER TEMPERATURE
BD	BAROMETRIC DAMPER	MAU	MAKEUP AIR UNIT
BDD	BACKDRAFT DAMPER	MAX	MAXIMUM
BHP	BRAKE HORSEPOWER	MBH	THOUSAND BTU'S PER HOUR
BMS	BUILDING MANAGEMENT SYSTEM	MCA	MINIMUM CIRCUIT AMPACTY
BSB	BRANCH SELECTOR BOX	MCV	MOTORIZED CONTROL VALVE
BTU	BRITISH THERMAL UNIT	MCWB	MEAN COINCIDENT WET BULB
BTUH	BRITISH THERMAL UNITS PER HOUR	MD	MOTORIZED DAMPER
CAV	CONSTANT AIR VOLUME	MIN	MINIMUM
CC	COOLING COIL	MOCP	MAXIMUM OVERCURRENT PROTECTION
CFM	CUBIC FEET PER MINUTE	MS	MINI SPLIT
CHWP	CHILLED WATER PUMP	MSCU	MINI SPLIT CONDENSING UNIT
CHWR	CHILLED WATER RETURN	MUA	MAKEUP AIR
CHWS	CHILLED WATER SUPPLY	MUW	MAKEUP WATER
CND	CONDENSATE	N/A	NOT APPLICABLE
CP	CONDENSATE PUMP	NC	NOISE CRITERIA
CRAC	COMPUTER ROOM AIR CONDITIONER	N.C.	NORMALLY CLOSED
CSF	CHEMICAL SHOT FEEDER	NIC	NOT IN CONTRACT
CT	COOLING TOWER	NIS	NOT IN SCOPE
CU	CONDENSING UNIT	N.O.	NORMALLY OPEN
CU FT	CUBIC FEET	NOM	NOMINAL
CWP	CONDENSER WATER PUMP	NTS	NOT TO SCALE
CWR	CONDENSER WATER RETURN	OA	OUTSIDE AIR
CWS	CONDENSER WATER SUPPLY	PD	PRESSURE DROP
D"	DEPTH (INCHES)	PH	PHASE
DB	DRY BULB	PRV	PRESSURE REDUCING VALVE
DCV	DEMAND CONTROLLED VENTILATION	PSI	POUNDS PER SQUARE INCH
DDC	DIRECT DIGITAL CONTROL	PSIG	POUNDS PER SQUARE INCH GAUGE
DN	DOWN	PVC	POLYVINYL CHLORIDE
DOAS	DEDICATED OUTDOOR AIR SYSTEM	QTY	QUANTITY
DX	DIRECT EXPANSION	RA	RETURN AIR
EA	EXHAUST AIR	RF	RETURN AIR FAN
EAT	ENTERING AIR TEMPERATURE	RH	RELATIVE HUMIDITY
EF	EXHAUST FAN	RHC	REHEAT COIL
EFF	EFFICIENCY	RL	REFRIGERANT LIQUID
EDH	ELECTRIC DUCT HEATER	RLA	RATED LOAD AMPS
EFT	ENTERING FLUID TEMPERATURE	RPM	REVOLUTIONS PER MINUTE
EHC	ELECTRIC HEATING COIL	RS	REFRIGERANT SUCTION
ERV	ENERGY RECOVERY VENTILATOR	RTU	ROOF TOP UNIT
ESP	EXTERNAL STATIC PRESSURE	RV	RELIEF VALVE
ET	EXPANSION TANK	R-X	RETURN GRILLE
EUH	ELECTRIC UNIT HEATER	SA	SUPPLY AIR
EWT	ENTERING WATER TEMPERATURE	SC	STEAM COIL
EzC	ZONE AIR DISTRIBUTION EFFECTIVENESS (COOLING)	SD	SMOKE DAMPER
EzH	ZONE AIR DISTRIBUTION EFFECTIVENESS (COOLING)	SENS	SENSIBLE
E-X	EXHAUST DIFFUSER/GRILLE	SF	SUPPLY FAN
°F	DEGREES FARENHEIT	SP	STATIC PRESSURE
FCU	FAN COIL UNIT	SPEC	SPECIFICATION
FCV	FLOW CONTROL VALVE	SQFT	SQUARE FEET
FD	FIRE DAMPER	S-X	SUPPLY DIFFUSER/GRILLE
FLA	FULL LOAD AMPS	TEMP	TEMPERATURE
FPB	FAN POWERED BOX	TSP	TOTAL STATIC PRESSURE
FPM	FEET PER MINUTE	TYP	TYPICAL
FPS	FEET PER SECOND	UH	UNIT HEATER
FSD	FIRE SMOKE DAMPER	UNO	UNLESS NOTED OTHERWISE
FT	FOOT/FEET	V	VOLTAGE
GAL	GALLONS	VAV	VARIABLE AIR VOLUME TERMINAL UNIT
GC	GENERAL CONTRACTOR	Vbz-A	AREA COMPONENT
GPH	GALLONS PER HOUR	Vbz-P	POPULATION COMPONENT
GPM	GALLONS PER MINUTE	VD	VOLUME DAMPER
GUH	GAS UNIT HEATER	VFD (VSD)	VARIABLE FREQUENCY (SPEED) DRIVE
H"	HEIGHT (INCHES)	VRF	VARIABLE REFRIGERANT FLOW
HD	HEAD	W"	WIDTH (INCHES)
HP	HORSEPOWER	W/	WITH
HRV	HEAT RECOVERY VENTILATOR	W	WATTS.
HUH	HYDRONIC UNIT HEATER	WB	WET BULB
HUM	HUMIDIFIER	WC	WATER COLUMN
HWR	HOT WATER RETURN	WCCH	WATER COOLED CHILLER
HWS	HOT WATER SUPPLY	WG	WATER GAUGE
HX	HEAT EXCHANGER	Ø	DIAMETER
HZ	HERTZ	ΔP	PRESSURE DIFFERENCE
IN	INCH/INCHES	ΔT	TEMPERATURE DIFFERENCE

NOTE: NOT ALL ABBREVIATIONS USED

F-324

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BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JP OFFICE
SARGENT, TX.

MECHANICAL COVER SHEET

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
KW	BL	KW	20.105017

PRINTED

DATE	REMARKS
07/18/25	ISSUE FOR PERMIT

REVISIONS

NO.	REMARKS

SHEET NO:

M-000

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Texas Registered Engineering Firm # F-18652

SE P:\0925026.010

MECHANICAL SPECIFICATIONS

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. FURNISH AND INSTALL ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED AND NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND ALL OTHER WORK AND MISCELLANEOUS ITEMS, NOT SPECIFICALLY MENTIONED BUT REASONABLE INFERRED FOR A COMPLETE INSTALLATION, INCLUDING ALL ACCESSORIES AND APPURTENANCES REQUIRED FOR TESTING THE SYSTEM. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS THAT ALL SYSTEMS BE COMPLETE AND READY FOR OPERATION.

B. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE, FEDERAL, STATE AND LOCAL BUILDING CODES.

C. CONTRACTOR SHALL SECURE AND PAY FOR ALL CONSTRUCTION PERMITS AND LICENSES AND SHALL PAY ALL GOVERNMENTAL AND PUBLIC UTILITY CHARGES AND INSPECTION FEES NECESSARY FOR THE EXECUTION OF THE WORK.

D. CONTRACTOR SHALL ARRANGE FOR AND PAY FOR ALL REQUIRED ENGINEER STAMPS, LICENSES, PERMITS AND INSPECTION FEES FOR DEFERRED DESIGN AND INSPECTION SCOPES OF WORK.

E. SAFETY: THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.

F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOBSITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTIONS HAVE BEEN MADE. CLAIMS FOR EXTRA COMPENSATION FOR WORK THAT COULD HAVE BEEN FORESEEN BY SUCH INSPECTIONS, WHETHER SHOWN ON THE CONTRACT DOCUMENTS OR NOT SHALL NOT BE ACCEPTED OR PAID.

G. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE U.L. LABEL WHERE APPLICABLE UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER UNLESS SPECIFICALLY STATED OTHERWISE FOR A PARTICULAR PIECE OF EQUIPMENT, COMPONET OR SYSTEM.

H. COORDINATION: COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICT AND TO PROVIDE CORRECT ROUGH-IN AND CONNECTION FOR EQUIPMENT FURNISHED UNDER OTHER TRADES. VERIFY EQUIPMENT DIMENSIONS AND REQUIREMENTS WITH PROVISIONS SPECIFIED UNDER THIS SECTION. CHECK ACTUAL JOB CONDITIONS BEFORE FABRICATING WORK. REPORT NECESSARY CHANGES IN TIME TO PREVENT NEEDLESS RE-WORK.

I. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT, DUCTWORK AND PIPING SYSTEMS. CONTRACTOR SHALL CHECK ALL INFORMATION AND REPORT ANY APPARENT DISCREPANCIES BEFORE SUBMITTING BID.

J. OWNER FURNISHED EQUIPMENT

1. CONTRACTOR SHALL REQUEST A COPY OF THE PRE-PURCHASED EQUIPMENT PROCUREMENT BID INSTRUCTIONS AND SPECIFICATIONS WHEN APPLICABLE.

2. WHERE THE OWNER HAS ELECTED TO PROCURE SOME EQUIPMENT FOR THE PROJECT, IT IS THE INTENT OF THESE SPECIFICATIONS THAT THE CONTRACTOR SHALL ACCEPT RESPONSIBILITY OF THIS EQUIPMENT AND PROVIDE THE FOLLOWING:

a. COORDINATE SHOP DRAWING PREPARATION.

b. PROVIDE SUPERVISION TO COORDINATE SHIPPING AND ACCEPT DELIVERY.

c. INSTALL AND SET IN PLACE.

d. PROVIDE POWER AND CONTROL WIRING TO PROVIDE FUNCTIONS IN ACCORDANCE WITH THESE SPECIFICATIONS.

e. DELIVER THE EQUIPMENT TO THE OWNER IN A WORKABLE, OPERATING, AND TESTED CONDITION.

f. PROVIDE SUPERVISION TO COORDINATE FACTORY AND ON-SITE TESTING, START-UP, AND COMMISSIONING IN ACCORDANCE WITH THESE SPECIFICATIONS.

g. PROVIDE SUPERVISION TO COORDINATE OWNER TRAINING AND PREPARATION OF O&M MANUALS.

3. COORDINATE LIST OF EQUIPMENT PROVIDED BY OWNER WITH OWNER.

4. THE MECHANICAL CONTRACTOR SHALL REPLACE ANY OWNER EQUIPMENT/SYSTEMS UNDER HIS CONTROL OR SUPERVISION IF DAMAGED.

K. INSPECTING AND SERVICING EXISTING MECHANICAL SYSTEMS

1. CONTRACTOR SHALL INSPECT AND SERVICE THE EXISTING EQUIPMENT INDICATED TO REMAIN IN SERVICE. THE INSPECTION AND SERVICE SHALL PLACE THE EXISTING EQUIPMENT IN GOOD WORKING ORDER AND AS A MINIMUM INCLUDE THE FOLLOWING WHERE APPLICABLE:

a. ROOF TOP EQUIPMENT:

1) CLEAN THE COOLING COILS AND CONDENSER COILS.

2) COMB-OUT THE FINS OF THE COOLING COILS AND CONDENSER COILS.

3) CLEAN THE SUPPLY FAN HOUSING AND BLOWER WHEEL.

4) CLEAN THE CONDENSATE PANS AND BLOWOUT THE CONDENSATE DRAIN LINES.

5) REPLACE THE FAN BELT(S).

6) CHECK THE SYSTEMS' REFRIGERANT CHARGE. PROVIDE FOR A 10% ADDITION OF REFRIGERANT FOR EACH SYSTEM.

7) CHECK THE CONDITION OF THE UNITS' CABINET AND CASING.

8) CHECK THE CONDITION OF THE SUPPLY, CONDENSER AND EXHAUST FAN MOTORS AND DRIVES.

9) CHECK THE CONDITION OF THE ELECTRICAL SYSTEM - DISCONNECTS, CONTACTORS, SAFETIES, CONTROLS, WIRING, ETC.

10) REPLACE FILTER MEDIA AFTER OWNER ACCEPTANCE.

b. EXHAUST FANS:

1) CHECK THE CONDITION OF THE EXHAUST FANS' SHROUD.

2) CLEAN THE EXHAUST FAN HOUSING AND BLOWER WHEEL.

3) REPLACE THE FAN BELT(S).

4) CHECK THE CONDITION OF THE ELECTRICAL SYSTEM - DISCONNECTS, CONTACTORS, SAFETIES, CONTROLS, WIRING, ETC.

c. VARIABLE AIR VOLUME TERMINAL UNITS:

1) CHECK THE CONDITION OF THE UNITS' CABINET AND CASING.

2) CHECK THE CONDITION OF THE FAN BLOWER MOTOR, WHEEL AND SHROUD.

3) CLEAN THE FAN HOUSING AND BLOWER WHEEL.

4) CHECK THE CONDITION AND OPERATION OF THE HOT WATER COIL AND CONTROL VALVE.

5) CHECK THE CONDITION AND OPERATION OF THE ELECTRIC HEATING COIL AND SAFTEY SWITCHES.

6) CHECK THE CONDITION AND OPEATION OF THE TERMINAL UNITS PRIMARY AIR DAMPER AND ACTUATOR AND FLOW RING.

7) CHECK THE CONDTION AND CALIBRATION OF THE SPACE SENSOR.

8) CHECK THE CONDITION OF THE CONTROLS AND COMMUNICATION WIRING.

2. SUBMIT A SERVICE REPORT TO THE ARCHITECT AT THE COMPLETION OF THE INSPECTION AND SERVICE. IDENTIFY ADDITIONAL SERVICE WORK REQUIRED TO PLACE THE EXISTING EQUIPMENT IN GOOD WORKING ORDER.

1.2 CODE COMPLIANCE

A. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS.

B. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND THE OWNER IN WRITING OF SUCH DIFFERENCE.

C. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, CONTRACTOR SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS.

1.3 GENERAL DEMOLITION REQUIREMENTS:

A. CONTRACTOR SHALL PROTECT THE EXISTING HVAC EQUIPMENT AND SYSTEMS INDICATED TO REMAIN OPERATIONAL PERMANENTLY OR TEMPORARILY. IF DAMAGED OR DISTURBED IN THE COURSE OF THE DEMOLITION WORK, REMOVE DAMAGED PORTIONS AND REPAIR OR REPLACE WITH NEW PRODUCT OF EQUAL CAPACITY, QUALITY AND FUNCTIONALITY.

B. CONTRACTOR SHALL MAKE “SAFE” ALL HVAC EQUIPMENTS. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO ARRANGE THE SHUT OFF OF UTILITIES. THE CONTRACTOR SHALL LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES SERVING BUILDING PRIOR TO PROCEEDING WITH THE REMOVAL OF THE HVAC SYSTEMS. THE CONTRACTOR SHALL NOT RELY ON AN OPERABLE ISOLATION VALVE TO SECURELY ISOLATE A PIPING SYSTEM. CONTRACTOR SHALL PERMANENTLY CAP OR PLUG ALL OPEN PIPE ENDS.

C. CONTRACTOR SHALL ENGAGE THE BUILDING AUTOMATION SYSTEM (BAS) CONTRACTOR SELECTED BY THE OWNER TO REMOVE AND DISCONNECT ANY BAS DEVICE AND COMMUNICATION NETWORK.

D. EXISTING BELOW GRADE UTILITIES:

1. ABANDON EXISTING UTILITIES AND BELOW-GRADE UTILITY STRUCTURES. CUT UTILITIES AT LEAST 12 INCHES BELOW FINISH FLOOR.

2. DEMOLISH EXISTING UTILITIES AND BELOW-GRADE UTILITY STRUCTURES THAT ARE WITHIN 5 FEET OUTSIDE FOOTPRINT INDICATED FOR NEW CONSTRUCTION. ABANDON UTILITIES OUTSIDE THIS AREA.

3. FILL ABANDONED UTILITY STRUCTURES WITH SATISFACTORY SOIL MATERIALS ACCORDING TO PROJECT BACKFILL REQUIREMENTS.

E. CONTRACTOR SHALL BOX AND/OR PALLETIZE ALL HVAC EQUIPMENT AND PROTECT ON SITE UNTIL THE OWNER DETERMINES THE EQUIPMENT’S SALVAGE VALUE. THE CONTRACTOR SHALL REMOVE THESE ITEMS FROM THE SITE AFTER AT THE DIRECTION OF THE OWNER.

F. THE CONTRACTOR SHALL UTILIZE A CERTIFIED REFRIGERANT RECOVERY TECHNICIAN TO EVACUATE THE AIR-CONDITIONING AND REFRIGERATION EQUIPMENT AND RECOVER THE REFRIGERANT IN ACCORDANCE TO 40 CFR 82 AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION BEFORE STARTING DEMOLITION AND REMOVAL OF THE EQUIPMENT. CONTRACTOR SHALL PROVIDE A STATEMENT SIGNED BY REFRIGERANT RECOVERY TECHNICIAN RESPONSIBLE FOR RECOVERING REFRIGERANT, STATING THAT ALL REFRIGERANT THAT WAS PRESENT WAS RECOVERED AND THAT RECOVERY WAS PERFORMED ACCORDING TO EPA REGULATIONS. INCLUDE NAME AND ADDRESS OF TECHNICIAN AND DATE REFRIGERANT WAS RECOVERED.

G. INSTALL TEMPORARY MECHANICAL SYSTEMS LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, EXCEPT WHERE PITCH IS REQUIRED FOR PROPER DRAINAGE.

H. CUTTING AND PATCHING: ALL CUTTING AND PATCHING REQUIRED FOR WORK OF IN THIS DIVISION IS PROVIDED BY THE CONTRACTOR. COORDINATION OF THE WORK WITH THE GENERAL CONTRACTOR IS IMPERATIVE. CONTRACTOR SHALL RECIEVE WRITTEN APPROVAL FROM THE GENERAL CONTRACTOR PRIOR TO SAW-CUTTING OR CORING ANY STRUCTURAL SLABS OR MEMBERS.

I. PROVIDE HANGERS, SUPPORTS AND ANCHORS AS REQUIRED.

GENERAL REQUIREMENTS

A. INSTALL MECHANICAL AND ELECTRICAL SYSTEMS LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, EXCEPT WHERE PITCH IS REQUIRED FOR PROPER DRAINAGE.

B. INSTALL MECHANICAL AND ELECTRICAL SYSTEMS TO FACILITATE SERVICING, MAINTENANCE, REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.

C. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SCHEDULED EQUIPMENT IN THE CONTRACT DOCUMENTS, CONTRACTOR SHALL BEAR ALL COSTS TO COORDINATE REQUIRED DESIGN MODIFICATIONS AND INSTALLATION.

D. DELIVERY, STORAGE, AND HANDLING OF MATERIAL AND EQUIPMENT SHALL BE STORED AND HANDLED PER MANUFACTURER’S RECOMMENDATIONS. COMPLY WITH MANUFACTURER'S PRODUCT DATA, INCLUDING TECHNICAL BULLETINS, PRODUCT CATALOG INSTALLATION INSTRUCTIONS.

E. EQUIPMENT ROUGH-IN: ROUGH-IN EQUIPMENT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. OBTAIN EXACT ROUGH-IN LOCATIONS FROM GENERAL CONTRACTOR AND/OR OWNER.

F. PROVIDE HANGERS, SUPPORTS AND ANCHORS AS REQUIRED.

G. CUTTING AND PATCHING: ALL CUTTING AND PATCHING REQUIRED FOR WORK OF IN THIS DIVISION IS PROVIDED BY THE CONTRACTOR. COORDINATION OF THE WORK WITH THE GENERAL CONTRACTOR AND OWNER IS IMPERATIVE.

H. FOR THROUGH WALL PENETRATION PROTECTION SYSTEMS COMPLY WITH UL C-AJ 1001 FOR CONCRETE FLOOR AND WALL PENETRATIONS AND UL W-L 1039 FOR GYPSUM WALL BOARD PENETRATIONS.

1.5 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA TO MEET THE FOLLOWING REQUIREMENTS:

1. SHOW COMPLIANCE WITH THE BASIS OF DESIGN

a. ALL EQUIPMENT DESIGNATED ON THE DRAWINGS

b. ALL EQUIPMENT LISTED IN A SCHEDULE

c. ALL DEVICES WHICH IS VISIBLE OR USED BY THE END-USER

2. SUBMIT MANUFACTURER'S ASSEMBLY-TYPE SHOP DRAWING FOR EACH ITEM INDICATING MATERIALS AND METHODS OF ASSEMBLY OF COMPONENTS.

3. SUBMIT MANUFACTURER’S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR METAL DUCTWORK MATERIALS AND PRODUCTS.

4. SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF MECHANICAL INSULATION. SUBMIT SCHEDULE SHOWING MANUFACTURER'S PRODUCT NUMBER, K-VALUE, THICKNESS, AND FURNISHED ACCESSORIES FOR EACH MECHANICAL SYSTEM REQUIRING INSULATION.

5. SUBMIT MAINTENANCE DATA, INCLUDING CLEANING INSTRUCTIONS FOR FINISHES, AND SPARE PARTS LISTS.

1.6 SUBSTITUTIONS: WHEREVER POSSIBLE, MORE THAN ONE MANUFACTURER HAS BEEN LISTED FOR VARIOUS ITEMS OR EQUIPMENT, ANY ONE OF WHICH WILL BE ACCEPTABLE. BASE THE BID ON USE OF MATERIALS SPECIFIED. IF, AFTER AWARD OF THE CONTRACT, A SUBSTITUTE IS PROPOSED, THE REQUEST FOR PERMISSION TO SUBSTITUTE SHALL BE ACCOMPANIED WITH A STATEMENT OF THE AMOUNT OF MONEY TO REDUCE THE CONTRACT IF THE SUBSTITUTION IS PERMITTED. THE OWNER IS THE SOLE JUDGE OF ACCEPTABILITY OF PROPOSED SUBSTITUTIONS. IF A SUBSTITUTE IS PERMITTED AND ANY REDESIGN EFFORT IS THEREBY NECESSITATED, THE REQUIRED REDESIGN SHALL BE AT THE CONTRACTOR’S EXPENSE.

1.7 CONSTRUCT THE HVAC SYSTEM IN COMPLIANCE WITH THE FOLLOWING STANDARDS:

A. SMACNA STANDARDS:

1. COMPLY WITH SMACNA’S “HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE”, FOURTH EDITION, 2020, FOR FABRICATION AND INSTALLATION OF METAL DUCTWORK.

2. SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL, 2012.

3. SMACNA ROUND INDUSTRIAL DUCT CONSTRUCTION STANDARDS, 2013.

B. ASHRAE STANDARDS: COMPLY WITH 2024 ASHRAE HANDBOOK – HVAC SYSTEMS AND EQUIPMENT, CHAPTER 19 “DUCT CONSTRUCTION”, FOR FABRICATION AND INSTALLATION OF METAL DUCTWORK.

C. NFPA COMPLIANCE: COMPLY WITH NFPA 90A “STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS” AND NFPA 90B “STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS”.

D. ACGIH: INDUSTRIAL VENTILATION - A MANUAL OF RECOMMENDED PRACTICE, 31ST EDITION, AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS.

1.8 HYDRONIC PIPING SYSTEMS

A. PIPE AND FITTING MATERIALS, JOINING METHODS, SPECIAL-DUTY VALVES, AND SPECIALTIES FOR THE FOLLOWING SYSTEMS:

1. HOT-WATER HEATING PIPING.

2. CHILLED-WATER PIPING.

3. CONDENSATE-DRAIN PIPING.

4. AIR-VENT PIPING.

B. PERFORMANCE REQUIREMENTS

1. HYDRONIC PIPING COMPONENTS AND INSTALLATION SHALL BE CAPABLE OF WITHSTANDING THE FOLLOWING MINIMUM WORKING PRESSURE AND TEMPERATURE:

a. HOT-WATER HEATING PIPING: 150 PSIG AT 200 DEG F.

b. CHILLED-WATER PIPING: 150 PSIG AT 100 DEG F.

c. CONDENSATE-DRAIN PIPING: 100 DEG F.

d. AIR-VENT PIPING: 100 DEG F.

C. QUALITY ASSURANCE

1. INSTALLER QUALIFICATIONS:

a. INSTALLERS OF PRESSURE-SEALED JOINTS: INSTALLERS SHALL BE CERTIFIED BY THE PRESSURE-SEAL JOINT MANUFACTURER AS HAVING BEEN TRAINED AND QUALIFIED TO JOIN PIPING WITH PRESSURE-SEAL PIPE COUPLINGS AND FITTINGS.

2. STEEL SUPPORT WELDING: QUALIFY PROCESSES AND OPERATORS ACCORDING TO AWS D1.1/D1.1M, "STRUCTURAL WELDING CODE - STEEL."

3. WELDING: QUALIFY PROCESSES AND OPERATORS ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE: SECTION IX.

a. COMPLY WITH PROVISIONS IN ASME B31 SERIES, "CODE FOR PRESSURE PIPING."

b. CERTIFY THAT EACH WELDER HAS PASSED AWS QUALIFICATION TESTS FOR WELDING PROCESSES INVOLVED AND THAT CERTIFICATION IS CURRENT.

4. ASME COMPLIANCE: COMPLY WITH ASME B31.9, "BUILDING SERVICES PIPING," FOR MATERIALS, PRODUCTS, AND INSTALLATION. SAFETY VALVES AND PRESSURE VESSELS SHALL BEAR THE APPROPRIATE ASME LABEL. FABRICATE AND STAMP AIR SEPARATORS AND EXPANSION TANKS TO COMPLY WITH ASME BOILER AND PRESSURE VESSEL CODE: SECTION VIII, DIVISION 1.

PART 2 - PRODUCTS

2.1 AIR DIFFUSERS, GRILLES AND REGISTERS

A. GENERAL: PROVIDE MANUFACTURER'S STANDARD CEILING AIR DIFFUSERS AND GRILLES WHERE SHOWN; OF SIZE, SHAPE, CAPACITY AND TYPE INDICATED, AND WITH ACCESSORIES AND FINISHES AS LISTED ON AIR DEVICE SCHEDULE. COLOR SELECTION SHALL BE FROM MANUFACTURER'S STANDARD COLOR CHIPS.

B. CEILING COMPATIBILITY: PROVIDE DIFFUSERS WITH BORDER STYLES THAT ARE COMPATIBLE WITH ADJACENT CEILING SYSTEMS, AND THAT ARE SPECIFICALLY MANUFACTURED TO FIT INTO CEILING MODULE WITH ACCURATE FIT AND ADEQUATE SUPPORT. REFER TO ARCHITECTURAL REFLECTIVE CEILING PLANS, ROOM FINISHING SCHEDULE AND SPECIFICATIONS FOR TYPES OF CEILING AND WALLS SYSTEMS WHICH WILL CONTAIN EACH TYPE OF CEILING AIR DIFFUSER, GRILLE AND REGISTERS. ALL AIR DEVICES INSTALLED IN PLASTER, GYP BOARD OR OTHER HARD CEILINGS OR WALLS SHALL BE PROVIDED WITH A SEPARATE MOUNTING FRAME.

C. PROVIDE REMOTE MANUAL BALANCE DAMPER OPERATORS FOR ALL AIR DEVICE WHERE THE BALANCING DAMPER IS ABOVE AN SOLID CEILING. THE MANUAL OPERATOR SHALL BE AN IN THE DUCT OR OUT OF AIR STREAM TYPE WITH A CABLE EXTENDED TO AN ACCESSIBLE LOCATION - EQUAL TO MAT ROTO-TWIST CABLE OPERATED DAMPERS. OUT OF THE AIR STREAM TYPE CABLE SHALL BE TERMINATED AT INCONSPICUOUS WALL OR CEILING LOCATION WITH A MOUNTING BRACKET FOR ACTUATION CABLE SUPPORT WITH A CAP TO SEAL ACCESS HOLE - EQUAL TO MAT RT-CCM.

D. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE DIFFUSERS OF ONE OF THE FOLLOWING:

1. TITUS

2. KRUEGER

3. PRICE

4. METALAIRE

2.2 DUCTWORK INSULATION MATERIALS

A. MINERAL FIBER BOARD - 3.0 PCF: ASTM C612 TYPE 1A OR 1B WITH FACTORY APPLIED FSK JACKET.

B. MINERAL FIBERGLASS BLANKET - 1.0 PCF: ASTM C 553 TYPE II, ASTM C 1290 TYPE III WITH FACTORY APPLIED FRK JACKET.

C. JACKETS FOR DUCTWORK INSULATION: ASTM C 921, TYPE II FOR DUCTWORK WITH TEMPERATURES BELOW AMBIENT; TYPE I FOR DUCTWORK WITH TEMPERATURES ABOVE AMBIENT.

D. DUCTWORK INSULATION ACCESSORIES: PROVIDE STAPLES, BANDS, WIRES, TAPE, ANCHORS, CORNER ANGLES AND SIMILAR ACCESSORIES AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

E. DUCTWORK INSULATION COMPOUNDS: PROVIDE CEMENTS, ADHESIVES, COATINGS, SEALERS, PROTECTIVE FINISHES AND SIMILAR COMPOUNDS AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

F. APPLICATION SCHEDULE

1. ITEMS NOT INSULATED:

a. FACTORY INSULATED FLEXIBLE DUCTS

b. METAL DUCTS WITH DUCT LINER OF SUFFICIENT THICKNESS TO COMPLY THE ENERGY CODE MINIMUM INSULATION R-VALUES.

2. CONCEALED SUPPLY AND RETURN AIR DUCT INSULATION:

a. MATERIAL: MINERAL-FIBER BLANKET

b. THICKNESS: 2 INCHES AND 1.0 PCF

3. EXPOSED SUPPLY AND RETURN AIR DUCT INSULATION:

a. MATERIAL: MINERAL-FIBER BOARD

b. THICKNESS: 2 INCHES AND 3.0 PCF

2.3 DUCTWORK CONSTRUCTION

A. HVAC DUCTWORK MATERIALS

1. GALVANIZED STEEL DUCTWORK: SHALL BE CONSTRUCTED WITH G-90 OR BETTER GALVANIZED STEEL (ASTM A 653/A 653M) LFQ, CHEM TREAT.

2. STAINLESS-STEEL SHEETS: COMPLY WITH ASTM A 480/A 480M, TYPE 304 OR 316, AS INDICATED IN THE "DUCT SCHEDULE" ARTICLE; COLD ROLLED, ANNEALED, SHEET. EXPOSED SURFACE FINISH SHALL BE NO. 2B, NO. 2D, NO. 3, OR NO. 4 AS INDICATED IN THE "DUCT SCHEDULE" ARTICLE.

3. ALUMINUM SHEETS: COMPLY WITH ASTM B 209 ALLOY 3003, H14 TEMPER; WITH MILL FINISH FOR CONCEALED DUCTS, AND STANDARD, ONE-SIDE BRIGHT FINISH FOR DUCT SURFACES EXPOSED TO VIEW.

B. APPLICATION SCHEDULE

1. MEDIUM PRESSURE SUPPLY AIR:

a. MATERIAL: G-90 GALVANIZED STEEL

b. PRESSURE CLASS: +4 IN WG

2. LOW PRESSURE SUPPLY AIR:

a. MATERIAL: G-90 GALVANIZED STEEL

b. PRESSURE CLASS: +2 IN WG

3. RETURN AIR AND GENERAL TOILET EXHAUST AIR:

a. MATERIAL: G-90 GALVANIZED STEEL

b. PRESSURE CLASS: -1 IN WG

C. MISCELLANEOUS DUCTWORK MATERIALS

1. GENERAL: PROVIDE MISCELLANEOUS MATERIALS AND PRODUCTS TO COMPLETE THE DUCTWORK SYSTEM REQUIREMENTS INCLUDING PROPER CONNECTION OF DUCTWORK AND EQUIPMENT.

2. FITTINGS: PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15º CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45º LATERALS AND 45º ELBOWS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90º BRANCHES ARE INDICATED, PROVIDE CONICAL TYPE TEES.

3. DUCT LINER:

a. FIBROUS GLASS, COMPLYING WITH THERMAL INSULATION MANUFACTURER’S ASSOCIATION (TIMA) AHC-101; OF THICKNESS INDICATED, WITH ANTIMICROBIAL NEOPRENE COATING ADJACENT TO AIR STREAM.

b. MANUFACTURERS:

1) CERTAINTEED “ULTRA*LINER”.

2) KNAUF TYPE “M”.

3) JOHNS MANSVILLE “LINACOUSTIC”.

4) OWENS-CORNING “AEROFLEX”.

c. DUCT LINER ADHESIVE:

1) COMPLY WITH ASTM C 916 “SPECIFICATIONS FOR ADHESIVES FOR DUCT THERMAL INSULATION.” APPLICATION SHALL CONFORM TO MANUFACTURER’S WRITTEN RECOMMENDATIONS FOR THE APPARENT APPLICATION.

2) ADHESIVES SHALL BE NON-INFLAMMABLE AFTER CURING.

3) MANUFACTURERS:

a) Benjamin-Foster.

b) Duro Dyne “FPG”.

c) Kinco 15-137.

d) Miracle PF-91.

d. DUCT LINER FASTENERS:

1) COMPLY WITH SMACNA “INSTALLATION STANDARDS FOR RECTANGULAR DUCTS USING FLEXIBLE LINER”, ARTICLES S2.0 THROUGH S2.11.

2) COMPLY WITH LINING DETAILS AS SHOWN IN THE REFERENCED SMACNA SECTION, FIGURES 2-22 AND 2-23.

3) CLINCHED-PIN TYPE FASTENERS SHALL BE “GRIP-NAIL”, OR APPROVED EQUAL.

4) PROJECTING PINS IN TYPE 3 OR TYPE 4 APPLICATIONS SHALL BE CLIPPED OFF CLOSE ENOUGH TO THE RETAINING DISC TO PROVIDE PROPER ANCHORING AND TO PREVENT INJURY TO PERSONNEL.

D. DUCT SEALANT:

1. DUCT SEALER SHALL BE FLEXIBLE, WATER-BASED, ADHESIVE SEALANT DESIGNED FOR USE IN ALL PRESSURE DUCT SYSTEMS. AFTER CURING, IT SHALL BE RESISTANT TO ULTRAVIOLET LIGHT AND SHALL SEAL OUT WATER, AIR, AND MOISTURE. SEALER SHALL BE UL LISTED AND CONFORM TO ASTM E 84.

2. COMPLY WITH REQUIREMENTS TABLE 1-1 IN SMACNA “HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE”

3. MANUFACTURERS:

a. BENJAMIN-FOSTER

b. DUCTMATE - PROSEAL.

c. DURO DYNE S2.

d. HARDCAST.

e. UNITED SHEET METAL.

E. DUCTWORK SUPPORT MATERIALS:

1. GENERAL:

a. EXCEPT AS OTHERWISE INDICATED, PROVIDE HOT-DIPPED GALVANIZED STEEL FASTENERS, ANCHORS, RODS, STRAPS, TRIM AND ANGLES FOR SUPPORT OF DUCTWORK.

b. COMPLY WITH APPLICABLE PROVISIONS SMACNA “HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE”; CHAPTER 5.

F. FLEXIBLE DUCTS

1. GENERAL:

a. EITHER SPIRAL WOUND SPRING STEEL WITH FLAMEPROOF VINYL SHEATHING, OR CORRUGATED ALUMINUM; COMPLYING WITH UL181.

b. COMPLY WITH APPLICABLE PROVISIONS OF SMACNA “HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE”, CHAPER 3.

c. INSTALLATION SHALL CONFORM TO CONDITIONS UNDER WHICH UL LISTING WAS GRANTED.

2. INSULATION:

a. INSULATE ALL FLEXIBLE DUCTS, BOTH SUPPLY AND RETURN, WITH NOMINAL 2” THICK CONTINUOUS FLEXIBLE FIBERGLASS SHEATH WITH UL APPROVED VINYL BARRIER JACKET.

b. INSULATION DENSITY SHALL BE 3/4 LBS/CU.FT.

c. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE FLEXIBLE DUCTS MANUFACTURED BY ONE OF THE FOLLOWING:

1) ATCO.

2) GENFLEX.

3) THERMAFLEX.

2.4 DUCTWORK FABRICATION

A. SHOP-FABRICATE DUCTWORK IN STANDARD LENGTHS, UNLESS OTHERWISE INDICATED OR REQUIRED TO COMPLETE RUNS. PREASSEMBLE WORK IN SHOP TO GREATEST EXTENT POSSIBLE, SO AS TO MINIMIZE FIELD ASSEMBLY OF SYSTEMS. DISASSEMBLE SYSTEMS ONLY TO EXTENT NECESSARY FOR SHIPPING AND HANDLING. MATCH MARK SECTIONS FOR REASSEMBLY AND COORDINATED INSTALLATION.

B. SHOP-FABRICATE DUCTWORK OF GAUGES AND REINFORCEMENT COMPLYING WITH SMACNA “HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE” AS FOLLOWS:

1. RECTANGULAR, STEEL: CHAPTER 2.

2. FITTINGS AND CONSTRUCTION, CHAPER 4.

3. ROUND, OVAL AND FLEXIBLE DUCT: CHAPTER 3.

4. RECTANGULAR DUCT LONGITUDINAL SEAMS: PITTSBURGH LOCK SHALL BE USED ON ALL LONGITUDINAL SEAMS. ALL LONGITUDINAL SEAMS WILL BE SEALED WITH MASTIC SEALANT.

5. ROUND DUCT SHALL BE EQUAL TO SPIRAL SEAM RL-1. ROUND DUCT WITH SNAPLOCK SEAMS SHALL IS LIMITED TO THE FINAL BRANCH RUN-OUT TO A SINGULAR AIR DIFFUSER NO LONGER THAN 10 FEET IN LENGTH.

6. DUCTMATE OR W.D.C.I. PROPRIETARY DUCT CONNECTION SYSTEMS WILL BE ACCEPTABLE. DUCT CONSTRUCTED USING THESE SYSTEMS WILL REFER TO THE MANUFACTURERS GUIDELINES FOR SHEET GAUGE, INTERMEDIATE REINFORCEMENT SIZE AND SPACING, AND JOINT REINFORCEMENTS.

7. FORMED ON FLANGES (T.D.C./T.D.F./T-25A/T-25B) WILL ONLY BE ACCEPTABLE WHEN SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION OF ANY DUCTWORK. FORMED ON FLANGES WILL BE CONSTRUCTED AS SMACNA T-25 FLANGES. NO OTHER CONSTRUCTION PERTAINING TO FORMED ON FLANGES WILL BE ACCEPTABLE. FORMED ON FLANGES SHALL BE ACCEPTABLE FOR USE ON DUCTWORK 42” WIDE OR LESS, WITH 2” POSITIVE PRESSURE STATIC OR LESS, AND MUST INCLUDE THE USE OF CORNERS, BOLTS AND CLEAT.

8. FABRICATE DUCT FITTINGS TO MATCH ADJOINING DUCTS, AND TO COMPLY WITH DUCT REQUIREMENTS AS APPLICABLE TO FITTINGS. EXCEPT AS OTHERWISE INDICATED, FABRICATE ELBOWS WITH CENTER LINE RADIUS EQUAL TO ASSOCIATED DUCT WIDTH; AND FABRICATE TO INCLUDE TURNING VANES IN ELBOWS WHERE SHORTER RADIUS IS NECESSARY. LIMIT ANGULAR TAPERS TO 30º FOR CONTRACTING TAPERS AND 20º FOR EXPANDING TAPERS.

9. FABRICATE DUCTWORK WITH DUCT LINER IN EACH SECTION OF DUCT WHERE INDICATED. LAMINATE LINER TO INTERNAL SURFACES OF DUCT IN ACCORDANCE WITH INSTRUCTIONS BY MANUFACTURERS OF LINING AND ADHESIVE, AND FASTEN WITH MECHANICAL FASTENERS.

10. ROUND DUCT JOINTS:

a. 6”-14” DIAMETER, INTERIOR SLIP COUPLING BEADED AT CENTER, FASTENED TO DUCT WITH SEALING COMPOUND APPLIED CONTINUOUSLY AROUND JOINT BEFORE ASSEMBLING AND AFTER FASTENING.

11. PRESSURE CLASSIFICATIONS:

a. STATIC PRESSURE RATINGS FOR DUCTWORK SYSTEMS ARE NOTED IN APPLICATION SCHEDULE.

b. GAUGES OF METAL AND REINFORCING METHODS SHALL CONFORM TO SMACNA REQUIREMENTS.

PART 3 - EXECUTION

3.1 INSPECTION

A. GENERAL: EXAMINE AREAS AND CONDITIONS UNDER WHICH METAL DUCTWORK IS TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER.

3.2 INSTALLATION OF METAL DUCTWORK

A. INSTALLATION: INSTALL METAL DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

B. GENERAL: ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE AIR TIGHT (5% LEAKAGE FOR SYSTEMS RATED 3 IN WG AND UNDER; 1% FOR SYSTEMS RATED OVER 3 IN WG) AND NOISELESS (NO OBJECTIONABLE NOISE) SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE. INSTALL EACH RUN WITH MINIMUM NUMBER OF JOINTS. ALIGN DUCTWORK ACCURATELY AT CONNECTIONS, WITHIN 1/8” MISALIGNMENT TOLERANCE AND WITH INTERNAL SURFACES SMOOTH. SUPPORT DUCTS RIGIDLY WITH SUITABLE TIES, BRACES, HANGERS AND ANCHORS OF TYPE WHICH WILL HOLD DUCTS TRUE TO SHAPE AND TO PREVENT BUCKLING. SUPPORT VERTICAL DUCTS AT EVERY FLOOR.

C. FIELD FABRICATION: COMPLETE FABRICATION OF WORK AT PROJECT AS NECESSARY TO MATCH SHOP FABRICATED WORK AND ACCOMMODATE INSTALLATION REQUIREMENTS.

D. DUCT ROUTING:

1. LOCATE DUCTWORK RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY TO THE BUILDING'S WALLS AND STRUCTURE AND AVOID DIAGONAL RUNS WHEREVER POSSIBLE. LOCATE DUCT AS INDICATED BY DIAGRAMS, DETAILS AND NOTATIONS OR, IF NOT OTHERWISE INDICATED, RUN DUCTWORK IN SHORTEST ROUTE WHICH DOES NOT OBSTRUCT USEABLE SPACE OR BLOCK ACCESS FOR SERVICING BUILDING AND ITS EQUIPMENT.

2. HOLD DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS, AND OTHER STRUCTURAL AND PERMANENT ENCLOSURE ELEMENTS OF BUILDING. PROVIDE CLEARANCE TO 1 INCH WHERE FURRING IS SHOWN FOR ENCLOSURE OR CONCEALMENT OF DUCTS, ALLOW FOR INSULATION THICKNESS.

3. WHEREVER POSSIBLE IN FINISHED AND OCCUPIED SPACES, CONCEAL DUCTWORK FROM VIEW, BY LOCATING IN MECHANICAL SHAFTS, HOLLOW WALL CONSTRUCTION OR ABOVE SUSPENDED CEILINGS.

4. DO NOT ENCASE HORIZONTAL RUNS IN SOLID PARTITIONS, EXCEPT AS SPECIFICALLY SHOWN.

5. COORDINATE LAYOUT WITH STRUCTURAL MEMBERS, SUSPENDED CEILING, LIGHTING LAYOUTS, SPRINKLER PIPING, PLUMBING SYSTEMS AND SIMILAR FINISHED WORK.

E. INSTALLATION OF EXPOSED DUCTWORK

1. PROTECT DUCTS EXPOSED IN FINISHED SPACES FROM BEING DENTED, SCRATCHED, OR DAMAGED. REMOVE / CLEAN ALL TAGS AND SHOP FABRICATION MARKS FROM DUCTWORK.

2. TRIM DUCT SEALANTS FLUSH WITH METAL. CREATE A SMOOTH AND UNIFORM EXPOSED BEAD. DO NOT USE TWO-PART TAPE SEALING SYSTEM.

3. GRIND WELDS TO PROVIDE SMOOTH SURFACE FREE OF BURRS, SHARP EDGES, AND WELD SPLATTER. WHEN WELDING STAINLESS STEEL WITH A NO. 3 OR 4 FINISH, GRIND THE WELDS FLUSH, POLISH THE EXPOSED WELDS, AND TREAT THE WELDS TO REMOVE DISCOLORATION CAUSED BY WELDING.

4. MAINTAIN CONSISTENCY, SYMMETRY, AND UNIFORMITY IN THE ARRANGEMENT AND FABRICATION OF FITTINGS, HANGERS AND SUPPORTS, DUCT ACCESSORIES, AND AIR OUTLETS.

5. REPAIR OR REPLACE DAMAGED SECTIONS AND FINISHED WORK THAT DOES NOT COMPLY WITH THESE REQUIREMENTS.

F. ALL HVAC EQUIPMENT AND DUCT SYSTEMS MUST BE PROTECTED FROM COLLECTING DUST AND DEBRIS DURING THE FABRICATION, DELIVERY AND INSTALLATION OF HVAC SYSTEMS. CONTRACTOR SHALL IMPLEMENT CONTROL PROCEDURES TO PROTECT THE CLEANINESS OF THE HVAC EQUIPMENT AND DUCT SYSTEMS. CONTRACTOR SHALL WIPE CLEAN THE INTERIOR OF ALL SUPPLY AND RETURN DUCT WORK SEGEMENTS PRIOR TO INSTALLATION. DURING CONSTRUCTION THE CONTRACTOR SHALL SEAL ALL SUPPLY AND RETURN AIR DUCT OPENINGS WITH PLASTIC. WHEN THE HVAC SYSTEMS ARE PLACED INTO OPERATION PRIOR TO OWNER ACCEPTANCE, THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY FILTER MEDIA AT ALL RETURN AIR INLET AND IMPLEMENT LOCAL EXHAUST CAPTURE OF HIGH DUST PRODUCING CONSTRUCTION ACTIVITIES. THE TEMPORARY FILTER MEDIA SHALL A MERV RATING OF 8 AND WITH A TACKIFIER TO ENHANCE DUST RETENTION.

G. ELECTRICAL EQUIPMENT SPACES: DO NOT ROUTE DUCTWORK THROUGH TRANSFORMER VAULTS AND THEIR ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES.

H. PENETRATIONS: WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS AND EXTERIOR WALLS, AND ARE EXPOSED TO VIEW, CONCEAL SPACE BETWEEN CONSTRUCTION OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAUGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-1/2”. FASTEN TO DUCT AND SUBSTRATE.

I. WHERE DUCTS PASS THROUGH FIRE RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRE STOPPING BETWEEN DUCT AND SUBSTRATE.

J. COORDINATION: COORDINATE DUCT INSTALLATIONS WITH INSTALLATION OF ACCESSORIES, DAMPERS, COIL FRAMES, EQUIPMENT, CONTROLS AND OTHER ASSOCIATED WORK OF DUCTWORK SYSTEM.

3.3 LOCATE CEILING AIR DIFFUSERS, REGISTERS, AND GRILLES, AS INDICATED ON GENERAL CONSTRUCTION "REFLECTED CEILING PLANS". UNLESS OTHERWISE INDICATED, LOCATE UNITS IN CENTER OF ACOUSTICAL CEILING MODULES.

3.4 DUCTWORK SYSTEM INSULATION

A. INSTALL INSULATION MATERIALS, ACCESSORIES, AND FINISHES WITH SMOOTH, STRAIGHT, AND EVEN SURFACES; FREE OF VOIDS THROUGHOUT THE LENGTH OF DUCTS AND FITTINGS.

B. INSTALL INSULATION MATERIALS, VAPOR BARRIERS OR RETARDERS, JACKETS, AND THICKNESSES REQUIRED FOR EACH ITEM OF DUCT SYSTEM AS SPECIFIED IN INSULATION SYSTEM SCHEDULES.

C. INSTALL ACCESSORIES COMPATIBLE WITH INSULATION MATERIALS AND SUITABLE FOR THE SERVICE. INSTALL ACCESSORIES THAT DO NOT CORRODE, SOFTEN, OR OTHERWISE ATTACK INSULATION OR JACKET IN EITHER WET OR DRY STATE.

D. INSTALL INSULATION WITH LONGITUDINAL SEAMS AT TOP AND BOTTOM OF HORIZONTAL RUNS.

E. INSTALL MULTIPLE LAYERS OF INSULATION WITH LONGITUDINAL AND END SEAMS STAGGERED.

F. KEEP INSULATION MATERIALS DRY DURING APPLICATION AND FINISHING.

G. INSTALL INSULATION WITH TIGHT LONGITUDINAL SEAMS AND END JOINTS. BOND SEAMS AND JOINTS WITH ADHESIVE RECOMMENDED BY INSULATION MATERIAL MANUFACTURER.

H. INSTALL INSULATION WITH LEAST NUMBER OF JOINTS PRACTICAL.

I. WHERE VAPOR BARRIER IS REQUIRED, SEAL JOINTS, SEAMS, AND PENETRATIONS IN INSULATION AT HANGERS, SUPPORTS, ANCHORS, AND OTHER PROJECTIONS WITH VAPOR-BARRIER MASTIC.

1. INSTALL INSULATION CONTINUOUSLY THROUGH HANGERS AND AROUND ANCHOR ATTACHMENTS.

2. FOR INSULATION APPLICATION WHERE VAPOR BARRIERS ARE INDICATED, EXTEND INSULATION ON ANCHOR LEGS FROM POINT OF ATTACHMENT TO SUPPORTED ITEM TO POINT OF ATTACHMENT TO STRUCTURE. TAPER AND SEAL ENDS AT ATTACHMENT TO STRUCTURE WITH VAPOR-BARRIER MASTIC.

3. INSTALL INSERT MATERIALS AND INSTALL INSULATION TO TIGHTLY JOIN THE INSERT. SEAL INSULATION TO INSULATION INSERTS WITH ADHESIVE OR SEALING COMPOUND RECOMMENDED BY INSULATION MATERIAL MANUFACTURER.

J. APPLY ADHESIVES, MASTICS, AND SEALANTS AT MANUFACTURER'S RECOMMENDED COVERAGE RATE AND WET AND DRY FILM THICKNESSES.

3.4 INSTALLATION OF DUCT LINER

A. GENERAL: INSTALL DUCT LINER IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, PAGES 2-25 THRU 2-29.

B. DUCT LINER SHALL BE INSTALLED ONLY AS INDICATED ON PLANS AND ACCORDING TO THE FOLLOWING:

1. FIRST 15 FEET OF DUCT WORK DOWN STREAM OF AIR TERMINALS, FAN COILS OR RTU'S SHALL BE INTERNAL LINED EQUAL TO MANVILLE/SCHULLER PERMACOTE LINACOUSTIC OR EQUAL, 1-1/2" THICK, 1.5 LB. DENSITY GLASS FIBER ACOUSTIC DUCT LINER.

3.6 INSTALLATION OF FLEXIBLE DUCTS

A. MAXIMUM LENGTH: FOR ANY DUCT RUN USING FLEXIBLE DUCTWORK, DO NOT EXCEED 6’0” EXTENDED LENGTH.

B. INSTALLATION: INSTALL IN ACCORDANCE WITH CHAPTER 3 OF SMACNA “HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE”.

3.7 EQUIPMENT CONNECTIONS

A. GENERAL: CONNECT METAL DUCTWORK TO EQUIPMENT AS INDICATED, PROVIDE FLEXIBLE CONNECTION FOR EACH DUCTWORK CONNECTION TO EQUIPMENT MOUNTED ON VIBRATION ISOLATORS, AND/OR EQUIPMENT CONTAINING ROTATING MACHINERY. PROVIDE ACCESS DOORS AS INDICATED.

3.8 FIELD QUALITY CONTROL

A. TEST AND ADJUST CONTROLS AND SAFETIES. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT.

3.9 CLEANING

A. AFTER COMPLETING SYSTEM INSTALLATION, INCLUDING OUTLET FITTINGS AND DEVICES, INSPECT EXPOSED FINISH. REMOVE BURRS, DIRT, AND CONSTRUCTION DEBRIS, AND REPAIR DAMAGED FINISHES.

3.10 TESTING AND BALANCING

A. CONTRACTOR SHALL TEST AND BALANCE THE HVAC SYSTEMS TO THE SCHEDULED AIR AND WATER CAPACITIES WITH A N.E.B.B OR A.A.B.C APPROVED TESTING AND BALANCED CONTRACTOR. THE TESTING AND BALANCING ACTIVITIES SHALL BE RECORD ON N.E.B.B, A.A.B.C OR SMANCA STANDARD FORMS. TESTING AND BALANCINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW.

B. THE CONTRACTOR SHALL TEST AND BALANCE ALL NEW AND EXISTING HVAC EQUIPMENT AND SYSTEMS.

3.11 DEMONSTRATION

A. ENGAGE A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO TRAIN OWNER'S MAINTENANCE PERSONNEL AS SPECIFIED BELOW:

1. TRAIN OWNER'S MAINTENANCE PERSONNEL ON PROCEDURES AND SCHEDULES RELATED TO STARTUP AND SHUTDOWN, TROUBLESHOOTING, SERVICING, AND PREVENTIVE MAINTENANCE.

2. REVIEW DATA IN THE MAINTENANCE MANUALS.

3. SCHEDULE TRAINING WITH OWNER, THROUGH ARCHITECT, WITH AT LEAST 7 DAY ADVANCE NOTICE.

3.12 FIELD RECORD & AS-BUILT DRAWINGS AND SUBMITTAL AND OPERATING & MAINTENACE MANUALS

A. CONTRACTOR SHALL KEEP A CLEAN SET OF CONTRACT DRAWINGS ON THE JOB, NOTING DAILY ALL CHANGES MADE IN THESE DRAWINGS IN CONNECTION WITH THE FINAL INSTALLATION INCLUDING EXACT DIMENSIONED LOCATIONS OF ALL NEW AND UNCOVERED EXISTING UTILITIES.

B. CONTRACTOR SHALL OBTAIN ORIGINALS OF THE FOLLOWING PROJECT INFORMATION TO PROVIDE THREE (3) THREE RING BINDERS TO BE TURNED OVER TO THE ARCHITECT FOR REVIEW AND SUBSEQUENT DELIVERY TO THE OWNER.

1. ALL WARRANTIES AND GUARANTEES FOR EQUIPMENT AND MATERIAL COVERED BY THE CONTRACT INCLUDING THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE MANUFACTURER’S REPRESENTATIVE.

2. APPROVED PRODUCT AND EQUIPMENT SUBMITTAL DATA.

3. APPROVED SHOP DRAWINGS.

4. OPERATING AND MAINTENANCE INSTRUCTIONS FOR MECHANICAL AND PLUMBING SYSTEMS. INCLUDE THE FOLLOWING INFORMATION:

a. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF ALL REPLACEABLE PARTS.

b. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, ROUTINE AND NORMAL OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER OPERATING INSTRUCTIONS.

c. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS.

d. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.

e. MAINTENANCE BROCHURES SHALL BE CLEARLY MARKED TO INDICATE THE ACTUAL EQUIPMENT MODEL NUMBERS, ACCESSORIES, FEATURES, OPTIONAL FEATURES, ETC. FURNISHED ON THIS SPECIFIC PROJECT. ALL EQUIPMENT BROCHURES SHALL REFERENCE THE IDENTIFYING LABELS USED ON THE PROJECT DRAWINGS.

5. TEST AND BALANCE REPORTS REQUIRED BY THESE SPECIFICATIONS.

6. OTHER TEST AND INSPECTION REPORTS, PRODUCT DATA AND/OR DRAWINGS REQUIRED DURING CONSTRUCTION.

7. VALVE TAG CHARTS AND DIAGRAMS.

C. CONTRACTOR SHALL TWO-WEEKS PRIOR TO REQUESTING A FINAL INSPECTION, TURN OVER THE PROJECT THREE RING BINDERS AND TWO COPIES OF THE FIELD RECORD DRAWING MARKED AS "AS INSTALLED" WORK TO THE ARCHITECT FOR SUBSEQUENT REVIEW AND TRANSMITTAL TO THE OWNER. CONTRACTOR SHALL NOTE ALL CONSTRUCTION CHANGES, DATE EACH SHEET AND LABEL "AS-BUILTS" IN THE REVISION BLOCK ON THE DRAWINGS. PROJECT CLOSE-OUT INFORMATION MUST BE SUBMITTED AND APPROVED PRIOR TO REQUESTS FOR FINAL PAYMENT.

D. CONTRACTOR SHALL PROVIDE TWO ELECTRONIC COPIES OF ALL REQUIRED CLOSE-OUT DOCUMENTATION INDICATED ABOVE.

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F-324

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150738
07/18/25

LYNN ENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:
JP OFFICE
SARGENT, TX.
MECHANICAL SPECIFICATIONS

MATAGORDA COUNTY

CUSTOMER NAME:

DRAWN BY: KW
CHECKED BY: BL
DESIGNED BY: KW
JOB NO. 20.105017

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KEYNOTE LEGEND

#	NOTE
1	ROUTE CONDENSATE PIPING DOWN THROUGH WALL TO LAVATORY TAILPIECE. CONDENSATE SHALL SPILL INTO SANITARY SEWER SYSTEM.
2	ROUTE CONDENSATE PIPING TO ADJACENT RESTROOM. SLOPE PIPING PER IMC REQUIREMENTS.
3	ROUTE CONDENSATE PIPING DOWN ALONG WALL TO MOP SINK. CONDENSATE SHALL SPILL INTO MOP SINK. PROVIDE 4" AIR GAP.
4	ROUTE CONDENSATE PIPING TO ADJACENT JANITOR'S CLOSET. SLOPE PIPING PER IMC REQUIREMENTS.
5	PROVIDE OUTDOOR AIR DUCT SERVING AHU-1 WITH GREENHECK MODEL WC WALL CAP. COORDINATE EXACT INSTALLATION LOCATION WITH ARCHITECT.
6	CONDENSING UNIT MOUNTED ON 4" HIGH (MIN.) CONCRETE EQUIPMENT PAD. COORDINATE TURN DOWN EDGE WITH FINAL GRADE. SIZE & ROUTE REFRIGERANT PIPING TO ASSOCIATED FAN-COIL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS (TYP. 5)
7	MAINTAIN A MINIMUM OF 10'-0" CLEARANCE BETWEEN OUTSIDE AIR INTAKES AND EXHAUST TERMINATIONS, TYPICAL.
8	SUSPEND AHU ABOVE CEILING. COORDINATE LOCATION WITH LIGHTS AND CEILING GRID FOR PROPER SERVICE ACCESS. PROVIDE AUX. DRAIN PAN WITH WATER DETECTOR. SIZE & ROUTE REFRIGERANT PIPING TO ASSOCIATED CONDENSING UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
9	INTERLOCK RETURN AIR, OUTSIDE AIR, AND RELIEF AIR MOTORIZED DAMPERS WITH OUTSIDE AIR SENSORS. PROGRAM CONTROLS TO FUNCTION AS ECONOMIZERS FOR AHU.
10	MOUNT UNIT ON WALL AT 96" AFF. PROVIDE CONDENSATE PUMP AND ROUTE CONDENSATE PUMP ABOVE CEILING TO LAVATORY TAILPIECE.

GENERAL MECHANICAL NOTES

A. COORDINATE THE LOCATION OF ALL AIR DISTRIBUTION DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN INCLUDING LIGHT FIXTURES AND LIFE SAFETY DEVICES.

B. VERIFY LOCATION OF THERMOSTATS/TEMPERATURE SENSORS WITH THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION TO COORDINATE WITH THE LATEST FURNITURE AND MILLWORK PLANS. INSTALL DEVICES AT 48" AFF, UNLESS OTHERWI5E NOTED ON THE PLANS.

C. ALL WORK SHALL COMPLY WITH THE LOCAL BUILDING, PLUMBING, AND MECHANICAL CODES, NFPA 90A, AND ANY OTHER APPLICABLE CODES.

D. ALL LOCATIONS OF DEVICES ARE APPROXIMATE. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.

E. SEAL NEW OR EXISTING PENETRATIONS IN ALL FLOORS, RATED PARTITIONS, AND CORRIDOR WALLS. USE FIRESTOP AT ALL RATED PARTITIONS.

F. COORDINATE ALL FLOOR AND ROOF PENETRATIONS WITH STRUCTURAL.

G. FLEX DUCT LENGTH NOT TO EXCEED 5'-0". PROVIDE MANUAL DAMPER AT ALL TAKE-OFFS.

H. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS.

I. ALL DUCTWORK DIMENSIONS ARE CLEAR INSIDE DIMENSIONS. ADJUST METAL SIZES TO ACCOMMODATE INTERNAL DUCT LINER AS REQUIRED.

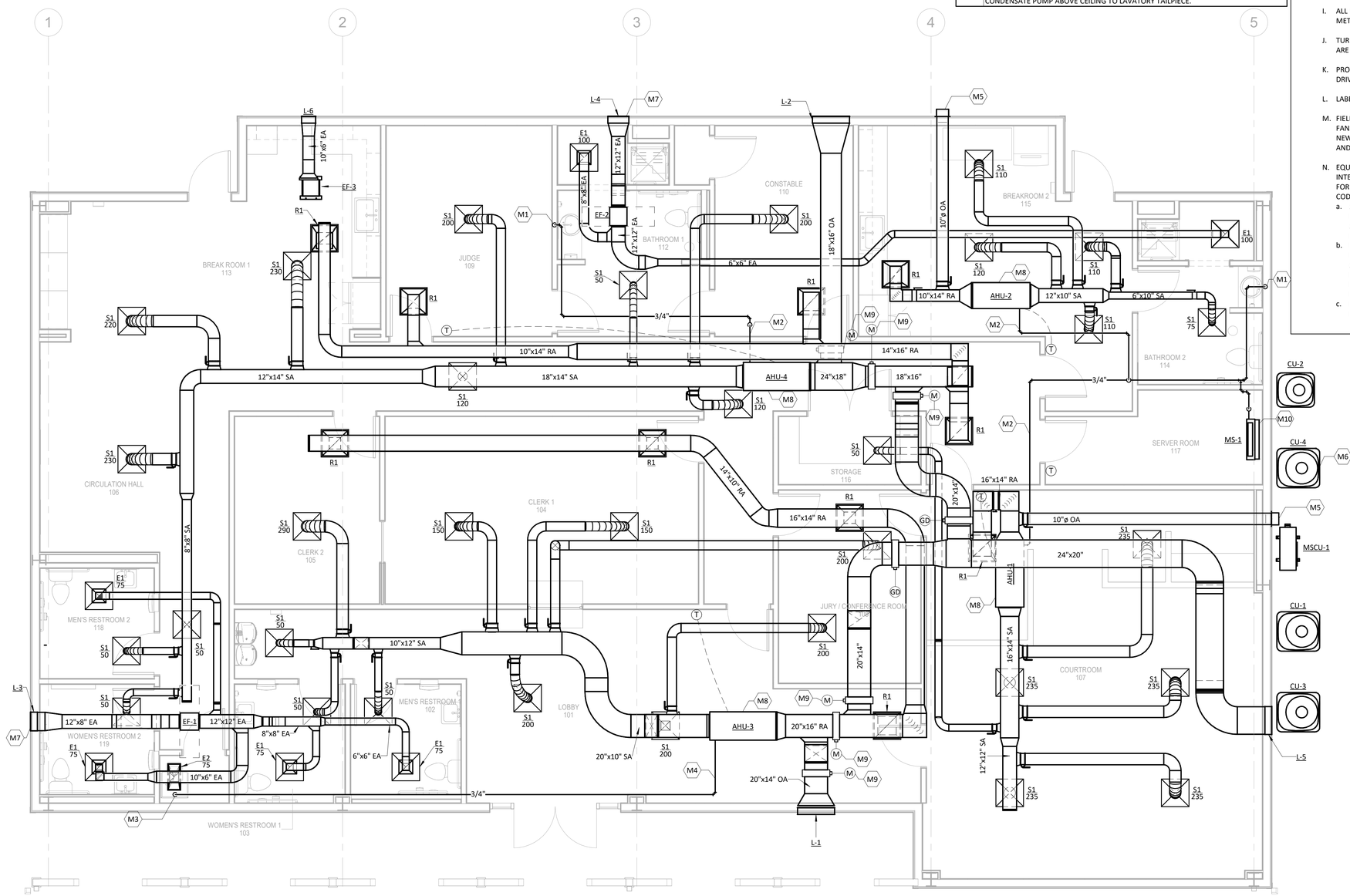
J. TURNING VANES ARE REQUIRED AT EACH TURN IN THE DUCT. EXTRACTORS ARE REQUIRED AT EACH SPLIT.

K. PROVIDE FLEXIBLE CONNECTION AT INTAKE AND DISCHARGE OF MOTOR DRIVEN EQUIPMENT.

L. LABEL ALL AIR VOLUME DAMPERS ON OUTSIDE OF DUCT INSULATION.

M. FIELD VERIFY ALL LOCATIONS OF MECHANICAL EQUIPMENT AND EXHAUST FANS TO MAINTAIN A MINIMUM OF 10'-0" OF CLEARANCE BETWEEN ANY NEW AND/OR EXISTING OUTSIDE AIR INTAKES OR OPENINGS INTO BUILDING AND ANY EXHAUST OR VENT DISCHARGES.

N. EQUIPMENT SHALL BE PROVIDED ACCESS TO PER SECTION 306 OF THE INTERNATIONAL MECHANICAL CODE. EXACT LOCATION AND REQUIREMENTS FOR ACCESS SHALL BE COORDINATED WITH ARCHITECT. REFER TO EXACT CODE SECTION FOR ADDITIONAL SPECIFIC REQUIREMENTS.
   a. ALL EQUIPMENT SHALL BE PROVIDED WITH A CLEAR WORKING SPACE NOT LESS THAN 30" DEEP AND 30" WIDE IN FRONT OF CONTROL AREA AND ANY OTHER AREA REQUIRING ACCESS FOR MAINTENANCE, PER IMC 306.1.
   b. EQUIPMENT IN ATTICS SHALL HAVE AN UNOBSTRUCTED PASSAGEWAY MEASURING NOT LESS THAN 30" HIGH x 22" WIDE x 20'-0" IN LENGTH ALONG THE PATH BACK TO THE ACCESS OPENING WITH CONTINUOUS, LEVEL FLOORING NOT LESS THAN 24" WIDE. ACCESS OPENING SHALL BE LARGE ENOUGH TO REMOVE THE LARGEST PIECE OF EQUIPMENT, BUT NOT LESS THAN 20"x30", PER IMC 306.3.
   c. EQUIPMENT ON ROOFS OR ELEVATED STUCTURES ABOVE 16'-0" SHALL BE PROVIDED WITH PERMANENT ACCESS, PER IMC 306.5.



N PLAN

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

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PROJECT NAME / LOCATION:
JP OFFICE
SARGENT, TX.
FLOOR PLAN - MECHANICAL

CUSTOMER NAME:
MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
KW	BL	KW	20.105017

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DATE	REMARKS
07/18/25	ISSUE FOR PERMIT

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SHEET NO:
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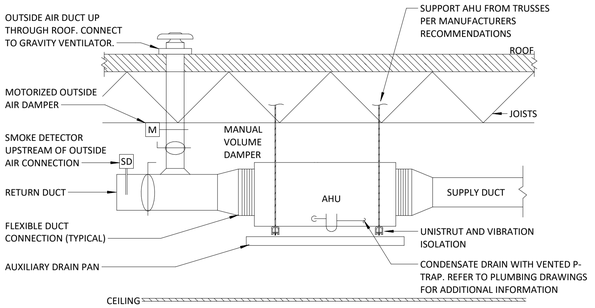
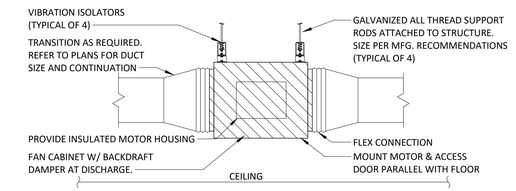


NOTES:
1. PROVIDE AND INSTALL CONDENSATE FLOAT SWITCH IN AUXILIARY DRAIN PAN. UPON DETECTION OF CONDENSATE THE FLOAT SWITCH SHALL DE-ENERGISE THE UNIT.

11 AIR HANDLING UNIT W/ GRAVITY VENTILATOR DETAIL
N.T.S.



10 IN-LINE FAN DETAIL - SUSPENDED
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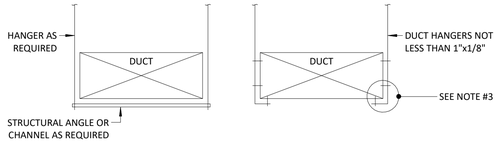
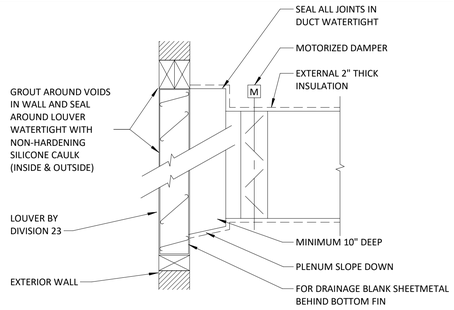
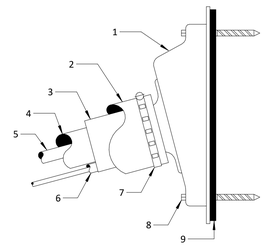


NOTES:
1. ALL DUCTWORK TO BE HUNG FROM BUILDING CONSTRUCTION. DO NOT SUPPORT FROM HUNG CEILING.
2. WHEN DUCT AREA EXCEEDS 8 SQ FT ANGLE STIFFENERS ARE REQUIRED AROUND CIRCUMFERENCE EVERY 4'-0"
3. FOR DUCTS UP TO 60" WIDE, HANGERS SHALL TURN UNDER DUCT AT LEAST 2" AND SHALL BE FASTENED TO THE BOTTOM AS WELL AS TO THE SIDES OF THE DUCT. FOR DUCTS OVER 60" WIDE, USE TRAPEZE HANGER.
4. REFER TO SPECIFICATIONS FOR HANGER SPACING.
5. REPLACE FIREPROOFING ON STRUCTURAL ELEMENTS TO MATCH EXISTING.
6. PROVIDE ANCHORAGE TO STRUCTURE DESIGNED BY A REGISTERED STRUCTURAL ENGINEER.

7 DUCT SUPPORT DETAIL
N.T.S.



6 LOUVER INSTALLATION DETAIL
N.T.S.



NOTES:
1. EXTERIOR WALL OR PARAPET WALL SEAL PENETRATION OUTLET WITH ELASTOMERIC LINE-SET COMPRESSION SLEEVE TYPE "TITAN GS30 BY AIREX MANUFACTURING INC.
2. INSULATION PROTECTIVE PVC COVER TYPE "E-FLEX GUARD" BY AIREX MANUFACTURING INC.
3. ELASTOMERIC LINE-SET COMPRESSION AND ANTI-VIBRATION SLEEVE (COMPONENT OF REFERENCE 1 "TITAN GS30")
4. 1" INSULATION FOR REFRIGERATION SUCTION LINE TYPE
5. REFRIGERATION SUCTION LINE
6. 1" INSULATION FOR REFRIGERATION LIQUID LINE
7. MECHANICAL CONNECTION SECURED WITH STAINLESS STEEL CLAMP (COMPONENT OF REFERENCE 1 "TITAN GS30")
8. WALL FASTENERS SELF-TAPPING 3/8" HEX HEAD 1/ 4" DIAMETER ALL MATERIAL ANCHORS SCREWS WITH ELASTOMERIC WASHERS (COMPONENT OF REFERENCE 1 "TITAN GS30")
9. WALL SURFACE SEAL ELASTOMERIC GASKET (COMPONENT OF REFERENCE 1 "TITAN GS30")

4 REFRIGERATION PIPE PENETRATION DETAIL
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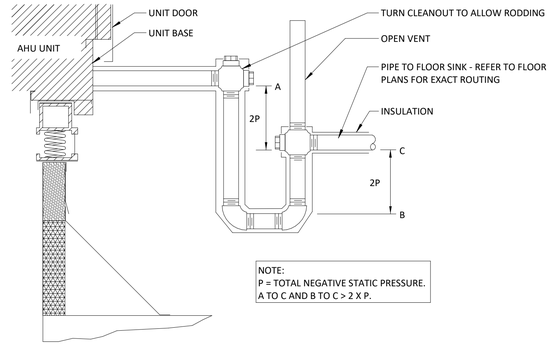
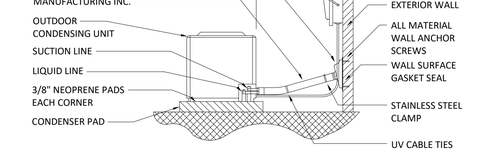
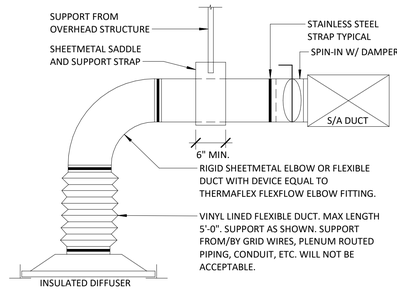


NOTE:
P = TOTAL NEGATIVE STATIC PRESSURE.
A TO C AND B TO C > 2 X P.

3 AHU/RTU CONDENSATE DRAIN DETAIL
N.T.S.



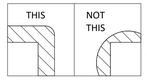
9 TYPICAL CONDENSING UNIT DETAIL
N.T.S.



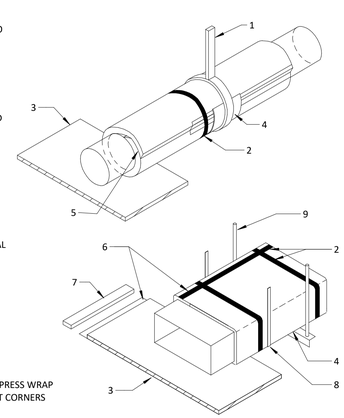
5 TYPICAL DIFFUSER DETAIL
N.T.S.

1. CONNECT STRAP TO STRUCTURE ABOVE. REFER TO SMACNA SHEETMETAL CONSTRUCTION STANDARDS.
2. SEAL SEAMS AND PENTRATIONS WITH AN APPROVED MASTIC REINFORCED WITH 3" GLASS MESH REINFORCEMENT OR 3" FOIL/VAPOR-BARRIER TAPE
3. WRAP FLEXIBLE FIBERGLASS INSULATION AROUND DUCTS AND SECURE WITH OUTWARD-CLINCHING STAPLES
4. INSTALL NON-COMPRESSIBLE INSULATION MATERIAL AT HANGER SUPPORTS. ALL HANGER SUPPORTS AND SADDLES SHALL BE OUTSIDE OF INSULATION AND VAPOR BARRIER.
5. LAP INSULATION A MIN. OF 4 INCHES.
6. 2" TAPE FLAP
7. DISCARD EXCESS INSULATION
8. STRAP SUPPORTS. REFER TO SMACNA SHEETMETAL CONSTRUCTION STANDARDS
9. ALL-THREAD RODS. REFER TO SMACNA SHEETMETAL CONSTRUCTION STANDARDS

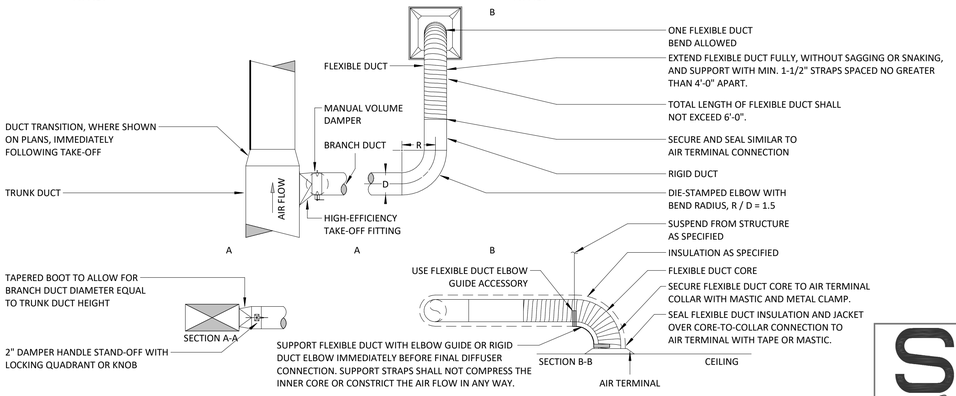
NOTE: REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS



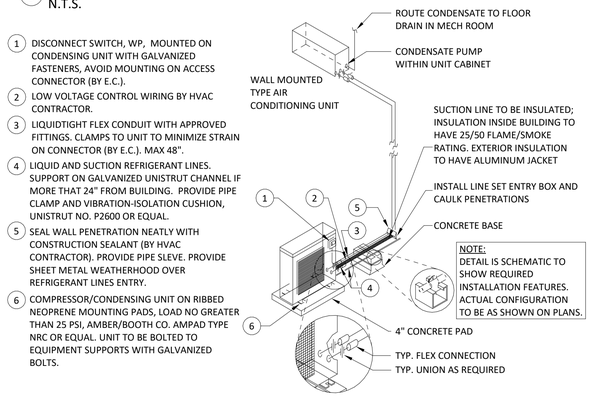
*DO NOT COMPRESS WRAP EXCESSIVELY AT CORNERS



2 DUCT INSULATION DETAIL
N.T.S.



1 DIFFUSER RUN-OUT DETAIL
N.T.S.



1. DISCONNECT SWITCH, WP, MOUNTED ON CONDENSING UNIT WITH GALVANIZED FASTENERS, AVOID MOUNTING ON ACCESS CONNECTOR (BY E.C.).
2. LOW VOLTAGE CONTROL WIRING BY HVAC CONTRACTOR.
3. LIQUIDTIGHT FLEX CONDUIT WITH APPROVED FITTINGS. CLAMPS TO UNIT TO MINIMIZE STRAIN ON CONNECTOR (BY E.C.). MAX 48".
4. LIQUID AND SUCTION REFRIGERANT LINES. SUPPORT ON GALVANIZED UNISTRUT CHANNEL IF MORE THAT 24" FROM BUILDING. PROVIDE PIPE CLAMP AND VIBRATION-ISOLATION CUSHION, UNISTRUT NO. P2600 OR EQUAL.
5. SEAL WALL PENETRATION NEATLY WITH CONSTRUCTION SEALANT (BY HVAC CONTRACTOR). PROVIDE PIPE SLEVE. PROVIDE SHEET METAL WEATHERHOOD OVER REFRIGERANT LINES ENTRY.
6. COMPRESSOR/CONDENSING UNIT ON RIBBED NEOPRENE MOUNTING PADS, LOAD NO GREATER THAN 25 PSI, AMBER/BOOTH CO. AMPAD TYPE NRC OR EQUAL. UNIT TO BE BOLTED TO EQUIPMENT SUPPORTS WITH GALVANIZED BOLTS.

8 WALL MOUNTED DUCTLESS MINISPLIT SYSTEM DETAIL
N.T.S.

SE P:\0925026.010

F-324

ARCHENG SEAL
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JP OFFICE
SARGENT, TX.
MECHANICAL DETAILS

PROJECT NAME / LOCATION:

MATAGORDA COUNTY

CUSTOMER NAME:

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
KW	BL	KW	20.105017

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SHEET NO:
M-501

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Texas Registered Engineering Firm # F-18652

MINI-SPLIT AIR CONDITIONING UNIT SCHEDULE

MARK (INDOOR)	MARK (OUTDOOR)	INDOOR UNIT										OUTDOOR UNIT							MODEL	
					COOLING CAPACITY @ 95°F AMBIENT					HEATING CAPACITY @ 17°F AMBIENT						ELECTRICAL DATA				
		SERVES	NOM CAPACITY (TONS)	AIRFLOW (CFM)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT °F (DB / WB)	LAT °F (DB / WB)	SEER	TOTAL CAPACITY (MBH)	COP / HSPF	WEIGHT (LBS)	TOTAL CAPACITY (MBH)	AMBIENT TEMP (°F)	WEIGHT (LBS)	VOLTS / PHASE	MCA	MOCP	MANUFACTURER	INDOOR	OUTDOOR
MS-1	MSCU-1	SERVER ROOM	1	425	12	9.7	75	55	20.8	11.1	4.31 / 10.2	29	12	105	93	230 / 1	11	28	MITSUBISHI	PKA-A12HA7	PUZ-A12NKA7

NOTES (APPLIES TO ALL):
A. MAINTAIN MINIMUM MANUFACTURER RECOMMENDED CLEARANCES REQUIRED FOR SERVICE, MAINTENANCE, AND INSPECTION.
B. FURNISH AND INSTALL PER MANUFACTURER'S INSTRUCTIONS.
C. PROVIDE NON-FUSED ELECTRICAL DISCONNECT FOR EACH CONDENSING UNIT AND INDOOR UNIT.
D. PROVIDE SINGLE POINT POWER CONNECTION AT OUTDOOR UNIT. OUTDOOR UNIT TO POWER INDOOR UNIT.
E. FIELD VERIFY CONDENSATE DRAIN ROUTE PRIOR TO INSTALLATION AND FURNISH WITH CONDENSATE PUMP AS NECESSARY.
F. PROVIDE IECC COMPLIANT, WALL MOUNTED, 7 DAY PROGRAMMABLE THERMOSTAT.
G. PROVIDE WITH LOW AMBIENT CONTROL.
H. PROVIDE HAIL GUARD FOR CONDENSING UNIT.
I. PROVIDE WITH LONG LENGTH KIT, LOCKING MOUNT KIT, WINTER STARTER KIT, LIQUID LINE SOLENOID KIT, ISOLATION RELAY, CRANKCASE HEATER, AND WIND BAFFLE. WIND BAFFLE ONLY APPLICABLE FOR ROOF MOUNTED UNITS.
J. CONDENSING UNIT SHALL BE INVERTER DRIVEN.
K. ROUTE AND SIZE REFRIGERANT PIPING TO/FROM CONDENSING UNIT PER MANUFACTURER'S RECOMMENDATIONS.

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE

MARK	SERVES	COOLING CAPACITY @ 105 °F								ELECTRIC HEATING CAPACITY @ 17 °F				ELECTRICAL DATA					WEIGHT (LBS)	MANUFACTURER	MODEL	OPTIONS & ACCESSORIES
		CFM	OA CFM	ESP (IN WG)	TOTAL MBH	SENSIBLE MBH	EAT °F DB / WB	LAT °F DB / WB	EER / IEER / SEER2	TOTAL KW	EAT °F DB	LAT °F DB	COP / HSPF	CIRCUIT #1		CIRCUIT #2		VOLTS / PHASE				
														MCA	MOCP	MCA	MOCP					
AHU-1	COURTROOM	1225	250	0.75	42.4	23.0	80.0 / 67.0	55.0 / 55.0	11.7 / - / 13.4	10.80	62.3	90.1	3.5 / 10	55.0	60.0	25.0	25.0	230/1	145	TRANE	5TEM6	1-2
AHU-2	BREAKROOM 2	525	100	0.75	16.4	9.9	80.0 / 67.0	55.0 / 55.0	11.7 / - / 13.4	5.77	63.2	96.0	3.5 / 10	43.0	45.0	-	-	230/1	120	TRANE	5TAM6	1-2
AHU-3	FRONT OF HOUSE	1525	180	0.75	54.6	34.2	80.0 / 67.0	55.0 / 55.0	11.7 / - / 13.4	14.40	65.6	95.1	3.5 / 10	59.0	60.0	50.0	50.0	230/1	175	TRANE	5TEM6	1-2
AHU-4	BACK OF HOUSE	1525	250	0.75	59.3	35.9	80.0 / 67.0	55.0 / 55.0	11.7 / - / 13.4	14.40	63.8	93.3	3.5 / 10	59.0	60.0	50.0	50.0	230/1	175	TRANE	5TEM6	1-2

NOTES (APPLIES TO ALL):
A. MAINTAIN MINIMUM CLEARANCES REQUIRED FOR SERVICE, MAINTENANCE, AND INSPECTION.
B. ROUTE AND SIZE REFRIGERANT PIPING TO/FROM CONDENSING UNIT PER MANUFACTURER'S RECOMMENDATIONS.
C. PROVIDE NON-FUSED ELECTRICAL DISCONNECT.
D. PROVIDE IECC COMPLIANT, WALL MOUNTED, 7 DAY PROGRAMMABLE THERMOSTAT.
E. PROVIDE AUXILIARY DRAIN PAN WITH CONDENSATE OVERFLOW SWITCH INTERLOCKED WITH UNIT OPERATION.
F. FIELD VERIFY CONDENSATE DRAIN ROUTE PRIOR TO INSTALLATION AND FURNISH WITH CONDENSATE PUMP AS NECESSARY.
G. SCHEDULED FAN EXTERNAL STATIC PRESSURE ACCOUNTS FOR DIRTY AIR FILTER.

OPTIONS & ACCESSORIES (PROVIDE AS NOTED):
1. ANTI SHORT CYCLE TIMER.
2. FACTORY WIRED REFRIGERANT LEAK DETECTOR.

FAN SCHEDULE

MARK	SYSTEM	SERVES	TYPE	DRIVE	FAN CFM	ESP (IN WG)	POWER (HP)	FAN RPM	MOTOR RPM	ELECTRICAL DATA			SONES	WEIGHT (LBS)	CONTROLLED BY	MANUFACTURER	MODEL	OPTIONS & ACCESSORIES
										VOLTS / PHASE	MCA	MOCP						
EF-1	EXHAUST	SOUTH RR	INLINE	DIRECT	375	0.5	0.07	1605	1605	115/60/1	3.5	15	6.9	34	TIMECLOCK	GREENHECK	SQ-90-VG	1-3
EF-2	EXHAUST	NORTH RR	INLINE	DIRECT	200	0.5	0.05	1559	1559	115/60/1	3.5	15	6.6	34	TIMECLOCK	GREENHECK	SQ-80-VG	1-3
EF-3	EXHAUST	BREAKROOM 1	INLINE	DIRECT	100	0.5	0.01	939	939	115/60/1	0.4	15	3	8	WALL SWITCH	GREENHECK	SP-LP0511-1	1-3

NOTES (APPLIES TO ALL):
A. MAINTAIN MANUFACTURER'S MINIMUM CLEARANCES REQUIRED FOR SERVICE, MAINTENANCE, AND INSPECTION.
B. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
C. PROVIDE MANUFACTURER'S BIRDSCREEN AT EXHAUST AND INTAKE OPENINGS.
D. PROVIDE BACKDRAFT DAMPER FOR ALL NON-GREASE EXHAUST FANS.
E. PROVIDE ALL ELECTRONICALLY CONTROLLED MOTORS WITH MOUNTED POTENTIOMETER.
F. PROVIDE FACTORY MOUNTED AND WIRED NON-FUSED DISCONNECT SWITCH.

INLINE FAN OPTIONS & ACCESSORIES (PROVIDE AS NOTED):
1. SPRING HANGING ISOLATION KIT AND COORDINATE MOUNTING BRACKETS WITH CEILING STRUCTURE.
2. INSULATED HOUSING.
3. MANUFACTURER'S RECOMMENDED SPEED CONTROLLER.

AIR DEVICE SCHEDULE

MARK	SYSTEM TYPE	NECK SIZE	FACE SIZE	DESCRIPTION	MATERIAL	MANUFACTURER	MODEL
S1	SUPPLY	SEE NOTES	24"x24"	CEILING, 3 CONE DIFFUSER	ALUMINUM	TITUS	TMS
R1	RETURN	22"x22"	24"x24"	CEILING, PERFORATED	ALUMINUM	TITUS	PAR
E1	EXHAUST	12"x12"	24"x24"	CEILING, PERFORATED	STEEL	TITUS	PAR
E2	EXHAUST	SEE PLANS	SEE PLANS	GRILLE	ALUMINUM	TITUS	350FL

NOTES:
A. COORDINATE BORDER AND FINISH WITH ARCHITECT.
B. UNITS FURNISHED WITH APPROPRIATE FRAMES, ETC. FOR MOUNTING IN RESPECTIVE CEILING TYPES, PLASTER FRAMES SHALL BE FACTORY PRIMED FOR FIELD PAINTING.
C. ALL AIR DEVICES INSTALLED WITH DUCT MOUNTED VOLUME DAMPER FOR AIR BALANCING PURPOSES. SEE SPECIFICATIONS FOR DETAILS. DUCT MOUNTED AIR DEVICES OR THOSE WITH LIMITED ROUNOUTS SHALL BE FURNISHED WITH AN OPPOSED BLADE DAMPER AT THE FACE OF THE AIR DEVICE.
D. PROVIDE REMOTE BALANCING DAMPER FOR AIR DEVICES OVER HARD CEILINGS.
E. NECK SIZE IS THE SAME AS THE BRANCH DUCT SIZE UNLESS NOTED OTHERWISE.
F. MOLDED INSULATION BLANKET ON THE BACKSIDE OF DIFFUSER PAN FOR SUPPLY AND RETURN APPLICATIONS.
G. SOUND NOT TO EXCEED 25 NC UNLESS OTHERWISE NOTED.

SUPPLY BRANCH DUCT SIZE	
CFM	RUNOUT
0 - 100	6"Ø
101 - 210	8"Ø
211 - 380	10"Ø
381 - 630	12"Ø
631 - 950	14"Ø
951 - 1400	16"Ø

LOUVER SCHEDULE

MARK	SYSTEM TYPE	TYPE	SIZE (L"xH")	AIRFLOW (CFM)	MIN. FREE AREA (SQ-FT)	DESIGN VELOCITY (FPM)	MAX PRESSURE DROP (IN WC)	MATERIAL	MANUFACTURER	MODEL	OPTIONS & ACCESSORIES
L-1	INTAKE	DRAINABLE BLADE LOUVER	32X26	1525	3.1	500	0.04	ALUMINUM	GREENHECK	ESD-635	1-2
L-2	INTAKE	DRAINABLE BLADE LOUVER	32X26	1525	3.1	500	0.04	ALUMINUM	GREENHECK	ESD-635	1-2
L-3	EXHAUST	DRAINABLE BLADE LOUVER	16X16	375	0.6	700	0.06	ALUMINUM	GREENHECK	ESD-635	1-2
L-4	EXHAUST	DRAINABLE BLADE LOUVER	18X12	200	0.3	700	0.05	ALUMINUM	GREENHECK	ESD-635	1-2
L-5	EXHAUST	DRAINABLE BLADE LOUVER	36X36	3050	5	700	0.056	ALUMINUM	GREENHECK	ESD-635	1-2
L-6	EXHAUST	DRAINABLE BLADE LOUVER	14X8	100	0.2	700	0.05	ALUMINUM	GREENHECK	ESD-202	1-2

NOTES (APPLIES TO ALL):
A. COORDINATE FINISH WITH ARCHITECT.
B. EXTERIOR LOUVERS TO BE RAIN RESISTANT AND DRAINABLE.

OPTIONS & ACCESSORIES (PROVIDE AS NOTED):
1. BIRD SCREEN
2. GRAVITY BACKDRAFT DAMPER

SPLIT SYSTEM CONDENSING UNIT

MARK	SERVES	COOLING DATA		REFRIGERANT TYPE	ELECTRCAL DATA			DIMENSIONS	WEIGHT (LBS)	MANUFACTURER	MODEL	OPTIONS & ACCESSORIES
		TOTAL MBH	EER / EER2		VOLTS / PHASE	MCA	MOCP					
CU-1	AHU-1	42.4	11.7	R454B	230/1	26.0	40.0	37"X34"X37"	211	TRANE	5TTR	1-5
CU-2	AHU-2	16.4	11.7	R454B	230/1	9.0	20.0	29"X26"X29"	133	TRANE	5TTR	1-5
CU-3	AHU-3	54.6	11.7	R454B	230/1	30.0	50.0	37"X34"X37"	211	TRANE	5TTR	1-5
CU-4	AHU-4	59.3	11.7	R454B	230/1	30.0	50.0	37"X34"X37"	211	TRANE	5TTR	1-5

NOTES (APPLIES TO ALL):
A. MAINTAIN MINIMUM CLEARANCES REQUIRED FOR SERVICE, MAINTENANCE, AND INSPECTION.
B. ROUTE AND SIZE REFRIGERANT PIPING TO/FROM INDOOR UNIT PER MANUFACTURER'S RECOMMENDATIONS.
C. PROVIDE NON-FUSED ELECTRICAL DISCONNECT.

OPTIONS & ACCESSORIES (PROVIDE AS NOTED):
1. 6" TALL CONCRETE HOUSEKEEPING PAD.
2. HAIL GUARD.
3. LIQUID LINE SOLENOID KIT.
4. ISOLATION RELAY.
5. WIND BAFFLE.

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STATE OF TEXAS
BRIAN LAKE
150738
LICENSED PROFESSIONAL ENGINEER
07/18/25

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BAY CITY, TX. 77414
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PROJECT NAME / LOCATION:
JP OFFICE
SARGENT, TX.

MECHANICAL SCHEDULES

MATAGORDA COUNTY

CUSTOMER NAME:

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO:
KW	BL	KW	20.105017

PRINTED

DATE	REMARKS
07/18/25	ISSUE FOR PERMIT

REVISIONS

NO.	REMARKS

SHEET NO:
M-701

GENERAL LIGHTING NOTES

A. THE CONTRACTOR SHALL VERIFY EXACT LIGHTING FIXTURES, FINISHES, TRIM, COLOR TEMPERATURES AND ETC. WITH ARCHITECTS PRIOR TO PROCUREMENT.

B. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT LOCATION AND MOUNTING REQUIREMENTS FOR ALL DIMMERS, AND SWITCHES.

C. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND SITE PLAN FOR LIGHTING FIXTURE TYPES, QUANTITIES, AND LOCATIONS.

D. VERIFY THE TYPE OF CEILING SYSTEM WITH GENERAL CONTRACTOR OR CEILING CONTRACTOR. PROVIDE FIXTURES WHICH ARE COMPATIBLE WITH THE CEILING SYSTEM AND INCLUDE ALL REQUIRED MOUNTING ACCESSORIES AND HARDWARE.

E. NO EQUIPMENT JUNCTION BOXES, ETC. REQUIRING ACCESS SHALL BE LOCATED IN HARD CEILING AREAS (UNLESS ACCESS PANEL IS PROVIDED AND APPROVED BY THE ARCHITECT).

F. DRAWING SHOWS CIRCUITING, SWITCHING/DIMMING REQUIREMENTS, AND FIXTURE TYPES ONLY. VERIFY EXACT LIGHTING FIXTURES AND SWITCHING REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.

G. ANY FIXTURE SUBSTITUTION MUST BE APPROVED BY THE ARCHITECT, OWNER AND/OR LIGHTING DESIGNER PRIOR TO BID. CONTRACTOR MUST BE PREPARED TO SUPPLY A SAMPLE AND/OR PHOTOMETRIC DATA IF REQUIRED. IF SUBSTITUTION IS REJECTED, CONTRACTOR MUST BE PREPARED TO PROVIDE SPECIFIED PRODUCT WITHOUT DELAY.

H. SUPPORT CEILING MOUNTED LIGHTING FIXTURES DIRECTLY FROM THE BUILDING STRUCTURE. DO NOT SUPPORT FIXTURES FROM PIPING, DUCTWORK OR ANY OTHER EQUIPMENT, OR SOLELY FROM THE SUSPENDED CEILING.

I. ALL PENDANT FIXTURES SHALL BE PROVIDED WITH SUFFICIENT STEM OR SUSPENSION CABLE LENGTH PRIOR TO INSTALLATION. VERIFY LENGTHS WITH ARCHITECT.

J. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY HARDWARE, ELECTRICAL CABLES, TIMERS, TRANSFORMERS, POWER PACKS, ETC., AS REQUIRED FOR A COMPLETE INSTALLATION AND PROVIDE A COMPLETE WORKABLE SYSTEM MEETING THE DESIGN INTENT.

K. WHERE LOW VOLTAGE FIXTURES ARE NOT EQUIPPED WITH STEP DOWN TRANSFORMER, PROVIDE TRANSFORMER OF REQUIRED SIZE AND RATING TO ACCOMMODATE CONNECTED LIGHTING LOAD. COORDINATE EXACT REQUIREMENT WITH LIGHTING MANUFACTURER.

L. ALL EMERGENCY LIFE SAFETY LIGHT FIXTURES (CROSS HATCHED AND/OR -E SUFFIX) SHALL BE PROVIDED WITH 90 MINUTES OF EMERGENCY BATTERY BACKUP. PROVIDE HOT LEG AHEAD OF SWITCHING TO BATTERY CHARGERS. REFERENCE LIGHTING SEQUENCE OF OPERATION FOR METHOD OF CONTROL FOR EACH AREA.

M. ALL EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL.

N. CONTRACTOR SHALL PROVIDE ADDITIONAL EXIT SIGN(S) IF REQUIRED BY THE CITY FIRE MARSHALL INSPECTOR AT NO ADDITIONAL COST TO THE OWNER.

O. ALL BOXES AND ENCLOSURES FOR EMERGENCY CIRCUITS SHALL BE PERMANENTLY MARKED.

P. ALL EMERGENCY CIRCUIT WIRING SHALL BE KEPT ENTIRELY INDEPENDENT OF ALL OTHER WIRING AND EQUIPMENT UNLESS OTHERWISE PERMITTED BY THE NATIONAL ELECTRICAL CODE.

Q. CONTRACTOR TO COORDINATE ALL CONTROL DEVICES REQUIREMENTS WITH MANUFACTURER AND INSTALL PER MANUFACTURER RECOMMENDATION, PRIOR TO ROUGH IN.

R. CONTRACTOR TO INSTALL LIGHTING CONTROLLERS IN ACCESSIBLE CEILING SPACE, PROVIDE 3 FEET MINIMUM WORKING SPACE PER THE NATIONAL ELECTRICAL CODE. FIELD COORDINATE WITH OTHER TRADES.

S. CONTRACTOR TO PROVIDE SHOP DRAWINGS, SHOWING MANUFACTURER RECOMMENDED DEVICE LOCATION AND COMPLETE BILL OF MATERIAL.

T. DISCREPANCY BETWEEN THE ARCHITECTURAL PLAN AND ELECTRICAL PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

FIRE ALARM SYSTEM NOTES

A. ALL FIRE ALARM SYSTEM DESIGN AND CONSTRUCTION DOCUMENTS SHALL BE PREPARED BY A CERTIFIED FIRE ALARM DESIGNER HOLDING A CURRENT STATE FIRE ALARM SYSTEM DESIGN LICENSE. CERITIFICATION SHALL MEET ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS AND SHALL BE A MINIMUM OF LEVEL III IN THE SUB-FIELD OF "FIRE ALARM SYSTEMS" ACCORDING TO THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET).

B. ALL FIRE ALARM SYSTEM SUBMITTALS SHALL ALSO BE REVIEWED BY THE CERTIFIED FIRE ALARM DESIGNER AND ARCHITECT.

C. ALL FIRE ALARM SYSTEM CONSTRUCTION DOCUMENTS SHALL BE SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION OF THE FIRE ALARM SYSTEM.

GENERAL ELECTRICAL NOTES

A. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT LOCATION AND MOUNTING REQUIREMENTS FOR ALL OUTLETS.

B. ALL BRANCH CIRCUITS AND FEEDERS SHALL BE PROVIDED WITH NEC REQUIRED NEUTRAL CONDUCTORS AND SHALL BE PROVIDED WITH A GREEN INSULATED EQUIPMENT GROUND CONDUCTOR. ALL GROUNDING AND PHASE CONDUCTORS SHALL BE IDENTIFIED AND BUNDLED.

C. WHERE MULTIPLE WIRING DEVICES ARE SHOWN IN ONE LOCATION, THESE DEVICES SHALL BE MOUNTED UNDER A COMMON COVER PLATE UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT. VERIFY WITH ARCHITECT PRIOR TO ROUGH-IN.

D. BRANCH CIRCUITS UTILIZING MULTI-WIRE BRANCH CIRCUITS SHALL BE PROVIDED WITH AN UL LISTED HANDLE TIE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

E. THE CONTRACTOR SHALL MAKE FINAL CONNECTION TO ALL OWNER/TENANT FURNISHED FURNITURE AND EQUIPMENT PER RESPECTIVE MANUFACTURERS SPECIFICATIONS UNLESS NOTED OTHERWISE.

F. PROVIDE TYPE WRITTEN, SELF ADHESIVE STRIP WITH BRANCH CIRCUIT INFORMATION ON COVER PLATE OF EACH POWER RECEPTACLE AND FOR ALL JUNCTION BOXES.

G. THE CONTRACTOR SHALL PROVIDE A FLUSH WALL BOX WITH RING AND PULL WIRE TO 6 INCHES ABOVE ACCESSIBLE CEILING AT ALL WALL TELEPHONE AND DATA LOCATIONS.

H. PROVIDE GFI RECEPTACLES AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. PROVIDE GFI CIRCUIT BREAKER AS INDICATED ON PANEL SCHEDULES.

I. FOR ALL EQUIPMENT, PRIOR TO ROUGH-IN, VERIFY WITH EQUIPMENT MANUFACTURER EXACT TERMINATION REQUIRED. DO NOT HARDWIRE EQUIPMENT WHERE RECEPTACLE CONNECTION IS REQUIRED.

J. ALL EXPOSED CONDUITS SHALL BE EMT AND SHALL BE RUN 90 DEGREES PERPENDICULAR AND PARALLEL TO CEILING STRUCTURE AND SHALL BE MOUNTED TIGHT TO THE UNDERSIDE OF SLAB.

K. PROVIDE AND INSTALL #10 WIRES FOR 120V CIRCUIT HOMERUNS MORE THAN 100'-0".

L. WHERE PHASE CONDUCTORS ARE INCREASED, EQUIPMENT GROUNDING CONDUCTOR SHALL BE INCREASED IN SIZE PROPORTIONATELY, ACCORDING TO THE CIRCULAR MIL AREA OF THE PHASE CONDUCTOR.

M. ELECTRICAL CONTRACTOR SHALL DETERMINE VOLTAGE DROP REQUIREMENTS PER THE ACTUAL ROUTING LENGTHS INSTALLED IN THE FIELD. CONTRACTOR SHALL UPSIZE CONDUCTORS AND CONDUIT AS REQUIRED BY THE NATIONAL ELECTRICAL CODE TO MEET VOLTAGE DROP REQUIREMENTS.

N. DISCREPANCY BETWEEN THE ARCHITECTURAL PLAN AND ELECTRICAL PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

O. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH RING AND STRING. LABEL EACH STRING WHERE OPPOSITE END IS LOCATED.

COMMISSIONING REQUIREMENTS

ELECTRICAL SYSTEM COMMISSIONING PER 2015 IECC SECTION C408

THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A REGISTERED PROFESSIONAL ENGINEER/COMMISSIONING FIRM TO COMMISSION THE ELECTRICAL SYSTEMS SPECIFIED BELOW FOR THIS PROJECT.

THE REGISTERED PROFESSIONAL ENGINEER/ COMMISSIONING FIRM SHALL DEVELOP A COMMISSIONING PLAN AND ACT AS THE PROJECT'S COMMISSIONING AUTHORITY. THE COMMISSIONING PLAN AND ACTIVITIES SHALL INCLUDE THE FOLLOWING:

1. A NARRATIVE DESCRIBING THE ACTIVTIVES TO ACCOMPLISH DURING EACH COMMISSIONING PHASE.
2. PUBLISHED START-UP, PRE-FUNCTIONAL AND FUNCTIONAL TESTING FORMS AND SCRIPTS (AS APPLICABLE) FOR EACH SPECIFIC EQUIPMENT, APPLIANCE, AND SYSTEM. THE COMMISSIONING PLAN SHALL SATISFY THE REQUIREMENTS OF IECC SECTION C408.3.1 AND THE FOLLOWING SECTIONS FOR FUCTIONAL PERFORMANCE TESTING FOR AUTOMATIC LIGHTING SYSTEMS.
   A. MEET REQUIREMENTS OF C408.3.1.1 OCCUPANT SENSOR CONTROLS.
   B. MEET REQUIREMENTS OF C408.3.1.2 TIME-SWITCH CONTROLS.
   C. MEET REQUIREMENTS OF C408.3.1.3 DAYLIGHT RESPONSIVE CONTROLS.
   D. THE COMMISSIONING AUTHORITY SHALL MAINTAIN AN OPEN ISSUE LOG ITEMIZING DEFICIENCIES FOUND DURING SITE VISITS AND COMMISSIONING ACTIVITIES. THE COMMISSIONING AUTHORITY SHALL PUBLISH THIS OPEN ISSUE LOG AND COMPLETED COMMISSIONING FORMS TO THE BUILDING OWNER AT THE COMPLETION OF THE COMMISSIONING ACTIVITIES.
3. PRIOR TO PASSING FINAL INSPECTION, PROVIDE EVIDENCE THAT THE LIGHTING CONTROL SYSTEMS HAVE BEEN TESTED TO ENSURE SYSTEM IS IN PROPER WORKING CONDITION PER THE CONSTRUCTION DOCUMENTS AND THE MANUFACTURER'S INSTRUCTIONS.
4. THE COMMISSIONING AUTHORITY IS RESPONSIBLE FOR ASSEMBLING AND ISSUING TO THE BUILDING OWNER THE FOLLOWING DOCUMENTATION WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATION OF OCCUPANCY:
   A. AS-BUILT CONSTRUCTION DOCUMENTATION INCLUDING EQUIPMENT LOCATION AND PERFORMANCE DATA.
   B. EQUIPMENT OPERATIONS AND MAINTENANCE MANUALS INCLUDING THE INFORMATION PER IECC SECTION C408.2.5.2.
   C. SYSTEMS' TESTING REPORTS.
   D. FINAL COMMISSIONING REPORT.

THE FOLLOWING ELECTRCIAL EQUIPMENT AND SYSTEMS SHALL BE INCLUDED IN THE COMMISSIONING PLAN:

1. CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS.

ELECTRICAL SYMBOLS LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
———	CONDUIT/CONDUCTOR(S)		DUPLEX/QUADREPLEX RECEPTACLE - STANDARD MOUNTING HEIGHT (18" AFF UNO)	M	FLOOR MOUNTED MICROPHONE OUTLET
- - - - - - - -	CONDUIT/CONDUCTOR(S) (IN OR UNDER FLOOR)		DUPLEX/QUADREPLEX RECEPTACLE - ABOVE COUNTER (HEIGHT SPECIFIED BY ARCHITECT)	M	WALL MOUNTED MICROPHONE OUTLET
——o	CONDUIT (STUBBED UP)		DUPLEX/QUADREPLEX RECEPTACLE - USB CHARGING COMBO (1) TYPE A, & (1) TYPE C PORT	V	WALL MOUNTED VOLUME CONTROL OUTLET
——→	CONDUIT (STUBBED DOWN)		CONTROLLED RECEPTACLE (DUPLEX USED FOR REFERENCE)	TV	RECESSED WALL MOUNTED TV OUTLET (REFERENCE SPECIAL DEVICE SCHEDULE)
	2'X4' LIGHTING FIXTURE		GROUND FAULT INTERRUPTER RECEPTACLE (DUPLEX USED FOR REFERENCE)	CR	WALL MOUNTED CARD READER
	2'X2' LIGHTING FIXTURE		CONTROLLED & GROUND FAULT INTERRUPTER RECEPTACLE (DUPLEX USED FOR REFERENCE)		WALL MOUNTED PUSH BUTTON STATION
	STRIP LIGHTING FIXTURE		RECEPTACLE ON GFI BREAKER (DUPLEX USED FOR REFERENCE)	EPO	WALL MOUNTED EMERGENCY POWER OFF PUSH BUTTON
	WALL MOUNTED STRIP LIGHTING FIXTURE		CEILING MOUNTED DUPLEX/QUADREPLEX RECEPTACLE (STANDARD USED FOR REFERENCE)		MOTOR
○	DOWNLIGHT LIGHTING FIXTURE		SIMPLEX RECEPTACLE		FUSED DISCONNECT SWITCH
○	EMERGENCY DOWNLIGHT LIGHTING FIXTURE		SPECIAL RECEPTACLE (AS NOTED)		NON FUSED DISCONNECT SWITCH (A/B/C/D) A = FRAME AMPERAGE; B = NUMBER OF POLES; C = FUSE AMPERAGE (NF = NON FUSED); D = NEMA RATING (IF NOT NOTED NEMA 1)
	WALL MOUNTED DOWNLIGHT LIGHTING FIXTURE		SECURITY CAMERA		
	CEILING MOUNTED LIGHTING FIXTURE W/ WALL WASHER	xx	FLOOR BOX POWER ONLY ("X" DENOTES TYPE REFERENCE FLOOR BOX SCHEDULE)		MAGNETIC MOTOR STARTER
	EMERGENCY LIGHTING FIXTURE	xx	FLOOR BOX COMBINATION ("X" DENOTES TYPE REFERENCE FLOOR BOX SCHEDULE)		COMBINATION MAGNETIC STARTER / DISCONNECT SWITCH
	POLE MOUNTED EXTERIOR LIGHTING FIXTURE		POWER POLE		(VFD) VARIABLE FREQUENCY DRIVE (REFER TO DIVISION 23 FOR SPECIFICATIONS)
	WALL MOUNTED EXTERIOR LIGHTING FIXTURE	S	WALL MOUNTED SPEAKER ASSEMBLY		TRANSFORMER
	EXIT LIGHTING FIXTURE (SINGLE FACE)		CEILING MOUNTED SPEAKER ASSEMBLY		GROUND CONNECT
	WALL MOUNTED EXIT LIGHTING FIXTURE (SINGLE FACE)		JUNCTION BOX		PANELBOARD (240/208/120V)
	EXIT LIGHTING FIXTURE (DOUBLE FACE)		WALL MOUNTED JUNCTION BOX		PANELBOARD FLUSH MOUNTED
	EMERGENCY BATTERY PACK LIGHTING FIXTURE		COMMUNICATION / DATA WALL OUTLET		PANELBOARD (480/277V)
	LIGHTING TRACK W/ TRACK FIXTURES		GROUND ROD		HOME RUN
S_M	TOGGLE SWITCH W/ THERMAL OVERLOAD		GROUND ROD TEST WELL	H - 1,3,5	ONE (1) THREE-POLE CIRCUIT
S_T	DIGITAL TIMER SWITCH		DELTA CONNECTION	M	ELECTRICAL METER
S_{OC}	LINE VOLTAGE, WALL MOUNTED VACANCY SENSOR SWITCH		WYE CONNECTION	M	ELECTRICAL METER WITH CT CABINET
S_X	LOW VOLTAGE PUSH-BUTTON SWITCH ("X" DENOTES # QUANTITY OR LETTERED ZONES)		CIRCUIT BREAKER		DISTRIBUTION PANEL
D_X	LOW VOLTAGE PUSH-BUTTON SWITCH W/ DIMMING ("X" DENOTES NUMBER QUANTITY OR LETTERED ZONES)		FUSE		SWITCHBOARD
		M	WALL MOUNTED VACANCY SENSOR (DUAL TECHNOLOGY)		GROUND BAR
P	PHOTOCELL SENSOR / DAYLIGHT RESPONSIVE CONTROL	M	CEILING MOUNTED OCCUPANCY SENSOR (DUAL TECHNOLOGY)		TRANSFORMER (SEE RISER / ONE-LINE)
		SPD	SURGE PROTECTIVE DEVICE		TRANSFER SWITCH

FIRE ALARM LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING MOUNTED SMOKE DETECTOR		UNDERFLOOR MOUNTED SMOKE DETECTOR	I	COMMUCEILING MOUNTED HEAT DETECTOR
D	DUCT MOUNTED SMOKE DETECTOR	D	UNDERFLOOR DUCT MOUNTED SMOKE DETECTOR	F	MANUAL PULL STATION
F	FIRE ALARM SPEAKER / HORN	OR	FIRE ALARM VISUAL SIGNAL	F	COMBINATION FIRE ALARM AUDIO / VISUAL SIGNAL
	FIRE ALARM SPEAKER / HORN WITH VISUAL SIGNAL	F	CEILING MOUNTED FIRE ALARM SPEAKER / HORN	J	EMERGENCY / FIRE JACK
	EMERGENCY TELEPHONE / FIRE STATION	FSA	FIRE SYSTEM ANNUNCIATOR PANEL	BT	BEAM DETECTORS (TRANSMITTER)
FACP	FIRE ALARM CONTROL PANEL	DH	ELECTRIC DOOR HOLDER	BR	BEAM DETECTORS (RECEIVER)
P	PRESSURE SWITCH (SUPERVISORY)	W	WATERFLOW SWITCH	T	TAMPER SWITCH

BASIS OF DESIGN

ADOPTED CODES:

ELECTRICAL: 2020 NATIONAL ELECTRICAL CODE

ENERGY: 2015 INTERNATIONAL ENERGY CONSERVATION CODE

ELECTRICAL PHASING LEGEND

- LINE WEIGHT INDICATES RELOCATED OR DEMOLITION
- LINE WEIGHT INDICATES EXISTING
- LINE WEIGHT INDICATES NEW
- LINE WEIGHT INDICATES FUTURE

ABBREVIATIONS

AC	ALTERNATING CURRENT	MOCP	MAXIMUM OVERCURRENT PROTECTION
AFF	ABOVE FINISHED FLOOR		
AHU	AIR HANDLING UNIT	MSB MSBD MSWB MSWBD	MAIN SWITCHBOARD
BAS	BUILDING AUTOMATION		
C	CONDUIT		
CHWP	CHILLED WATER PUMP	MSGR MSWG MSWGR	MAIN SWITCHGEAR
CU	COPPER		
CWP	CONDENSER WATER PUMP		
(D)	DEMOLITION	MTD	MOUNTED
DC	DIRECT CURRENT	MV	MEDIUM VOLTAGE
DP	DISTRIBUTION PANEL	NEC	NATIONAL ELECTRICAL CODE
(E)	EXISTING	NIC	NOT IN CONTRACT
E.C.	EMPTY CONDUIT	N3R	NEMA 3R
EDH	ELECTRIC DUCT HEATER	OCPD	OVERCURRENT PROTECTIVE DEVICE
EF	EXHAUST FAN	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
EPO	EMERGENCY POWER OFF		
EUH	ELECTRIC UNIT HEATER	OH	OVERHEAD
EWC	ELECTRIC WATER COOLER	PH	PHASE
EWH	ELECTRIC WATER HEATER	PNL	PANEL
(F)	FUTURE	PP	POWER POLE
FCU	FAN COIL UNIT	PV	PHOTOVOLTAIC
FDS	FUSED DISCONNECT SWITCH	PVC	POLYVINYL CHLORIDE PIPE
FLA	FULL LOAD AMPS	(R)	RELOCATED
FSD	FIRE SMOKE DAMPER (COMBINATION)	RE:	REFER TO
		RTU	ROOF TOP UNIT
FT	FEET	SBD	SWITCHBOARD
GFI	GROUND FAULT INTERRUPTER	SF	SQUARE FEET
		SMD	SMOKE DAMPER
GFPE	GROUND FAULT PROTECTION OF EQUIPMENT	SPD	SURGE PROTECTIVE DEVICE
		SWB SWBD	SWITCHBOARD
GND	GROUND		
GRS	GALVANIZE RIGID STEEL	SWG SWGR	SWITCHGEAR
GWH	GAS WATER HEATER		
HP	HORSE POWER	TPV	TRAP PRIMER VALVE
IFC	INTERNATIONAL FIRE CODE	U.N.O	UNLESS NOTED OTHERWISE
IG	ISOLATED GROUND	UG	UNDERGROUND
IWH	INSTANTANEOUS WATER HEATER	VFD	VARIABLE FREQUENCY DRIVE
KVA	KILO VOLT AMPERES	VIF	VERIFY IN FIELD
KW	KILO WATT	WH	WATER HEATER
MCA	MINIMUM CIRCUIT AMPACITY	WM	WALL MOUNTED
MDP	MAIN DISTRIBUTION PANEL	WP	WEATHER PROOF
MFG	MANUFACTURER	XFMR	TRANSFORMER

SYSTEM'S GENERAL NOTES

THESE NOTES APPLY TO ALL DRAWINGS

REFLECTIVE CEILING PLAN NOTES

RCP-1 COORDINATE ALL CEILING MOUNTED DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLANS (RCPs). IF THE ARCHITECTURAL RCP DOES NOT INDICATE THE LOCATION FOR ANY CEILING MOUNTED ITEMS, CONFIRM WITH ARCHITECT THE EXACT LOCATION PRIOR TO ROUGH-IN AND INSTALLATION.

BUILDING LOW VOLTAGE SYSTEMS

ESV-1 CONTRACTOR SHALL COORDINATE AND INCORPORATE THE SCOPE REQUIRED FOR THE FOLLOWING SYSTEMS:
A. FIRE ALARM
B. FIRE PROTECTION
C. SECURITY
D. AUDIO VISUAL
E. TELECOMMUNICATIONS
F. LIGHTING CONTROLS
G. HVAC CONTROLS
H. SHOP EQUIPMENT
G. SIGNAGE

ESV-2 FOR THE ABOVE VENDOR SYSTEMS, BUDGETS AND/OR BIDS FROM VENDORS SHALL BE REVIEWED WITH OWNERSHIP FOR SELECTIONS AND ASSIGNMENT TO THE CONTRACTS TO THE GENERAL CONTRACTOR.

ESV-3 THE DIVISION 26 CONTRACTOR SHALL COORDINATE AND INTERFACE WITH THE SELECT VENDORS FOR A COMPLETE INSTALLATION.'

ESV-4 DIVISON 26 SHALL PROVIDE POWER BRANCH CIRCUITS AND WIRING NECESSARY FOR THE SELECT VENDOR EQUIPMENT AS DETERMINED DURING COORDINATION PHASES AND SHALL NOTE IN THE PANEL BOARD DIRECTORIES AND AS-BUILTS

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F-324

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BAY CITY, TX. 77414
PH: (979) 245-8900

JP OFFICE
SARGENT, TX.

ELECTRICAL COVER SHEET

PROJECT NAME / LOCATION:

MATAGORDA COUNTY

CUSTOMER NAME:

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SR	JH	SR	20.105017

PRINTED

DATE	REMARKS
07/18/25	ISSUE FOR PERMIT

REVISIONS

NO.	REMARKS

SHEET NO:

E-000

SE P:\0925026.010

PART 1 - GENERAL

1. CAREFULLY READ THE SPECIFICATIONS AND COMPLY WITH ALL REQUIREMENTS. THESE GENERAL NOTES ARE INTENDED TO ASSIST THE CONTRACTOR DURING EXECUTION OF THE WORK. HOWEVER, THEY DO NOT COVER ALL OF THE SPECIFICATION REQUIREMENTS. ALL BIDDERS MUST BID PER PLANS AND SPECIFICATIONS.

2. THE TERM "PROVIDE" IN THESE SPECIFICATIONS AND ON THE DRAWINGS MEANS; FURNISH, TRANSPORT, INSTALL, CONNECT, WARRANTY AND START-UP, INCLUSIVELY.

3. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY CONTRACTOR SHALL CONFORM TO ALL APPLICABLE, FEDERAL, STATE AND LOCAL BUILDING CODES.

4. CONTRACTOR BEFORE SUBMITTING HIS BID, SHALL VISIT THE SITE, REVIEW THE EXISTING CONDITIONS AND ALLOW FOR ALL CHANGES THAT ARE NECESSARY TO COMPLETE INSTALLATION OF NEW ELECTRICAL WORK. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTIONS HAVE BEEN MADE. CLAIMS FOR EXTRA COMPENSATION FOR WORK THAT COULD HAVE BEEN FORESEEN BY SUCH INSPECTIONS, WHETHER SHOWN ON THE CONTRACT DOCUMENTS OR NOT SHALL NOT BE ACCEPTED NOR PAID.

5. COORDINATION: COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICT AND TO PROVIDE CORRECT ROUGH-IN AND CONNECTION FOR EQUIPMENT FURNISHED UNDER OTHER TRADES. REPORT NECESSARY CHANGES IN TIME TO PREVENT NEEDLESS RE-WORK.

6. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT, DUCTWORK AND CIRCUITS. CONTRACTOR SHALL CHECK ALL INFORMATION AND REPORT ANY APPARENT DISCREPANCIES BEFORE SUBMITTING BID.

7. CONTRACTOR SHALL SECURE AND PAY FOR ALL CONSTRUCTION PERMITS AND LICENSES AND SHALL PAY ALL GOVERNMENTAL AND PUBLIC UTILITY CHARGES AND INSPECTION FEES NECESSARY FOR THE EXECUTION OF THE WORK.

8. SUBMITTALS

A. PROVIDE PRODUCT DATA FOR ALL EQUIPMENT AND MATERIALS DESIGNATED ON THE DRAWINGS OR LISTED IN A SCHEDULE. THE SUBMITTALS SHALL INCLUDE WIRING DIAGRAMS, PRODUCT CERTIFICATION, MAINTENANCE DATA, AND WARRANTIES.

B. IF REQUIRED PROVIDE SHOP DRAWINGS/COORDINATION DRAWINGS WITH DIMENSIONED PLANS AND SECTIONS OR ELEVATION LAYOUTS OF ELECTRICAL EQUIPMENT

C. DEVIATIONS: THE APPROVAL OF SUBMITTAL DRAWINGS BY THE ARCHITECT/ENGINEER, OR HIS REPRESENTATIVE, SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR DEVIATION FROM DRAWINGS OR THE SPECIFICATIONS UNLESS HE HAS CALLED ATTENTION IN WRITING TO SUCH DEVIATIONS AT THE TIME OF SUBMISSION AND HAS OBTAINED WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER, OR HIS REPRESENTATIVE, OF SUCH DEVIATIONS.

9. DEMOLITION

A. PROTECT THE EXISTING EQUIPMENT AND SYSTEMS TO REMAIN OPERATIONAL. IF DAMAGED OR DISTURBED IN THE COURSE OF THE DEMOLITION WORK, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE WITH NEW PRODUCT OF EQUAL CAPACITY, QUALITY AND FUNCTIONALITY.

B. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO ARRANGE THE SHUT OFF OF UTILITIES.

C. CONTRACTOR SHALL BOX AND/OR PALLETIZE ALL DEMOLISHED EQUIPMENT AND PROTECT IT ON SITE. REMOVE THESE ITEMS FROM THE SITE AT THE DIRECTION OF THE OWNER.

D. CONTRACTOR SHALL NOT CONSIDER DEMOLITION AND ALTERATION NOTES TO BE ALL-INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ASSESS EACH AREA TO FULFILL THE INTENT OF THE COMPLETE DESIGN. REFER TO ARCHITECTURAL DOCUMENTS FOR DEFINITION OF SCOPE FOR DEMOLITION AREAS AND ADDITIONAL REQUIREMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO VISIT THE SITE TO CONFIRM THE EXTENT OF DEMOLITION AND RESOLVE ANY DISCREPANCIES WITH OWNER'S/LANDLORD'S CONSTRUCTION MANAGER.

E. FOR DEMOLITION AREAS, THE CONTRACTOR SHALL REVIEW THE MECHANICAL, PLUMBING, AND FIRE SUPPRESSION DEMOLITION DRAWINGS AND REMOVE WIRING, RACEWAYS, AND ELECTRICAL EQUIPMENT ASSOCIATED WITH THE MECHANICAL, PLUMBING AND FIRE SUPPRESSION DEMOLITION.

F. ENSURE THAT ALL LIFE SAFETY SYSTEMS REMAIN OPERATIONAL AND MEET LIFE SAFETY CODE REQUIREMENTS FOR ALL OCCUPIED AREAS THAT REMAIN OPERATIONAL DURING/AFTER DEMOLITION. THIS INCLUDES BUT IS NOT LIMITED TO EGRESS PATHS, FIRE ALARM SYSTEMS, EGRESS LIGHTING AND OTHER LIFE SAFETY SYSTEMS.

G. PROTECT EXISTING EQUIPMENT AND SYSTEMS INTENDED TO REMAIN OPERATIONAL. IF DAMAGED OR DISTURBED IN THE COURSE OF THE DEMOLITION WORK, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE WITH NEW PRODUCT OF EQUAL CAPACITY, QUALITY AND FUNCTIONALITY.

H. RE-ROUTE AND RE-CONNECT ANY CIRCUIT(S) THAT ARE TO REMAIN IN USE BUT INTERFERES WITH THE NEW CONSTRUCTION.

I. WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER, WHICH WOULD ADVERSELY AFFECT THE NORMAL OPERATION OF THE OWNER/LANDLORD 'S PROPERTY OR OTHER BUILDING TENANTS, SHALL BE DONE AT A TIME OTHER THAN NORMAL WORKING HOURS. SCHEDULE ALL OUTAGES WITH OWNER/LANDLORD PRIOR TO SHUTDOWN.

J. OWNER/LANDLORD RESERVES THE RIGHTS TO ALL DEMOLISHED MATERIALS. COORDINATE AND VERIFY EQUIPMENT INTENDED TO BE SALVAGED PRIOR TO DEMOLITION. MATERIALS THAT OWNER/LANDLORD REQUESTS TO BE RE-USED OR SALVAGED, THE MATERIALS SHALL BE REMOVED IN A NEAT WORKMAN LIKE METHOD TO ALLOW THEIR RE-USE. PROTECT THE SALVAGE MATERIALS FOR REUSE BY PROPERLY PACKAGING THE MATERIALS TO PROTECT SALVAGED MATERIALS FROM DAMAGE; SECURELY PACKAGE ALL SALVAGE MATERIALS' INSTALLATION HARDWARE AND PARTS TO SALVAGED MATERIALS.

K. REMOVE UNUSED BRANCH CIRCUITS BACK TO BRANCH PANELBOARD OF ORIGIN, MARK BREAKER AS 'SPARE' AND MAKE ELECTRICALLY SAFE. REMOVE ALL ABANDONED CONDUITS ABOVE LAY-IN CEILING, EXPOSED CONDUITS, FLEXIBLE CONDUITS, SURFACE RACEWAY, SURFACE MOUNTED OUTLET/JUNCTION BOXES AND EQUIPMENT UNLESS NOTED OTHERWISE.

L. REMOVE DEMOLISHED MATERIAL FROM PROJECT SITE IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND REGULATIONS. FOLLOW ALL STATE AND LOCAL REGULATIONS AND CODES FOR PROPER DISPOSAL.

10. WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, PROJECT RECORD DOCUMENTATION (DRAWINGS) AND MANUALS SHALL BE PROVIDE TO THE BUILDING OWNER AND SHALL INCLUDE:

A. OPERATIONS & MAINTENANCE MANUALS: INCLUDE, AS APPROPRIATE TO EACH ITEM, SUFFICIENT INFORMATION TO PROVIDE FOR THE OWNER'S OPERATION AND MAINTENANCE OF EQUIPMENT FURNISHED. THE MANUALS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING.

1. SUBMITTAL DATA STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.

2. OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.

3. NAMES AND ADDRESSES OF AT LEAST ONE QUALIFIED SERVICE AGENCY.

B. AS-BUILTS/RECORD DRAWINGS: PROVIDE PDF SET OF THE FOLLOWING:

1. ELECTRONIC DRAWINGS FILES, IN AUTOCAD ".DWG" FORMAT, OF ALL DOCUMENTS ON CD DISKS OR FLASH DRIVES, CORRECTED WITH "AS INSTALLED" WORK.

2. ELECTRONIC DRAWINGS FILES, IN "PDF" FORMAT, OF ALL DOCUMENTS ON CD DISKS OR FLASH DRIVES, CORRECTED WITH "AS INSTALLED" WORK.

3. FULL-SIZE HARD COPIES OF ALL DOCUMENTS CORRECTED WITH "AS INSTALLED" WORK.

4. AS-BUILT/RECORD DRAWINGS SHALL INDICATE THE ACTUAL INSTALLATION AND INCLUDE THE FOLLOWING:

a. A SINGLE-LINE DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM

b. FLOOR PLANS INDICATING LOCATION AND AREAS SERVED FOR ALL DISTRIBUTION.

C. CONTACTS: INCLUDE WITH EACH PRODUCT, NAME, ADDRESS, AND TELEPHONE NUMBERS, OF INSTALLING CONTRACTOR, FACTORY AND LOCAL SERVICE REPRESENTATIVE.

D. INSTRUCTIONS OF OWNER'S PERSONNEL: PRIOR TO FINAL INSPECTION AND ACCEPTANCE, FULLY INSTRUCT THE OWNER'S DESIGNATED OPERATING AND MAINTENANCE PERSONNEL IN THE OPERATING AND PERFORMANCE OF THE EQUIPMENT FURNISHED.

E. WARRANTIES: INCLUDE WARRANTY INFORMATION PROPERLY EXECUTED BY RESPECTIVE MANUFACTURERS, SUPPLIERS, OR SUB-CONTRACTORS FOR THE EQUIPMENT AND SYSTEM FURNISHED.

11. IN ADDITION TO THE ABOVE, CONTRACTOR SHALL ACCUMULATE DURING THE JOB'S PROGRESS, THE FOLLOWING DATA, IN PDF FORMATE, PREPARED IN A NEAT BROCHURE OR PACKET FOLDER AND TURNED OVER TO THE ARCHITECT FOR REVIEW AND SUBSEQUENT DELIVERY TO THE OWNER.

A. ALL WARRANTIES AND GUARENTEES AND MANUFACTURER'S DIRECTIONS ON EQUIPMENT AND MATERIAL COVERED IN THE CONTRACT INCLUDING THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE MANUFACTURER'S REPRESENTATIVE.

B. APPROVED FIXTURE BROCHURES, WIRING DIAGRAMS AND CONTROL DIAGRAMS (ORIGINAL DATA, NO COPIES).

C. COPIES OF APPROVED SHOP DRAWINGS.

12. ALL OF THE ABOVE DATA SHALL BE SUBMITTED TO THE ARCHITECT FOR HIS REVIEW AT SUCH TIME AS THE CONTRACTOR SUBMITS HIS LAST ESTIMATE PRIOR TO HIS FINAL PAYMENT, BUT IN NO CASE, LESS THAN TWO WEEKS BEFORE FINAL INSPECTION.

13. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN AND UPDATED TO SHOW THE NEW WORK.

14. OWNER FURNISHED EQUIPMENT

A. CONTRACTOR SHALL REQUEST A COPY OF THE PRE-PURCHASED EQUIPMENT PROCUREMENT BID INSTRUCTIONS AND SPECIFICATIONS.

B. WHERE THE OWNER HAS ELECTED TO PROCURE SOME EQUIPMENT FOR THE PROJECT, IT IS THE INTENT OF THESE SPECIFICATIONS THAT THE CONTRACTOR SHALL ACCEPT RESPONSIBILITY OF THIS EQUIPMENT AND PROVIDE THE FOLLOWING:

1. COORDINATE SHOP DRAWING PREPARATION.

2. PROVIDE SUPERVISION TO COORDINATE SHIPPING AND ACCEPT DELIVERY.

3. INSTALL AND SET IN PLACE.

4. PROVIDE POWER AND CONTROL WIRING TO PROVIDE FUNCTIONS IN ACCORDANCE WITH THESE SPECIFICATIONS.

5. DELIVER THE EQUIPMENT TO THE OWNER IN A WORKABLE, OPERATING, AND TESTED CONDITION.

6. PROVIDE SUPERVISION TO COORDINATE FACTORY AND ON-SITE TESTING, START-UP, AND COMMISSIONING IN ACCORDANCE WITH THESE SPECIFICATIONS.

7. PROVIDE SUPERVISION TO COORDINATE OWNER TRAINING AND PREPARATION OF O&M MANUALS.

C. COORDINATE LIST OF EQUIPMENT PROVIDED BY OWNER WITH OWNER AND GENERAL CONTRACTOR.

D. THE CONTRACTOR SHALL REPLACE ANY OWNER EQUIPMENT/SYSTEMS UNDER HIS CONTROL OR SUPERVISION IF DAMAGED.

PART 2 - PRODUCTS

1. MATERIAL APPROVAL: ALL MATERIALS MUST BE NEW AND BEAR A UL LABEL. MATERIALS THAT ARE NOT COVERED BY UL TESTING STANDARDS SHALL BE TESTED AND APPROVED BY AN INDEPENDENT TESTING LABORATORY OR A GOVERNING AGENCY.

2. HOMERUNS TO PANEL BOARDS SHALL BE ELECTRICAL METALLIC TUBING (EMT) EQUAL TO ALLIED TUBE AND CONDUIT.

3. WHERE ALLOWED BY LOCAL CODES, TYPE 'MC' CABLE MAY BE USED. 'MC' CABLE MUST BE PROVIDED WITH ALL REQUIRED SUPPORTS. TYPE 'BX' OR 'AC' CABLE SHALL NOT BE UTILIZED ON THIS PROJECT.

4. ALL FUSES SHALL BE CURRENT-LIMITING TYPE AND BE U.L. LISTED. ACCEPTABLE MANUFACTURERS: LITTELFUSE, BUSSMAN

5. NEW SWITCHGEAR REQUIREMENTS SHALL UTILIZE EQUIPMENT OF THE SAME BRAND AND TYPE AS THE BASE BUILDING. IN NO CASE SHALL SAID EQUIPMENT BE OF LESS QUALITY THAN THE FOLLOWING:

A. DRY TYPE TRANSFORMER SHALL BE ENERGY EFFICIENT, EQUAL TO SQUARE D GENERAL PURPOSE; FOR 3KVA TO 15KVA PROVIDE 115ºC TEMPERATURE RISE RATED AND FOR 30KVA AND ABOVE 150ºC TEMPERATURE RISE RATED.

B. LIGHTING AND APPLIANCE PANEL BOARDS SHALL BE SQUARE D -'NQOD' FOR 120/208V. SERVICE, 'NF' FOR 277/480V. SERVICE. ALL PANEL BOARDS TO HAVE BOLT-ON CIRCUIT BREAKERS.

C. SAFETY SWITCHES SHALL BE SQUARE D TYPE 'HD'. PROVIDE WEATHERPROOF DEVICE WHEN INSTALLED OUTDOOR

D. PROTECTIVE DEVICE SHORT CIRCUIT RATING: FULLY RATED TO INTERRUPT SYMMETRICAL SHORT CIRCUIT CURRENT AVAILABLE AT TERMINALS.

6. RACEWAYS:

A. ELECTRIC METALLIC TUBING EXPOSED USE: FITTINGS SHALL BE OF WATERTIGHT STEEL COMPRESSION TYPE COUPLINGS FOR POWER, LIGHTING OR CONTROL WIRING.

B. ELECTRIC METALLIC TUBING CONCEALED USE: IN WALLS AND ABOVE CEILINGS, IN DRYWALLS, COMPRESSION OR SET SCREW TYPE FITTINGS.

C. ALL RACEWAY EXPOSED TO PHYSICAL DAMAGE SHALL BE RIGID STEEL, HOT DIPPED GALVANIZED AND SHALL BE ROUTED AT RIGHT ANGLES TO, OR PARALLEL WITH THE STRUCTURE. CONDUITS SHALL BE SECURED AT 8'-0" MAXIMUM INTERVALS AND WITHIN 36" OF EACH TERMINATION.

D. MINIMUM SIZE FOR ALL CONDUITS SHALL BE 3/4".

E. PROVIDE HANGER SUPPORTS FOR 'EMT' AT INTERVALS NOT OVER 10' AND PROVIDE ONE SUPPORT NOT OVER 1' FROM EACH CHANGE IN DIRECTION.

F. PROVIDE PULL BOXES AS REQUIRED.

G. RIGID METALS CONDUIT: USE IN CONCRETE WALLS OR UNDER CONCRETE FLOOR SLABS, THROUGH AND ON THE ROOF.

H. FLEXIBLE METAL CONDUIT: GALVANIZED STEEL, INTERLOCKING, AND SINGLE STRIP TYPE. USE FOR FINAL CONNECTIONS TO TRANSFORMERS, MOTORS AND LIGHTING FIXTURES. CLAMP OR ANGLE WEDGE TYPE CONNECTORS.

I. FITTINGS FOR COMMUNICATION SYSTEM RACEWAYS SHALL BE INDENTER OR SET SCREW TYPE COUPLINGS.

J. PROVIDE PULL WIRE IN ALL RACEWAYS WITHOUT CONDUCTORS.

7. WIRES AND CABLES:

A. CONNECTORS SHALL BE U.L. APPROVED FOR THE APPLICATION IN WHICH THEY ARE USED. INSULATION SHALL BE TYPE THHN/ THWN.

B. ALL CONDUCTORS SHALL BE 98% CONDUCTIVITY SOFT DRAWN ANNEALED COPPER 600 VOLT WIRE.

C. CONDUCTORS SHALL BE NO. 12 AWG MINIMUM EXCEPT AS PERMITTED FOR CONTROL CIRCUITS.

D. CONDUCTORS NO. 8 AND LARGER SHALL BE STRANDED, CONDUCTORS NO. 10 AND SMALLER SHALL BE SOLID.

E. MAKE ALL CONNECTIONS WITH SOLDERLESS INSULATED CONNECTORS EQUAL TO SCOTCHLOCK FOR NO. 8 AWG AND SMALLER.

F. CONDUCTORS NO. 6 AWG AND LARGER SHALL BE SPLICED UTILIZING COPPER BOLT CLAMP-TYPE CONNECTOR OR HYDRAULICALLY CRIMPED COPPER CRIMP CONNECTORS.

8. GROUNDING:

A. ALL GROUNDING CONNECTIONS SHALL BE WITH GROUNDING CLAMPS OR EXOTHERMIC WELDS.

B. WHERE FLEXIBLE CONDUIT IS USED, PROVIDE A CONTINUOUS COPPER BONDING CONDUCTOR.

C. ALL CONDUITS SUPPLYING FEEDERS AND BRANCH CIRCUITS SHALL BE PROVIDED WITH GROUNDING CONDUCTOR.

D. PROVIDE GREEN GROUNDING PIGTAIL FOR EACH RECEPTACLE AND PIECE OF EQUIPMENT RATED FOR THE AMPERAGE OF THE CIRCUIT BEING CONNECTED.

E. BOND ALL NON-CURRENT CARRYING METAL PARTS OF EACH:

1. BRANCH CIRCUIT

2. DISTRIBUTION PANELS

3. SWITCHBOARDS

4. TRANSFORMERS

5. CONTROLLER ENCLOSURES

6. MOTOR FRAMES

7. RACEWAYS

8. DEVICES AND DEVICE PLATES.

9. FURRED OUT WALLS:

A. 1-1/2" DEEP, USED FOR FLUSH MOUNTED RECEPTACLES AND LIGHT SWITCHES.

B. 4"X4"X1-1/2" DEEP WITH ½" RAISED SINGLE DEVICE COVER, USED FOR FLUSH MOUNTED COMMUNICATION/DATA ROUGH-IN.

10. OUTLET, JUNCTION AND PULL BOXES:

A. OUTLET BOXES - HOT DIPPED GALVANIZED:

1. 3-1/2" DEEP, USED FOR FLUSH MOUNTED RECEPTACLES AND LIGHT SWITCHES.

2. 4"X4"X2-1/8" DEEP WITH ½" RAISED SINGLE DEVICE COVER, USED FOR FLUSH MOUNTED COMMUNICATION/DATA ROUGH-IN.

B. JUNCTION AND PULL BOXES: USE OUTLET BOXES WITH APPROPRIATE COVERS AS JUNCTION BOXES WHERE POSSIBLE. LARGER JUNCTION AND PULL BOXES SHALL BE FABRICATED FROM SHEET STEEL, SIZED ACCORDING TO CODE, WITH SCREW-ON COVERS, FINISH: GRAY BAKED ENAMEL.

11. WIRING DEVICES:

A. CONVENIENCE RECEPTACLES: 2-POLE, 3-WIRE, GROUNDING TYPE NEMA 5-20R. STANDARD RECEPTACLE: LEVITON # 5362-1; GFI RECEPTACLE LEVITON #6599-1, OR EQUAL.

B. WALL SWITCHES SHALL BE PREMIUM INDUSTRIAL SPECIFICATION GRADE, TOGGLE, QUIET TYPE, 20 AMP, 120/277V. STANDARD SWITCH: LEVITON 122-1; THREE-WAY SWITCH: LEVITON 1223-1 OR EQUAL.

C. DEVICE PLATES: STAINLESS STEEL FOR FLUSH AND ALL SURFACE MOUNTED DEVICES, EXCEPT PLENUM AREA MAY REQUIRE STAIN FINISH STAINLESS STEEL PLATES. CONFIRM FINISHES WITH ENGINEER BEFORE ORDERING.

D. RECEPTACLES - HUBBELL #2162, IG-#2162, OR GF-8300 SERIES.

E. DIMMER SWITCHES - LUTRON NOVA "N" SERIES OR EQUAL FOR INCANDESCENT LIGHTING AND LUTRON NOVA "NLV" SERIES OR EQUAL FOR LOW VOLTAGE INCANDESCENT LIGHTING. 3-WAY DIMMERS SHALL BE EQUAL TO NOVA N-XXO3 SERIES. WHERE SPST SWITCHES OCCUR ADJACENT TO DIMMERS, SWITCHES SHALL MATCH DIMMER(S) IN APPEARANCE. REFER TO PLANS FOR MINIMUM DIMMER WATTAGE REQUIREMENTS.

F. FLOOR OUTLETS (PEDESTAL) - LEGRAND WIREMOLD FIT-200 SERIES OR EQUAL.

G. FLOOR OUTLETS (FLUSH) - LEGRAND WIREMOLD RC4 OR 6ATC SERIES OR EQUAL UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT.

H. FLOOR OUTLET CONCRETE ENCASED: LEGRAND WIREMOLD RPNFP SERIES OR EQUAL WITH ACTIVATION DEVICES AS DIRECTED BY ARCHITECT.

I. WALL OUTLETS TO BE INSTALLED WITH A CADDY "H" SERIES SUPPORT BRACKET.

J. CEILING MOUNTED OCCUPANCY SENSOR SHALL BE DUAL TECHNOLOGY, INFRARED AND ULTRAPHONIC AS MANUFACTURED BY SENSORSWITCH #CM-PDT WHITE FINISH WITH (1) ONE #PP20 POWER PACK PER CONTROL CIRCUIT. CONTRACTOR SHALL VERIFY SENSOR TIME SETTING IS (20) TWENTY MINUTES MINIMUM. SUBSCRIPT '10' INDICATES #CM-PDT-10 SENSOR OF SAME FINISH AND TIME SETTING.

K. WALL MOUNTED OCCUPANCY SENSOR SHALL BE DUAL TECHNOLOGY, INFRARED AND ULTRAPHONIC, AS MANUFACTURED BY SENSORSWITCH #WSD-PDT, WHITE FINISH. CONTRACTOR SHALL VERIFY SENSOR TIME SETTING IS (20) TWENTY MINUTES MINIMUM.

12. MOUNTING HEIGHTS FROM FINISHED FLOOR TO CENTER OF DEVICE:

A. 18" FOR RECEPTACLES, TELEPHONE AND DATA OUTLETS UNLESS OTHERWISE INDICATED ON PLANS.

B. +10" RECEPTACLES AT WORK BENCH (ABOVE WORK SURFACE) UNLESS OTHERWISE INDICATED BY THE ARCHITECT.

C. +48" WALL SWITCHES

13. LIGHT FIXTURES:

A. ALL FIXTURES SHALL BE UL-LISTED AND SUITABLE FOR THEIR ENVIRONMENT.

B. PROVIDE FIXTURES AS LISTED IN THE LIGHTING FIXTURE SCHEDULE ON THE DRAWINGS.

C. PROVIDE HIGH POWER FACTOR BALLASTS FOR COMPACT FLUORESCENT LAMPS.

D. DRIVER VOLTAGE TO BE COMPATIBLE WITH CIRCUIT SOURCE VOLTAGE.

E. EMERGENCY FIXTURES SHALL BE PROVIDED WITH BATTERY BACK-UP SYSTEM UNLESS NOTED OTHERWISE- REFER TO LIGHTING FIXTURE SCHEDULE.

F. LINEAR EMERGENCY FIXTURES SHALL BURN STEADY PROVIDING NOT LESS THAN 1300LUMEN OUTPUT FOR A MINIMUM OF 90 MINUTES ON BATTERY POWER FOR EMERGENCY EGRESS.

14. FIRE ALARM:

A. ALL FIRE ALARM PLANNING AND CONSTRUCTION DOCUMENTS SHALL BE PREPARED BY A CERTIFIED FIRE ALARM DESIGNER HOLDING A CURRENT STATE ALARM PLANNING SUPERINTENDENT" LICENSE (APS) ISSUED BY THE STATE FIRE MARSHAL'S OFFICE IN ACCORDANCE WITH THE STATE INSURANCE CODE ARTICLE 5.43-2 AND WHO IS ALSO CERTIFIED TO A MINIMUM LEVEL III IN THE SUB-FIELD OF "FIRE ALARM SYSTEMS", THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES" (NICET).

B. ALL CONSTRUCTION DOCUMENTS SHALL BE SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO INSTALLATION OR ALTERATION OF THE FIRE ALARM SYSTEM.

PART 3 - EXECUTION

1. GENERAL

A. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES. VERIFY CEILING TYPES OF ALL ROOMS WITH ARCHITECT'S ROOM FINISH SCHEDULE PRIOR TO ORDERING LIGHT FIXTURES.

B. LOCATION OF OUTLETS SHOWN IS APPROXIMATE ONLY. OUTLETS MAY BE MOVED TO SUIT CONFLICTING EQUIPMENT.

C. EXACT LOCATION OF SWITCHES, FLOOR OUTLETS AND CONDUIT STUBS SHALL BE VERIFIED WITH THE ARCHITECT PRIOR TO INSTALLATION.

D. RECESSED FIXTURES IN SUSPENDED CEILINGS SHALL BE SUPPORTED FROM OVERHEAD STRUCTURES BY CEILING GRID WIRE.

E. PROVIDE NECESSARY BACKING REQUIRED TO INSURE RIGID MOUNTING OF OUTLET BOXES.

F. CONDUIT ROUTES SHOWN ARE APPROXIMATE ONLY AND MUST BE ADJUSTED IN THE FIELD TO CLEAR OTHER FACILITIES. ALL CONDUIT ROUTING SHALL BE OVERHEAD, CONCEALED IN WALL OR CEILING, UNLESS NOTED OTHERWISE.

G. ALL HOME RUNS ARE INDICATED AS STARTING FROM THE OUTLET NEAREST THE PANEL AND CONTINUE IN THE GENERAL DIRECTION OF THAT PANEL. CONTINUE SUCH CIRCUITS TO THE PANEL AS THOUGH THE ROUTES WERE COMPLETELY INDICATED. HOME RUNS TO PANELS SHALL BE IN INDIVIDUAL CONDUITS WITH CIRCUITS AS SHOWN, EXCEPT FOR SINGLE PHASE 120V CIRCUITS.

H. ALL EXPOSED RACEWAY RUNS ABOVE GRADE SHALL BE RIGID STEEL, HOT DIPPED GALVANIZED AND SHALL BE ROUTED AT RIGHT ANGLES TO, OR PARALLEL WITH THE STRUCTURE. CONDUITS SHALL BE SECURED AT 8'-0" MAXIMUM INTERVALS AND WITHIN 36" OF EACH TERMINATION.

I. JUNCTION AND PULL BOXES GENERALLY SHALL NOT BE EXPOSED IN FINISH PLACES. PROVIDE PULL BOXES AS INDICATED AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRES. COORDINATE THE LOCATIONS WITH OTHER TRADES. ALL JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE. PROVIDE PULL BOXES FOR EVERY THREE 90-DEGREE BENDS AND AS INDICATED ON THE DRAWINGS.

J. RUN LOW VOLTAGE CABLES ABOVE DROPPED CEILING PARALLEL OR PERPENDICULAR TO COLUMN LINES. SECURE LOW VOLTAGE CABLES ON 48" CENTERS TO UNISTRUT CHANNEL OR OTHER SUPPORTS FASTENED TO CONCRETE CEILING. "THOMAS AND BETTS TY-RAP" CABLE TIES, OR EQUAL, SHALL BE USED TO HANG CABLES.

K. SECURELY FASTEN ALL EQUIPMENT BY MEANS OF RODS, HANGER SUPPORTS, GUIDES, ANCHORS AND SWAY BRACES TO MAINTAIN ALIGNMENT AND TO PREVENT EQUIPMENT MOVEMENT.

L. INSTALLATION OF CONDUITS: USE RIGID STEEL IN WET LOCATIONS, WHERE SUBJECT TO MECHANICAL DAMAGE, IN CONCRETE OR BLOCK WALLS. USE EMT IN OTHER LOCATIONS WHERE PERMITTED BY CODE.

2. INSTALL MECHANICAL AND ELECTRICAL SYSTEMS TO FACILITATE SERVICING, MAINTENANCE, REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.

3. RUN LOW VOLTAGE CABLES ABOVE DROPPED CEILING PARALLEL OR PERPENDICULAR TO COLUMN LINES. SECURE LOW VOLTAGE CABLES ON 48" CENTERS TO UNISTRUT CHANNEL OR OTHER SUPPORTS FASTENED TO CONCRETE CEILING. "THOMAS AND BETTS TY-RAP" CABLE TIES, OR EQUAL, SHALL BE USED TO HANG CABLES.

4. ALL EXPOSED CONDUIT PENETRATIONS IN FINISHED CEILING AND WALL AREAS SHALL HAVE AN ESCUTCHEON PLATE.

5. ALL CEILING AND WALL CONDUIT PENETRATIONS AT FIRE RATED AREAS SHALL BE SEALED TO KEEP FIRE RATING INTEGRITY. PROVIDE GYPSUM BOARD BOXES FOR RECESSED LIGHT FIXTURES IN FIRE RATED LOCATIONS.

6. DO NOT CUT OR REMOVE ANY EXISTING STRUCTURAL MEMBER WITHOUT PRIOR WRITTEN APPROVAL FROM ARCHITECT.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL CONNECTIONS TO MECHANICAL EQUIPMENT, UNLESS NOTED OTHERWISE. VERIFY EXACT EQUIPMENT LOCATION PRIOR TO INSTALLATION OF CONDUIT.

8. INSTALLATION OF WIRES:

A. INSTALL ALL WIRES CONTINUOUS FROM OUTLET TO OUTLET, OR TERMINAL TO TERMINAL. SPLICES IN CABLES, WHEN REQUIRED, SHALL BE MADE IN PULL OR JUNCTION BOXES. MAKE BRANCH CIRCUIT SPLICES IN OUTLET BOXES WITH 8" OF CORRECTLY COLOR-CODED TAILS LEFT IN THE BOX.

B. TERMINATE ALL GROUNDING, GROUNDED AND LINE CONNECTORS TO RECEPTACLES AND WIRING DEVICES TERMINALS AS RECOMMENDED BY MANUFACTURER.

C. PROVIDE SEPARATE GROUNDED WIRE FOR EACH 120/208V BRANCH CIRCUIT AND DIMMING CIRCUIT.

D. COLOR CODE WIRES AS FOLLOWS:

Conductors	120/208V	277/480V
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Gray
Ground	Green	Green

9. TRANSFORMER INSTALLATION:

A. INSTALL AND ANCHOR THE TRANSFORMER ON A 4" THICK HOUSEKEEPING PAD.

B. PROVIDE NEOPRENE WAFFLE PAD FOR VIBRATION ISOLATION, MASON TYPE WF OR EQUAL.

10. CONNECTIONS TO EQUIPMENT:

A. FURNISH AND INSTALL REQUIRED POWER SUPPLY CONDUIT AND WIRING TO ALL OWNER FURNISHED EQUIPMENT.

B. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL CONNECTIONS TO MECHANICAL EQUIPMENT, UNLESS NOTED OTHERWISE. VERIFY EXACT EQUIPMENT LOCATION PRIOR TO INSTALLATION OF CONDUIT.

C. FURNISH AND INSTALL A DISCONNECT SWITCH IMMEDIATELY AHEAD OF, AND ADJACENT TO EACH MAGNETIC MOTOR STARTER OR APPLIANCE, UNLESS THE MOTOR OR APPLIANCE IS LOCATED WITHIN SIGHT OF THE SERVICING PANEL BOARD, CIRCUIT BREAKER OR SWITCH. VERIFY ALL EQUIPMENT NAMEPLATE CURRENT RATINGS PRIOR TO INSTALLATION.

D. FURNISH AND INSTALL MANUAL THERMAL PROTECTION FOR ALL FRACTIONAL HORSEPOWER MOTORS, NOT INTEGRALLY EQUIPPED WITH THERMAL PROTECTION.

E. FURNISH 120V POWER TO EACH CONTROL PANEL AND TIME SWITCH REQUIRING POWER TO OPERATE.

11. IDENTIFICATION:

A. PROVIDE LABELS, NAME PLATES, DIRECTORIES AND CODING INFORMATION.

B. PROVIDE NAME PLATES CONSTRUCTED OF 1/16" THICK PLASTIC (BLACK OR WHITE) LAMINATED MATERIAL, ENGRAVED THROUGH BLACK SURFACE MATERIAL TO EXPOSE WHITE SUB-LAYER.

C. IDENTIFICATION BANDING TAPE: BRADY "PERMA-CODE," OR WESTLINE "TEL-A-PIPE," WITH NAME OF THE SYSTEM PRINTED ON THE COLORED TAPE.

D. PROVIDE LABELS TO PANELBOARDS, SWITCHBOARDS, STARTERS, DISCONNECT SWITCHES AND PULL BOXES.

E. MARK THE COVERS OF ALL JUNCTION AND PULL BOXES WITH A BLACK FELT MARKER. INDICATE THE PANEL DESIGNATION AND CIRCUIT NUMBERS OF ALL WIRES PASSING THROUGH SAID BOX.

12. CLEANING

A. AFTER COMPLETING SYSTEM INSTALLATION, INCLUDING OUTLET FITTINGS AND DEVICES, INSPECT EXPOSED FINISH.
REMOVE BURRS, DIRT, AND CONSTRUCTION DEBRIS, AND REPAIR DAMAGED FINISHES.

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SARGENT, TX.

ELECTRICAL SPECIFICATIONS

MATAGORDA
COUNTY

CUSTOMER NAME:

DRAWN BY: SR
CHECKED BY: JH
DESIGNED BY: SR
JOB NO. 20.105017

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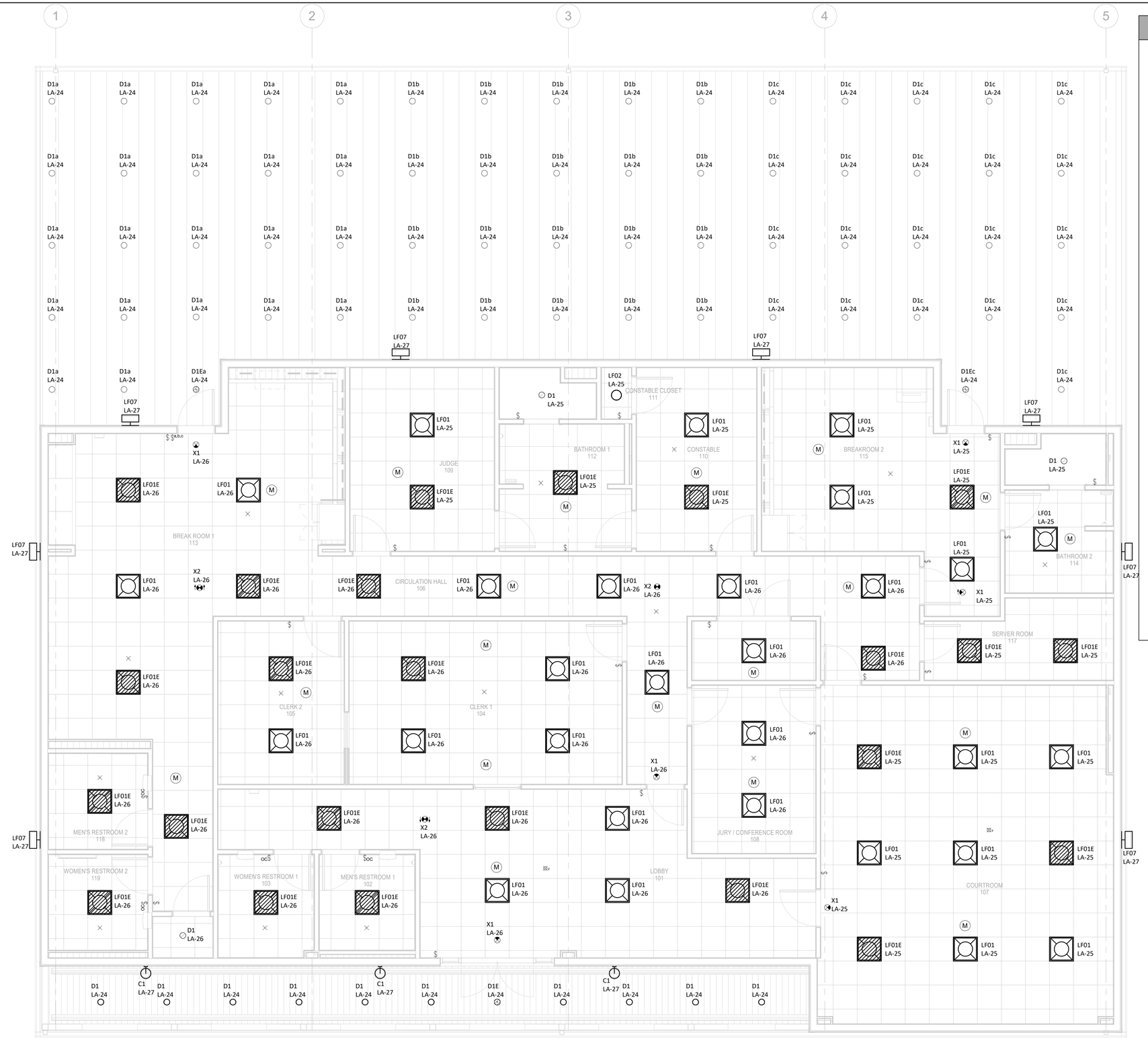

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PLAN

1 FLOOR PLAN - LIGHTING
1/4" = 1'-0"

GENERAL LIGHTING NOTES

A. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PARTITIONS HEIGHTS. ALL POWER, DATA, LIGHTING CONTROLS AND HVAC CONTROLS INSTALLED ON WALLS THAT ARE NOT FULL HEIGHT SHALL BE PROVIDED WITH RACEWAYS AND PULL STRINGS SERVED FROM THE FLOOR TO THE CLOSEST VERTICAL PATH.

B. WHERE MULTIPLE WIRING DEVICES ARE SHOWN IN ONE LOCATION, THESE DEVICES SHALL BE MOUNTED UNDER A COMMON COVER PLATE UNLESS NOTED OTHERWISE.

C. CONTRACTOR SHALL CONTACT THE LIGHTING MANUFACTURER SELECTED DURING THE BIDDING PROCESS FOR SPECIFIC PRODUCT REQUIREMENTS, SHOP DRAWINGS AND WIRING DIAGRAMS FOR ALL AUTOMATIC LIGHTING CONTROLS, RELAYS, POWER PACKS, OCCUPANCY SENSORS, VACANCY SENSORS AND PHOTOCELLS.

D. CONTRACTOR SHALL PROVIDE POWER PACKS, OVERRIDE SWITCHES, ROOM CONTROLLERS, CABLING/WIRING AND ADDITIONAL EQUIPMENT AS REQUIRED TO ACCOMPLISH THE LIGHTING CONTROL INDICATED.

E. CONTRACTOR TO COORDINATE LIGHTING CONTROL MEETING BETWEEN OWNER AND LIGHTING MANUFACTURER PRIOR TO START-UP OF LIGHTING CONTROLS TO VERIFY PROPER SETTING REQUIREMENTS FROM OWNER.

F. LOCATE ULTRASONIC OCCUPANCY SENSORS A MINIMUM OF 3 FEET FROM MECHANICAL DIFFUSERS AND OTHER NOISE PRODUCING EQUIPMENT.

G. LOWERCASE LETTERING NEXT TO LIGHT SWITCHES AND LIGHT FIXTURES DENOTES SWITCHING SCHEME.

H. ALL CEILING MOUNTED DEVICES LOCATED IN LAY-IN CEILINGS SHALL BE CENTERED IN THE CEILING TILE.

I. PROVIDE UNSWITCHED CIRCUIT TO ALL EXIT SIGNS ORIGINATING FROM CIRCUIT INDICATED.

J. CONTRACTOR SHALL INDICATE LIGHTING CIRCUIT CONTROLLED BY EACH SWITCH BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH SWITCH COVER PLATE.

K. SPRINKLER CONTRACTOR SHALL COORDINATE SPRINKLER HEAD LOCATIONS WITH CEILING MOUNTED LIGHTING FIXTURES.

L. ALL MATERIALS/EQUIPMENT/DEVICES INSTALLED IN PLENUM SPACES SHALL BE PLENUM RATED MATERIALS/EQUIPMENT/DEVICES.

M. ALL LOW VOLTAGE WIRING ROUTED THROUGH EXPOSED AREAS SHALL BE ROUTED IN CONDUIT.

N. ALL EXPOSED CONDUIT SHALL BE ROUTED PERPENDICULAR, PARALLEL, AND TIGHT TO COLUMNS AND BEAMS. ALL EXPOSED CONDUIT ROUTING SHALL BE COORDINATED WITH ENGINEER AND ARCHITECT PRIOR TO INSTALLATION. NO ADDITIONAL COST TO OWNER WILL BE ALLOWED FOR RELOCATING CONDUIT DUE TO THE LACK OF COORDINATION WITH ARCHITECT OR OTHER TRADES.

O. ALL ELECTRICAL CONDUIT, RACEWAYS, JUNCTION BOXES, SO CORD, LIGHTING FIXTURE POWER FEEDS, ETC ROUTED IN EXPOSED AREAS SHALL BE PAINTED TO MATCH EXPOSED CEILING AREA. REFER TO ARCHITECT FOR FINISH COLORS.

P. ALL NEW EMERGENCY LIGHTING FIXTURES PROVIDED WITH EMERGENCY DRIVERS SHALL HAVE AN UNSWITCHED HOT FOR LOSS OF VOLTAGE AND EMERGENCY DRIVER CHARGING (SAME CIRCUIT AS THE NORMAL POWER LIGHTING CIRCUIT). FIXTURES WITH EMERGENCY LED DRIVERS SHALL BE WIRED IN SUCH A MANNER AS TO ALLOW SWITCHING OF FIXTURES WITHOUT DISCHARGING THE EMERGENCY DRIVER. EMERGENCY DRIVER IS TO OPERATE ONLY IN THE EVENT OF A POWER OUTAGE.

F-324

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SARGENT, TX.
FLOOR PLAN - LIGHTING

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SR	JH	SR	20.105017

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UTILITY COMPANY CONTACT

POWER: ERIC GARDNER - JACKSON ELECTRIC COOPERATIVE, INC.
Phone - 979-245-3029
Email - EGARDNER@MYJEC.COOP

TELEPHONE AND CATV: FIELD COORDINATED BY THE CONTRACTOR WITH LOCAL SERVICE PROVIDERS,

KEYNOTE LEGEND

#	NOTE
1	PROVIDE 2 INCH EMPTY CONDUIT WITH PULLSTRING TO SERVE INCOMING TELECOM. ROUTE CONDUIT TO TELECOM SERVICE PROVIDER'S PRIMARY LINES. COORDINATE ALL PROVISIONS AND LOCATIONS WITH TELECOM PROVIDER.
2	UTILITY PRIMARY CONDUITS. COORDINATE THE EXACT LOCATION, SIZE AND ADDITIONAL EASEMENT WITH UTILITY COMPANY PROVIDER AND CIVIL ENGINEER PRIOR TO START OF SITE WORK.
3	POWERED VIA OUTDOOR UNIT. PROVIDE POWER AND CONTROLS CONDUIT PER MANUFACTURER REQUIREMENTS.

GENERAL POWER NOTES

A. REFER TO ARCHITECTURAL PLANS, ELEVATIONS AND DETAILS FOR EXACT LOCATION AND MOUNTING REQUIREMENTS FOR ALL RECEPTACLES. DISCREPANCY BETWEEN THE ARCHITECTURAL PLANS AND ELECTRICAL PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

B. PRIOR TO ROUGH-IN CONTRACTOR SHALL COORDINATE FINAL CONNECTIONS AND LOCATION TO ALL OWNER FURNISHED EQUIPMENT AND EQUIPMENT FURNISHED UNDER OTHER DIVISIONS OF THE WORK IN ACCORDANCE WITH THE MANUFACTURES SPECIFICATIONS AND INSTALLATION REQUIREMENTS.

C. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PARTITIONS HEIGHTS. ALL POWER, DATA, LIGHTING CONTROLS AND HVAC CONTROLS INSTALLED ON WALLS THAT ARE NOT FULL HEIGHT SHALL BE PROVIDED WITH RACEWAYS AND PULL STRINGS SERVED FROM THE FLOOR TO THE CLOSEST VERTICAL PATH.

D. CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO EQUIPMENT. PROVIDE ALL NECESSARY MATERIALS AND LABOR FOR COMPLETE INSTALLATION. COORDINATE EXACT CONNECTION REQUIREMENTS WITH EQUIPMENT MANUFACTURE / PROVIDER PRIOR TO ROUGH-IN.

E. IN EXPOSED STRUCTURE AREAS, CONDUIT RUNNING PERPENDICULAR TO BAR JOIST SHALL BE ROUTED ALONG PERIMETER WALLS, CONDUITS RUNNING PARALLEL TO BAR JOIST SHALL BE ROUTED TIGHT TO BOTTOM OF BAR JOIST. CONSULT ARCHITECT AND OWNER FOR CONDUIT PAINT REQUIREMENTS.

F. DATA / TELEPHONE RACEWAYS / PATHWAYS; SHALL BE COORDINATED WITH SELECTED TECHNOLOGY CABLING CONSULTANT. FOR ALL CONDUIT AND RACEWAY FOR THE TECHNOLOGY / CABLING SYSTEMS. USE THE TECHNOLOGY / CABLING CONSULTANT'S DOCUMENTS FOR LOCATIONS OF ALL DATA / TELEPHONE OUTLETS.

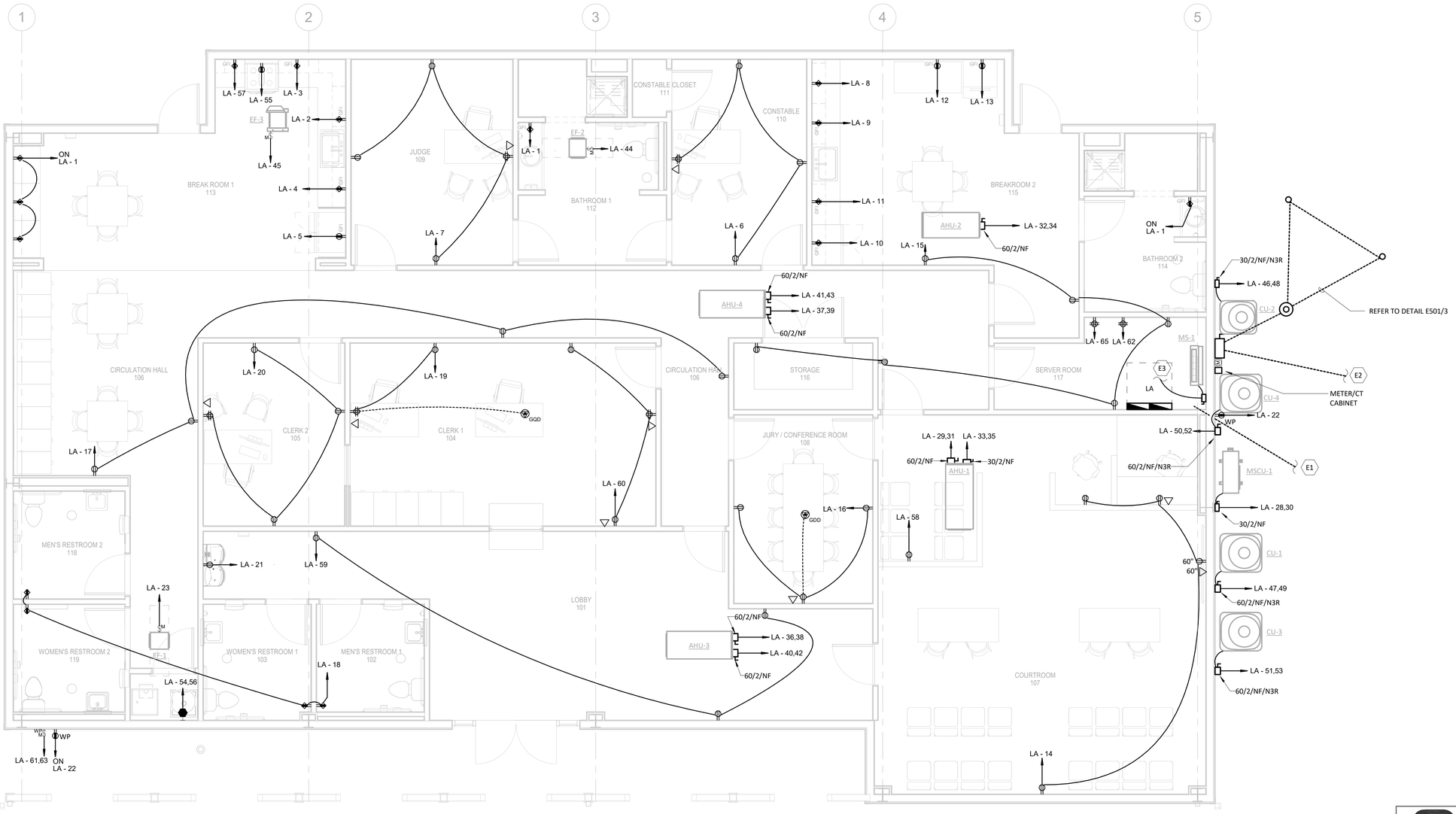
G. ALL CONDUIT FOR ELECTRICAL SERVICE SHALL BE INSTALLED PER UTILITY STANDARDS AND SHALL HAVE MINIMUM 42" COVER. CONTRACTOR SHALL BE RESPONSIBLE FOR FILING WITH UTILITY AND INSTALLING PER UTILITY INSTRUCTIONS.

H. CONDUIT FROM TELEPHONE UTILITY POINT OF SERVICE SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, CABLE SHALL BE PROVIDED BY THE TELEPHONE COMPANY. CONTRACTOR SHALL INSTALL ALL TELEPHONE CONDUIT PER TELEPHONE CONTACT PHONE COMPANY BEFORE ANY WORK BEGINS AND COORDINATE WITH PHONE COMPANY.

I. CONDUIT FROM MAIN CATV UTILITY SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR, CABLE SHALL BE PROVIDED AND INSTALLED BY CATV COMPANY. CONTRACTOR SHALL INSTALL ALL CABLE CONDUIT PER CABLE COMPANY STANDARDS, COORDINATE AS REQUIRED.

J. FINAL EQUIPMENT LOCATIONS, SERVICE CONNECTION POINTS AND ALL REQUIREMENTS SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANIES. LOCATIONS SHOWN ARE PRELIMINARY AND REQUIRE FIELD COORDINATION PRIOR TO CONSTRUCTION.

K. USE LONG RADIUS BENDS FOR ALL OFFSETS IN ELECTRICAL AND TELECOMMUNICATION LINES.



N
1 FLOOR PLAN - POWER
1/4" = 1'-0"
PLAN

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MATAGORDA COUNTY

CUSTOMER NAME:

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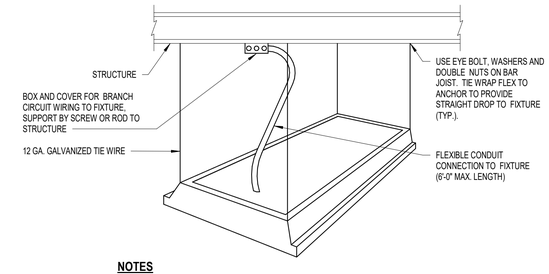
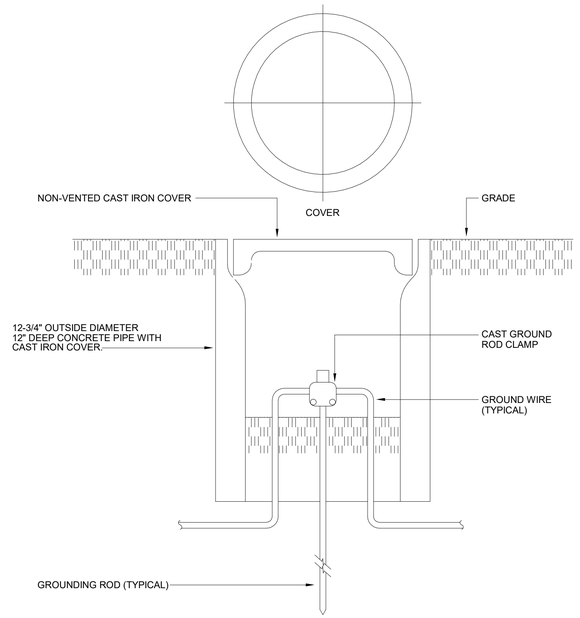


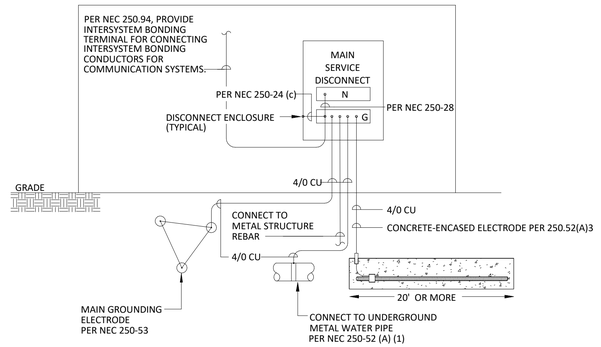
NOTES

1. PROVIDE SUPPORT TIE WIRE IN TWO (2) OPPOSITE CORNERS FOR NORMAL USE LUMINAIRES.
2. PROVIDE SUPPORT TIE WIRES IN ALL FOUR (4) CORNERS FOR EMERGENCY USE LUMINAIRES.
3. SCREW FIXTURE AT EACH CORNER (4) TO GRID FOR ADDITIONAL SUPPORT OR PROVIDE SEISMIC CLIPS.

2 RECESSED LIGHT MOUNTING
N.T.S.



3 GROUND ROD INSPECTION WELL DETAIL
N.T.S.



1 MAIN SERVICE ENTRANCE GROUNDING DIAGRAM
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ELECTRICAL DETAILS

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MATAGORDA COUNTY

CUSTOMER NAME:

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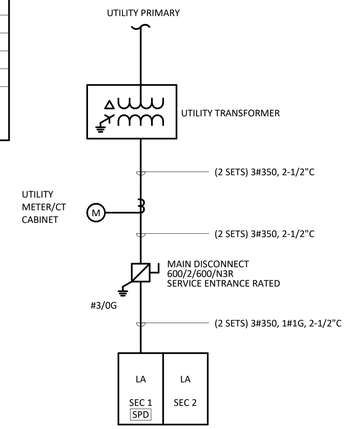
GENERAL ELECTRICAL NOTES

A. THE CONTRACTOR SHALL PROVIDE LABELING FOR THE EQUIPMENT FOR "AVAILABLE FAULT CURRENT LABELING" REQUIRED BY NEC ARTICLE 110.24 AND SHALL BE 2" BY 3" WITH BLUE LETTERING ON A CONTRASTING BACKGROUND AND SHALL INCLUDE THE DATE OF THE CALCULATION.

B. ALL FEEDER SIZES ARE BASED ON COPPER CONDUCTORS.

ELECTRICAL SERVICE FAULT CURRENT TABLE		
SERVICE VOLTAGE:	240	V
SERVICE PHASE:	1	Ø
SERVICE TRANSFORMER:	167	kVA
SERVICE TRANSFORMER MOUNTING:	POLE	
SERVICE TRANSFORMER IMP:	2.1	%Z
TRANSFORMER kVA * 1000 / VOLTAGE * SQRT(3) * Z	=	19130 ASC



1 ELECTRICAL ONE-LINE DIAGRAM
N.T.S.

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ELECTRICAL DIAGRAMS

CUSTOMER NAME:

MATAGORDA COUNTY

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LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	LAMP	MANUFACTURER	MODEL	VOLTAGE	WATTAGE
C1	EXTERIOR WALL SCONCE	LED	REFER TO ARCHITECT	REFER TO ARCHITECT	120 V	25 W
D1	6 INCH DOWNLIGHT	LED	LIGHTOLIER	P6SDL10_Z10U/3	UNV	10.9 W
D1E	SAME AS TYPE 'D1', PROVIDE WITH 90 MINUTES OF EMERGENCY BATTERY BACKUP.	LED	LIGHTOLIER	P6SDL10_Z10U/3	UNV	10.9 W
LF01	2x2 RECESSED TROFFER	LED	LITHONIA LIGHTING	2BLT2-33L-ADPT-EZ1-LP835	UNV	26.5 W
LF01E	SAME AS TYPE 'A1', PROVIDE WITH 90 MINUTES OF EMERGENCY BATTERY BACKUP.	LED	LITHONIA LIGHTING	2BLT2-33L-ADPT-EZ1-LP835	UNV	26.5 W
LF02	10 INCH CEILING LIGHT	LED	REFER TO ARCHITECT	REFER TO ARCHITECT	UNV	60 W
LF07	EXTERIOR WALL PACK	LED	ELITE	ELX-606-X-AL-X		
X1	SINGLE FACE EXIT SIGN. PROVIDE ARROW DESIGNATIONS AND MOUNTING BRACKETS AS INDICATED ON PLANS. PROVIDE WITH 90 MINUTES OF EMERGENCY BATTERY BACKUP.	LED	ELITE	EL1-606-X-AL-X	UNV	5 W
X2	DOUBLE FACE EXIT SIGN. PROVIDE ARROW DESIGNATIONS AND MOUNTING BRACKETS AS INDICATED ON PLANS. PROVIDE WITH 90 MINUTES OF EMERGENCY BATTERY BACKUP.	LED	ELITE	EL2-606-X-AL-X	UNV	5 W

SPECIAL DEVICE SCHEDULE

MARK	ASSEMBLY CODE	MANUFACTURER	DESCRIPTION
GDD	ON GRADE - 1 DUPLEX/ 1 DATA	LEGRAND	2 COMPARTMENT FLOOR BOX WITH RECESSED OUTLETS. USE WITH EVOLUTION 6CT SERIES ROUND COVERS. FULLY CONFIGURABLE WITH REMOVABLE DIVIDERS. USE RFB6-DP PLATE FOR DUPLEX AND COORDINATE WITH TECHNOLOGY FOR DATA. PROVIDE 1" CONDUIT FOR POWER AND PROVIDE 1-1/4" CONDUIT FOR DATA.
GQD	ON GRADE - 1 QUADRUPLEX/ 1 DATA	LEGRAND	2 COMPARTMENT FLOOR BOX WITH RECESSED OUTLETS. USE WITH EVOLUTION 6CT SERIES ROUND COVERS. FULLY CONFIGURABLE WITH REMOVABLE DIVIDERS. USE RFB6-DP PLATE FOR QUADRUPLEX AND COORDINATE WITH TECHNOLOGY FOR DATA. PROVIDE 1" CONDUIT FOR POWER AND PROVIDE 1-1/4" CONDUIT FOR DATA.

LIGHTING SEQUENCE OF OPERATION: IECC 2015

CORRIDORS
1. LIGHTING SHALL BE CONTROLLED WITH NETWORKED MULTI-ZONE POWER PACKS WITH 0-10V DIMMING CAPABILITY AND TIME-CLOCK FUNCTIONALITY.
2. CONTROL STATIONS SHALL BE PRESET STATION FOR SCENE CONTROL, KEYPAD OR TOUCH-SCREEN.
3. DAYLIGHT SENSORS AND DIMMING SHALL BE USED AS REQUIRED FOR SPACES WITH MORE THAN 150W OF LIGHTING IN DAYLIGHT ZONES WITHIN SPACE, PER IECC 2015.
4. REFER TO DRAWINGS FOR COORDINATION OF SWITCH LEG AND ZONE CONTROL.
5. LIGHTS TO TURN ON AND OFF BASED OFF BUSINESS HOURS TIME CLOCK, WITH OVERRIDE STATION LOCKED OUT DURING BUSINESS HOURS.
6. AFTER HOURS LIGHTS CAN BE TURNED ON VIA OVERRIDE STATION OR CEILING MOUNTED OCCUPANCY SENSORS.

**LIGHTING CONTROLS NOT REQUIRED IN EXIT PASSAGES

OPEN OFFICES
1. LIGHTING SHALL BE CONTROLLED WITH NETWORKED MULTI-ZONE POWER PACKS WITH 0-10V DIMMING CAPABILITY AND TIME-CLOCK FUNCTIONALITY.
2. OVERRIDE STATIONS SHALL BE PRESET STATION FOR SCENE CONTROL, KEYPAD OR TOUCH-SCREEN.
3. DAYLIGHT SENSORS AND DIMMING SHALL BE USED AS REQUIRED FOR SPACES WITH MORE THAN 150W OF LIGHTING IN DAYLIGHT ZONES WITHIN SPACE, PER IECC 2015.
4. REFER TO DRAWINGS FOR COORDINATION OF SWITCH LEG AND ZONE CONTROL.
5. LIGHTS TO TURN ON AND OFF BASED OFF BUSINESS HOURS TIME CLOCK, WITH OVERRIDE STATION LOCKED OUT DURING BUSINESS HOURS.
6. AFTER HOURS LIGHTS CAN BE TURNED ON VIA OVERRIDE STATION OR CEILING MOUNTED OCCUPANCY SENSORS.

BREAK ROOM
1. LIGHTING SHALL BE CONTROLLED WITH STAND-ALONE VACANCY SENSORS AND DIMMING CONTROLS.
2. CONTROL STATION SHALL BE PRESET STATION FOR SCENE CONTROL, KEYPAD OR TOUCH-SCREEN.
3. DAYLIGHT SENSORS AND DIMMING SHALL BE USED AS REQUIRED FOR SPACES WITH MORE THAN 150W OF LIGHTING IN DAYLIGHT ZONES WITHIN SPACE, PER IECC 2015.
4. REFER TO DRAWINGS FOR COORDINATION OF SWITCH LEG AND ZONE CONTROL.

RESTROOMS
1. LIGHTING SHALL BE CONTROLLED WITH STAND-ALONE OCCUPANCY SENSOR WITH ON/OFF OPERATION ONLY.
2. MANUAL OVERRIDE SHALL BE KEYPAD.

EXTERIOR LIGHTING
1. SITE LIGHTING SHALL BE CONTROLLED WITH NETWORKED TIME CLOCK, AND PHOTOCELL CONTROL THROUGH LIGHTING RELAY CABINET.
2. LIGHTING SHALL DIM DOWN AFTER MIDNIGHT BY 30% PER IECC 2015.

TIME-CLOCK SCHEDULING
1. SHALL INCLUDE ASTRONOMICAL TIME-CLOCK INTEGRAL TO PROCESSOR.
2. SCHEDULES SHALL ALLOW FOR:
3. WEEKDAY OPEN
4. WEEKDAY CLOSE
5. WEEKEND OPEN
6. WEEKEND CLOSE
7. SCHEDULE OF BUSINESS HOURS TO BE COORDINATED WITH OWNER PRIOR TO START UP.

OCCUPANCY / VACANCY SENSORS
1. TIME-DELAYS SHALL BE VERIFIED WITH OWNER PRIOR TO START UP, NO MORE THAN 30 MINUTES AS REQUIRED.
2. OCCUPANCY SENSORS SHALL BE AUTO ON/ AUTO OFF.
3. VACANCY SENSORS SHALL BE MANUAL ON/ AUTO OFF.

EMERGENCY EGRESS LIGHTING
1. ALL EMERGENCY LIGHTING SHALL MEET THE UL 924 STANDARDS FOR EMERGENCY LIGHTING AND CONTROLS.
   - THE ELECTRICAL SUPPLY MUST PROVIDE POWER WITHIN 10 SECONDS OF THE LOSS OF NORMAL POWER.
   - PERFORMANCE REQUIREMENTS FOR UNIT EQUIPMENT, AT LEAST 60% OF INITIAL ILLUMINATION MUST BE MAINTAINED FOR 90 MINUTES. THE BATTERY VOLTAGE SHALL REMAIN AT NO LESS THAN 87.5% OF ITS NOMINAL VOLTAGE DURING THE ENTIRE 90-MINUTE PERIOD.
   - UNDER NORMAL CONDITIONS, EGRESS LIGHTING MUST BE SERVED BY THE BUILDING'S PRIMARY ELECTRICAL SUPPLY. WHEN NORMAL SUPPLY FAILS, THE EMERGENCY POWER SUPPLY MUST ILLUMINATE PATHWAYS THAT LEAD TO EXITS, THE EXITS THEMSELVES, EXIT DISCHARGES, ELECTRICAL ROOMS, FIRE COMMAND CENTERS, FIRE PUMP ROOMS, AND GENERATOR ROOMS.
2. ALL EMERGENCY LUMINAIRES WITHIN AN AREA ARE TO FUNCTION THE SAME AS NONEMERGENCY LUMINAIRES (SWITCHED OR DIMMING) WITHIN GIVEN AREA DURING NORMAL MODE UNLESS NOTED OTHERWISE.
3. CLOSED AREAS (CLASSROOMS / OFFICES) DURING AFTERHOURS MODE THE EMERGENCY LIGHTING SHALL TURN OFF AND FUNCTION WITH THE LOCAL ROOM CONTROLS.
4. RESTROOMS AND LOBBIES, DURING AFTERHOURS THE EMERGENCY LIGHTING SHALL DIM DOWN TO 30%, AND THEN FUNCTION WITH THE LOCAL ROOM CONTROLS TO TURN BACK ON 100%.
5. LUMINAIRES DENOTED 'NL' ARE TO BE UNSWITCHED AND REMAIN ON AT ALL TIMES.

PANELBOARD: LA

LOCATION: SERVER ROOM 117
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/240 Single
PHASES: 1
WIRES: 3
GROUND BUS: YES
NEUTRAL BUS: YES
A.I.C. RATING: 22,000 AMPS SYMMETRICAL
MAINS TYPE: MLO
MAINS RATING: 600 A
FEED THRU LUGS: YES

CKT	CIRCUIT DESCRIPTION	LOAD CLASSIFICATION	TRIP	POLES	A		B		POLES	TRIP	LOAD CLASSIFICATION	CIRCUIT DESCRIPTION	CKT
1	BREAKROOM/RR CKT	Receptacle	20 A	1	900	180			1	20 A	Receptacle	BREAK ROOM 1 CKT #1	2
3	RANGE	Receptacle	20 A	1			180	180	1	20 A	Receptacle	BREAK ROOM 1 CKT #2	4
5	REFRIGERATOR #1	General	20 A	1	800	900			1	20 A	Receptacle	CONSTABLE CKT	6
7	JUDGE CKT	Receptacle	20 A	1			900	180	1	20 A	Receptacle	BREAK ROOM 2 CKT #3	8
9	BREAK ROOM 2 CKT #2	Receptacle	20 A	1	180	800			1	20 A	General	REFRIGERATOR #2	10
11	BREAK ROOM 2 CKT #1	Receptacle	20 A	1			180	800	1	20 A	General	FREEZER	12
13	BREAK ROOM 2 CKT #4	General	20 A	1	900	720			1	20 A	Receptacle	COURTROOM CKT #1	14
15	STORAGE/SERVER ROOM...	Receptacle	20 A	1			1080	720	1	20 A	Receptacle	JURY/CONFERENCE...	16
17	CIRCULATION HALL CKT #1	Receptacle	20 A	1	720	720			1	20 A	Receptacle	MEN'S RESTROOM 1 &...	18
19	CLERK 1 CKT #1	Receptacle	20 A	1			900	900	1	20 A	Receptacle	CLERK 2 CKT	20
21	EWC	General	20 A	1	300	360			1	20 A	Receptacle	MAINTENANCE...	22
23	EF-1	Motor	15 A	1			336	828	1	20 A	Lighting	EXTERIOR LTG	24
25	INTERIOR LTG	Lighting	20 A	1	592	887			1	20 A	Lighting	INTERIOR LIGHTING	26
27	EXTERIOR LTG	Lighting	20 A	1			300	1056					28
29	AHU-1 CKT #1 2#4, 1#10G, 1"C	Heating	60 A	2	5280	1056			2	30 A	Cooling	MSCU-1	30
31							5280	4128					32
33	AHU-1 CKT #2	Heating	25 A	2	2400	4128			2	45 A	Heating	AHU-2 2#6, 1#10G, 3/4"C	34
35							2400	5664					36
37	AHU-4 CKT #2 2#6, 1#10G, 3/4"C	Heating	50 A	2	4800	5664			2	60 A	Heating	AHU-3 CKT #1 2#4, 1#10G, 1"C	38
39							4800	4800					40
41	AHU-4 CKT #1 2#4, 1#10G, 1"C	Heating	60 A	2	5664	4800			2	50 A	Heating	AHU-3 CKT #2 2#6, 1#10G, 3/4"C	42
43							5664	336	1	15 A	Motor	EF-2	44
45	EF-3	Motor	15 A	1	38	864			2	20 A	Cooling	CU-2	46
47	CU-1	Cooling	40 A	2			2496	864					48
49					2496	2880			2	50 A	Cooling	CU-4 2#6, 1#10G, 3/4"C	50
51	CU-3 2#6, 1#10G, 3/4"C	Cooling	50 A	2			2880	2880					52
53					2880	3000							54
55	OVEN	General	20 A	1			500	3000	2	35 A	Heating	EWH-1	56
57	BREAK ROOM 1 CKT #3	Receptacle	20 A	1	180	180			1	20 A	Receptacle	COURTROOM CKT #2	58
59	LOBBY CKT #1	Receptacle	20 A	1			540	720	1	20 A	Receptacle	CLERK 1 CKT #2	60
61	GRINDER PUMP	Motor	20 A	2	1800	360			1	20 A	Receptacle	SERVER ROOM CKT #1	62
63							1800	0	1	20 A	--	SPARE	64
65	SERVER ROOM CKT #2	Receptacle	20 A	1	360	0			1	20 A	--	SPARE	66
67	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	68
69	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	70
71	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	72
73	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	74
75	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	76
77	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	78
79	SPACE	--	--	1			--	--	1	--	--	SPACE	80
81	SPACE	--	--	1	--	--			1	--	--	SPACE	82
83	SPACE	--	--	1			--	--	1	--	--	SPACE	84
			TOTAL LOAD:		57724 VA		57277 VA						
			TOTAL AMPS:		481 A		477 A						

LOAD SUMMARY

LOAD CLASSIFICATIONS	CONNECTED LOAD	DESIGN FACTOR	DESIGN LOAD	PANELBOARD TOTALS	
Lighting	2581 VA	125.00%	3226 VA		
Receptacle	12240 VA	90.85%	11120 VA	**TOTAL CONNECTED LOAD:**	115001 VA
General	4100 VA	100.00%	4100 VA	**TOTAL DESIGN LOAD:**	95265 VA
Data	0 VA	0.00%	0 VA		
Motor	4310 VA	120.88%	5210 VA	**TOTAL CONNECTED CURRENT:**	479 A
Cooling	20352 VA	1.00%	204 VA	**TOTAL DESIGN CURRENT:**	397 A
Heating	71472 VA	100.00%	71472 VA		
Kitchen	0 VA	0.00%	0 VA		
Other	0 VA	0.00%	0 VA		
Spare	0 VA	0.00%	0 VA		

NOTES:
1. * DENOTES GFI CIRCUIT BREAKER
2. PROVIDE UL LISTED LOCKABLE CIRCUIT BREAKER FOR ALL WATER HEATERS AND INSTANTANEOUS WATER HEATERS. LOCKING MECHANISM SHALL BE INTEGRAL TO THE CIRCUIT BREAKER.
3. FOR THE FOLLOWING STANDARD CIRCUIT BREAKER SIZES, PROVIDE THE FOLLOWING MINIMUM CONUCTOR AND CONDUIT SIZE UNLESS NOTED OTHERWISE:
   20A - #12, 3/4" CONDUIT, 25A & 30A - #10, 3/4" CONDUIT, 35 & 40A - #8, #10G, 3/4" CONDUIT

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5600 Tennyson Parkway
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Texas Registered Engineering Firm # F-18652

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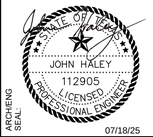
F-324



ARCHENG SEAL

07/18/25

LYNNENGINEERING
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BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:

JP OFFICE
SARGENT, TX.
ELECTRICAL SCHEDULES

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
SR.	JH	SR.	20.105017

PRINTED

DATE	REMARKS
07/18/25	ISSUE FOR PERMIT

REVISIONS

NO.	REMARKS

SHEET NO:

E-701

PLUMBING SPECIFICATIONS

I. GENERAL CONDITIONS

A. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY THIS CONTRACTOR SHALL CONFIRM TO ALL APPLICABLE, FEDERAL, STATE AND LOCAL BUILDING CODES.

B. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE U.L. LABEL WHERE APPLICABLE UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER.

C. CONTRACTOR SHALL INSTALL PLUMBING SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH OTHER TRADES.

D. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND THE OWNER IN WRITING OF SUCH DIFFERENCE. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, CONTRACTOR SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SPECIFIED ITEMS IN THE CONTRACT DOCUMENTS WITHOUT NOTIFICATION TO THE ENGINEER, CONTRACTOR SHALL BEAR ALL COSTS TO UPGRADE DEFICIENCIES ARISING FROM SUCH.

E. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND DEPTH OF ALL PIPING BELOW SLAB PRIOR TO SAW CUTTING. SAW CUT ONLY WHERE NECESSARY TO INSTALL NEW PIPING AND DOWEL REPAIRED SECTION INTO ADJACENT EXISTING SLAB AND MAKE FLUSH WITH FINISHED FLOOR.

II. PRODUCT AND EXECUTION

A. SANITARY DRAIN LINES (SOIL, WASTE AND VENT) SHALL BE SERVICE WEIGHT CAST IRON OR DWV COPPER PIPE. JOINTS SHALL BE FABRICATED BY THE USE OF COMPRESSION JOINTS SIMILAR TO TYLER PIPE AND FOUNDRY'S "TY-SEAL" FOR CAST IRON PIPE OR SOLDER FOR DWV COPPER PIPE. NO-HUB CAST IRON PIPE ASSEMBLED WITH STAINLESS STEEL/NEOPRENE HUBLESS COUPLINGS SHALL BE LIMITED TO ABOVE GROUND INSTALLATIONS, OR AT THE CONTRACTORS OPTION, UNDERGROUND WASTE PIPING MAY BE, IF CODE APPROVED, AMERICAN MANUFACTURED ASTM D-2665 SCHEDULE 40 PVC PIPE, MANUFACTURED WITH VIRGIN RESINS, AND ASSEMBLED WITH CHEMICALLY WELDED PVC JOINTS IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.

B. DOMESTIC WATER PIPING ABOVE GROUND SHALL BE AMERICAN MANUFACTURED TYPE "L" HARD DRAWN COPPER ASSEMBLED WITH 95/5 SOLDER JOINT FITTINGS.

C. DOMESTIC WATER PIPING BELOW GROUND SHALL BE AMERICAN MANUFACTURED TYPE "K" COMMERCIALLY PURE SOFT COPPER. AVOID USING JOINTS UNDER SLAB - SHOULD JOINTS BE REQUIRED, ASSEMBLED WITH 95/5 SOLDER JOINT FITTINGS.

D. FURNISH AND INSTALL ALL REQUIRED WATER, WASTE, SOIL, AND VENT CONNECTIONS TO ALL PLUMBING FIXTURES AND EQUIPMENT, TOGETHER WITH ALL FITTINGS, SUPPORTS, FASTENING DEVICES, COCKS, VALVES, TRAPS, ETC., LEAVING ALL IN COMPLETE WORKING ORDER.

E. PIPE, EQUIPMENT, ETC., SHALL BE PROPERLY SUPPORTED FROM STRUCTURE WITH THE USE OF APPROVED TYPE CLEVIS, TRAPEZE HANGERS OR FLOOR STANDS WITH SPACING AS FOLLOWS. COORDINATE WITH STRUCTURAL REQUIREMENTS:
1. STEEL PIPE - 8 FOOT INTERVALS.
2. COPPER TUBING - 1-1/4" OR LESS, 6 FOOT INTERVALS.
3. CAST IRON - ONE (1) HANGER PER LENGTH OF PIPE AND NOT EXCEEDING 10'-0" O.C.
4. FITTINGS - WITHIN 2'-0" OF EACH CHANGE OF DIRECTION.

F. INSULATION SHALL BE PROTECTED AT HANGERS.

G. PROVIDE AND INSTALL UNIONS AT PROPER POINTS TO PERMIT REMOVAL OF A PIPE, EQUIPMENT, ETC., WITHOUT INJURY TO OTHER PARTS OF THE SYSTEM AND TO PREVENT CORROSION DUE TO ELECTROLYSIS. ALL EQUIPMENT SHALL BE INSTALLED IN A MANNER TO PERMIT ACCESS FOR SERVICE WITHOUT DISASSEMBLY. UNIONS SHALL BE DIELECTRIC WHERE DISSIMILAR MATERIALS OCCUR. PRESSURE RATINGS SAME AS FITTINGS.

H. ISOLATION VALVES FOR DOMESTIC WATER SYSTEMS SHALL BE EQUAL TO TWO PIECE COPPER-ALLOY BALL VALVES.

I. INSULATION, JACKETS, ADHESIVE, ETC., SHALL HAVE A COMPOSITE FLAME SPREAD RATING NOT OVER 25 AND A SMOKE DEVELOPED RATING NOT OVER 50.

J. ALL DOMESTIC COLD WATER AND HOT WATER PIPE AND FITTINGS SHALL BE INSULATED WITH, 1/2" THICK FOR COLD WATER PIPE AND 1" THICK FOR HOT WATER PIPE, OWENS-CORNING FIBERGLASS 25 ASJ/SSL OR APPROVED EQUAL EXCEPT HORIZONTAL BRANCH PIPING WITHIN THE PIPE CHASE WILL NOT REQUIRE INSULATION EXCEPT THAT PIPING ADJACENT TO AN EXTERIOR WALL SHALL BE INSULATED INCLUDING THE AIR CHAMBERS AND HYDRAULIC SHOCK ABSORBERS. COLD WATER PIPE/FITTINGS TO HAVE VAPOR BARRIER.

K. CONDENSATE DRAIN SHALL BE INSULATED WITH 1/2" THICK OWENS-CORNING FIBERGLASS 25 ASJ/SSL OR EQUAL. AUXILIARY DRAIN PAN SHALL BE INSULATED WITH 3/8" THICK ARMAFLEX "AP" 25/50 SHEET INSULATION.

L. FITTINGS AND PIPING CONNECTED WITH PLUMBING FIXTURES SHALL BE BRASS AND, WHEREVER EXPOSED, SHALL BE POLISHED CHROME-PLATED.

III. RECORDS FOR THE OWNER

A. CONTRACTOR SHALL KEEP A CLEAN SET OF DRAWINGS ON THE JOB, NOTING DAILY ALL CHANGES MADE IN THESE DRAWINGS IN CONNECTION WITH THE FINAL INSTALLATION INCLUDING EXACT DIMENSIONED LOCATIONS OF ALL NEW AND UNCOVERED EXISTING UTILITIES AND SHALL TURN OVER A CLEAN, NEATLY MARKED SET OF REPRODUCIBLES SHOWING "AS INSTALLED" WORK TO THE ARCHITECT FOR SUBSEQUENT REVIEW AND TRANSMITTAL TO THE OWNER. CONTRACTOR SHALL NOTE ALL CONSTRUCTION CHANGES, DATE EACH SHEET AND LABEL "AS-BUILTS" IN THE REVISION BLOCK ON THE DRAWINGS. CONTRACTOR SHALL ALSO FURNISH ONE (1) SET OF BLUELINE PRINTS FROM THE "AS-BUILTS" REPRODUCIBLE DRAWINGS.

B. IN ADDITION TO THE ABOVE, CONTRACTOR SHALL ACCUMULATE DURING THE JOB'S PROGRESS, THE FOLLOWING DATA, IN TRIPLICATE, PREPARED IN A NEAT BROCHURE OR PACKET FOLDER AND TURNED OVER TO THE ARCHITECT FOR REVIEW AND SUBSEQUENT DELIVERY TO THE OWNER.

1. ALL WARRANTIES AND GUARANTEES AND MANUFACTURER'S DIRECTIONS ON EQUIPMENT AND MATERIAL COVERED BY THE CONTRACT INCLUDING THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF THE MANUFACTURER'S REPRESENTATIVE.
2. APPROVED FIXTURE BROCHURES, WIRING DIAGRAMS AND CONTROL DIAGRAMS (ORIGINAL DATA, NO COPIES).
3. COPIES OF APPROVED SHOP DRAWINGS.
4. TEST AND BALANCE REPORTS REQUIRED BY THESE SPECIFICATIONS.
5. ANY AND ALL OTHER DATA AND/OR DRAWINGS REQUIRED DURING CONSTRUCTION.
6. REPAIR PARTS LISTS OF ALL MAJOR ITEMS AND EQUIPMENT INCLUDING NAME ADDRESS AND TELEPHONE NUMBERS OF LOCAL SUPPLIER OR AGENT.

C. ALL OF THE ABOVE DATA SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW LESS THAN TWO WEEKS BEFORE FINAL INSPECTION.

PLUMBING SYMBOLS LEGEND

PLUMBING PIPE FITTINGS		PLUMBING PIPING		PLUMBING VALVE SYMBOLS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
A	AUTOMATIC AIR VENT	A	COMPRESSED AIR		BALL VALVE
CO	CLEANOUT	CD	CONDENSATE DRAIN		BUTTERFLY VALVE
DCO	DOUBLE CLEANOUT	DI	DEIONIZED WATER		CHECK VALVE
FCO	FLOOR CLEANOUT	CW	DOMESTIC COLD WATER		GATE VALVE
GCO	GRADE CLEANOUT	HW	DOMESTIC HOT WATER		GLOBE VALVE
	CONCENTRIC REDUCER	HWR	DOMESTIC HOT WATER RETURN		OS&Y VALVE
	ECCENTRIC REDUCER	FW	FILTERED WATER		PLUG VALVE
	ELBOW	FOS	FUEL OIL SUPPLY		PRESSURE REDUCTING VALVE
	ELBOW DOWN	FOR	FUEL OIL RETURN	S	SOLENOID VALVE
	ELBOW UP	G	GAS: LOW PRESSURE		THERMOSTATIC MIXING VALVE
	END CAP	MPG	GAS: MEDIUM PRESSURE		UNION
	FLOOR DRAIN	GW	GREASE WASTE		VALVE IN DROP
	FLOOR SINK	IW	INDUSTRIAL WASTE		
	TEE SANITARY	O	OXYGEN	FIRE PROTECTION SYMBOLS	
	TEE DOWN	NO	NITROUS OXIDE	SYMBOL	DESCRIPTION
	TEE UP	SD	STORM DRAIN	FDC	FIRE DEPARTMENT CONNECTION PIPING
	TEMPERATURE GAUGE	SAN	SANITARY WASTE	TH	TEST HEADER PIPING
	WATER HAMMER ARRESTER	TP	TRAP PRIMER LINE	SP	STANDPIPE
	GAS REGULATOR		VENT	F	FIRE LINE
	HOSB BIBB / NFWH				FIRE HYDRANT
	WALL CLEANOUT				SIAMESE HOSE CONNECTION

COMMISSIONING NOTES

MECHANICAL AND ELECTRICAL SYSTEM COMMISSIONING PER INTERNATIONAL ENERGY CODE (IECC) SECTION C408

THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A REGISTERED PROFESSIONAL ENGINEER TO COMMISSION THE NEW MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS DESIGNED AND SPECIFIED FOR THIS PROJECT.

THE REGISTERED PROFESSIONAL ENGINEER SHALL DEVELOP A COMMISSIONING PLAN AND ACT AS THE PROJECT'S COMMISSIONING AUTHORITY. THE COMMISSIONING PLAN AND ACTIVITIES SHALL INCLUDE THE FOLLOWING:

1. A NARRATIVE DESCRIBING THE ACTIVITIES TO ACCOMPLISH DURING EACH COMMISSIONING PHASE.
2. PUBLISHED START-UP, PRE-FUNCTIONAL AND FUNCTIONAL TESTING FORMS AND SCRIPTS FOR EACH SPECIFIC EQUIPMENT, APPLIANCE AND SYSTEM. THE COMMISSIONING PLAN SHALL SATISFY THE REQUIREMENTS OF IECC SECTION C408 FOR FUNCTIONAL PERFORMANCE TESTING.
3. THE COMMISSIONING AUTHORITY SHALL MAINTAIN AN OPEN ISSUE LOG ITEMIZING DEFICIENCIES FOUND DURING SITE VISITS AND COMMISSIONING ACTIVITIES. THE COMMISSIONING AUTHORITY SHALL PUBLISH THIS OPEN ISSUE LOG AND COMPLETED COMMISSIONING FORMS TO THE BUILDING OWNER AT THE COMPLETION OF THE COMMISSIONING ACTIVITIES.
4. THE COMMISSIONING AUTHORITY IS RESPONSIBLE FOR ASSEMBLING AND ISSUING TO THE BUILDING OWNER THE FOLLOWING DOCUMENTATION WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATION OF OCCUPANCY:
   A. EQUIPMENT OPERATIONS AND MAINTENANCE MANUALS INCLUDING THE INFORMATION PER IECC SECTION C408.2.5.2.
   B. SYSTEMS' TESTING AND BALANCING REPORTS.
   C. FINAL COMMISSIONING REPORT.

THE FOLLOWING MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE INCLUDED IN THE COMMISSIONING PLAN:

1. ROOFTOP UNITS AND MINISPLIT FAN COIL UNITS AND CONTROLS.
2. INSTANTANEOUS WATER HEATER.
3. LIGHTING CONTROLS.

GENERAL PLUMBING NOTES

A. ALL BELOW GRADE TIE-INS TO HAVE SOLVENT JOINTS.

B. ALL BELOW GRADE PIPING TO BE BEDDED WITH SAND.

C. TRENCHES ARE TO BE COMPACTED AT BACKFILL.

D. ALL OVERHEAD PIPING IS TO BE HUNG PROPERLY TO STRUCTURE.

E. ALL FLOOR DRAINS, FLOOR SINKS AND HUB DRAINS ARE TO BE PROVIDED WITH AN APPROVED TRAP GUARD.

F. PROVIDE SHUT-OFF VALVES FOR EACH APPLIANCE AND FIXTURE IN ACCESSIBLE LOCATIONS. REFRIGERATOR ICEMAKERS SHALL BE PROVIDED WITH REFABRICATED ICEMAKER SUPPLY BOX (ISB) CONNECTION. PROVIDE SHUT-OFF VALVES TO ISOLATE GROUPS OF TWO OR MORE FIXTURES COMPLETE WITH VALVE ACCESS PANEL LOCATED WITHIN THE CHASE WALL OF THE ACCESSIBLE WATER CLOSET OR NEAR TO THE UNDERSIDE OF LAVATORY COUNTERTOPS.

G. PROVIDE ISOLATION BALL VALVE IN ACCESSIBLE LOCATION TO CONTROL THE WATER SUPPLY TO INDIVIDUAL WALL HYDRANTS, HOSE BIBBS AND NON-FREEZE ROOF HYDRANTS.

H. PROVIDE HYDRAULIC SHOCK ABSORBERS FOR WATER SUPPLIES SERVING FLUSH VALVE WATER CLOSETS AND URINALS. SIZE AND PLACEMENT SHALL BE IN ACCORDANCE WITH P.D.I. STANDARDS.

I. PROVIDE INDIRECT WASTE PIPING FOR APPLIANCES WITH DRAIN CONNECTIONS AND ROUTE TO INDIRECT WASTE RECEPTOR.

GENERAL PIPING NOTES

A. PROVIDE PIPING INSULATION ON ALL CW/HW, HWR AND CONDENSATE PIPING.
CW - 1/2" INSULATION
HW/HWR - 1" INSULATION
CONDENSATE - 1/2" INSULATION

B. PROVIDE PIPE SHEILDS (SADDLES) AT ALL HANGER LOCATIONS.

PLUMBING ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AD	AREA DRAIN	I.E.	INVERT ELEVATION
AFC	AUTOMATIC FLOW CONTROL	IW	INDIRECT WASTE
AFF	ABOVE FINISHED FLOOR	IWH	INSTANTANEOUS WATER HEATER
AHR	AIR HOSE REEL	L	LAVATORY
AP	ACCESS PANEL	MPG	MEDIUM PRESSURE GAS
BD	BLOWDOWN	MB	MOP BASIN
BFP	BACK FLOW PREVENTER	MS	MOP SINK
BV	BALANCE VALVE	MUV	AUTOMATIC MAKE-UP VALVE
CB	CATCH BASIN	NF	NON-FREEZE
CD	CONDENSATE	NPW	NON POTABLE WATER
CI	CAST IRON	OD	OVERFLOW DRAIN
CL	CENTERLINE	OSD	OPEN SITE DRAIN
CW	DOMESTIC COLD WATER	OS&Y	OUTSIDE SCREW & YOKE
DCO	DOUBLE CLEANOUT	PIV	POST INDICATOR VALVE
DF	DRINKING FOUNTAIN	RD	ROOF DRAIN
DS	DOWNSPOUT	RECIRC	RECIRCULATING
DSN	DOWNSPOUT NOZZLE	RH	ROOF HYDRANT
ET	EXPANSION TANK	RIV	ROOF INTAKE VENT
EEW	EMERGENCY EYE WASH	RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
EWC	ELECTRIC WATER COOLER	RRV	ROOF RELIEF VENT
EWH	ELECTRIC WATER HEATER	SAN	SANITARY
ETP	ELECTRONIC TRAP PRIMER	SH	SHOWER HEAD
FCO	FLOOR CLEANOUT	SD	SHOWER DRAIN
FD	FLOOR DRAIN	SK	SINK
FDC	FIRE DEPARTMENT CONNECTION	SS	SERVICE SINK
FHR	FIRE HOSE RACK	TD	TRENCH DRAIN
FHV	FIRE HOSE VALVE	TP	TRAP PRIMER
FLE	FLOW LINE ELEVATION	TYP	TYPICAL
FS	FLOOR SINK	UR	URINAL
GCO	GRADE CLEANOUT	V	SANITARY VENT
GW	GREASE WASTE	VS	VENT STACK
GWH	GAS WATER HEATER	VTR	VENT THRU ROOF
GV	GREASE VENT	WC	WATER CLOSET
HB	HOSE BIBB	WCO	WALL CLEANOUT
HD	HUB DRAIN	WF	WASH FOUNTAIN
HTG	HEATING	WH	WALL HYDRANT
HSA	HYDRAULIC SHOCK ABSORBER	WHA	WATER HAMMER ARRESTOR
HW	DOMESTIC HOT WATER	WS	WASTE STACK
HWR	DOMESTIC HOT WATER RETURN	YH	YARD HYDRANT

NOTE: NOT ALL ABBREVIATIONS USED

F-324

STATE OF TEXAS BRIAN LAKE 150738 LICENSED PROFESSIONAL ENGINEER

ARCHENG SEAL

07/18/25

LYNNENGINEERING
2200 AVENUE A
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PH: (979) 245-8900

PROJECT NAME / LOCATION:

JP OFFICE
SARGENT, TX.
PLUMBING COVER SHEET

CUSTOMER NAME:

MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
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Suite 240
Plano, Texas 75024
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Texas Registered Engineering Firm # F-18652

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KEYNOTE LEGEND

#	NOTE
1	POINT OF CONNECTION AT 5'-0" OUTSIDE OF BUILDING. CONTRACTOR TO MAKE ALL FINAL CONNECTIONS OF UTILITY PIPING TO CIVIL STUB-OUTS. REFER TO CIVIL DOCUMENTS FOR CONNECTION LOCATIONS.
2	2" VENT UP.
3	1-1/2" DOMESTIC COLD WATER TO RPZ BACKFLOW PREVENTER AND METER ON SITE. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
4	2" WASTE FROM ABOVE.
5	4" WASTE FROM ABOVE.
6	3" WASTE FROM ABOVE.

GENERAL PLUMBING NOTES

A. PROVIDE PENETRATIONS THROUGH SLAB SEALED WATER TIGHT.

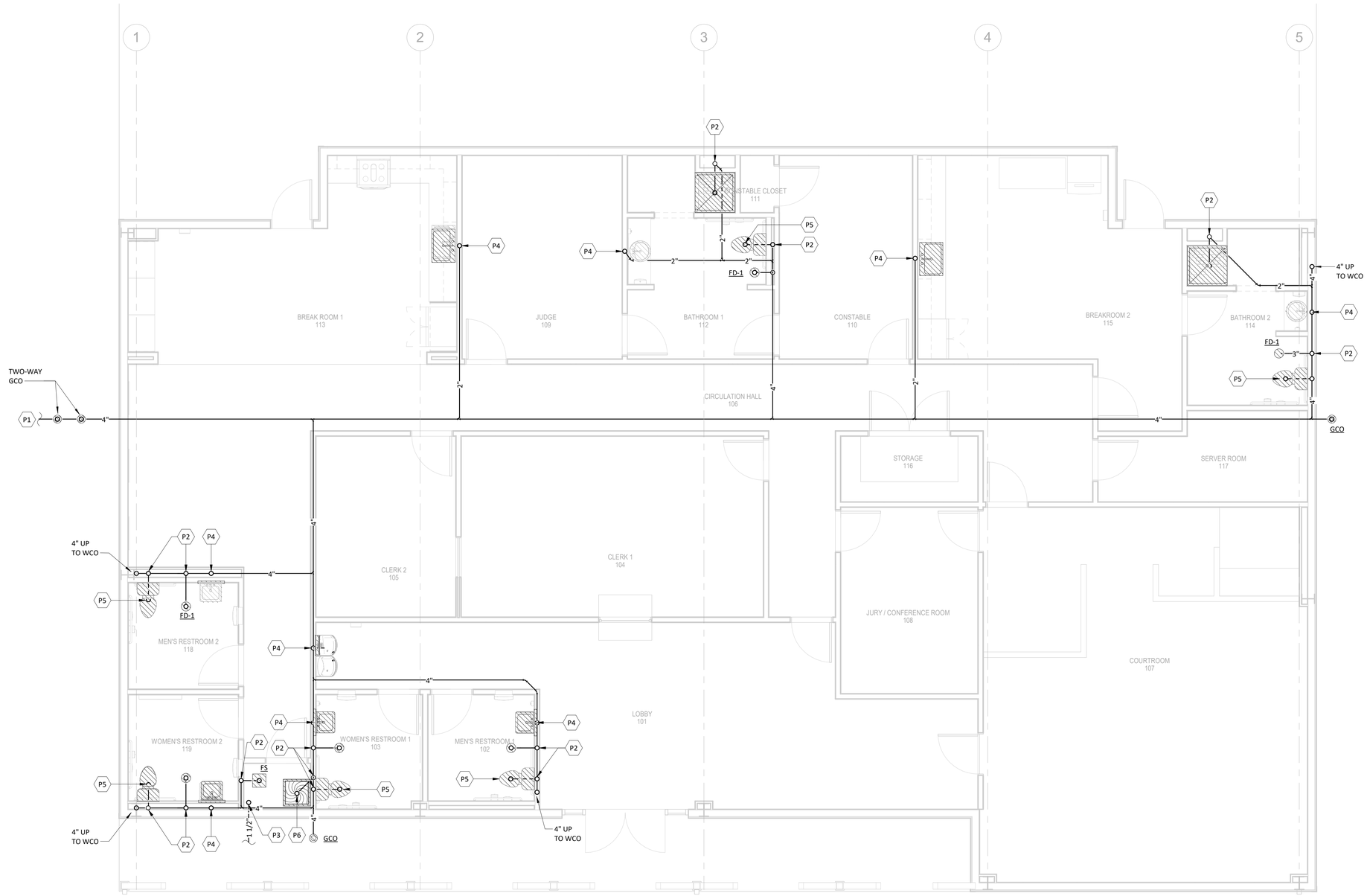
B. COORDINATE PIPING PENETRATIONS OF GRADE BEAMS AND SLAB WITH ARCHITECTURAL AND STRUCTURAL CONSULTANTS.

C. PROVIDE STRUCTURAL PIPE SLEEVES FOR PIPING WHICH PENETRATES OR CROSSES BENEATH GRADE BEAMS OR ANY LOAD BEARING ELEMENT.

D. PROVIDE FIRE STOP AROUND PIPE PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS.

E. SLOPE ALL HORIZONTAL DRAINAGE PIPING 3" AND LARGER AT 1/8" PER FOOT MINIMUM, UNLESS OTHERWISE NOTED.

F. DO NOT ROUTE WATER, SANITARY OR VENT PIPING ABOVE SERVER OR ELECTRICAL EQUIPMENT.



N

1 UNDERFLOOR PLAN - PLUMBING
1/4" = 1'-0"
PLAN

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STATE OF TEXAS
BRIAN LAKE
150738
LICENSED PROFESSIONAL ENGINEER
07/18/25

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PROJECT NAME / LOCATION:
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SARGENT, TX.
UNDERFLOOR PLAN - PLUMBING

CUSTOMER NAME:
MATAGORDA COUNTY

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KEYNOTE LEGEND

#	NOTE
1	3/4" CW/HW DOWN TO WATER HEATER (WH-1) & 3/4" HWR DOWN TO HWRP-1. REFER 051/P501.01. EXTEND 3/4" CW/HW TO MS.
2	1/2" CW DOWN TO PLUMBING FIXTURE(S).
3	1/2" CW DOWN TO WALL BOX (WB).
4	1/2" CW/HW DOWN TO PLUMBING FIXTURE(S).
5	3/4" HOT WATER LOOP ROUTED UP PLUMBING WALL TO MAINTAIN A MAX OF 24" INCHES OF PIPING BETWEEN THE LAVATORY FAUCET AND THE TAP OFF OF THE RECIRCULATED LOOP. CONNECT 1/2" CW/HW TO LAVATORY.

GENERAL PLUMBING NOTES

A. ABOVE GRADE WATER PIPING SHALL BE TYPE L COPPER. CONDENSATE DRAIN LINES SHALL BE DWV COPPER. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL. REFER TO SPECIFICATIONS SECTION FOR ADDITIONAL DETAILS.

B. ALL POTABLE WATER SYSTEMS SHALL BE DISINFECTED ACCORDING TO LOCAL CODES.

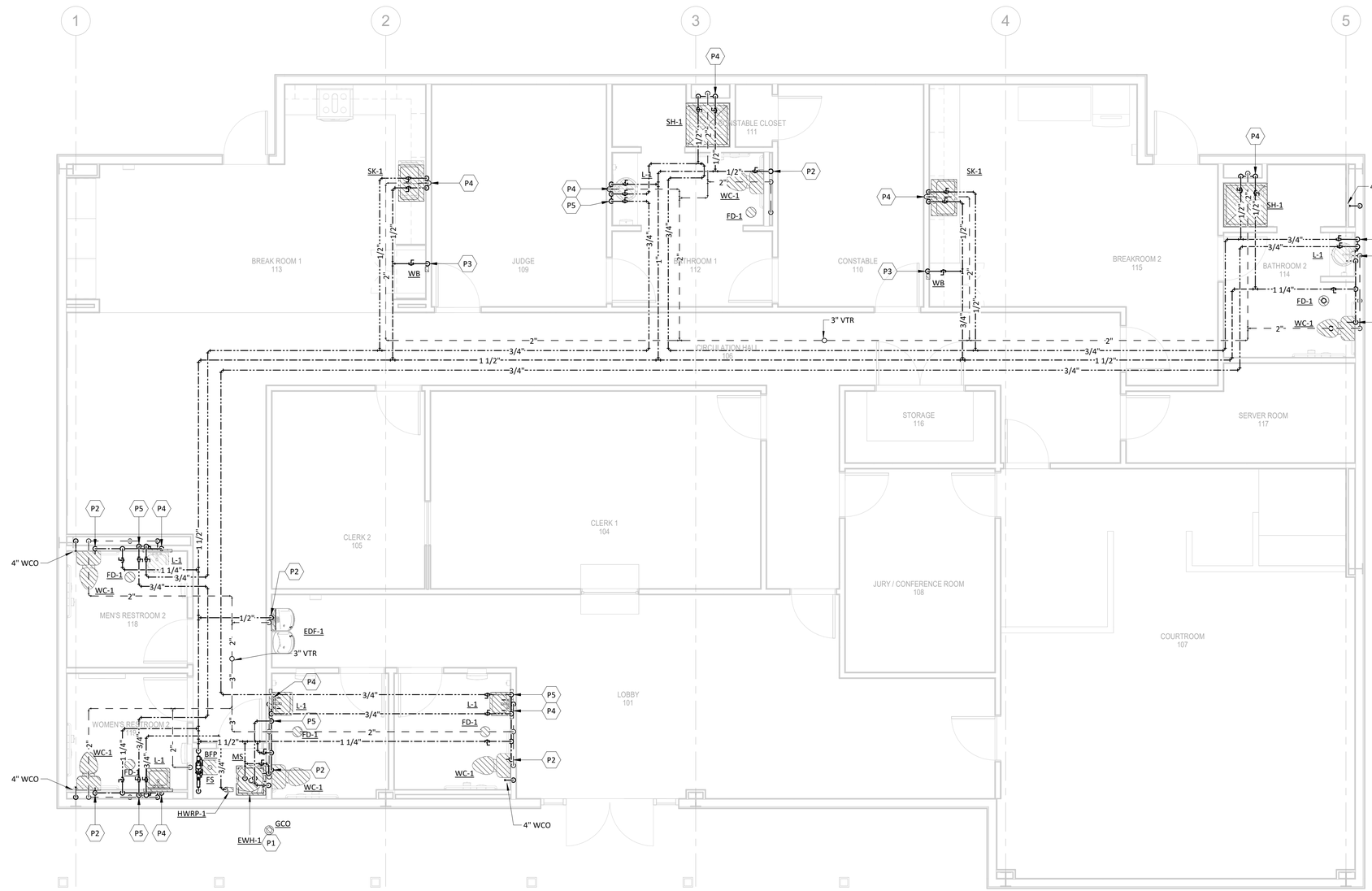
C. ALL EXPOSED DRAIN AND WATER LINES SHALL BE COPPER.

D. SPILL 3/4" CONDENSATE DRAIN FROM EACH AIR HANDLING UNIT INTO FLOOR DRAIN OR ACCEPTABLE INDIRECT RECEPTACLE WITH OPEN SITE CONNECTION.

E. PLUMBING SYSTEM INCLUDING FIXTURES AND PIPING SHOWN ON THE DRAWINGS IS ONLY DIAGRAMMATIC AND ALL ITEMS INCLUDING NECESSARY FITTINGS REQUIRED SHALL BE PROVIDED TO MAKE THE SYSTEM COMPLETE AND IN SAFE WORKING ORDER, AND SHALL BE COORDINATED WITH OTHER TRADES.

F. NUMBERS IN PARENTHESIS ON GAS PIPING DENOTE TOTAL CONNECTED LOAD IN CFH.

G. INSTALL ALL VENT THROUGH THE ROOFS ON BACK SIDE ROOF AWAY FROM THE ROAD WHEN EVER POSSIBLE.



N

1 FLOOR PLAN - PLUMBING
1/4" = 1'-0"

PLAN

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SARGENT, TX.
FLOOR PLAN - PLUMBING

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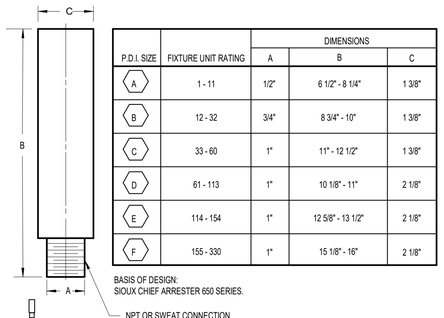
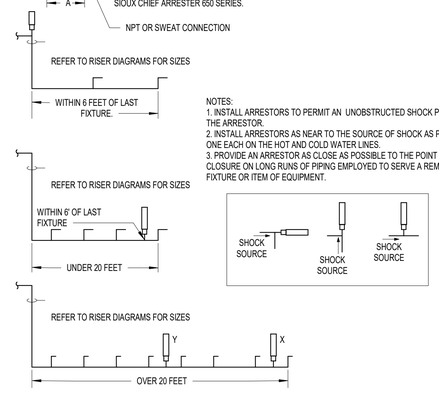
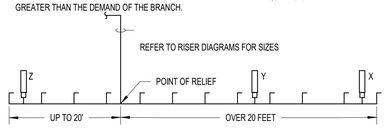


P.D.I. SIZE	FIXTURE UNIT RATING	DIMENSIONS		
		A	B	C
A	1 - 11	1/2"	6 1/2" - 8 1/4"	1 3/8"
B	12 - 32	3/4"	8 3/4" - 10"	1 3/8"
C	33 - 60	1"	11" - 12 1/2"	1 3/8"
D	61 - 113	1"	10 1/8" - 11"	2 1/8"
E	114 - 154	1"	12 5/8" - 13 1/2"	2 1/8"
F	155 - 330	1"	15 1/8" - 16"	2 1/8"



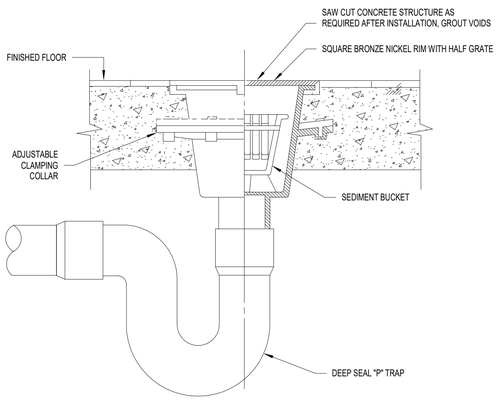
NOTES:
1. INSTALL ARRESTORS TO PERMIT AN UNOBSTRUCTED SHOCK PATH TO THE ARRESTOR.
2. INSTALL ARRESTORS AS NEAR TO THE SOURCE OF SHOCK AS POSSIBLE - ONE EACH ON THE HOT AND COLD WATER LINES.
3. PROVIDE AN ARRESTOR AS CLOSE AS POSSIBLE TO THE POINT OF QUICK CLOSURE ON LONG RUNS OF PIPING EMPLOYED TO SERVE A REMOTE FIXTURE OR ITEM OF EQUIPMENT.

THE SUM OF THE FIXTURE UNIT RATINGS OF UNITS X AND Y SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF THE BRANCH.

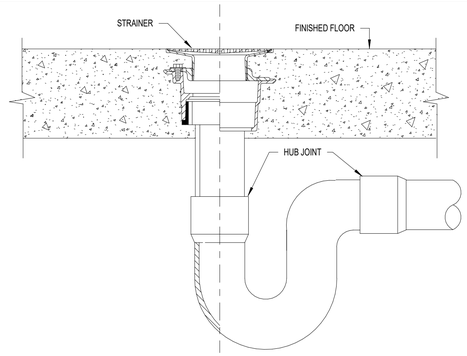


THE SUM OF THE FIXTURE UNIT RATINGS OF UNITS X AND Y SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF THE BRANCH OVER 20 FEET.

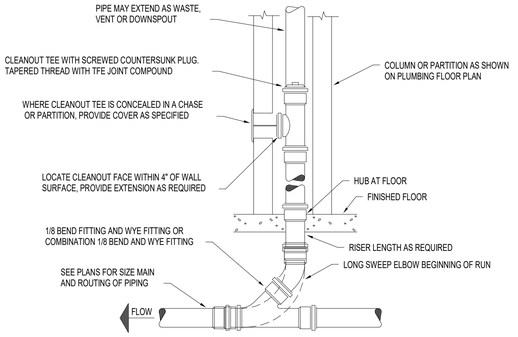
7 WATER HAMMER ARRESTORS
3" = 1'-0"



9 FLOOR SINK DETAIL
N.T.S.

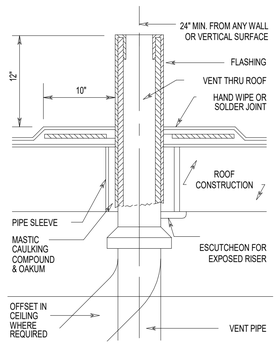


4 FLOOR DRAIN DETAIL
N.T.S.

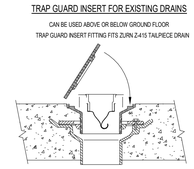


NOTE:
PROVIDE WCO AT BASE OF ALL ROOF DRAINAGE DOWNSPOUTS. PROVIDE WCO WHERE SHOWN ON PLUMBING FLOOR PLANS, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH FLOOR CLEANOUT. MAXIMUM HEIGHT ABOVE FINISHED FLOOR 4'-0".

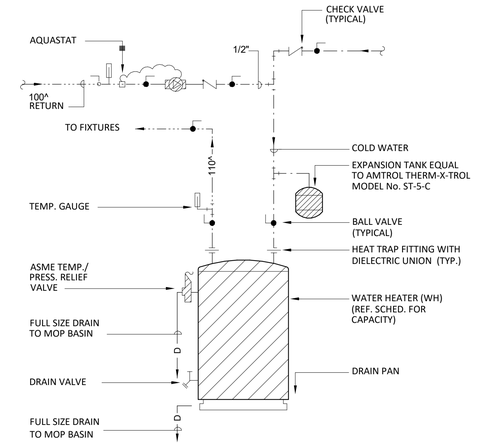
5 WALL CLEANOUT DETAIL
N.T.S.



6 VENT THRU ROOF DETAIL
N.T.S.

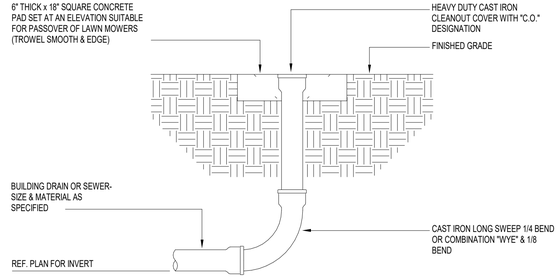


8 TRAP GUARD INSERT DETAIL
N.T.S.

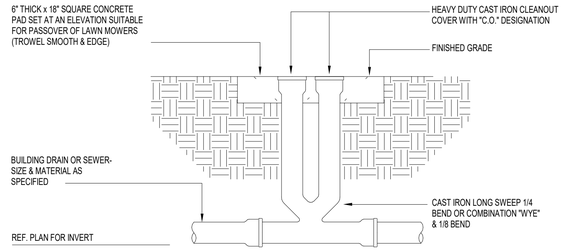


NOTE:
1. WATER HEATER TO BE PROVIDED WITH LOW TEMPERATURE THERMOSTAT CAPABLE OF MAINTAINING A WATER TEMPERATURE OF 90° F.
2. PROVIDE MOISTURE DETECTION SYSTEM IN DRAIN PAN.

1 WATER HEATER PIPING DIAGRAM
NTS



2 GRADE CLEANOUT DETAIL
N.T.S.



3 2-WAY GRADE CLEANOUT DETAIL
N.T.S.

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JP OFFICE
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PLUMBING DETAILS

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MATAGORDA COUNTY

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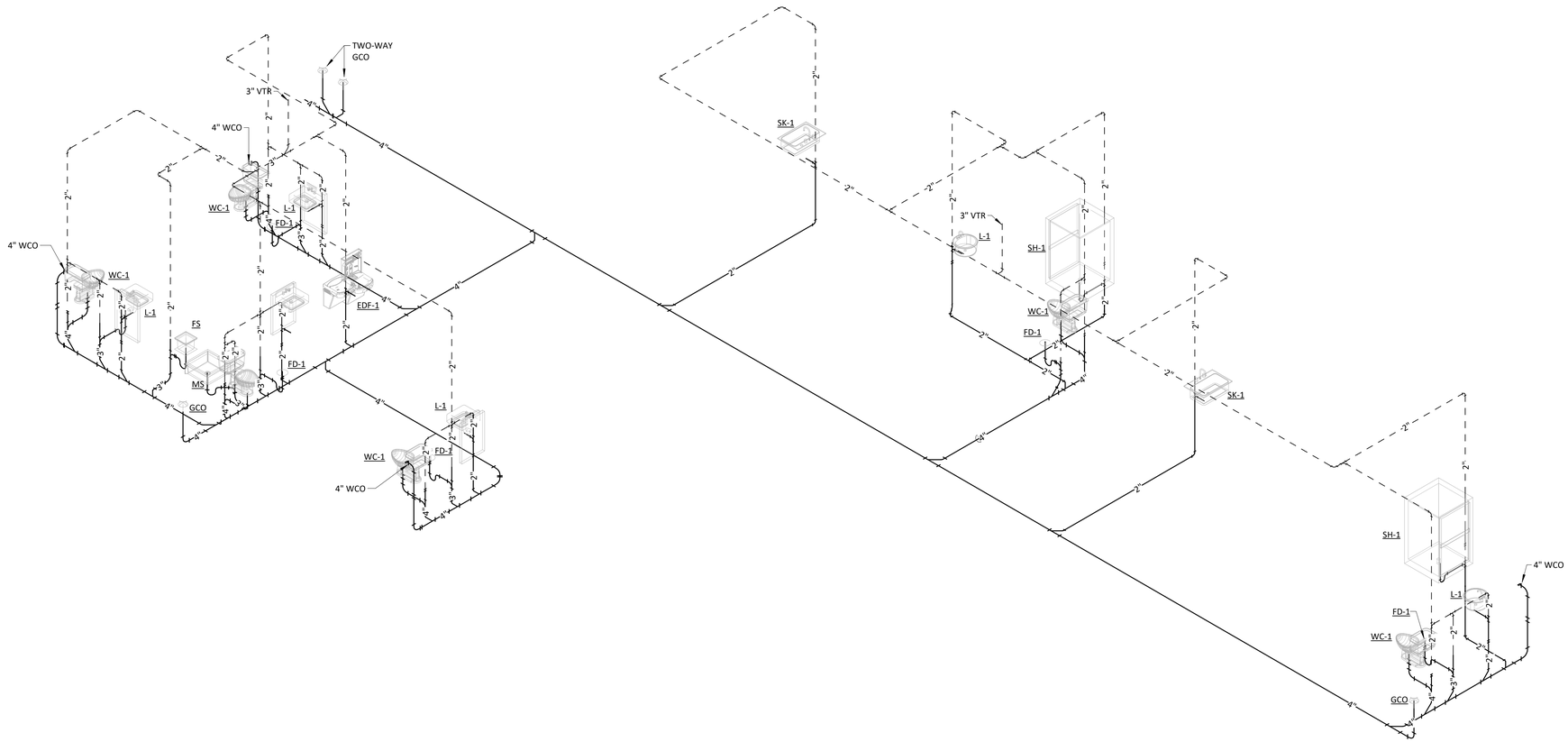

1 PLUMBING RISER - SANITARY

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F-324

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BRIAN LAKE
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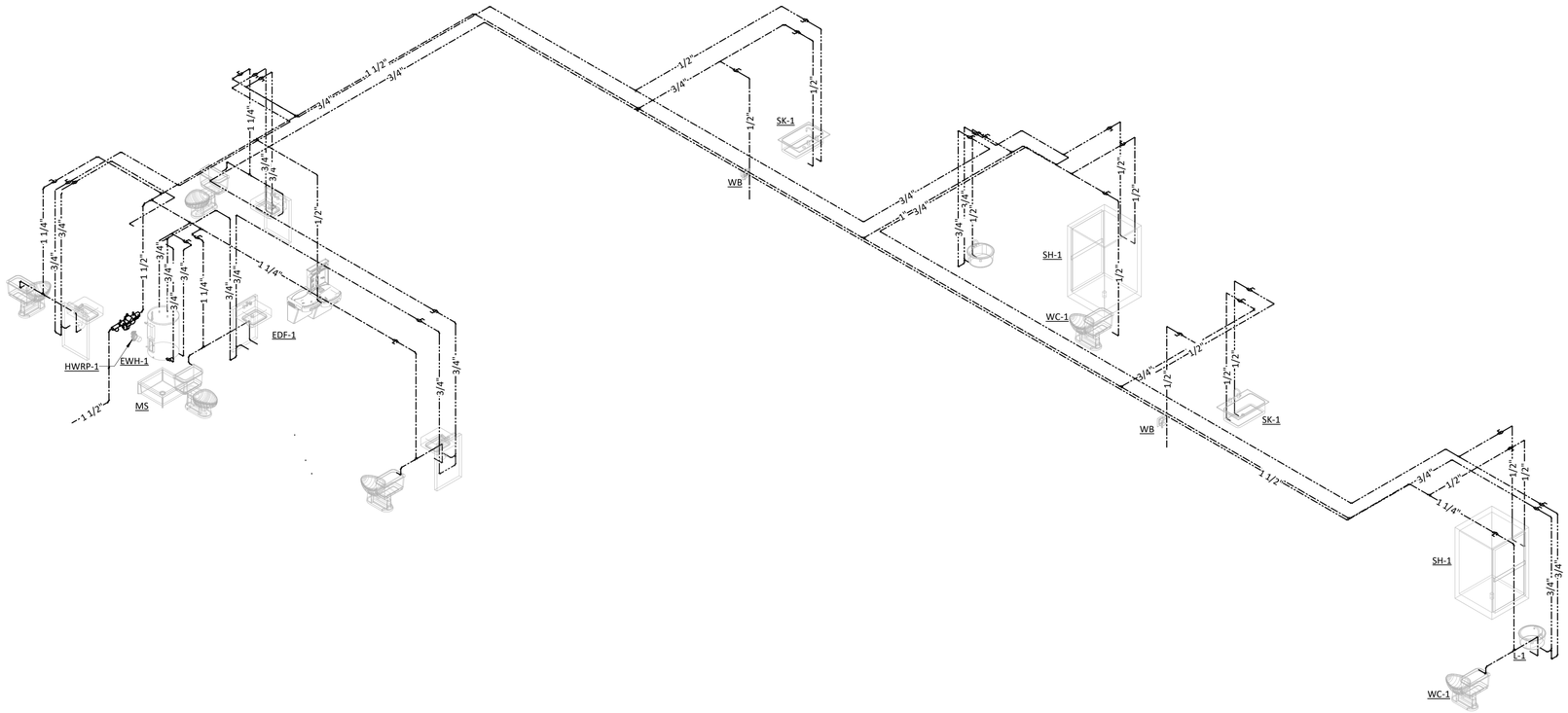
Texas Registered Engineering Firm # F-18652

NOTES:

A. PROVIDE WATER HAMMER ARRESTORS OR AIR CHAMBERS ON ALL CW & HW PIPING TO ENSURE PROTECTION AGAINST WATER HAMMER IN SYSTEMS.

B. PROVIDE PANELS FOR ACCESS TO ALL ISOLATION VALVES. COORDINATE LOCATION WITH ARCHITECT.

C. REFER TO PLUMBING FIXTURE SCHEDULE FOR PIPE SIZE FOR PLUMBING FIXTURES.



1 PLUMBING RISER - DOMESTIC WATER

F-324

STATE OF TEXAS
BRIAN LAKE
150738
LICENSED PROFESSIONAL ENGINEER
ARCHENG SEAL
07/18/25

LYNNENGINEERING
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BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:
JP OFFICE
SARGENT, TX.
PLUMBING RISERS

CUSTOMER NAME:
MATAGORDA COUNTY

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ELECTRIC WATER HEATER SCHEDULE

MARK	LOCATION	RECOVERY GPM / RISE	STOR. CAP.	TEMP IN (°F)	TEMP OUT (°F)	KW	VOLT / PHASE	CONN INLET	CONN OUTLET	MANUFACTURER	MODEL	NOTES
EWH-1	STORAGE	15 / 80	40	65	140	6	240/1	3/4"	3/4"	A. O. Smith	DEL-40	

NOTES:
1. ASME TANK CONSTRUCTION WITH GLASS LINING.
2. WATER HEATER TO BE PROVIDED WITH LOW TEMPERATURE THERMOSTAT CAPABLE OF MAINTAINING A WATER TEMPERATURE OF 90 DEGREES F.
3. MAXIMUM DELIVERY TEMPERATURE FACTORY SET AT 140° F.

PUMP SCHEDULE

MARK	SERVICE	GPM	HEAD (FT)	SHUT-OFF HEAD (FT)	RPM	H.P. (MIN.)	POWER V/PH/Hz	NOTES - REMARKS
HWRP-1	HOT WATER	3	15	---	3500	1/12	120/1/60	BELL & GOSSETT ALL BRONZE IN-LINE SERIES PL-30 CIRCULATOR WITH BELL & GOSSETT AQUASTAT AQS-3/4 AND TIMER KIT MODEL TC-1

PLUMBING FIXTURE AND CONNECTION SCHEDULE

MARK	FIXTURE	ROUGH-IN CONNECTION SIZE				MANUFACTURER	MODEL	DESCRIPTION AND NOTES
		C.W.	H.W.	VENT	WASTE			
WC-1	WATER CLOSET	1/2"	-	2"	4"	AMERICAN STANDARD	"CADET" 215AA.104	FLOOR MOUNTED, ADA HEIGHT, 1.25 GPF. PROVIDE WITH CHURCH MODEL #295CT WHITE ELONGATED SEAT, OPEN FRONT LESS COVER.
L-1	LAVATORY	1/2"	1/2"	1-1/2"	2"	CORIAN	820	GLACIER WHITE UNDERMOUNT COMPOSITE LAVATORY WITH SLOAN #ETF-80-BDT 0.5 GPM POLISHED CHROME AUTOMATIC FAUCET WITH 4" TRIM PLATE, CONTROL MODULE, TRANSORMER AND ASSE #1070 COMPLIANT THERMOSTATIC MIXING VALVE. PROVIDE WITH ADA TRAP AND STOP PROTECTORS WHERE EXPOSED, GRID STRAINER AND HEAVY DUTY QUARTER TURN STOPS. PROVIDE TMV-1 ON ALL PUBLIC USE LAVATORIES.
L-2	LAVATORY	1/2"	1/2"	1-1/2"	2"	KOHLER	'PINOIR' K-2035-4	'WHITE' WALL HUNG VITREOUS CHINA LAVATORY WITH SLOAN #ETF-80-BDT 0.5 GPM POLISHED CHROME AUTOMATIC FAUCET WITH 4" TRIM PLATE, CONTROL MODULE, TRANSORMER AND ASSE #1070 COMPLIANT THERMOSTATIC MIXING VALVE. PROVIDE WITH ADA TRAP AND STOP PROTECTORS WHERE EXPOSED, GRID STRAINER AND HEAVY DUTY QUARTER TURN STOPS. PROVIDE TMV-1 ON ALL PUBLIC USE LAVATORIES.
TMV-1	THERMOSTATIC MIXING VALVE	1/2"	1/2"	-	-	POWERS	LFe480	ADJUSTABLE POINT-OF-USE MIXING VALVE, ASSE 1070 RATED WITH INLET CHECK STOPS TO LIMIT HOT WATER. SET TO 105°F.
SK-1	SINK	1/2"	1/2"	1-1/2"	2"	ELKAY	EWMA48204	1 COMPARTMENT, WALL HUNG, STAINLESS STEEL SINK WITH (2) CHICAGO FAUCET #510-G613L15XKCAB PRE-RINSE SPRAYERS WITH GOOSENECK FAUCET, 1.0GPM, BACK MOUNTED ON 8" CENTERS. PROVIDE ELKAY # LK18B GRID DRAIN AN STAINLESS STEEL TAILPIECE AND ADA TRAP AND STOP PROTECTORS WHERE EXPOSED AND HEAVY DUTY QUARTER TURN STOPS.
SH-1	SHOWER	1/2"	1/2"	1-1/2"	2"	SYMMONS	'TEMPTROL' C-96-500-B30-V-X-1.5	BUILT-UP SHOWER BY ARCHITECT WITH ADA COMPLIANT SHOWER/HAND SHOWER SYSTEM AND LEVEL HANDLES, 1.5 GPM FLOW RESTRICTOR, PRESSURE BALANCING THERMOSTATIC MIXING VALVE WITH INTEGRAL STOPS AND 5 FT. HOSE. INSTALL WITH ZURN #ZN-415B FLOOR DRAIN.
MS	MOP SINK	3/4"	3/4"	2"	3"	FIAT	MSB2424	FLOOR MOUNTED 24"X24"X12" PRE-CAST TERRAZO MOP SINK WITH CHICAGO FAUCET 897CP FAUCET WITH VACUUM BREAKER.
WH-1	WALL HYDRANT	3/4"	-	-	-	WOODFORD	B65	RECESSED BOX WITH DOOR, BRASS BODY FREEZELESS, AUTOMATIC DRAINING WITH INTERNAL VACUUM BREAKER AND LOOSE KEY.
WB	WALL OUTLET BOX	1/2"	-	-	-	GUY GRAY	MIB1HAAB	RECESSED WHITE POWDER COATED WATER OUTLET BOX WITH 1/4 TURN VALVE AND WATER HAMMER ARRESTER.
FD-1	FLOOR DRAIN	-	-	2"	3"	ZURN	ZN-415	CAST IRON FLOOR DRAIN W/ TYPE 'B' STRAINER. PROIVDE PRO SET TRAP GUARD.
FCO	FLOOR CLEANOUT	-	-	SEE PLANS	SEE PLANS	ZURN	Z-1400-BZ	DURA-COATED CAST IRON, ADJUSTABLE HEIGHT CLEANOUT, WITH GAS AND WATERTIGHT TAPERED THREAD PLUG AND POLISHED NICKEL BRONZE TOP.
GCO	GRADE CLEANOUT	-	-	SEE PLANS	SEE PLANS	ZURN	Z-1400	EXTRA HEAVY DUTY, DURA-COATED CAST IRON, ADJUSTABLE HEIGHT CLEANOUT, WITH GAS AND WATERTIGHT TAPERED THREAD PLUG AND POLISHED NICKEL BRONZE TOP.
WCO	WALL CLEANOUT	-	-	SEE PLANS	SEE PLANS	ZURN	Z-1446	COATED CAST IRON CLEANOUT TEE WITH RECESSED, TAPPED PLUG AND POLISHED STAINLESS STEEL COVER.

DOMESTIC WATER CALCULATIONS

SYMBOL	FIXTURE TYPE	LOAD VALUE (WSFU)	QUANTITY	SUB-TOTAL FIXTURE UNTIS
WC	WATER CLOSET (PUBLIC)FT	5	6	30.0
LAV	LAVATORY (PUBLIC)	2	6	4.0
EWC	ELECTRIC WATER COOLER	0.5	1	0.5
SK	SINK (2-COMP)	2	2	4.0
MS	MOP SINK	3	1	3.0
SH	SHOWER	3	2	6.0
TOTAL FIXTURE UNITS:				64.5
GPM:				30.50
MINIMUM SERVICE SIZE (8.0 FPS MAXIMUM):				1-1/2"

PLUMBING PIPE MATERIALS

SYSTEM:	SERVICE:
WATER PIPE, BELOW GRADE	TYPE 'K' COPPER
WATER PIPE, ABOVE GRADE	TYPE 'L' COPPER
SANITARY SEWER, BELOW GRADE	SCHEDULE 40 PVC
SANITARY SEWER, ABOVE GRADE	CAST IRON
NATURAL GAS, OUTSIDE	POLYETHYLENE
NATURAL GAS, INSIDE	SCHEDULE 40 BLACK STEEL
FIRE SPRINKLER LINE, INSIDE	BLACK STEEL
STORM SEWER, BELOW GRADE	SCHEDULE 40 PVC
STORM SEWER, ABOVE GRADE	CAST IRON
ACID WASTE AND VENT BELOW GRADE	FUSION JOINT POLYPROPYLENE
ACID WASTE (USED IN RETURN AIR PLENUMS)	BOROSILICATE GLASS
COMPRESSED AIR	GALVANIZED STEEL

BACKFLOW PROTECTION DEVICE SCHEDULE

APPLIANCE, EQUIPMENT, PROCESS, ETC.	TYPE OF BACKFLOW PROTECTION
CARBONATORS	RPZA
ICE MAKERS	RPZA
COFFEE, JUICE, & TEA MACHINE INCLUDING JUICE DISPENSERS	DCVA
FIRE PROTEXTION MAIN SERVICE	DCVA
MAIN BUILDING DOMESTIC WATER SERVICES	RPZ
WALL HYDRANTS / HOSE BIBBS	AVB
CAR WASH WATER SUPPLY	RPZA
DISHWASHER (RESIDENTIAL)	AIR GAP FITTING
WATER HEATERS	MINIMUM 6" AIR GAP ON T&P DRAIN LINE

LEGEND:
RPZA = REDUCED PRESSURE ZONE ASSEMBLY
DCVA = DOUBLE CHECK VALVE ASSEMBLY
AVB = ATMOSPHERIC VACUUM BREAKER

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F-324

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STATE OF TEXAS
BRIAN LAKE
150738
LICENSED PROFESSIONAL ENGINEER
07/18/25

LYNN ENGINEERING
2200 AVENUE A
BAY CITY, TX. 77414
PH: (979) 245-8900

PROJECT NAME / LOCATION:
JP OFFICE
SARGENT, TX.
PLUMBING SCHEDULES

CUSTOMER NAME:
MATAGORDA COUNTY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	JOB NO.
AB	BL	AB	20.105017

PRINTED

DATE	REMARKS
07/18/25	ISSUE FOR PERMIT

REVISIONS

NO.	REMARKS

SHEET NO:
P-701

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